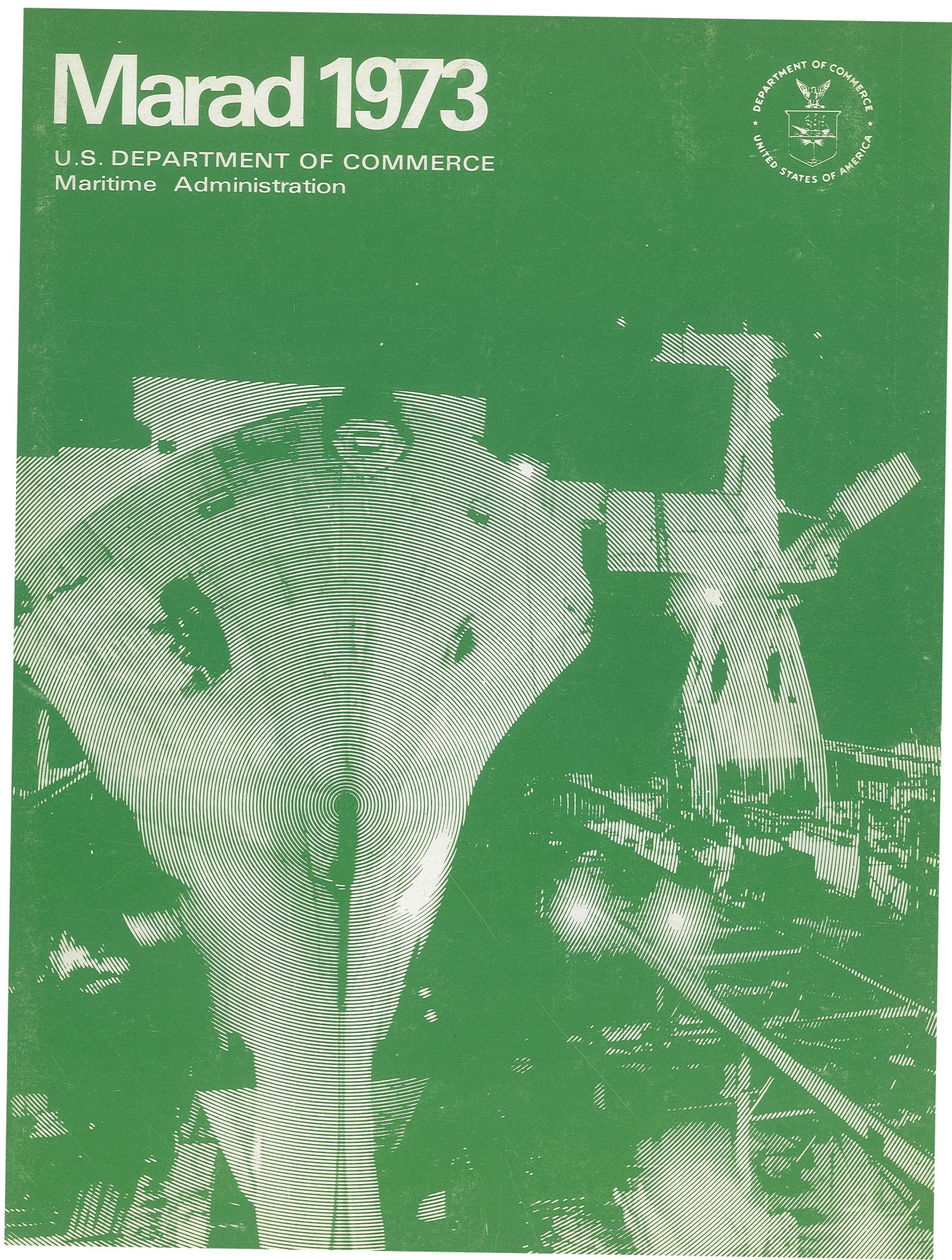
Marad 1973

U.S. DEPARTMENT OF COMMERCE
Maritime Administration



Robert J. Blackwell, Assistant Secretary of Maritime Affairs (center), in Moscow, May 1973 with members of U.S. Delegation, which negotiated modifications to the U.S./U.S.S.R. Maritime Agreement

Marad 1973

The Annual Report of the Maritime Administration for Fiscal Year 1973

U.S. DEPARTMENT OF COMMERCE
Frederick B. Dent, Secretary
John K. Tabor, Under Secretary

MARITIME ADMINISTRATION
Robert J. Blackwell,
Assistant Secretary
for Maritime Affairs

APRIL 1974

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Contents

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

The President
President of the Senate
Speaker of the House of Representatives

Sirs:

I have the honor to submit the Annual Report of the Maritime Administration for fiscal year 1973.

During the year, the Maritime Administration made substantial progress in implementing the maritime program as embodied in the Merchant Marine Act of 1970.

An unprecedented level of shipbuilding activity was generated with the aid of the construction-differential subsidy program. Contracts for the construction of 17 new vessels and conversion of three freighters into containerships were awarded during the year. The value of these awards approximated $1.3 billion. With the signing of these contracts, the volume of shipbuilding under the 1970 Act reached $2.4 billion, covering the construction of 47 new vessels and 16 containership conversions. These orders will generate nearly 120,000 man-years of work for employees in American shipyards and allied industries.

During the year, a milestone agreement was reached with the Union of Soviet Socialist Republics governing maritime relations between the two nations. This historic pact, which was signed on October 14, 1972, provided merchant ships of each nation with more open access to ports of the other and extended to each nation's fleet the opportunity to carry equal and substantial portions of the oceanborne trade moving between the two countries.

In these and numerous other areas, I believe that this report presents concrete evidence that the Maritime Administration and the American maritime industry are making steady progress in achieving the goal of the Merchant Marine Act of 1970 -- the restructuring of the American Merchant Marine to transform it into one of the most modern and efficient fleets on the high seas.

Respectfully,

Secretary of Commerce

Introduction & Summary

BY ROBERT J. BLACKWELL
Assistant Secretary of Commerce for Maritime Affairs

Fiscal year 1973 was one in which the American maritime industry made significant headway in reaching President Nixon's goal of a revitalized U.S.-flag merchant marine. A large volume of new ship orders were placed during the year—ships which will substantially upgrade the U.S. fleet's carrying capacity in the years ahead.

As the primary federal agency charged with implementing the President's maritime program under the Merchant Marine Act of 1970, the Maritime Administration also made substantial progress during the year. Continued efforts to realign its programs and organization to reflect the program's dimensions and the needs of the U.S. maritime industry began to bear fruit during the year.

Shipbuilding

A record volume of shipbuilding orders under the agency's construction-differential subsidy program highlighted the year's activities. Contracts valued at almost $1.3 billion were awarded during the year for the construction of 17 new ships and the conversion of three freighters into highly productive containerships.

Award of these contracts brought the total volume of shipbuilding activity under the President's maritime program to nearly $2.4 billion, comprising the construction of 47 new ships and 16 containership conversions. These orders represent nearly 120,000 man-years of work for shipyard employees and those in related industries.

Largely because of the shipyard work generated by the program, the American shipbuilding industry at the end of the fiscal year had the largest peacetime backlog of merchant-ship construction orders in its history. As of June 30, 1973, 83 ships, aggregating 5.4 million deadweight tons, were on order or under construction. These vessels had a total value of about $2.9 billion.

The year's ship construction program was also notable in that the first contracts for the construction of nine liquefied natural gas (LNG) carriers, which carry their cargoes at a temperature of minus 260 degrees Fahrenheit, were placed with U.S. shipyards. The LNG contracts, which were awarded to three shipyards, heralded the entry of American shipbuilders into an important new market for their services. The other shipbuilding contracts awarded during the year will permit continuation of the series construction of tankers and roll-on/roll-off ships at four yards initiated in previous years.

Under the President's program, American shipyards are encouraged to increase their productivity to upgrade their competitiveness in the world market and reduce their dependence on government construction aid. The 1970 Act prescribes a descending scale of guideline subsidy rates to effectuate this provision of the program. In fiscal year 1973, the applicable construction subsidy guideline rate was 41 percent.

All of the shipbuilding contracts awarded during the year bettered this goal, reflecting the strenuous and continuing efforts by U.S. shipbuilders to hold down their costs in relation to rising prices for vessels in foreign yards. A four-ship order placed during the year for 89,000-ton tankers incorporated a subsidy rate of 36.47 percent—the lowest subsidy rate on a conventional-type ship in the 37-year history of the construction subsidy program.

Additionally, the liquid gas carriers contracted for during the year involved even lower subsidy rates. The contracts covering the first six of these ships carried subsidy rates of about 25 percent. Moreover, the third three-ship order required a subsidy rate of only 16.5 percent.

U.S./U.S.S.R. Agreement

One of the most notable achievements of the fiscal year, from the point of view of the agency and the maritime industry, was the successful conclusion of an agreement covering marine commerce between the United States and the Union of Soviet Socialist Republics. Signed on October 14, 1972, the pact culminated a year of intensive negotiations between U.S. and Soviet maritime officials.

This agreement, which opened an important new market for American ships, has two basic purposes: It provides merchant ships of each nation with more open access to specified ports of the other. And it extends to each nation's fleet the opportunity to carry an equal and substantial portion of the ocean trade moving between the two nations.

During the year, Soviet grain purchases in the United States, amounting to 19.2 million tons, constituted the main cargo falling within the scope of the agreement. To assist American bulk carriers in participating in this trade, the Maritime Administration instituted a special operating subsidy program. Fifty-two special operating subsidy agreements covering a total of 88 vessels were approved during the fiscal year, and subsidized vessels commenced a total of 77 voyages carrying approximately 2.3 million tons of grain.

Nearly all of the American ships engaged in this trade returned to the United States with petroleum cargoes loaded at Black Sea or Mediterranean ports. These backhaul cargoes totaled 2.2 million tons.

Title XI Guarantees

Under Title XI of the Merchant Marine Act of 1936, as amended, MarAd is authorized to guarantee the principal and interest on commercially placed mortgages and loans used to finance new ship construction or conversions. Fiscal year 1973 was a record-setting year for this program, with guarantees approved for nearly $1 billion in ship-financing instruments. These guarantees cover 95 vessels and 450 lighters.

At the end of the fiscal year, a total of 456 vessels and 2,171 lighters were insured under the Title XI program. The outstanding principal balance on these ships aggregated almost $2.6 billion.

Important legislation, enacted as the Federal Ship Financing Act of 1972, made substantive changes in the program to facilitate its use by a wider variety of vessel owners and operators. It lowered the minimum barge-size requirements, for example, to permit inland waterway operators to obtain Title XI-guaranteed financing on standard river barges. It also expanded the range of uses to which funds from insured obligations may be put to include the construction, reconstruction, or reconditioning of shoreside marine facilities or equipment. At year's end, another bill—to raise the ceiling on mortgages and loans the agency can guarantee from $3 billion to $5 billion—was pending before the Congress.

Operating Aid

In addition to the 52 temporary operating subsidy agreements covering vessels moving bulk agricultural commodities to the Soviet Union, the agency entered into six new operating subsidy contracts during fiscal year 1973. Two of these agreements, covering vessels operating in the U.S. Gulf/Far East service, and in worldwide petroleum trades, are short-term agreements, expiring in five years or less.

Four long-term operating subsidy contracts were also awarded during the year. All of these cover 89,000-ton tankers which, when delivered, will be used to transport petroleum in U.S. foreign trade.

Capital Construction Funds

Capital Construction Funds, into which eligible operators may deposit vessel earnings and capital gains on a tax-deferred basis, are another aid to assist American vessel owners and operators in accumulating the capital necessary for new ship construction. By the end of the year, 140 such funds had been established. These will generate approximately $2 billion in shipyard work in the next ten years.

Research and Development

In announcing his maritime program in 1969, President Nixon called for an enlarged and redirected maritime research and development effort to improve the productivity of American shipping and shipbuilding operations. The Maritime Administration continued to carry out this important mandate during the fiscal year, awarding $24 million in R&D contracts. Industry cost-sharing—one of the hallmarks of the R&D program—added another 30 percent to this total.

One of the highlights of the R&D program during the year was the establishment of the Maritime Coordination Center at the National Maritime Research Center, Kings Point, N.Y. This installation was linked with ships at sea through National Aeronautics and Space Administration satellites

as part of the agency's ongoing effort to develop an effective satellite-aided communications and navigation system. A series of tests were successfully concluded during the fiscal year. Plans were being made at the end of the year to adapt the system to more advanced satellites, which will provide higher levels of service to the industry.

In a series of cost-shared contracts, MarAd and the shipbuilding industry undertook a cooperative research program aimed at improving ship construction technology in the U.S. These contracts, several of which were completed during the year, involve developing specific equipment and techniques, such as one-sided welding devices and improved material handling and plate coating methods to lower the cost of building ships in this country.

An important milestone in the agency's nuclear propulsion research program was also reached during fiscal year 1973. The prime contractor for this program, Babcock & Wilcox, completed a Preliminary Safety Analysis Report on its consolidated nuclear steam generator system. This study was undergoing intensive review by regulatory agencies at the end of the year.

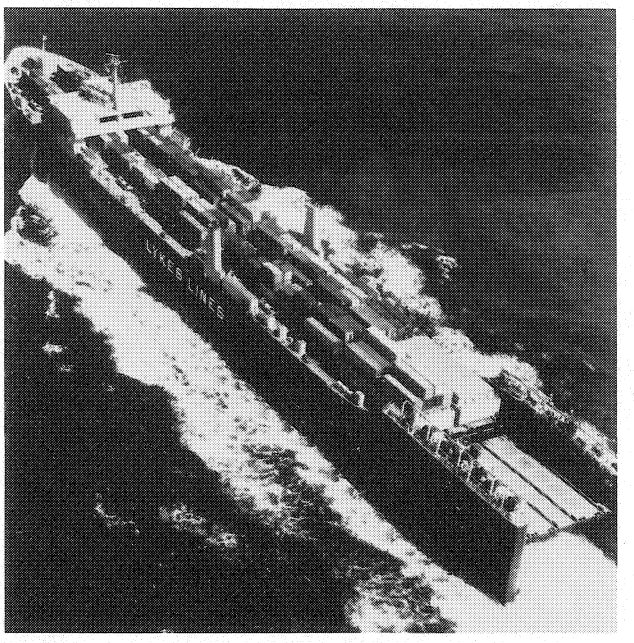
Civil Rights

The Maritime Administration is responsible for assuring that all Americans enjoy equal employment opportunities in the U.S. shipping, shipbuilding and ship repair industries. To achieve this goal, the agency monitors the hiring and promotion practices of companies in these fields and works with them to develop affirmative action programs.

Minority participation in the U.S. shipbuilding industry has grown significantly in the last five years. Five years ago, black, Chicano, and other minority employees accounted for 17.7 percent of the shipyard workforce. By 1973, this proportion had increased to 26.5 percent. In the shipping industry, minority participation increased from 10 to 15.2 percent between 1969 and 1973.

During fiscal year 1973, MarAd and the shipbuilding industry concentrated their efforts on improving the quality of jobs held by minority employees, who formerly had been generally limited to low-paying, unskilled positions. As a result of these efforts, black participation in skilled jobs rose from 13.4 percent in 1968 to 22.3 percent in 1973. At the same time, the percentage of blacks in salaried jobs tripled.

MarAd worked during the year with another Commerce Department agency, the Office of Minority Business Enterprise, to promote the use of minority subcontractors to furnish goods and services to shipping and shipbuilding firms. In pilot form, the effort was warmly received by both the industry and minority businesses. At the end of the year, it was in the process of being expanded from a regional to a national scale.



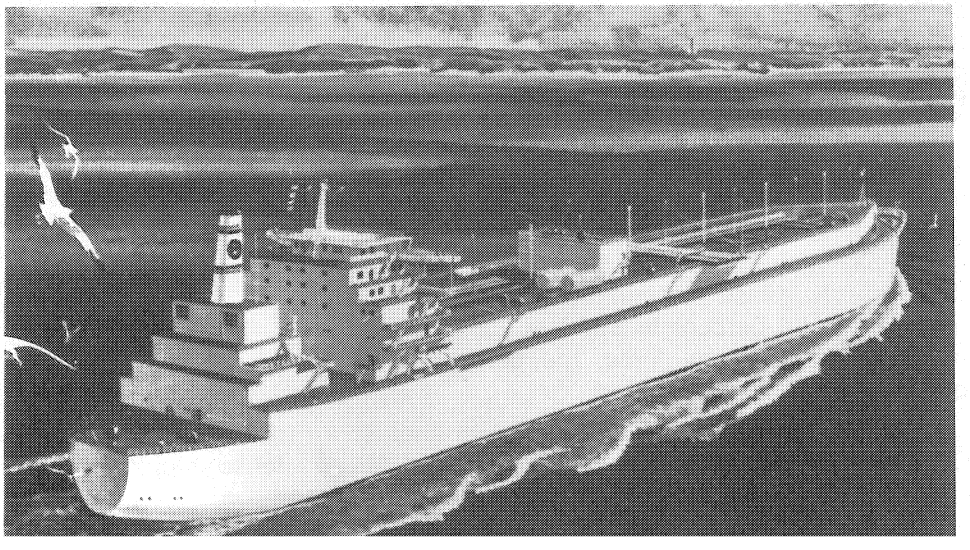
Pollution Abatement

The agency's efforts to reduce ship-generated pollution of the oceans and the inland waterways were stepped up during the year. Several research projects were conducted with an eye toward upgrading the quality of overboard discharges of ballast water from ships and toward developing shoreside reception and processing facilities to accommodate ship-generated wastes. In conjunction with the U.S. Coast Guard, a study was initiated to determine effective and economical pollution-abatement construction standards for tank barges using the inland waterways.

Conclusion

Based on the foregoing list of accomplishments, and the many others delineated in the pages that follow, I believe that the Maritime Administration and the American maritime industry made significant progress during fiscal year 1973 in meeting President Nixon's goal of a balanced, productive American merchant marine capable of meeting this Nation's many diverse commercial and defense shipping requirements in the years ahead.

(Above) At 225,000 dwt., the TT BROOKLYN shown under construction at Seatrain Shipbuilding Corp., is forerunner of very large crude carriers being built in American shipyards
(Right) Artist's concept of Liquefied Natural Gas (LNG) carrier which will give new dimension to American merchant marine



Shipbuilding

Contract Awards

The Maritime Administration (MarAd) construction-differential subsidy (CDS) program, in support of the national policy to revitalize the American merchant marine, generated contracts in fiscal year 1973 for the construction of 17 ships and the conversion of three freighters to containerships (see Table 1). Valued at approximately $1.3 billion, these contracts constitute the largest investment in commercial U.S. ship construction made in any peacetime year. Particularly noteworthy are the types of ships ordered. Sixteen of these ships are designed for the transportation of vital energy resources: seven are liquid bulk tankers and nine are 125,000-cubic-meter liquefied natural gas (LNG) tankers. The nine LNG's, three each to be built by Newport News Shipbuilding and Dry Dock Co., Newport News, Va.; General Dynamics Corp.'s Quincy Shipbuilding Division, Quincy, Mass.; and Avondale Shipyards, Inc., New Orleans, La.; will be the first such ships ever constructed in the United States. They also will carry the lowest CDS rates since the subsidized shipbuilding program was initiated 37 years ago.

Unsubsidized private construction contracts were awarded for five ships: two 14,180 deadweight ton (dwt.) roll on/roll off vanships at Sun Shipbuilding and Dry Dock Co., Chester, Pa.; and three Great Lakes bulk carriers, one 19,000 dwt. vessel at the American Shipbuilding Co., Lorain, Ohio; one 19,000 dwt. vessel at the American Shipbuilding Co., Toledo, Ohio; and one 28,100 dwt. vessel at Bay Shipbuilding Corp., Sturgeon Bay, Wisc.

As of June 30, 1973, the number of large merchant ships under construction or on order in American shipyards totalled 83 vessels aggregating 5.4 million dwt. as compared to 78 of 4.4 million dwt. a year earlier (see Table 2).

Of the 83 new ships, valued at $2.9 billion, 55 were being constructed with subsidy (see Appendix VIII) and the remaining 28 were being financed privately or with the aid of Title XI Federal Ship Financing Guarantees. At the end of the year, there were no ships undergoing major conversion work in private shipyards.

Construction Subsidy

The Maritime Administration is authorized to pay a subsidy on vessels built in American shipyards that will operate under the U.S.-flag with American crews in the Nation's essential foreign commerce. CDS represents the difference in construction cost between building a vessel in the U.S. and in a low-cost foreign shipbuilding center (see Appendix IV for CDS expenditures since 1936).

The 55 ships being constructed with CDS had a contract value of $2.5 billion. The subsidy amounted to approximately $871 million (excluding the cost of National Defense Features) (see Appendix VIII). These subsidized ships included 11 Lighter-Aboard-Ship (LASH) vessels, six containerships, four roll on/roll off vanships, 23 tankers, two ore/bulk/oil (OBO) carriers and nine LNG carriers.

Under the Trade-In and Build program, the Fillmore Tanker Corp., a subsidiary of Seatrain Lines, Inc., traded in to the Government five ships with a total trade-in allowance of $9,733,450 to be applied against the owner's cost of building one 225,000 dwt. tanker, for which a CDS contract was awarded during fiscal year 1973.

At the close of fiscal year 1973, 28 applications for CDS were pending (see Table 3). Covering a total of 92 vesels, these applications covered the following ship types: eight very large crude carriers (VLCC's), 24 OBO's, 28 LNG's, one mini-LASH, six dry bulk carriers, six tug/barges and 19 tankers.

TABLE 1 CONSTRUCTION-DIFFERENTIAL SUBSIDY CONTRACTS AWARDED DURING FISCAL YEAR 1973

Owner	Shipbuilder	Type of Ship
Methane Alpha Co.	Newport News Shipbuilding & Dry Dock Co.	LNG—LG9-S-94a
Methane Beta Co.	Newport News Shipbuilding & Dry Dock Co.	LNG—LG9-S-94a
Methane Gamma Co.	Newport News Shipbuilding & Dry Dock Co.	LNG—LG9-S-94a
Cryogenic Energy Transport, Inc.	General Dynamics Corp.	LNG—LG8-S-102a
Liquegas Transport, Inc.	General Dynamics Corp.	LNG—LG8-S-102a
LNG Transport, Inc.	General Dynamics Corp.	LNG—LG8-S-102a
States Steamship Co.	Bath Iron Works Corp.	RO/RO—C7-S-95a
Methane Delta Co.	Avondale Shipyards, Inc.	LNG—LG9-S-107a
Methane Epsilon Co.	Avondale Shipyards, Inc.	LNG—LG9-S-107a
Methane Zeta Co.	Avondale Shipyards, Inc.	LNG—LG9-S-107a
Third Group, Inc.	National Steel & Shipbuilding Co.	Tanker—T8-S-100b
Gulf Oil Corp.	Bethlehem Steel Corp.	Tanker—T10-S-101b
Fillmore Tanker Corp.	Seatrain Shipbuilding Corp.	Tanker—T10-S-92a
American President Lines, Ltd.	Triple "A" Machine Shop, Inc.	Containership—C6-S-6
Total CDS contracts awarded in fiscal year 1973		

[1] Total contract cost including CDS and National Defense Features, but excluding engineering and change orders.
[2] 125,000 Cubic Meter liquefied Natural Gas Carriers.
* Reconstruction

TABLE 2 SHIPS UNDER CONSTRUCTION/CONVERSION IN U.S. SHIPYARDS

	Number of Ships		
	Total	New	Conversions
Under Contract July 1, 1972	91	78	13
Awards During FY 1973	25	22	3
Sub Total	116	100	16
Completed During FY 1973	33	17	16
Under Contract June 30, 1973	83	83	0

Ship Deliveries

A total of 17 new vessels, aggregating approximately 785,780 dwt., were delivered by American shipyards during the year (see Table 4).

Ten of these were constructed with the aid of CDS and are among the most productive types of commercial vessels in service. Seven containerships were delivered to the following companies: two to American Export Lines, Inc.; two to American President Lines, Ltd.; and three to Farrell Lines, Inc. The other three vessels delivered were barge-carrying types: two SEABEEs for Lykes Bros. Steamship Co., Inc. and one LASH for Pacific Far East Line, Inc.

The following seven vessels built without-subsidy also were delivered during the year: two tankers to Standard Oil Co. of California, one bulk carrier to United States Steel Corp., one tanker to Hendy International Co., one tanker to Mobil Oil Corp., one tanker to Ecological Shipping Corp. and one tanker to Atlantic Richfield Co.

During the year, 16 conversions also were completed, 15 of which were subsidized.

No. of Ships	Total DWT Tonnage	Estimated Completion Date	Total Estimated Cost [1]	Estimated Cost to Gov't of Construction-Differential Subsidy	Estimated Cost to Gov't of National Defense Features
1	63,460 [2]	5/15/76	$ 106,577,000	$ 27,291,000	$ 17,000
1	63,460 [2]	10/31/76	96,837,500	24,792,000	17,500
1	63,460 [2]	4/15/77	94,238,000	24,125,000	18,000
1	63,600 [2]	12/31/75	89,575,000	21,231,535	20,000
1	63,600 [2]	3/31/76	89,575,000	21,231,535	20,000
1	63,600 [2]	3/31/77	89,575,000	21,231,535	20,000
1	17,859	6/19/77	35,337,647	14,134,000	204,647
1	63,170 [2]	10/15/76	106,020,000	17,495,000	20,000
1	63,170 [2]	4/15/77	103,020,000	17,000,000	20,000
1	63,170 [2]	10/15/77	100,020,000	16,505,000	20,000
4	358,800	12/31/76	112,760,000	41,040,000	240,000
2	530,000	4/30/77	162,918,400	66,570,500	302,000
1	225,000	3/30/76	70,603,500	28,800,000	63,500
3*	52,992	5/25/73	2,325,615	938,115	.....
20	**1,755,341**	.....	**$1,259,382,662**	**$342,385,220**	**$982,647**

Title XI Guarantees

Title XI of the Merchant Marine Act, 1936, as amended, authorizes the Secretary of Commerce to guarantee obligations made to finance the construction, reconstruction and reconditioning of vessels. It is designed to assist ship operators in obtaining the private capital necessary to replace or expand their fleets. Before Title XI became an effective method of financing, the Government granted aid to ship construction in the form of direct mortgages. This program was abandoned in 1954. Title XI was then substantially amended to replace direct Government financing with private financing, backed by Government insurance. The Federal Ship Financing Act of 1972 (Public Law 92-507), substantially revised and modernized the Title XI program.

The 1972 Act, which was signed by President Nixon on October 19, 1972, greatly changed the Government's role in the financing transaction. Under prior law the Government insured a loan or mortgage. The 1972 Act, however, provides that the United States will guarantee the payment of the principal and interest on the obligation itself. All security, including any mortgage, is held by the Government as collateral for its guarantee. The lending institution's primary concern in the transaction is the terms of the bond or other financial instrument.

The terms of the security arrangements are left to the borrower and the Secretary of Commerce acting for the United States. This eliminates the previous requirement for the purchaser of merchant marine bonds or his trustee to be a party to the ship mortgage.

Under the earlier law the complex relationships between the parties to a Title XI insurance transaction discouraged investors and underwriters who must explain such a transaction to prospective customers. The 1972 Act substantially reduces these impediments and should broaden the market for ship-financing bonds.

The 1972 Act also expands the uses to which the proceeds from guaranteed obligations secured by mortgages on vessels can be put to include the construction, reconstruction, or reconditioning of shoreside marine facilities or equipment. Such

TABLE 3 PENDING APPLICATIONS FOR CONSTRUCTION-DIFFERENTIAL SUBSIDY JUNE 30, 1973

Ship Owner and/or Operator	No. of Ships	General Ship Type	Carrying Capacity (per ship)
Aberdeen Shipping Inc.	6	VLCC	380,000 DWT
American Trading Transportation Co., Inc.	4	OBO	80,000 DWT
Amoco International Oil Co.	2	LNG	125,000 CM
Buchanan Tanker Corp.	1	VLCC	225,000 DWT.
Central Gulf Lines	3	LNG	125,000 CM
Chestnut Shipping Co.	2	OBO	80,000 DWT
Delta Steamship Lines, Inc.	1	Mini-LASH	11,800 DWT
Energy Corporation of America [1]	6	Dry Bulk	51,000 DWT
First Pennsylvania Tanker I, Inc.	1	Tanker	265,000 DWT
First Pennsylvania Tanker II, Inc.	1	Tanker	265,000 DWT
Global LNG Shipping Inc.	1	LNG	125,000 CM
Hedge Haven Farms, Inc.	3	OBO	80,500 DWT
Ingram Technologists Inc.	6	Tug/Barge	80,000 DWT
Methane Transport Inc.	1	LNG	125,000 CM
Moore-McCormack Lines, Inc.	2	OBO	80,500 DWT
Multi-Carriers Inc.	4	OBO Tug/Barge	105,000 DWT
Oceanic LNG Transport Inc.	1	LNG	125,000 CM
Pacific Alaska LNG Co.	5	LNG	125,000 CM
Pacific Tankers Inc.	4	Tanker	89,000 DWT
Pierce Tanker Corp.	1	VLCC	225,000 DWT
Sealift Tankers Inc.	7	LNG	125,000 CM
Tankers Holding, Inc.	2	OBO	80,000 DWT
Transportation Techniques, Inc.	3	LNG	125,000 CM
United Shipping Corp.	7	OBO	80,000 DWT
United States Lines, Inc.	4	Tanker	80,000 DWT
Virginia Shipping Corp.	6	Tanker	380,000 DWT
Zapata Bulk Transport Inc.	3	Tanker	390,000 DWT
Zapata Corp.	5	LNG	125,000 CM
TOTAL	**92**		

[1] Application transferred to Ambulk Shipping and at present is inactive.

funds may also be used to reimburse the owner for the cost of a vessel delivered within the preceding year. The legislation also permits certain existing vessels to be mortgaged under the Title XI program to provide financing for the construction of new vessels or necessary shoreside facilities and equipment.

The new Act authorizes refinancing of certain mortgages at any time, but only in the amounts outstanding and subject to statutory determinations by the Secretary of Commerce.

At the close of the fiscal year, legislation which would raise the amount of unpaid principal which can be guaranteed by the Government from $3 billion to $5 billion was pending before the Congress.

During the year, applications were approved for insurance and/or guarantees totaling

$965,874,627. This covered 95 vessels and 450 lighters (see Appendix V). In addition, mortgage insurance contracts were placed on 22 ships and 176 lighters based on commitments made in earlier fiscal years (see Appendix VI).

Title XI applications approved and contracts in force on June 30, 1973, covered a total of 456 vessels and 2,171 lighters with a total outstanding principal balance of $2,579,273,493 (see Chart I).

Pending applications for ship financing guarantees encompassed construction or reconstruction of 362 ships and 250 shipboard lighters at a total estimated actual cost to the applicants of $1.902 billion, of which $1.365 billion is the estimated amount to be covered by financing guarantees (see Chart I).

During the year, the Maritime Administration paid off the Title XI mortgage on the MV FLORIDIAN owned by Containerships, Inc., which was in default. Also in the same period three Title XI mortgages were terminated by the owner: the SS ARGENTINA and SS BRASIL by Moore-McCormack Lines, and the SS SANTA PAULA by Prudential-Grace Lines.

The Federal Ship Financing Revolving Fund received $6,990,371 in net income during the year, making the retained income of the Fund $45,137,075.

Capital Construction Fund

The Capital Construction Fund program was created by the Merchant Marine Act of 1970 to

TABLE 4 DELIVERIES FROM U.S. SHIPYARDS DURING F Y 1973

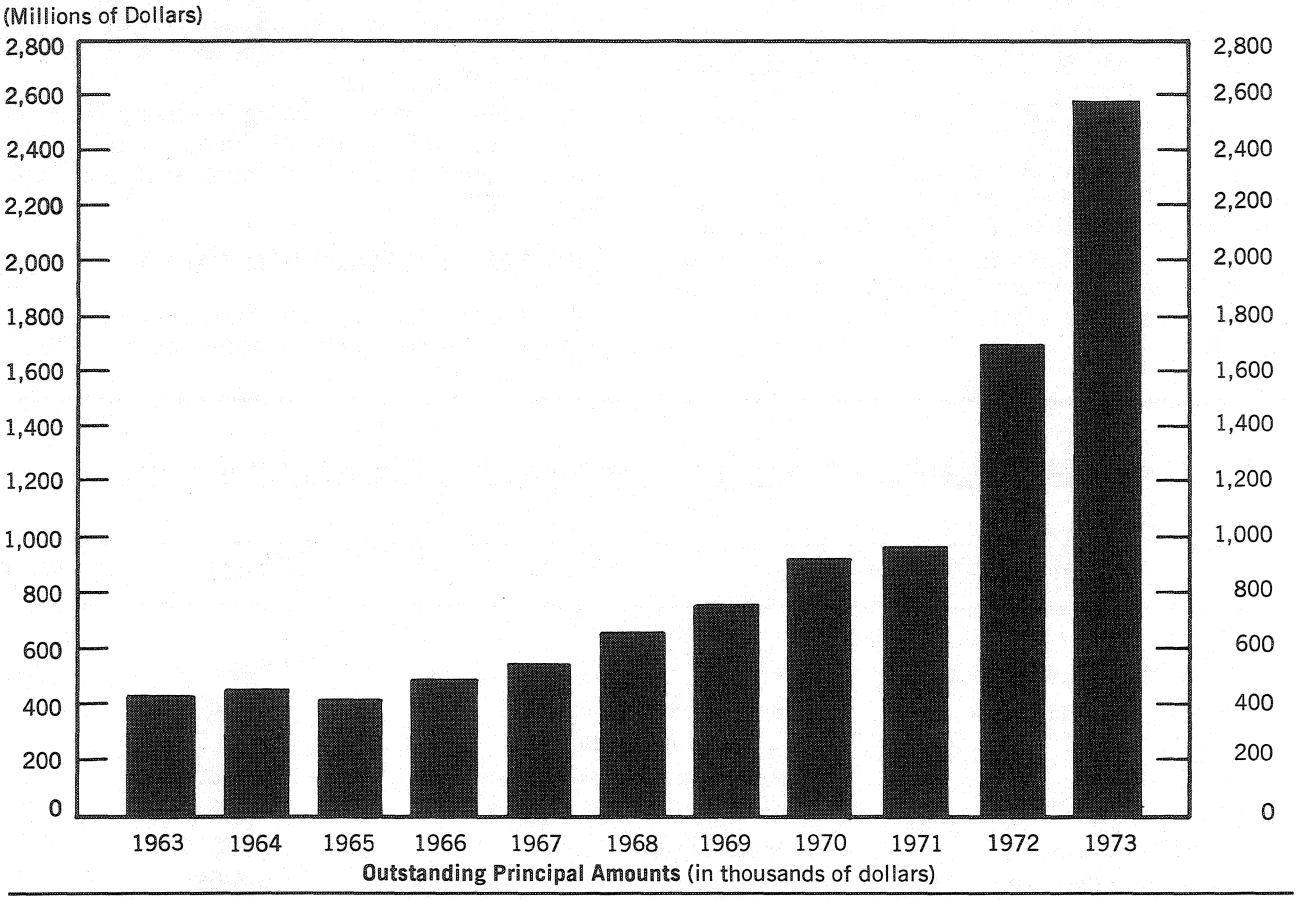
Owner	Builder	Design	Deliveries
	SUBSIDIZED		
American Export Lines, Inc.	Bath Iron Works Corp.	C5-S-73b	2
Lykes Bros. Steamship Co., Inc.	General Dynamics Corp., Quincy Shipbuilding Div.	C8-S-82a	2
Farrell Lines, Inc.	Ingalls Shipbuilding—Litton	C6-S-85a	3
American President Lines, Ltd.	Ingalls Shipbuilding—Litton	C6-S-85b	2
Pacific Far East Lines, Inc.	Avondale Shipyards, Inc.	C8-S-81b	1
American President Lines, Ltd.	Todd Shipyards Corp., Seattle, Wash., & San Pedro, Calif.	C6-S-69c	3*
American President Lines, Ltd.	Triple "A" Machine Shop, Inc.	C6-S-69c	3*
American President Lines, Ltd.	Todd Shipyards Corp., Seattle, Wash.	C6-S-1qc	3*
Lykes Bros. Steamship Co., Inc.	Todd Shipyards Corp., Galveston, Tex.	C5-S-37e	1*
Lykes Bros. Steamship Co., Inc.	Todd Shipyards Corp., Galveston, Tex.	C5-S-37f	4*
American Mail Line, Ltd.	Todd Shipyards Corp., San Pedro, Calif.	C6-S-1xa	1*
	Total Subsidized Deliveries		25
	NON-SUBSIDIZED		
Transamerican Trailer Transport	Sun Shipbuilding & Drydock Co.	Roll on/Roll off	1
Mobil Oil Corp.	Sun Shipbuilding & Drydock Co.	Tanker	1
Standard Oil Company of California	Bethlehem Steel Corp., Sparrows Point, Md.	Tanker	3
Atlantic Richfield Co.	Bethlehem Steel Corp., Sparrows Point, Md.	Tanker	1
Ecological Shipping Corp.	Sun Shipbuilding & Drydock Co.	Tanker	1
Texaco Inc.	Maryland Shipbuilding & Drydock Co.	Tanker	1*
	Total Non-Subsidized Deliveries		8
	TOTAL DELIVERIES		33

* Conversions

CHART I. Federal Ship Financing Guarantee Program

(Title XI)

Principal Liability



Outstanding Principal Amounts (in thousands of dollars)

Principal Amounts	$427,895	451,015	418,638	481,777	558,094	654,548	754,679	911,591	1,154,156	1,692,452	2,579,273
SHIPS	70	82	79	98	113	129	144	171	279	434	456
LIGHTERS							360	360	520	1,721	2,171

TITLE XI STATUS JUNE 30, 1973

Vessel Types	In Force		Pending	
Tankers	59	$ 674,260,190	24	$ 602,225,750
Cargo	171	849,693,878	7	113,720,000
River Tugs	10	7,016,570	9	1,024,400
River Barges	117	10,596,441	214	36,115,070
Ocean Tugs [1]	25	60,682,504	24	47,401,066
Ocean Barges	21	45,719,000	23	33,173,000
Oil Drill [2]	15	157,604,789	6	23,336,240
Drill Service [3]	18	25,633,715	13	17,711,904
LNG Carriers	9	575,811,000	3	161,652,000
Bulk/OBO	6	75,066,000	18	256,140,125
Miscellaneous	5	27,056,356	21	64,241,643
	456	$2,509,140,443	362	$1,356,741,198
Shipboard Lighters	2,171	70,133,050	250	8,380,000
	2,627	$2,579,273,493	612	$1,365,121,198

VESSELS COVERED SINCE INCEPTION OF TITLE XI PROGRAM

Tankers	71
Cargo	178
Cargo/Passenger	10
River Tugs	12
River Barges	125
Ocean Tugs[1]	21
Ocean Barges	21
Ocean Barges	21
Oil Drill [2]	15
Drill Service[3]	18
LNG Carriers	9
Bulk/OBO	6
Miscellaneous	7
	493
Shipboard Lighters	2,171
Total	2,664

[1] Includes anchor handling tugs for drilling vessels
[2] Includes semi-submersibles, jackups and drilling vessels
[3] Includes tug/supply vessels and other miscellaneous service craft for oil drilling vessels

aid operators in accumulating the large quantities of capital necessary to build or convert ships. Under Section 607 of the Act, any U.S. citizen owning or leasing an eligible vessel operated in the foreign or domestic commerce or in the fisheries of the United States may enter into an agreement with the Maritime Administration to obtain tax-deferral privileges on the earnings of these vessels and on the accumulated assets in the fund, provided these funds are used to acquire, construct or rebuild vessels to be operated in the United States foreign, Great Lakes and noncontiguous domestic trades or in the fisheries.

As of June 30, 1973, 140 interim Capital Construction Fund Agreements have been entered into with eligible shipping companies. The value of ship construction and/or reconstruction in American shipyards, together with the acquisition of barges and containers, which will result from these agreements is expected to total over $2 billion in the next ten years.

Construction Reserve Funds

On June 30, 1973, balances in the construction reserve funds of six operators totalled $2,898,486, compared with $1,106,986 in five funds at the beginning of the fiscal year (see Appendix VII).

Trials & Guarantee Surveys

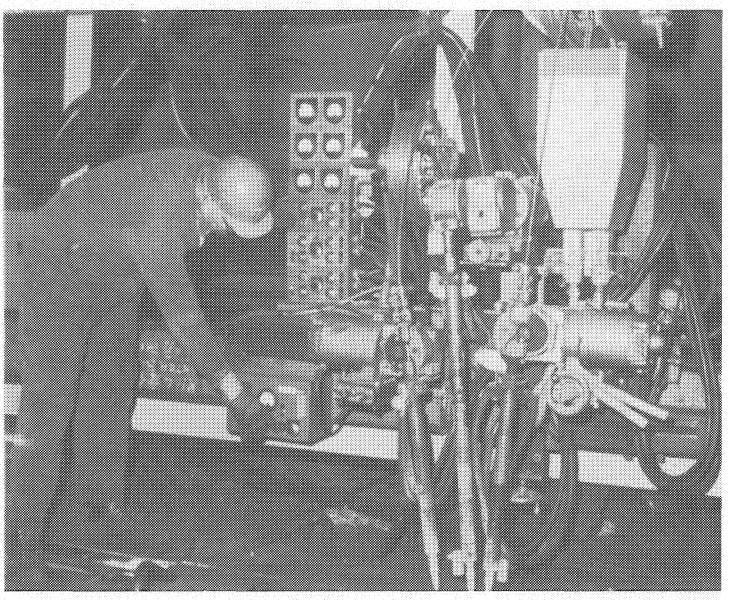
Sea trials and acceptance surveys were conducted on 14 subsidized ships and guarantee surveys on 10 ships. The Trial and Guarantee Survey Board also observed sea trials of two ships which were constructed under the Title XI program.

Ship Design

In conjunction with the maritime industry, a Maritime Administration study was completed on the economic impact of a variety of tanker design configurations with the objective of reducing the risk of both accidental and intentional discharges of oil. This study formed the basis of the U.S. working paper *Note by the United States Report on Part 2 of Study 1—Segregated Ballast Aboard Product Tankers and Smaller Crude Carriers.* This report was subsequently submitted to the Intergovernmental Maritime Consultative Organization (IMCO).

A revised edition of MarAd's *Standard Specification for Merchant Ship Construction* was published during the year. This document was broadened to include containerships, LASH vessels, OBO's and tankers.

A *Neobulk Cargo Ship Preliminary Design Study* also was completed. This study details three ship design alternatives and four cargo-handling systems for use in shipping neobulk commodities, such as forest products, automobiles, etc.



Shipyard worker demonstrating one-side welding equipment being developed under joint MarAd-industry research project

Shipbuilding R&D

The Maritime Administration conducts an active research and development (R&D) program aimed at improving shipbuilding technology and increasing productivity in American shipyards and thus reducing ship construction subsidies, as well as life-cycle vessel costs. (For a complete list of R&D contracts awarded by MarAd during fiscal year 1973, see Appendix IX.) The following major projects were underway during 1973:

SHIPBUILDING PRODUCTIVITY

The objective of this program is to improve American shipbuilding productivity through the introduction of advanced production methods, automation, new capital equipment, improved and simplified ship designs and improved worker proficiency. These developments will help reduce U.S. shipbuilding costs and the need for government construction subsidies.

The program includes development of advanced welding equipment and techniques, improved materials handling equipment, surface preparation methods and coatings, and simplified ship components. It also contemplates ship designs better adapted for economical construction through improved regulations, standards and practices. AUTOKON, a computer-aided, automated system for steel fabrication and production con-

As part of modernization and expansion program, Bath Iron Works installed new 200-ton crane

trol, was made available to United States shipyards through the MarAd shipbuilding improvement program on a cost-recoverable basis. Each of these projects will bring substantial benefits through savings in labor resulting from automation and through reduced materials requirements resulting from improved and less wasteful operations. Collectively, they will result in an average reduction of 15 percent in shipbuilding costs.

LNG TECHNOLOGY

The United States will, according to all forecasts, require imports of foreign natural gas to meet its future energy needs. To bring this gas to the United States, many Liquefied Natural Gas (LNG) carriers will be required. The agency is endeavoring to bring the necessary technology to American shipyards so that these ships can be U.S.-built and manned.

The basic objectives of the program are to assist shipyards with R&D projects aimed at solving immediate production problems and reducing costs. A second objective is to provide R&D support for the development and operation of advanced gas carriers.

To assist shipyards with immediate production problems, two major U.S. shipyards that received LNG shipbuilding contracts in fiscal year 1973 have been invited to submit to MarAd proposals for improving their ability to build these first ships at the contract cost, on schedule, and assure that they will operate successfully. In the meantime, during fiscal year 1973, MarAd sponsored work applicable to second generation LNG carriers. These efforts are aimed at enabling U.S. shipyards to be world competitve by using American cryogenic and materials technologies and reducing labor intensive operations.

The intention is to transfer as much LNG know-how as possible from the foreign technology centers that now have a lead in this area to U.S. yards and also to capitalize on the cryogenic experience gained in the U.S. space program.

Value Engineering

The value engineering program produced savings of $1,568,900 in fiscal year 1973. The cumulative program savings since its inception in 1957 totals $25,700,900.

Shipyard Improvements

The nation's growing consumption of energy has created a demand for large volume imports of these resources at the lowest possible transportation cost. This demand is best satisfied by utilization of Very Large Crude Carriers (VLCC's) and large LNG tankers. To enter this market, which was in the past solely the province of foreign shipbuilders, major U.S. shipyards are allocating significant funds for expansion of facilities and also appraising future investment plans. Highlights of these improvements are:

Newport News Shipbuilding and Dry Dock Co., James River, Va., Division

Contracts have been awarded to this yard for the construction of three LNG tankers. To construct these tankers the company will develop a new yard on 271 acres adjacent to its present site at a cost of $106 million. Development of the necessary new facility, presently underway, features the construction of the largest building basin in this hemisphere. Approximately 1,600 feet long, 230 feet wide and 44 feet deep, the basin will permit the construction of one supertanker (LNG or crude oil) and part of a second ship simultaneously. A steel preparation building, panel shop, sub-assembly area and a 900-ton gantry crane also will be provided.

Todd Shipyards Corp., Galveston, Tex.

Todd Shipyards is actively marketing tankers of 380,000 dwt. When contracts are finalized, construction of a new shipyard will commence. It is estimated that up to $60 million will be spent on the new yard and an additional $30 million will be expended for complementary dry dock facilities.

Todd Shipyards Corp., San Pedro, Calif.

The maximum ship size this yard is capable

of constructing has been expanded to 800 feet by 84 feet by modification of the original shipways. This improvement, at a cost of $13.5 million, will enable this yard to contract for medium-sized tankers of up to 90,000 tons.

General Dynamics Corp., Quincy, Mass., Shipbuilding Division
During fiscal year 1973, $5.5 million was expended for capital improvements by this shipyard, primarily on the conversion of two shipbuilding ways into graving docks. These two basins will be used in the construction of three LNG's for which orders were received in fiscal year 1973.

National Steel and Shipbuilding Co., San Diego, Calif.
NASSCO plans on spending $20 million immediately on expansion of the present yard to provide the capability to construct either tankers of 150,000 dwt. or LNG's. Predicated on the future demand levels for VLCC's and LNG's, a tentative $116 million program is anticipated for creation of a new shipyard.

Seatrain Shipbuilding Corp., Brooklyn, N.Y.
A total of $2.8 million was spent during fiscal year 1973 for plate preparation facilities, a fabrication shop and a module painting facility.

These accomplishments and future plans do not represent the total investment committed by all United States shipyards. They serve as an indication, however, of the commitment made by the industry to improve its position in the world ship construction market.

EEO—Ship Construction

MINORITY EMPLOYMENT

The Maritime Administration is charged with assuring equality of opportunity in the shipping, shipbuilding and ship repair industries located in coastal states.

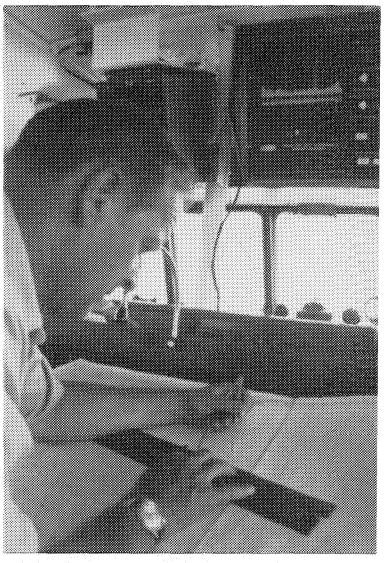
During fiscal year 1973, the agency conducted 253 compliance reviews or audits of the personnel practices of shipbuilding and shipping companies. This included semi-annual reviews of all the major shipyards, which account for 60 percent of all shipbuilding employment. During the fiscal year, plans to correct the present effects of past discrimination were developed in five yards. This completed an industry-wide program that required the revision of seniority practices and the development of special transfer procedures for 4,000 black workers throughout the industry.

The data base for measuring industry progress was expanded in fiscal year 1973 to encompass 30 yards which account for 80 percent of total shipbuilding employment in this country. While total shipyard employment has increased slightly, by 844 jobs, to 109,346 jobs in the last five years, minority employment rose dramatically. Black employment rose by 7,720 jobs so that blacks now constitute 22.4 percent of the industry's workforce, up from 15.5 percent in 1968. Total minority employment is 26.5 percent of the total employment compared to 17.7 percent in 1968.

Emphasis had been placed on improving the quality of jobs held by blacks, especially in the skilled craft jobs and salaried white-collar positions. In 1968, blacks held 13.4 percent of the skilled jobs, but, by 1973, that proportion had risen to 22.3 percent. Black participation in the salaried white-collar positions rose from 2.9 percent, or 830 positions, in 1968 to 8.3 percent, or 2,947 positions, in 1973.

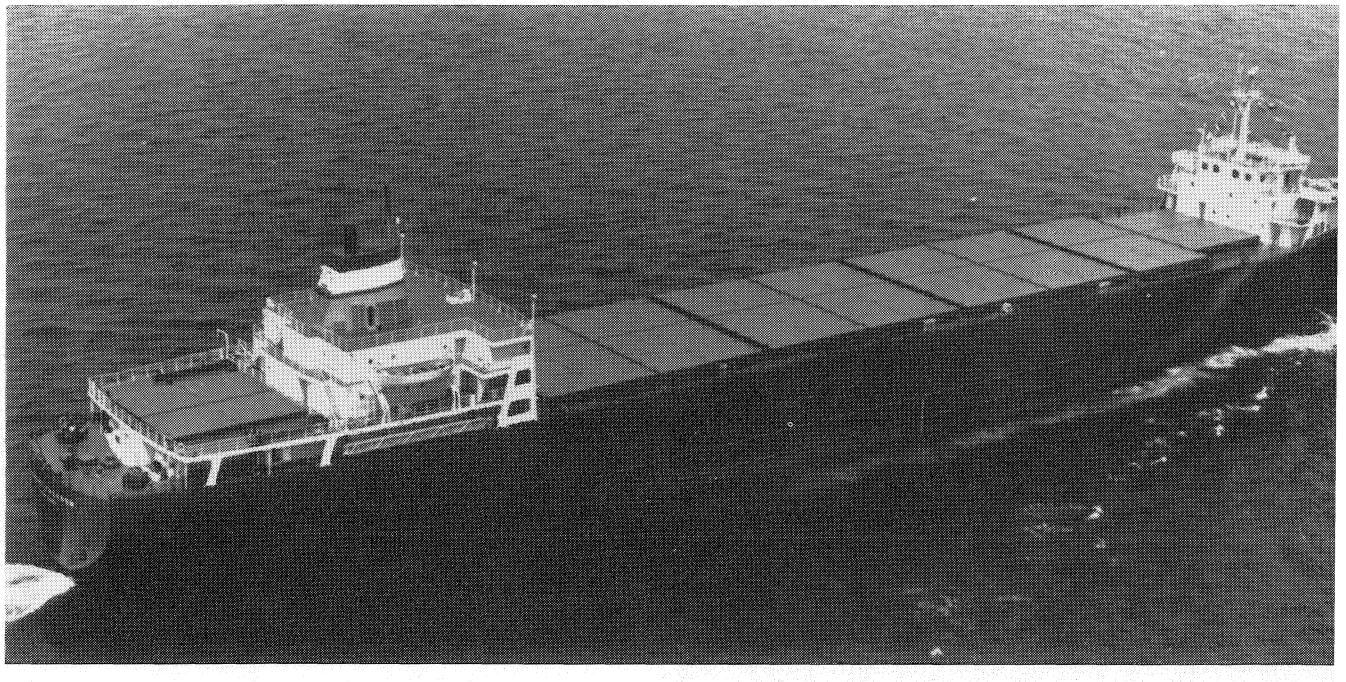
WOMEN

The employment of women in shipyards, especially in blue-collar jobs improved significantly in fiscal year 1973. Females had been virtually excluded from the blue-collar jobs in shipyards in the post-World War II period. In 1968 they held 158 jobs, or 0.2 percent of the blue-collar jobs. By 1972, this proportion had risen to 0.5 percent; but, in 1973, females held 862 jobs, or 1.2 percent of all blue-collar jobs in American shipyards. Most of these females are in training for skilled craft jobs.



(Above) Anti-stranding sonar system, developed under MarAd's R&D program, gives warning of underwater obstructions and shoals in ship's path by use of long range and highly directional sound beams

Two of new vessels placed in operation during fiscal year 1973 were: **(Above)** ARCO ANCHORAGE, a 120,000 dwt. tanker, and (below) EXPORT FREEDOM, a modern containership



Chapter 2

Ship Operations

Status of U.S. Fleet

On June 30, 1973, the active privately owned U.S. merchant marine consisted of 568 vessels of approximately 12.5 million dwt. This fleet consisted of 194 freighters, 226 tankers, 24 bulk carriers, 118 intermodal types (containerships, LASH vessels and roll on/roll off vanships) and six combination passenger cargo ships (see Appendix X).

Although 48 privately owned vessels were in an inactive status on June 30, 1973, only 26 of these were actually laid-up and two of these were stranded in the Suez Canal. The other 22 vessels were only temporarily inactive either awaiting cargoes or undergoing repairs.

At the close of the fiscal year, the total privately owned merchant marine consisted of 616 vessels of 13.4 million dwt. This fleet had an average deadweight of 21,826 tons, an average age of 18 years and an average speed of 17 knots.

The financial status of U.S. operators is illustrated in the Combined Condensed Financial Statements appearing in Appendix XI.

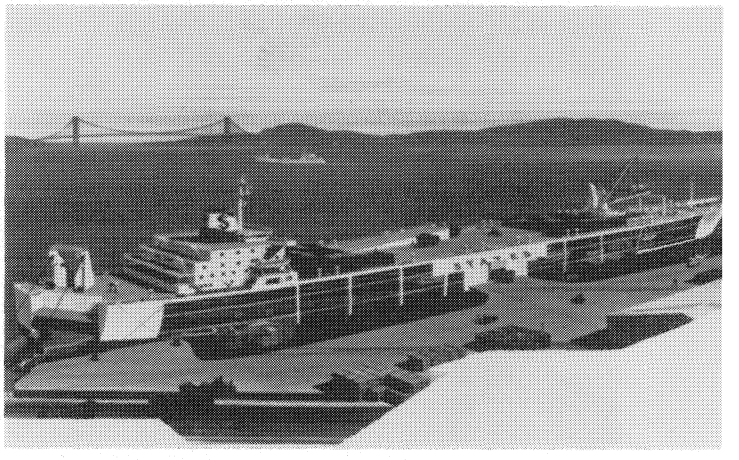
Operating Subsidy

The Maritime Administration is empowered to pay operating-differential subsidy (ODS) to American ship operators to overcome the cost disparity between operating a ship under the U.S. flag and operating it at considerably lower costs under a foreign flag. This form of aid covers wages, insurance, maintenance and repairs not compensated by insurance and subsistence of officers and crews on passenger ships.

At the end of the fiscal year there were 21 operators holding operating-differential subsidy agreements (see Appendix XII) and a total of 202 vessels were covered under these agreements. However, 185 vessels were in operation on June 30, 1973, and the balance were under construction or on order at that time. In addition, 52 operators held short-term ODS agreements for the carriage of agricultural commodities from ports in the United States to ports in the Union of Soviet Socialist Republics (Soviet Grain Program) (see Appendix XIII), and a total of 88 vessels were covered by these special agreements. Payments during the year on the regular ODS agreements for 1973 and prior years totaled $216,846,255 (see Appendix XIV), and payments under the special Soviet grain agreements for 1973 totaled $9,864,671, resulting in total operating subsidy payments of $226,710,926 in 1973 (see Appendix XIV).

Operating-differential subsidy, under the basic ODS agreements, accrued from January 1, 1937, to June 30, 1973, totaled $3,950,099,165; recapture amounted to $238,617,744; leaving a net accrued as of June 30, 1973, of $3,711,481,421, of which $3,637,692,743 had been paid out, leaving an estimated unpaid balance of $73,788,678 at the end of the fiscal year. Operating-differential subsidy accrued under

Artist's conception of roll on/roll off vanship



the special agreements during 1973 totaled $32,412,712, of which $9,864,671 was paid out, leaving an estimated unpaid balance of $22,548,041 at the end of the fiscal year. The unpaid balances under the basic ODS agreements and under the special agreements resulted in a total estimated unpaid balance of $96,336,719 at the end of the fiscal year (see Appendix IV for ODS expenditures by fiscal year).

ODS—SOVIET GRAIN

In April 1972 there were 43 U.S.-flag tankers aggregating 1.4 million dwt., laid up for lack of employment. The signing of the U.S.-Soviet Maritime Agreement in October opened the way for U.S. ships to participate in the carriage of 19.2 million tons of grain purchased in the U.S. by the Soviets. As a result of improved employment opportunities there were virtually no bulk-carrying ships in lay-up at the end of fiscal year 1973 because of lack of cargo.

In October 1972, MarAd published regulations under which U.S.-flag vesels could participate in Soviet grain movements with operating subsidy. ODS applications were received from 57 companies, covering 111 vessels; 52 subsidy contracts, involving 88 ships. were awarded during the year (see Appendix XIII).

Fifty-one of these vessels were fixed by Soviet charterers for a total of 92 voyages carrying approximately 3.2 million tons of grain during the fiscal year. Additionally, a substantial volume of cargo remained available to U.S.-flag vessels at the end of the year.

With the aid of operating subsidy U.S.-flag ships are able to offer a competitive freight rate and thus participate in this program. The agreement provided for the Soviets to pay a negotiated fixed freight rate plus a premium over and above these fixed rates through June 30, 1973.

The Maritime Agreement has therefore enabled the United States to expand its commercial relationship with the Soviet Union.

The operating subsidies paid to U.S.-flag vessels help eliminate adverse balance of payments deficits, maintain employment of American labor on such vessels, and assure the availability of such ships in times of national emergency.

The first American vessel to deliver grain to the Soviet Union was the SS OGDEN WILLAMETTE, which docked at Odessa on the Black Sea on December 21, 1972. The first Russian vessel to load grain under the Maritime Agreement was the KASIMOV which began loading on December 4, 1972, in Houston, Tex.

Contract Auditing

Prior to the enactment of the Merchant Marine Act of 1970 subsidized operators could not be paid their final five percent of accrued ODS until their annual accountings had been reviewed and approved by the Maritime Administration.

During fiscal year 1973, such final-payment audits were completed for six operators, generally covering the period from 1966 through 1969. Most of the audits of expenses eligible for subsidy for the 13 subsidized operators with vessels actually operating were completed through calendar year 1972.

Since enactment of the Merchant Marine Act of 1970, 100 percent of the accrued wage subsidy can be paid by the agency on a monthly basis, without awaiting final audit. During fiscal year 1973, wages on a 100 percent basis were paid to 11 operators who had amended their contracts to include the provisions of the 1970 Act.

Contract audits were made for ship construction and repair activities and the ODS paid for the movement of grain to the U.S.S.R.

Audits completed during the fiscal year resulted in reduced billings of about $2 million to the Government.

ODS Contracts Awarded

During the fiscal year one ODS contract was cancelled and six new contracts (other than the short-term contracts for the Soviet Grain Program) were executed.

The short-term experimental ODS contract with American Steamship Company was terminated by mutual consent of the parties, effective June 30, 1973. This was the first company to be granted subsidy for bulk service in the U.S. Great Lakes/Canada trade.

A short-term contract was concluded with Waterman Steamship Corp. effective April 23, 1973, for operations on Trade Route 21 (U.S. Gulf/United Kingdom and Continent). This contract is in addition to Waterman's short-term contract for service on Trade Route 22 (U.S. Gulf/Far East) and the line's 20-year contract on Trade Route 18 (U.S. Atlantic and Gulf/India, Persian Gulf, and Red Sea).

An ODS agreement was signed with Ecological Shipping Corp., effective June 15, 1973, covering the operation of an 80,000-dwt. tanker for a five-year period. With the sailing of the ST NOTRE DAME VICTORY in June 1973, this company was the first to operate a subsidized ship in the carriage of liquid and dry bulk cargoes.

The remaining four new operating subsidy contracts are those with American Shipping, Inc.;

Atlas Marine Shipping Co.; Pacific Shipping, Inc.; and Worth Oil Co. Covering a total of four 89,000-dwt. tankers, these are 20-year, long-term contracts.

Pending ODS Applications

Eight applications for ODS from non-subsidized operators were pending at the end of fiscal year 1973. Applications from Isthmian Lines, Inc. for break-bulk operation cover two services (U.S. Atlantic and Gulf/India, Pakistan, Ceylon; and U. S. Atlantic and Gulf/Persian Gulf and Red Sea) on Trade Route 18. Also filing for worldwide operations, but with ore/bulk/oil carriers or tankers, were Hedge Haven Farms, Inc.; United Shipping Corp.; Multi-Carriers Inc.; Tankers Holding, Inc.; American Trading Transportation Co., Inc.; and Pacific Tankers Inc.

In addition to these applications from non-subsidized operators, seven companies with existing ODS contracts have applied for operating subsidy for additional sailings or other services: American Export Lines, Inc., for its container service on the North Atlantic (Trade Route 5-7-8-9); American Mail Line, Ltd., American President Lines, Ltd., Pacific Far East Line, Inc., and States Steamship Co. for increased sailings in trans-pacific service (Trade Route 29); Delta Steamship Lines, Inc. for the Caribbean and East Coast of Mexico service (Trade Route 19); and Waterman Steamship Corp. for its Gulf/Far East service (Trade Route 22). Waterman is requesting a long-term ODS contract to replace the current short-term agreement which terminates in 1975.

Passenger Ships

The Passenger Ship Sales Act (Public Law 92-296), which was signed into law on May 16, 1972, authorized the sale to foreign buyers of the SS SANTA ROSA and the SS SANTA PAULA, owned by Prudential-Grace Lines, Inc.; the SS ARGENTINA and SS BRASIL of Moore-McCormack Lines, Inc.; and the SS CONSTITUTION, owned by American Export Lines, Inc. The SANTA PAULA was sold on October 5, 1972, to Oceanic Sun Line Special Shipping, Inc., of Greece. The SANTA ROSA is in lay-up status, but the ship was withdrawn from Prudential-Grace Lines' ODS agreement by the Maritime Subsidy Board on May 7, 1973. Moore-McCormack Lines sold the ARGENTINA and BRASIL to Holland-America Line in August 1972.

The CONSTITUTION and INDEPENDENCE remain in lay-up status and both ships were withdrawn from American Export Lines' contract during fiscal year 1973.

American President Lines' passenger ships, the SS PRESIDENT CLEVELAND and SS PRESIDENT WILSON, reached the end of their statutory 25-year lives in late calendar year 1972 and early 1973. These ships could no longer be economically operated and the Maritime Subsidy Board approved the sale foreign of the ships, respectively, to Oceanic Cruises Development, Inc. and Transocean Lines, Inc., both Liberian corporations. The PRESIDENT CLEVELAND terminated its final subsidized voyage on January 14, 1973, and the PRESIDENT WILSON left subsidized service on April 9, 1973.

The sale of the PRESIDENT CLEVELAND and PRESIDENT WILSON left the SS MARIPOSA and the SS MONTEREY, operated by Pacific Far East Ine, Inc., as the only remaining active vessels in the U.S.-flag passenger fleet. However, during fiscal year 1973, Prudential-Grace Lines, Inc. inaugurated a combination passenger/cargo service on Trade Routes 23, 24 and 25 (U.S. Pacific/Caribbean, East Coast of South America, West Coasts of South America, Central America and Mexico) with three "M-class" passenger/cargo ships, the SS SANTA MARIA, SS SANTA MARIANA and SS SANTA MERCEDES, with the first sailing made in July 1972.

SS UNITED STATES

Public Law 92-296 also authorized the U.S. Government to acquire the SS UNITED STATES from United States Lines, Inc., for retention in the reserve fleet or for sale or charter to a qualified American-flag operator. On February 5, 1973, the Maritime Administration, on behalf of the U.S. Government, purchased the vessel for approximately $4.6 million in cash, representing the depreciated cost of the vessel, $12,042,692, less the unpaid principal and interest on its mortgages.

Norfolk International Terminal was selected as the temporary lay-up site for the ship and full responsibility for shipkeeping was delegated to MarAd's Eastern Region. Deactivation of the vessel was completed during the year and arrangements were made for security, utilities and preservation services.

Proposals for operation of the vessel under the American flag were solicited and 17 proposals were received. At the close of the fiscal year these proposals were being evaluated by the agency.

Subsidy Index System

Further progress was made in implementing the Subsidy Index System embodied in the 1970 Act. In cooperation with the subsidized liner operators, the data reporting requirements which are neces-

sary to the calculation of ODS rates were established. The tentative subsidy rates applicable to fiscal year 1973 were completed in August 1972. All final 1969 subsidy rates and 38 of the 183 final subsidy rates for 1970 were completed by the agency. Judicial appeals from disallowances of certain items of expense for ODS purposes by the Secretary of Commerce were pending before the courts at the end of the year.

Sec. 804 Activities

Under Section 804 of the Merchant Marine Act of 1936, as amended, it is unlawful, without the prior approval of the Secretary of Commerce for any contractor receiving ODS or any holding company, subsidiary, affiliate or associate of such contractor, directly or indirectly to own, charter, act as agent or broker for, or operate any foreign-flag vessel which competes with an essential American-flag service. The prohibition also applies to any officers, directors, agents or executives.

During fiscal year 1973, waivers under Section 804 were granted to: (1) Lykes Bros. Steamship Co., Inc., to join with two U.S. companies having foreign-flag connections in the organization of a new stevedoring and ship agency company; (2) Delta Steamship Lines, Inc., to permit its affiliate, Holidays Around the World, to represent foreign-flag cruise vessels operating in the U.S. Pacific area; (3) American President Lines, Ltd., to act as husbanding and terminal agent at Los Angeles and San Francisco, Calif., for a foreign-flag passenger/cruise vessel; (4) Pacific Far East Line, Inc., to employ as a vice president the major stockholder in a foreign shipping company, provided this stock is relinquished within a specified period; and (5) Sea Service Tankers, Inc., to permit an affiliate for one year to act as managing agent for eight foreign-flag bulk cargo vessels.

Trade Routes

Reviews of several trade routes and liquid and dry bulk cargo trades were made in connection with applications for ODS.

The following services were found to be essential to the foreign commerce of the United States:

1. Bulk cargo carrying services including the carriage of export raw and processed agricultural commodities from ports in the continental United States, Hawaii, Alaska and the Commonwealth of Puerto Rico to ports in the Union of Soviet Socialist Republics or to other foreign ports, and on return voyages, the carriage of import bulk cargoes from ports in foreign countries to ports in the continental United States, Hawaii, Alaska and the Commonwealth of Puerto Rico.

2. Great Lakes essential dry bulk cargo carrying services were modified to include any and all United States ports on the Great Lakes, connecting rivers, and the St. Lawrence River and Canadian ports on the Great Lakes, connecting rivers, St. Lawrence River, and the Gulf of St. Lawrence.

3. Worldwide liquid and dry bulk services in the foreign oceanborne commerce of the United States.

Ship Operations R&D

MarAd conducts a large-scale R&D program aimed at increasing the productivity of American shipping operations. Emphasis is on the development of new cargo-handling techniques, improved propulsion systems, and advanced satellite navigation and communications (for a complete list of R&D contracts awarded during fiscal year 1973 see Appendix IX). During the year, the following major projects in the area of ship operations were underway:

ADVANCED SHIP MACHINERY

The ship machinery program currently encompasses four major projects: (1) developing an open-cycle marine gas turbine engine, (2) developing a closed-cycle marine gas turbine engine, (3) producing lightweight, marine planetary-gear transmission systems, and (4) demonstrating a contra-rotating propeller/shafting system.

This year was the third in a five-year effort to adapt industrial gas turbines to marine transportation. Unlike currently available systems, the resulting engine will be expected to burn traditional "Bunker C" marine fuel, and have a built-in reversing capability. Improvements resulting from the program have already been incorporated in the designs for ships to be constructed in the near future.

A closed-cycle gas turbine is also being adapted for marine service. Such a turbine differs from an open-cycle unit in that a secondary medium (e.g., air or inert gases) is heated by the combustion gases and then cycled and recycled through the turbine rather than having the combustion gases themselves go through the turbine. A contract was awarded during the year to study this concept for use in a refrigeration unit to reliquefy liquid natural gas (LNG) that "boils off" from LNG cargo tanks. The engine will then be evaluated for propulsion purposes.

The planetary gear project, also in the third year of a five-year program, will result in two planetary-gear transmission systems, one a 40,000-shaft-horsepower (SHP) single-stage system and the other a 60,000-SHP single-stage sys-

tem for use with a contra-rotating propeller. Fabrication of the prototype gear systems was initiated during the year.

The contra-rotating shafting and propeller are being developed in conjunction with the planetary gearing modules and are in the preliminary design stage.

NUCLEAR MERCHANT SHIP

In fiscal year 1973 the nuclear program moved closer to its goal of developing a standardized nuclear propulsion system for a commercial vessel. The Preliminary Safety Analysis Report (PSAR), which is necessary for the pre-construction permit review by the U.S. Atomic Energy Commission (AEC) and the U.S. Coast Guard, was completed and forwarded to those agencies. The preliminary engineering and associated test and evaluation of critical components continued during the year. The MarAd program activities have made it feasible for U.S.-flag operators to consider nuclear propulsion for ship construction projects starting in fiscal year 1974 or 1975.

A cost-shared project was begun during fiscal year 1973 on another maritime application of nuclear power. A supply and drilling ship for Arctic service is being designed and analyzed for economic and technical feasibility. Also, discussions were held with various ship operators and oil companies regarding the application of nuclear propulsion to Very Large Crude Carriers in the 400,000 to 600,000-dwt. range, and preliminary engineering studies for such a VLCC were being performed at the end of the year.

SHIPBOARD AUTOMATION

The agency's shipboard automation program applies computer technology to the shipboard controls associated with navigation, communications, machinery operations, ship maneuvering, cargo management, and ship administration. The program is aimed at achieving a one-man bridge watch at sea, unmanned machinery space and minimum port turnaround time.

During the past year, the first phase of a project was started to demonstrate an integrated system of ship control. An advanced ship will be outfitted with an automation package which combines many of the different equipment modules being developed to handle these functions. Selection of the automation level to be used will be followed by hardware/software design and installation.

A series of specific devices is being developed for use in this and future integrated systems. A centralized conning system is undergoing test and evaluation aboard the SS EXPORT FREEDOM and advanced electronic equipment to increase navigational effectiveness while improving operating safety margins is also being tested. An antistranding sonar system has been developed to prevent vessel groundings, which are a primary source of oil spills. The prototype equipment was installed on the LASH ship, SS DELTA NORTE, during the year, and at-sea tests were underway at year's end. Another project, called VIDEC, addresses the requirements for a propulsion monitoring system leading to unmanned machinery operation. The system was installed for tests aboard the SS PRESIDENT JOHNSON, which will join the American President Lines' fleet in late 1973.

COMMUNICATION—NAVIGATION

In an effort to improve the efficiency and dependability of communications between a vessel at sea and its owner or operator on shore, the Maritime Administration is applying U.S. space technology to commercial merchant ship communications.

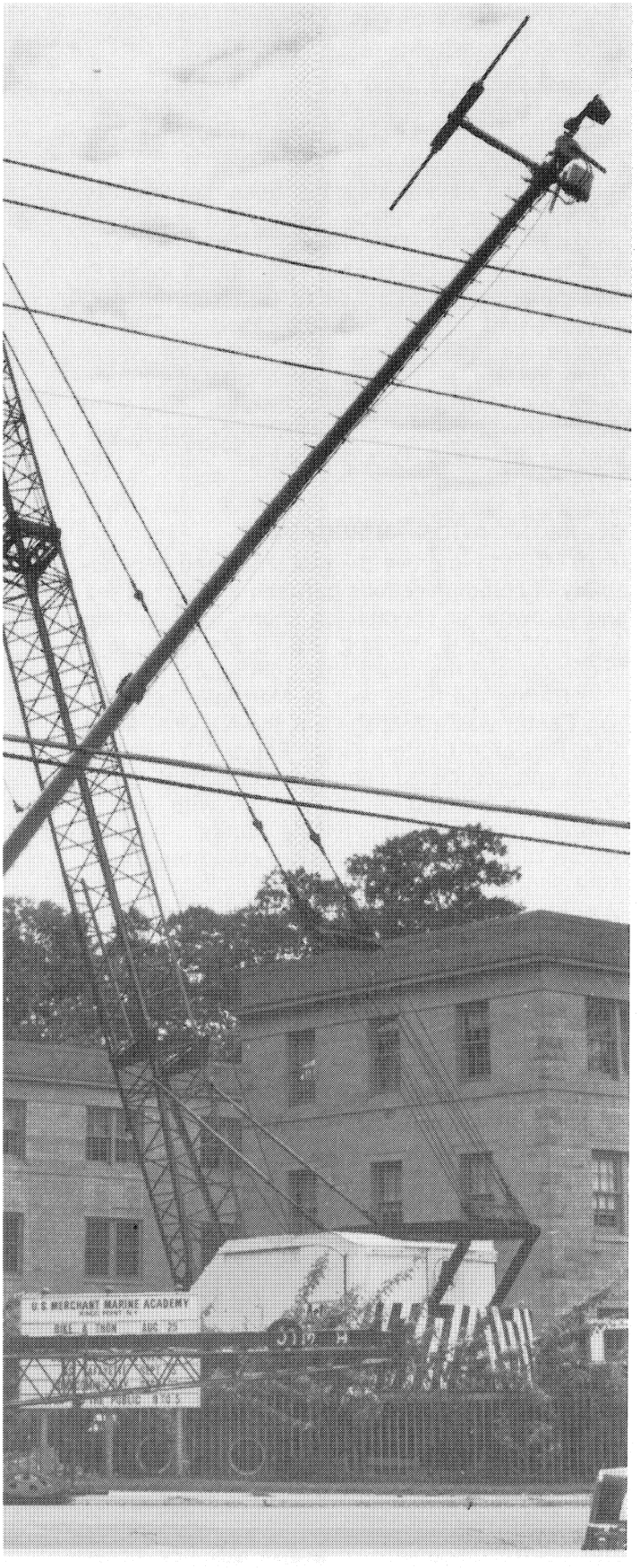
During the fiscal year, a Maritime Coordination Center was established at the National Maritime Research Center, Kings Point, N.Y. An antenna and associated computer equipment at the Center were tested in conjunction with experimental receiving/transmitting units installed aboard nine ships. Shore-to-ship communications were sent from the vessels' home offices to the Maritime Coordination Center, which transmitted information to ships at sea via one of two Applications Technology Satellites operated by the National Aeronautics and Space Administration.

Advanced applications of the satellite communications system which were tested during the year include the control of selected ship's machinery and propulsion equipment, the generation of more timely data on cargo movements and space availability, and the avoidance of collisions.

During fiscal year 1973, a contract was awarded for the development and testing of an integrated vessel control system using a shipboard computer linked through orbiting satellites to a shore-based computer. The system is intended to control selected machinery and propulsion equipment on-board ship as well as navigation and administrative activities.

SOIS

The objective of the Shipping Operations Information System (SOIS), which was initiated during fiscal year 1973, is the development of a modern, integrated and computer-assisted management and control capability to assist U.S.-flag ocean carriers to provide the most efficient and competitive services possible. The system will utilize advanced satellite communications, and its capabilities will cover such areas as cargo space doc-



Erection of 180-foot mast with complex radar receiver mounted at top at National Maritime Research Center, Kings Point, N.Y. Radar unit monitors shipping in Long Island Sound as part of collision avoidance research project

umentation, intermodal distribution coordination, fleet resource management, and reporting requirements.

Within each of the four categories of information, computer programs are being designed to carry out individual tasks relating to different aspects of the transportation process. Several U.S.-flag operators are participating in the program at this stage and these operators will also be involved in later phases when the system is put into commercial usage.

COMPUTER AIDED OPERATIONS

During the fiscal year, construction of a Computer Aided Operations Research Facility (CAORF) at the National Maritime Research Center, Kings Point, N.Y., was begun. When completed in June 1975, the facility will be used to investigate vessel operational problems, evaluate innovative hardware and concepts, and facilitate the adoption of new developments by the maritime industry.

As the world's most advanced center of its type, it will have the flexibility to simulate a wide range of ship operations and procedures using various bridge lay-outs, ship design characteristics, port and terminal configurations, and environmental and traffic situations. Although CAORF will be used primarily for testing and evaluating new equipment, under simulated operating conditions, it can also provide advanced training for ship officers.

MARITIME RESEARCH CENTERS

Major R&D initiatives were undertaken or expanded at MarAd's two research centers located at Kings Point, N.Y. and Galveston, Tex. These centers were established in the preceding fiscal year to provide laboratories and facilities to develop advanced marine systems and to test and evaluate such equipment prior to at-sea use on commercial ships.

NMRC-Kings Point

The Kings Point center has organized an effective staff of maritime technical experts, defined programs in its assigned areas, and initiated major R&D projects which hold the promise of significant benefits to the maritime industry. Its principal studies have been directed toward analyzing ship and port operations, and crew problems from the point of view of reducing shipping costs and associated government subsidies.

NMRC-Galveston

The major role of the Galveston Center lies in the testing and evaluation of systems that result from the overall R&D program. As of the end of FY

1973, facilities had been planned and test programs developed for evaluating oil/water separators and other pollution abatement devices.

A cold-water flow loop was being designed for testing internal component cores of marine nuclear reactors. Also, requirements were developed for test and evaluation facilities for cargo transfer systems, LNG containment systems, and advanced maintenance and repair techniques to extend the period between ship drydockings.

EEO—Ship Operators

Minority participation in the permanent workforce of the major shipping companies has increased substantially since 1969. Minorities held 755 white-collar positions, or 10 percent of such employment, in 1969. By 1973 minority participation had risen to 15.2 percent of the white-collar positions, or 1,303 positions.

The role of women in the shipping industry improved, as well. In 1969 females accounted for 3.2 percent of the professional workforce. By 1973 they held 13.6 percent of such positions. Females in executive and managerial positions rose from 1.0 percent in 1969 to 3.5 percent in 1973.

Repair & Maintenance

The agency's computer-aided program of surveillance over maintenance and repair costs by which equipment suitability and reliability can be determined is gaining wider acceptance among steamship operators.

The modification of the surveillance system to include computer terminal installations at each of the agency's region headquarters for direct data transmittal will achieve agency savings of $20,000 yearly.

During the year approximately 360 surveys, including classification, Title XI, ODS applications and other inspections and estimates, were made to assure compliance with various contractual commitments.

MARAD Advisories

Numerous MarAd *Advisories* were issued during the year to U.S.-flag steamship operators and agents. The *Advisories* are published and distributed as frequently as items of important operational significance occur. Such matters as new, revised or proposed U.S. or foreign rules regarding quarantine, customs, entrance or clearance and related matters are brought to the attention of U.S.-flag operators to aid in avoiding vessel delays and possible penalties.

Foreign Transfers

Approval was granted in fiscal year 1973 to transfer 133 ships of 1,000 gross tons or more to foreign firms. Over 70 percent of these were sold for scrapping abroad. Thirty-three of the 133 ships were undocumented or registered under foreign flag, though owned by U.S. citizens (see Appendix XVI).

Charters of U.S. owned ships to aliens were approved on 43 ships of 1,000 gross tons and over.

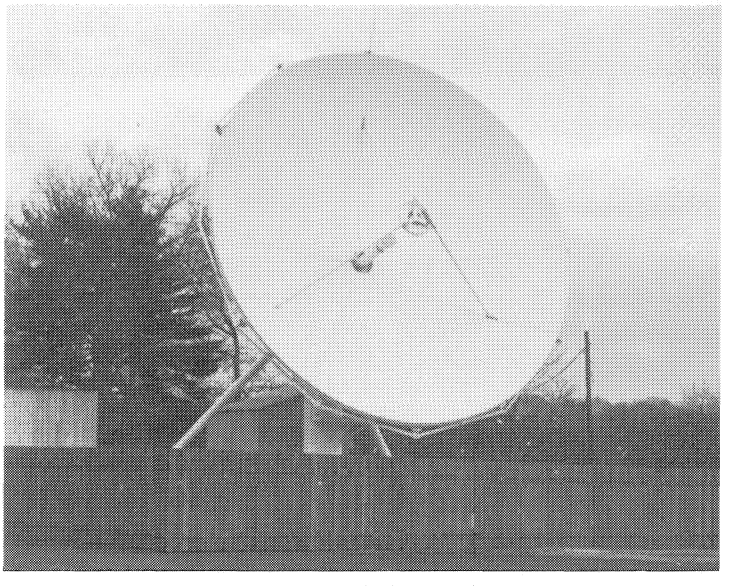
Applications for transfer foreign of 673 ships of less than 1,000 gross tons, 549 commercial and 124 pleasure craft, were approved. Charters of 69 ships to aliens were also approved.

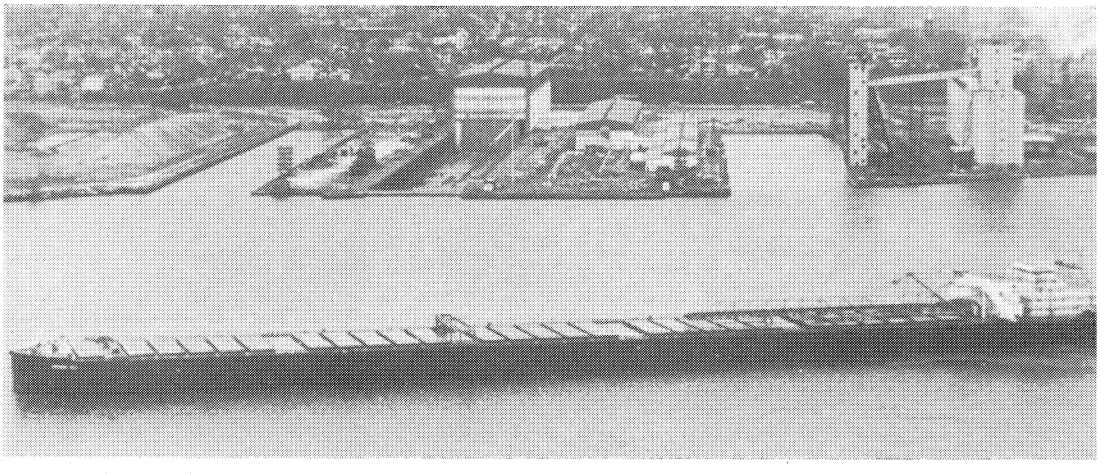
Of six violations involving the sale of privately owned ships to aliens without prior approval of the Maritime Administration, one was mitigated during the year.

Seven banks were approved as trustees and 36 banks were approved to continue on the Roster of Approved Trustees, pursuant to Public Law 89-346 and General Order 107.

User charges for filing applications for foreign transfers and similar actions amounted to $39,550.

Satellite-tracking antenna, part of advanced ship navigation system installed at National Maritime Research Center, Kings Point, N.Y.





Chapter 3

Domestic Operations

Under the Merchant Marine Act of 1936, as amended, the Maritime Administration is responsible for formulating national policies and conducting programs for the development and promotion of the domestic shipping industry. This includes inland waterways and Great Lakes operators, as well as those in the coastwise, intercoastal and noncontiguous trades.

Promotion

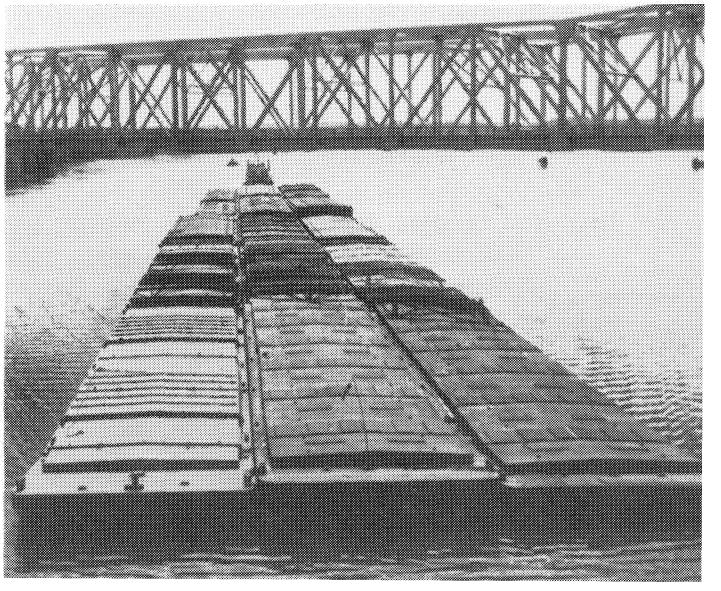
MarAd, in its role as the industry's Ombudsman in Government, worked during the year to discourage the imposition of new constraints or unnecessary regulations which may hinder the growth of the domestic waterborne transportation industry. The agency's activities centered on harmonizing the best interests of the industry with those of sound environmental policy.

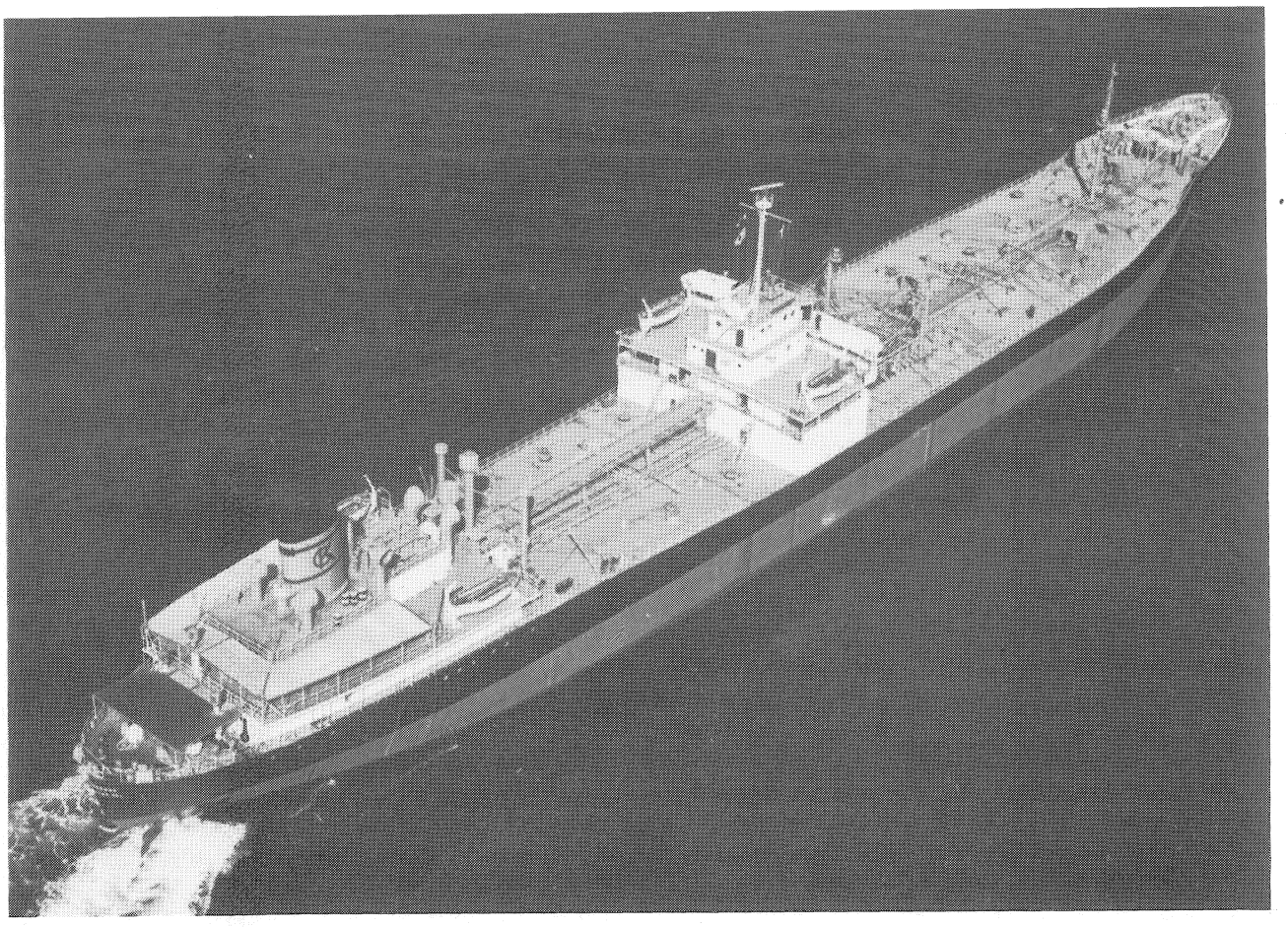
Through participation in various forums, MarAd has broadened the domestic shipping industry's outlook and made operators aware of various methods of financing their capital requirements for fleet expansion and replacement. As a result of the agency's efforts, Title XI ship-financing guarantees held by domestic operators reached $650 million in fiscal year 1973.

In keeping with the agency's program to promote the domestic segment of the American merchant marine, a contract was awarded during the year to produce a market analysis for the industry. The study is to include forecasts of trade flows that could be available for movement by water, analysis of the future competitive environment in which the industry will operate, assessment of legal and regulatory constraints confronting the industry, a financial analysis of the industry and development of a list of potential market opportunities for the industry.

As a result of concern by the tug-barge industry over high premiums charged by insurance firms and the industry's inability to obtain certain coverages, MarAd has undertaken a study of a representative sampling of tug-barge operators to develop premium and loss data for the various types of coverages they had in the past five years. The survey will provide a better understanding of marine insurance, the industry's second highest operating cost, and assist in developing a greater American marine insurance market and reduce insurance premiums to tug-barge operators.

Since the U. S. Coast Guard has ruled that mechanically linked tug-barge systems are to be treated as a single self-propelled vessel for purposes of certification and inspection, the tug-barge industry has become concerned over the Coast Guard's authority to impose higher manning levels on the units. As a result, several companies have cancelled their plans to obtain these highly productive vessels. MarAd is working with the Coast Guard on the development of tug-barge sys-





tems with lower manning levels which will result in more economical operations and lower freight rates.

Intercoastal

A survey by the Port Authority of Portland, Me., has shown that a potential exists for ferry services for truckers and tourists between New York City and Portland. Assistance was provided by MarAd in developing preliminary design requirements for a vessel to accommodate the anticipated traffic and in investigating design innovations to minimize capital and operating costs.

Non-Contiguous

A study of the economic impact on the Virgin Islands if brought under U.S. cabotage laws was undertaken by MarAd with the Federal Maritime Commission. This study was initiated at the request of the Governor of the Virgin Islands for data on exports from the United States to the Islands for use in hearings on a bill to amend the Merchant Marine Act, 1920, by extending the U.S. cabotage requirement to the Islands. The study evaluated U.S.-versus-foreign freight rates on exports of the 25 most essential commodities moving from the Continental U.S. to the Virgin Islands. In addition, it also examined the traffic flows and services offered by both foreign and domestic carriers.

Inland Waterways

To insure that a proper balance is struck between the penalty and liability provisions of environmental legislation and the economic carriage of certain essential but hazardous products on the nation's inland waterways, MarAd, during fiscal year 1973, prepared specifications for a comprehensive study of the economic and safety impact of moving such cargoes on water routes as opposed to land routes. This study will complement a parallel industry effort on preventive regulations.

Both Government and industry have an enormous stake in the maintenance of safety on the nation's navigable waterways. MarAd has promoted better training and safety practices in the domestic trades. As a result, significant changes are taking place in the curriculum of the various State maritime colleges and the Federal Academy at Kings Point, N.Y., to better serve the needs of domestic operators. Efforts also are underway to promote the efficiency and safety of domestic waterways through the development of improved ship-to-shore communications.

In cooperation with the Ozarks Regional Commission, MarAd is endeavoring to expand the full potential of America's newest waterway, the Arkansas River.

The agency is also developing domestic waterborne shipping statistics which cover movements in the domestic ocean and Great Lakes trades for the years 1965-1971, on a port-to-port basis by commodity and type of vessel.

MarAd, at the request of the Water Transport Association, intervened against an Interstate Commerce Commission (ICC) order permitting a railroad company to own and operate a water carrier subsidiary. The agency held the position that the impact on water competition is the overriding issue and such operation in compliance with the ICC order would have an adverse impact on other water carriers. The order was set aside.

Great Lakes

On the Great Lakes, now officially recognized as the nation's "Fourth Seacoast", MarAd's efforts have concentrated on extending the navigation season, which presently closes in mid-December and does not reopen until early April.

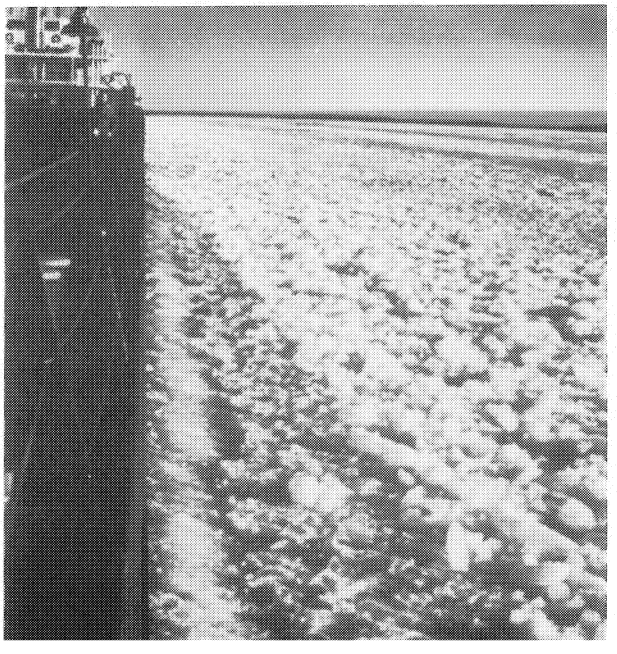
A report on Great Lakes and St. Lawrence Seaway insurance rates prepared in fiscal year 1972 led to the creation of the Great Lakes Seaway Risk Management Study Group. A series of risk management seminars with industry were held during the year to discuss the many facets of winter operations. The group continues to provide a free flow of constructive information between the diverse interests involved in extending the Lakes season.

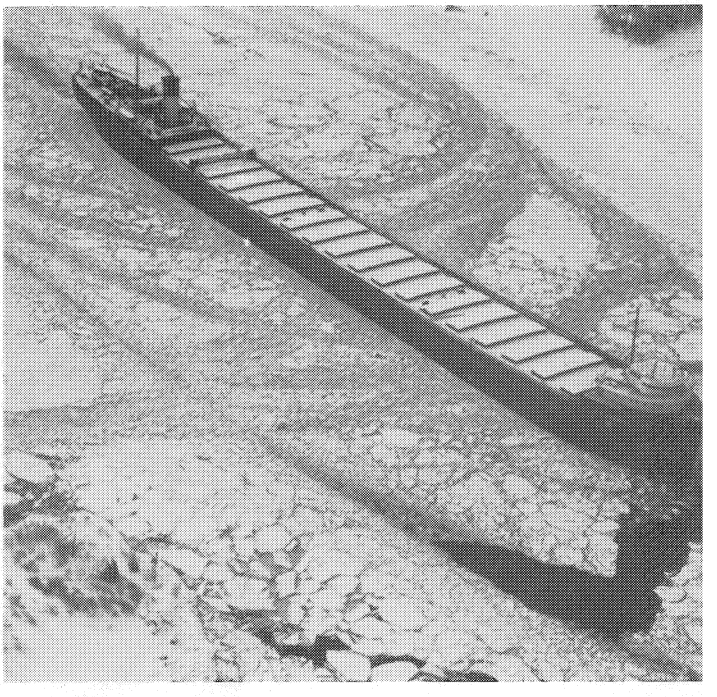
As part of the three-year study by the Great Lakes Winter Navigation Board to determine the feasibility of extending the Great Lakes navigation season, MarAd, through its R&D program, is developing a shipboard piloting system based on the laser principle. With such a system Great Lakes vessels could safely transit confined channels during the winter when navigational aids are temporarily removed. At the close of the fiscal year, design work on the system was complete and construction was begun. It will be installed on a vessel and tested in December 1973.

At the request of the domestic shipping industry, MarAd intervened in a case to protect the Great Lakes fleet from noncompensatory railroad rates. The case involved the institution by a railroad of an allegedly noncompensatory volume rate on wheat shipments from Minnesota and Wisconsin to Martin's Creek, Pa. The company later withdrew its proposed tariff.

A preliminary design study for a Great Lakes oceanographic ship was prepared by MarAd for the National Science Foundation (NSF). Anticipated users of the vessel are the University of Michigan, the University of Wisconsin, and the Environmental Protection Agency. The study includes engineering feasibility, construction costs, and ship characteristics.

MarAd is actively engaged with other agencies in an R&D program to extend the winter navigation season on the Great Lakes





(Above) Secretary of Commerce Frederick B. Dent addressing 500 exporters and importers attending NMC unity dinner in New York, N.Y., to promote use of U.S.-flag ships (Left) Officers and directors of National Maritime Council comprise broad cross-section of maritime labor, management and Government (Below) Maritime labor, management and MarAd officials shown aboard ship prior to meeting with American shippers to promote patronage of American flag services

Chapter 4

Commercial Development

To aid the shipping and port industries in fully capitalizing on the new technology produced through MarAd's research and development programs, as well as developments arising from other sources, the Maritime Administration actively assists all segments of the maritime industry through its market development, intermodal systems and port development programs.

Cargo Promotion

Increasing the penetration of U.S.-flag ships in the carriage of America's foreign trade continued during the year as a major goal of the Maritime Administration.

Maximum utilization of the agency's field staff in this effort continued as a basic program approach. In addition to the agency's three region offices, the program also involved marketing representatives located in seven major cities (see Chart II). These representatives provided broad, effective personal contact through office visits with exporters and importers, freight forwarders, State purchasing officials, State trade and port promotion offices, trade associations and others controlling or influencing the routing of cargo, their intention being to familiarize shippers with the national and individual benefits stemming from utilization of U.S.-flag ships. Direct contact of this type also provided MarAd with the opportunity to discover obstacles interfering with shipper patronage of U.S.-flag carriers and initiate steps to resolve them. Facilities of the Department of Commerce field offices were also used to increase the effectiveness of MarAd's marketing representatives in reaching shippers throughout the country.

Group contact with those engaged in foreign trade was also utilized, through joint sponsorship with other organizations of seminars or forums on foreign trade topics.

Over 2,400 firms were contacted during the year, resulting in almost 400 policy letters being issued by these companies to their forwarders or vendors, indicating their preference for the use of American ships.

The agency provided U.S.-flag operators with over 10,000 cargo leads during the year.

Marketing direction through the effective use of cargo statistical data received increasing emphasis in the cargo promotion program. In conjunction with the Department of Commerce's Bureau of the Census, MarAd developed regular, timely reports of cargo movements on each trade route by commodity, tonnage and value, noting comparisons and trends of U.S. and foreign-flag participation. Utilized by MarAd to direct and analyze its own marketing plans, it enables the agency to provide marketing assistance to U.S. carriers to help them to identify lucrative cargo movements and direct their sales efforts more effectively.

A joint MarAd-carrier study indicated the need for carrier training programs in marketing and sales at various levels ranging from top management to lower-echelon service personnel. The most appropriate way to present a suitable training program was being considered at year's end with the ultimate purpose of improving carrier service to shippers through the upgraded personal skills of carrier employees.

MarAd has extended its market development activities abroad through the agency's foreign maritime representatives. Located in major shipping centers throughout the world they maintain liaison with subsidiaries and affiliates of U.S. companies to encourage their use of U.S.-flag ships, as similar policies are expanded by their home offices.

The general response to the agency's market development program has been encouraging, with almost 1,600 letters received during the year, replying to cargo leads, requesting special marketing services, or reporting the effectiveness of

CHART II. Region and Area Market Development Offices Maritime Administration

MarAd's marketing efforts and citing specific examples of success:

- A U.S.-flag carrier has reported that through MarAd's market development efforts it now receives over 400 additional container loads per year that formerly were routed via a foreign-flag line.
- One of the nation's largest general merchandise chains has increased its use of U.S.-flag ships from 40 percent of the company's imports in previous year to 60 percent in 1972, as a result of MarAd's efforts.
- A U.S.-operator revealed that, as a result of a MarAd marketing program directed at Japanese firms in the United States, he has obtained an initial movement of auto parts from a Japanese car manufacturer who had previously shipped exclusively on foreign-flag carriers.
- A single booking of 496 tons of liner board to Africa was placed with a U.S. carrier. This was the shipper's first booking of this commodity with an American carrier.

MarAd's marketing representatives continued to inform exporters of the benefits to them of the Domestic International Sales Corporation (DISC) regulations which extend to American exporters tax benefits on freight payments made to U.S.-flag carriers.

See Appendixes XVII and XVIII for tonnage and value of U.S. oceanborne foreign trade 1963-1972.

National Maritime Council

Established just two years ago, the National Maritime Council (NMC) has brought together all elements of the maritime industry—labor unions, U.S.-flag steamship companies, and shipbuilders—in a unified program to advance the U.S. merchant fleet. This program has the express purpose of developing a strong, competitive, modern, American-built, privately-owned and operated U.S. merchant marine, which will afford U.S. importers

and exporters the finest and most efficient ocean transport service in the world.

The Council has brought representatives of labor, industry, and Government together with the management of companies engaged in international trade in a series of unity dinners and seminars to gain shipper support for using U.S.-flag ships. MarAd's Office of Market Development serves as executive secretariat for the NMC.

During fiscal year 1973, the NMC designated a number of leading international distribution executives of foreign-trade companies throughout the country to serve as its Shipper Advisors. They keep the Council informed of the service requirements of exporters and importers.

Cargo Preference Activities

The Maritime Administration is responsible for monitoring the activities of all non-military agencies of the Government under the cargo preference laws of the United States.

PUBLIC LAW 664

MarAd's Cargo Preference Control Center continued its monitoring activities to insure that all United States Government shipper agencies adhere to the Cargo Preference Act (P.L. 664) requirement that at least 50 percent of all Government-impelled cargo be shipped on U.S.-flag vessels, measured not only by tonnage but also by revenue.

A computer-aided system for processing the ocean bills of lading which shipper agencies are required to furnish to MarAd was established. The flow of machine data to the Cargo Preference Control Center commenced in the first half of fiscal year 1973. These data are being tested against the various agencies' own data to determine the completeness of the input of individual bills of lading. Operation of the system is to be taken over by the Center from the system's developer during the first half of fiscal year 1974.

U.S. Department of Agriculture (DOA) and Agency for International Development (AID) shipments continued to make up over 98 percent of all non-military preference cargoes moving under P. L. 664. In the last seven years, there has been a considerable decline in DOA P. L. 480 "Food for Peace" cargoes from the peak year of 1966 when 14 million tons were moved; this trend leveled off in the 1970-1972 period at about 7 million tons annually. Downward movement in agricultural preference cargoes resumed in 1973 as the world price of grain exceeded DOA support levels and grain moved through private channels, rather than

TABLE 5 **U.S.-FLAG CARRIAGE OF GOVERNMENT-SPONSORED CARGOES IN CALENDAR YEAR 1972**

Program		Total Tonnage or Freight Revenue	U.S. Flag	Percent U.S.
Export-Import Bank	Freight Revenue	$67,370,179	$50,445,055	74.9
U.S. Department of Agriculture (P.L. 480)	Long Tons	7,356,310	4,079,249	55.5
Agency for International Development	" "	5,555,897	2,494,567	44.9
Inter-American Development Bank	" "	10,437	6,594	63.2
Tennessee Valley Authority	" "	7,543	4,187	55.5
Peace Corps	" "	562	561	99.8
Commerce	" "	1,698	1,428	84.1
Health, Education & Welfare	" "	531	530	99.8
Interior	" "	6,831	2,564	37.5
State	" "	7,234	5,351	74.0
*General Services Administration	" "	14,333	12,671	88.4
National Aeronautics & Space Administration	" "	513	413	80.5
U.S. Information Agency	" "	5,076	4,405	86.8
Other Agencies	" "	389	312	80.2

* These GSA shipments are in connection with GSA's supply and support program, mainly for AID, and to a lesser extent to the Department of State and other civilian U.S. Government agencies overseas, which programs are funded by these agencies.

under P.L. 480 with its cargo preference requirement.

This reduction in preference cargoes during this period was offset by movements of grain under the shipping agreement between the United States and the U.S.S.R. which opened a new market to U.S. ships by reserving substantial quantities of cargo moving between the two nations for vessels of their national flags (see "International Activities").

However, AID liner shipments declined. Over the years liner shipments have comprised the bulk of the movements under normal AID loans and grants. The decline in the overall percentage of carryings by U.S.-flag vessels was due principally to the movement of bulk petroleum from offshore sources to Vietnam, a trade in which U.S.-flag shipping services were not available. The financing of these cargoes is not a normal AID practice and the return to normal U.S.-flag participation can be expected when it is discontinued.

A recapitulation of U.S.-flag participation in non-military preference cargoes for calendar year 1972 appears in Table 5.

PUBLIC RESOLUTION 17

The Maritime Administration has the responsibility to administer Public Resolution 17 (PR 17), the law reserving all Export-Import (Ex-Im) Bank-generated cargoes for U.S.-flag vessels unless waived by MarAd. Waivers are of two types: general waivers are granted to permit recipient nations to carry up to 50 percent of ocean cargoes if they do not discriminate against U.S.-flag shipping. Statutory waivers are granted when U.S. vessels are not available at reasonable rates and schedules. The agency's policy in administering this requirement is to assure that maximum benefit accrues to U.S.-flag operators and to support the Bank's program to encourage exports at the same time. For example, a partial strike by a seagoing labor union disrupted the availability of U.S.-flag service from Charleston, S.C., to Port Kelang, Malaysia. A waiver was requested on cargo involving a freight revenue of approximately $141,000. MarAd located other U.S.-flag carriers not affected by the strike, and successfully arranged for a carrier not normally serving the South Atlantic to make a special call at Charleston, thus retaining this revenue for U.S.-flag ships.

As part of its efforts to assure efficient shipping procedures under PR 17, MarAd sponsored a series of seminars on this subject in major cities for exporters, freight forwarders, banks, shipping lines and other concerned organizations.

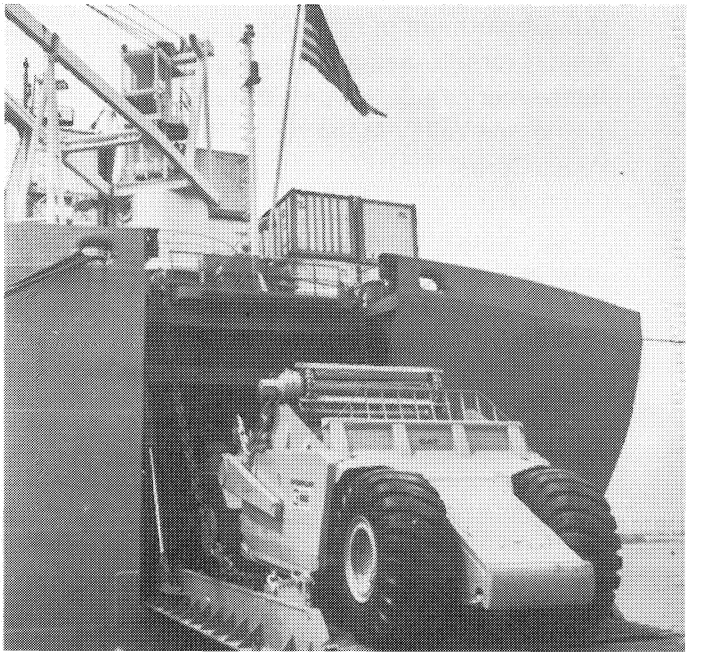
Loans by the Ex-Im Bank to support exports have been expanding at an accelerating pace. The 1972 total of $9.5 billion tripled the amount loaned three years previously. In addition, a newly developed Ex-Im Bank program in which private sources provide financing in cooperation with the Bank often doubles the amount of cargo available to U.S.-flag ships under PR 17.

During the fiscal year, several instances occurred where action by a foreign nation resulted in either potential or actual discrimination against U.S.-flag ships. Consequently, MarAd withheld waivers on shipments covered by Ex-Im Bank credits to these nations. In two cases, the discriminatory action appeared to stem from an effort by the foreign nation concerned to alter its laws to assure greater allocation of cargo to its own fleet. Negotiations were promptly instituted in both cases and satisfactory solutions were achieved.

A policy of the Japan Tobacco Monopoly, an organization licensed by the Japanese Ministry of Finance, has resulted in U.S.-flag ships receiving no leaf tobacco exports from the United States to Japan for more than seven years. The Maritime Administration withheld a general waiver requested by the Japanese Government on shipments of raw cotton under an Ex-Im Bank credit in response to this situation. The Tobacco Monopoly's dicriminatory policy, however, remained unaltered at the end of the fiscal year.

General waivers on cargo to the Philippine Islands continue to be withheld because of discriminatory restraints against U.S.-flag ships resulting from a policy which reserves all Philippine Government-controlled cargoes for Philippine-flag vessels.

A tabulation of U.S.-flag vessel participation in the carriage of Export-Import Bank-generated cargoes by revenue for calendar year 1972 appears in Table 5.



Intermodal Systems

Development and promotion of intermodal transportation systems continued as part of MarAd's efforts to develop a viable merchant marine. MarAd's role in this area of ship operations is mainly promotional and advisory. During the fiscal year the agency's activities were directed at upgrading equipment and system design, improving communications between the various intermodal carriers, promoting increased utilization of intermodal services by shippers and simplifying documentation and information systems.

Protecting the large capital investments of American operators in intermodal ships and associated equipment requires close collaboration by MarAd with many national and international organizations which establish container standards and regulate intermodal traffic. During fiscal year 1973, the agency participated in the preparation of standard specifications and testing procedures for thermal containers (including refrigerated, insulated, semi-insulated and heated types), tank containers (including both liquid and gas types), and platform containers. At the end of the year, the completed standards were under review by the International Standards Organization (ISO) and the American National Standards Institute (ANSI) prior to publication.

In response to reports that container chassis are being damaged by loaded containers, MarAd provided assistance in solving this problem. Acting through committees of ISO and ANSI, new designs were developed to correct this situation.

To assist members of the maritime industry in assessing new technological developments in intermodal transportation, MarAd sponsored three conferences on specific types of containers and processes involved in their transportation. During the year, conferences were held on refrigerated containers, tank containers, and the labelling and marking of containers for information and control. The proceedings of each conference were published. Similar conferences will be held in fiscal year 1974.

MarAd is often called upon to intercede between modal groups in disputes which threaten the growth of intermodal traffic. To fulfill this function, a Rail/Marine Task Force (RAMA) was organized during fiscal year 1973. RAMA works to resolve disputes over container utilization through better communications and cooperation. During the fiscal year, the organization defended ocean carriers against the assessment of prejudicial charges by certain railroads by convincing the Transcontinental Freight Bureau not to impose charges on the movement of empty containers. Because of this action by RAMA, American ocean carriers on Trade Route 29 (U.S.-Pacific/Far East) were able to avoid assessments or charges amounting to an estimated $10.2 million per year.

MarAd co-chairs with the Department of Transportation a task force to develop a Uniform Intermodal Interchange Agreement. When this Agreement is fully adopted by all modal groups, large direct savings to individual carriers are anticipated. U.S. carriers can expect to increase income by $60 million annually as a result of improved per diem accounting and collection procedures. Based on improved control over the maintenance and repair of containers and on an anticipated increase in the lifespan of intermodal equipment, U.S. operators could reduce replacement costs by about $8 million annually.

MarAd also represented U.S. marine interests and developed official U.S. position statements for meetings of intermodal working groups of the United Nations Regional Commissions, IMCO, and UN/IMCO World-Wide Conference on Container Transport during the fiscal year.

Heavy emphasis during the year was placed on identifying new markets for intermodal services. Through the development and use of a computer model, MarAd is endeavoring to assist intermodal carriers in identifying commodities not normally transported by container or barge and in penetrating these hitherto unexplored markets.

In the area of documentation, the agency is playing a key role in identifying ways to eliminate or reduce the complex and often archaic paperwork presently required on intermodal shipments.

Port Development

Directly related to the efficiency and effectiveness of the American merchant marine is the terminal capability of U.S. ports—ocean, Great Lakes and inland waterways. The Maritime Administration provides technical assistance and promotional support to the port industry and individual ports.

TECHNICAL ASSISTANCE

One of the objectives of MarAd's Port Development Program is to provide the port industry generally and individual ports with technical assistance that is unique to the Maritime Administration. To accomplish this, the agency has undertaken a study with the American Association of Port Authorities (AAPA) on port financing methods to determine their adequacy for the future and to assess the need for developing additional sources of funding. Being concluded at the year's end was a preliminary survey of current U.S. port financing methods, port management practices in other countries and selected Federal assistance programs for the transportation industry whose rationale might be applicable to U.S. port needs.

As part of the marketing assistance MarAd makes available to American ports, an integrated computer bank of data on commodity flows and terminal facilities is being designed to develop a national port statistics capability. In turn this could lead to the establishment of a system of uniform port statistics and the development of various port traffic simulation models.

There are several port industry problems which are beyond the reach of the port industry itself that lend themselves to MarAd involvement because of the agency's unique expertise. One of these problems is the development by the National Bureau of Standards of basic wind loading data, presently not available, to assist in building hurricane-resistant structures at ocean ports located in the hurricane-prone areas along the Gulf and South Atlantic Coasts.

The Maritime Administration also acts as technical port consultant to the Economic Development Administration (EDA). Since 1965, EDA grants and loans for port-related public works have totaled over $100 million. MarAd analyzes applications from ports and furnishes EDA with comments on the technical and economic feasibility of proposed improvement projects.

PORT PROMOTION

MarAd's port promotion program is directed toward improving the working relationship between the Government and the U.S. port industry and to articulating the economic importance of continuing port development to meet increasingly rapid changes in transportation technology.

To establish a new and more open relationship with the U.S. port industry concerning the direction and contents of the Federal port program, a major conference was held in December 1972 between the Department of Commerce, MarAd, and officers of the AAPA. As a result of this meeting, MarAd has created a new communications organ entitled *Highlights of MarAd Port Activities* to keep industry members apprised of the key elements of the Government's port promotional and technical programs.

The agency is publishing a new brochure entitled *U.S. Ports—Serving World Trade and Shipping* which will highlight the economic contributions of American ports, as well as address the port role of MarAd. A new reference bibliography, *Port Information Sources,* was compiled to provide the port industry with the most up-to-date references covering all aspects of port development and operation.

MarAd serves as technical consultant to the National Oceanic and Atmospheric Administration (NOAA), which implements the Coastal Zone Management Act of 1972. The agency is working with NOAA to ensure that the port industry is represented on a 15-member Coastal Zone Management Advisory Committee.

Under the authority of the Water Resources Planning Act of 1965, the Maritime Administration, as a member of the Department of Commerce Water Resources Coordinating Committee, is responsible for the preparation of the marine elements of comprehensive river basin studies, regional bay studies and deep-draft regional port studies, which have been undertaken for all three ocean coasts of the U.S. These studies are designed to explore the best uses of water and related-land facilities and resources to meet present and long-range needs for safe, efficient, and adequate water transportation consistent with other national and regional objectives.

PORT R&D

The Maritime Administration has conducted technical and economic studies aimed at encouraging private development of deepwater oil terminals in U.S. waters. This effort grew out of this Nation's increasing need to import large quantities of oil, which can be accomplished most economically with very large tankers requiring deep-draft terminals, which are not presently available in the United States.

The agency's efforts are directed toward development of a large, economically viable offshore terminal facility design that will be ecologically safe.

Chapter 5

Pollution Abatement

During fiscal year 1973, the Maritime Administration continued its efforts at both the national and international levels to control ship-generated pollution.

As a result of litigation brought against the Maritime Administration (Civil Action No. 2164-72) the agency prepared a detailed Environmental Impact Statement (EIS) and Economic Viability Analysis (EVA) on the ships covered by its tanker construction program. After all comments were reviewed and public hearings held, the *Final Environmental Impact Statement on the Maritime Administration's Tanker Construction Program* was submitted to the Council on Environmental Quality.

As part of an inter-agency effort, the Maritime Administration provided data to the Federal Power Commission (FPC) for an Environmental Impact Statement on the importation of liquefied natural gas to Staten Island, N.Y., from Algeria.

Of major significance was the agency's membership on the U.S. task group to formulate the Nation's positions on the Draft International Convention for the Prevention of Pollution from Ships. The United States' positions were formulated for presentation at the Intergovernmental Maritime Consultative Organization (IMCO) conference on marine pollution held in October 1973 in London, England.

The objective of the conference was to reach an international agreement, whereby the member nations will, by 1975, if possible, but no later than 1980, achieve the complete elimination of intentional pollution of the oceans by oil and other noxious substances and the minimization of accidental pollution.

In preparation for the conference, nine studies were undertaken by member nations. Each study was conducted by a specific country with other nations furnishing support information.

U.S./U.S.S.R. Agreement

Based on the U.S./U.S.S.R. Agreement on Cooperation in the Field of Environmental Protection, the first meeting of the Joint Working Group on Marine Pollution from Shipping was held at the U.S. Coast Guard Academy in New London, Conn., in May 1973. Participating with the Maritime Administration were the U.S. Coast Guard, Environmental Protection Agency, and the U.S. Army Corps of Engineers. The U.S.S.R. was represented by the Ministry of Merchant Marine. A program of mutual cooperation was developed for future joint efforts in the control of ship-generated pollution.

Research and Development

Load-on-top (LOT) is a tanker operating procedure designed to reduce the amount of oily wastes, resulting from dirty ballast and cargo tank cleaning requirements, discharged to the sea. LOT requires a relatively long voyage time to effect the natural separation of oil from water by gravity, and, despite the major pollution reduction achieved by ships employing LOT, the practice is not completely effective in meeting international oil discharge standards. A study was prepared for MarAd which developed oil concentration profiles of dirty ballast, clean ballast and slop tanks for several different crude oils. This data is being applied to determine optimum ballast handling procedures and requirements for additional treatment.

A study was also completed which quantifies the generation and disposal of oil and chemical pollutants aboard tankers.

Improving the effectiveness of the LOT procedure as a pollution-abatement method requires the development of an effective means of separating oil and water, as well as a device to monitor

the oil content of overboard discharges to insure that the separator system is working properly. During the year, a design was developed for a 400 gallon-per-minute on-board oily water separator which has high potential for meeting shipboard requirements. A prototype of the separator is being constructed and will be extensively tested during the next year, both at the National Maritime Research Center, Galveston, Tex., and aboard a tanker.

The development of an instrument to monitor oil content of ballast water discharges from tankers was completed. A project was initiated to improve the performance of this device.

An evaluation of present tank cleaning techniques, as well as the effectiveness of cleaning agents was also initiated by the agency. Since ballast carried in clean tanks may normally be discharged without restriction, improving the efficiency of the tank cleaning operation will reduce the overall quantity of oil discharged in the course of deballasting.

Reception Facilities

Working jointly with interested Government and industry organizations, MarAd has developed an R&D program aimed at solving the problems of disposing of ship-generated oily wastes in port areas. Feasibility studies on two types of waste treatment systems applicable to harbor areas were completed during the year. One of the studies defines requirements, systems and costs of providing shoreside reception facilities for oily wastes, using nine U.S. ports as examples. The study can be used by any port as a guide for developing facilities to handle its unique requirements.

The other study analyzed the possibility of using Liberty Ship hulls as floating waste treatment plants. Several port administrations are developing and customizing the concept to their particular needs in preparation for the development of prototype systems.

In addition, MarAd is converting a U.S. Navy surplus fuel farm into a demonstration oily waste disposal facility. This installation will be leased to a port authority and operated by a private firm. The necessary Environmental Impact Statement covering this pilot installation has been drafted and circulated, and at the end of the fiscal year comments were being reviewed for incorporation into a final Environmental Impact Statement.

Domestic Waterways

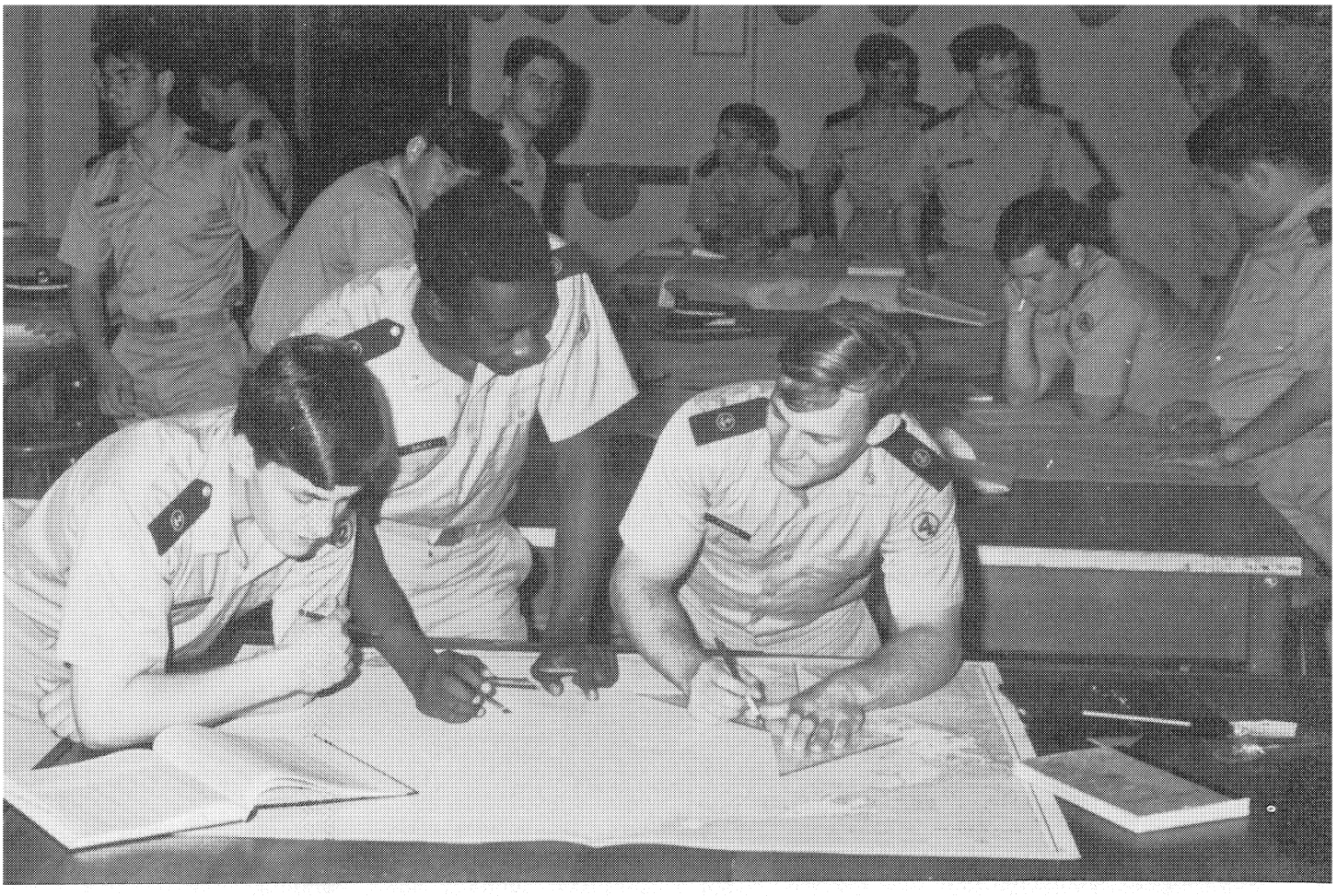
The date for the implementation of certain U.S. Coast Guard regulations dealing with pollution-avoiding construction standards was delayed, at MarAd's request, to evaluate their economic impact on freight rates. A joint MarAd/Coast Guard tank-barge study was initiated to assess the relative construction and life-cycle costs of various inland tank barge designs, examine liquid cargo spills and hull damage records of existing barges, and to investigate additional economic factors influencing the cost of water transportation which relates to tank barge design.

A study of alternative inland-barge designs, to reduce pollution from inland marine operations also was undertaken by MarAd and the U.S. Coast Guard. It will survey possible design changes in barges, such as the installation of double walls and bottoms; their efficiency in preventing spills of petroleum and other hazardous cargoes; and the economic impact they would have on barge operations.

A research prospectus which reviews the present status of marine pollution problems on the Great Lakes and their relation to merchant ships was prepared for MarAd. The reports included a summary of municipal laws, State laws, EPA regulations implementing the Water Quality Act of 1970, other Federal laws and Canadian legislation which regulate waste disposal on vessels operating in the Great Lakes.

Discussions with a Lakes operator were initiated during the year to implement a program to improve sanitary waste handling aboard Great Lakes ships with work expected to commence in fiscal year 1974.

(Below) The U.S. Coast Guard is experimenting with floating oil barrier to retain and recover offshore oil spills. In these tests, non-toxic, biodegradable soybean oil is used in place of crude oil.




SAFETY
BELTS
MUST BE
WORN

Chapter 6

Maritime Manpower

Seaman Training

During the fiscal year, the Maritime Administration's radar, gyro and loran training program experienced its largest enrollment since its beginning 15 years ago, following the ANDREA DORIA-STOCKHOLM collision. The program is conducted by each of the agency's region offices, which have their own training facility. In fiscal year 1973, a total of 2,635 seamen received collision avoidance, radar, and navigational-aids training in the region schools. This represents a 17 percent increase over fiscal year 1972. In addition, 1,464 seamen completed the fire-fighting and damage-control courses sponsored by the Maritime Administration and the Military Sealift Command.

Industry training facilities sponsored by management and certain labor unions to serve their individual constituencies continued to deemphasize training exclusively directed toward preparing men for original officers' licenses due to the employment decline and general over-supply of men in the active workforce. A total of 64 men obtained their original deck or engineering officers' licenses through industry training facilities or self-study. In the unlicensed seamen's group, 585 trainees were graduated for entry ratings in offshore and inland waters. A total of 275 seamen upgraded their ratings during the period.

Merchant Marine Academy

The United States Merchant Marine Cadet Corps was established on March 15, 1938, following passage of the Merchant Marine Act of 1936. Training was first given aboard merchant ships and later at temporary shore establishments pending the acquisition of permanent facilities. The Walter P. Chrysler estate at Kings Point, N.Y., was selected as the permanent site for the Academy in March 1942 and construction was begun the following May. The task was completed and the United States Merchant Marine Academy was dedicated on September 30, 1943.

The Academy offers courses not only in marine sciences, but also in the areas of oceanography, computer science, nuclear engineering, naval architecture, mathematics, chemistry, social sciences, the humanities, business administration and transportation. In addition to classroom training, midshipmen also spend a year at sea on American-flag vessels.

A total of 97 third mates, 73 third assistant engineers and 26 officers with dual training for third officers—deck/engine were graduated from the Academy in June 1973. The 26 graduates with dual training were the fifth class to complete this curriculum. In addition to their licenses all graduates received a Bachelor of Science degree and, if qualified, a commission as Ensign in the U.S. Naval Reserve. During the year the Federal Academy had an average enrollment of 875 students.

State Maritime Schools

A total of 142 third mates and 160 third assistant engineers were graduated from the six State maritime academies located at Vallejo, Calif.; Castine, Me.; Buzzards Bay, Mass.; Traverse City, Mich.; Fort Schuyler, N.Y.; and Galveston, Tex. In addition to their licenses all graduates received a Bachelor of Science degree (Associate of Science degree at the Michigan academy) and, if qualified, a commission as Ensign in the U.S. Naval Reserve.

During the year, the six State schools maintained an average enrollment of about 1,700 students, most of whom received a Government allowance of $600 per year toward the cost of uniforms, textbooks, and subsistence.

During fiscal year 1973, $978,400 of Federal assistance was provided to the six State maritime schools for maintenance and repair of their school ships.

Labor Data

Average seafaring employment during the year declined approximately 1.6 percent as compared with the 1972 fiscal year normal monthly average of 27,075 (see Table 6). The reduced average seafaring employment reflects the impact of a 41-day strike by ships' deck officers that immobilized 40 ships of five major Pacific Coast companies. The strike resulted in 1,263 ship-days and 63,554 man-days of lost productivity. Additionally, the active oceangoing U.S.-flag merchant fleet experienced a net decline of 27 ships during the fiscal year which further reduced the number of available jobs.

The total workforce in selected commercial shipyards increased by 2.3 percent. Average longshore employment rebounded in fiscal year 1973 with an 11.6 percent increase from the previous 11.5 percent decline brought on by extended work stoppages in Atlantic, Gulf, and Pacific Coast ports during the previous year (see Table 6).

Labor Relations

At the beginning of fiscal year 1973, tentative accords had been reached on new seafaring labor contracts with all unions except ships' deck officers. Prolonged negotiations collapsed in late October 1972 resulting in the 41-day work stoppage at Pacific Coast ports. The contract accord reached with Pacific Coast operators was subsequently submitted to Atlantic and Gulf Coast operators whose agreement was obtained without incident.

Expiration of shipyard labor contracts caused a nine-day work stoppage at the five Bethlehem Steel Corp. shipyards located in Boston, Mass.; New York, N.Y.; and Baltimore, Md. The Bethlehem facility at Beaumont, Tex., was also idled for four days before a labor agreement was reached. Maryland Shipbuilding & Dry Dock Co., Baltimore, Md., was immobilized for a 91-day period before agreement on a new contract was reached.

The longshore industry was subjected to varying stoppages for periods of two to three days at Honolulu, Hawaii, and San Juan, P.R., on issues associated with contract negotiations; and periods of five and seven days at San Juan, P.R., and Norfolk, Va., on issues concerning income guarantees.

The United States experienced unprecedented worldwide demand for agricultural exports during the year placing severe strains on internal distribution and port facilities. The exporting of the grain was further complicated when a major grain loading elevator located at Houston, Tex., was struck for 30 days by longshore workers in a pay dispute.

TABLE 6 MARITIME MANPOWER DAILY AVERAGE EMPLOYMENT

Type	Normal Daily Average 1972	1973
SEAFARING		
Shipboard Jobs	27,075	26,633
SHIPYARDS [1]		
Production Workers	63,561	64,251
Management & Clerical	15,954	17,137
Total, Shipyard Workforce	79,515	81,388
LONGSHOREMEN	57,971	64,708

[1] Commercial yards able to construct ships 475 by 68 feet.

Merchant Marine Awards

The Merchant Marine Medals Act of 1956 authorizes the Secretary of Commerce to grant medals and service ribbons, under certain conditions, to seamen for meritorious actions or participation in national defense efforts.

A Merchant Marine Meritorious Service Medal was awarded to Robert Lewis for his heroic actions following a collision between his vessel, the SS GULFSUPREME, and a barge being pushed by the tug KATE MALLOY on the Mississippi River, December 25, 1967.

Theodore F. Zieser was awarded the Merchant Marine Meritorious Service Medal for his participation as a crew member on the SS ANNISTON VICTORY in the successful rescue of two pilots from a downed U.S. Air Force plane in the Luzon Straits, Philippine Islands, on February 26, 1968.

The Vietnam Service Bar was authorized for 276 seamen during the year.

The Maritime Administration acts as the Secretariat of the American Merchant Marine Seamanship Trophy Committee. Comprised of Maritime Administration, U.S. Coast Guard, industry, labor and management officials, the Committee determines the recipient of this award. Captain George L. Hollinger, Master of Pacific Far East Lines' SS JAPAN BEAR, was awarded the 1973 trophy for his distinguished seamanship in the successful rescue of 32 survivors from the sinking Korean-flag vessel MV DONG BANG on December 30, 1972.

National Security

In addition to carrying U.S. foreign and domestic commerce, the American merchant marine provides logistic support to the military services during national emergencies by transporting military goods, personnel and materials. During peacetime, the merchant marine also serves as a major supply link in the U.S. defense network around the world.

Reserve Fleet

The Maritime Administration maintains the National Defense Reserve Fleet (NDRF) to provide a sizable group of merchant ships for military operations or commercial shipping crises. The size of this fleet since it was established in 1945 is shown in Table 7.

The fleet consists of vessels moored at three sites: James River, Va.; Beaumont, Tex.; and Suisun Bay, Calif.

On June 30, 1973, 541 ships were moored in the three NDRF locations (see Table 8). This included 34 ships which had been sold but not yet delivered. During the year 15 ships were placed in the fleet and 141 were withdrawn.

The number of ships in the fleet preservation program decreased from 356 to 325 during the year. The preservation program (including conventional preservation, dehumidification and cathodic protection) established for the remaining retention ships progressed satisfactorily.

The phase-out of the Mobile, Ala., fleet was accomplished on April 30, 1973, as scheduled. Representatives of the Governor of Alabama accepted custody of 15 ships. These ships will stay at anchor in the Tensaw River under the protective custody of the State of Alabama's Department of Conservation and Natural Resources until such time as several southern States complete their plans under Public Law 92-402 for sinking the ships in the Gulf of Mexico for use as artificial reefs for the conservation of marine life.

The Suisun Bay Reserve Fleet completed reorganization of its preservation crews by converting from a departmentalized concept to a full generalized concept. Employees were trained in all phases of preservation under a rotation plan, in which each employee was moved from crew to crew to engage in each type of preservation performed in the fleet.

In October 1972, the Suisun Bay fleet completed installation of a totally self-contained waste-removal system, preventing the discharge of any effluent into local waters.

Repairs to the barrier boom at the southern extremity of the Suisun Bay fleet, which prevents ships from breaking loose and drifting into the highway and railroad bridges across the straits, were completed in July 1972.

MATERIAL CONTROL

Marine equipment from the NDRF valued at $262,132 was loaned to steamship operators and Government agencies during the year. At the end of the year, equipment valued at $222,632 was on loan. Warehouse inventories at the end of the year were valued at $4,290,000.

With the closing of the Mobile, Ala., fleet, approximately $201,415 of its fixed assets were transferred to other Central Region activities, including the Beaumont Reserve Fleet, National Maritime Research Center at Galveston, Tex., and the Texas Maritime Academy (TS TEXAS CLIPPER), as well as operating supplies valued at $11,826 to the Beaumont facility.

REACTIVATION PROGRAM

During fiscal year 1972 MarAd embarked on a program to examine and evaluate techniques of rapidly and economically bringing Victory Ships, laid up under dehumidified preservation systems in the NDRF, to a ready-for-service on-berth

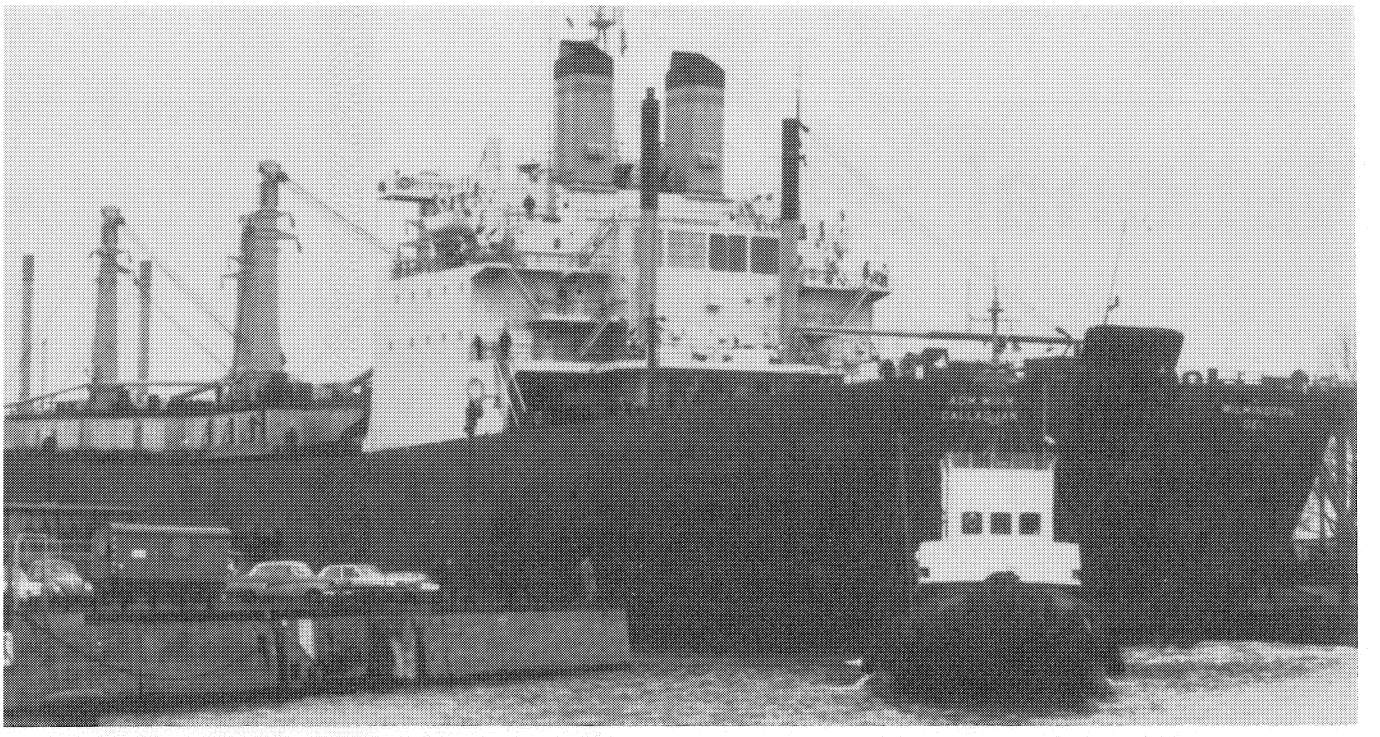


TABLE 7 NATIONAL DEFENSE RESERVE FLEET 1945–1973

Dates (fiscal years)	Total Ships in Fleets	Dates (fiscal years)	Total Ships in Fleets
1945	5	1960	2,000
1946	1,421	1961	1,923
1947	1,204	1962	1,862
1948	1,675	1963	1,819
1949	1,934	1964	1,739
1950	2,277	1965	1,594
1951	1,767	1966	1,327
1952	1,853	1967	1,152
1953	1,932	1968	1,062
1954	2,067	1969	1,017
1955	2,068	1970	1,027
1956	2,061	1971	860
1957	1,889	1972	673
1958	2,074	1973	541
1959	2,060		

TABLE 8 SHIPS IN RESERVE FLEETS AS OF JUNE 30, 1973

Fleets	Retention	Scrap and Cannibalization	SP [1]	Total
James River, Va.	130	65	4	199
Mobile, Ala.	—	15 [2]	—	15
Beaumont, Tex.	52	21	1	74
Suisun Bay, Calif.	143	107	3	253
Total	**325**	**208**	**8**	**541** [3]

[1] Special Projects.
[2] Custody accountability of 15 Liberty ships transferred to State of Alabama pending compliance with PL 92-402 (artificial fish reef program).
[3] Excludes 34 ships sold for scrap but not delivered.

status. Full consideration was given to the maintenance, repair, reconditioning and betterment of the 123 Victory ships presently moored in the three active fleet sites.

The program was concluded at the end of fiscal year 1973 by which time 60 Victory Ships had been surveyed. The survey produced a breakout sequence for each fleet, complete reactivation and repair specifications, gear teeth impressions and audio gage readings for each ship. With this advance information, the process of activating Victory Ships from the NDRF, if necessary, could be accomplished at minimal cost and in the least time possible.

SHIP SALES

MarAd is authorized to sell vessels from the NDRF that are no longer required for national emergency purposes. The vessels may be sold only for scrapping or non-transportation use. The agency can also transfer vessels from the fleet to any Government agency and charter vessels to private companies when privately owned U.S.-flag ships are not available for charter at reasonable rates.

Sixty-one Liberties and 82 non-Liberties from National Defense Reserve Fleet anchorages were sold for scrap or nontransportation use during the year for an aggregate return of $12,594,357.27 to the Government.

Additionally, 10 non-Liberty ships from non-fleet locations were sold for scrapping or non-transportation use yielding income of $908,245.78 during 1973.

In summary, 153 Government-owned ships were sold during the year for a return of $13,502,603.05. From 1958 through 1973, a total of 2,015 have been sold for scrap or nontransportation use for a total return of $128,623,456.76.

War Risk Insurance

The war risk insurance program, administered by MarAd, insures operators and seamen against losses as a result of hostile actions under circumstances in which commercial insurance is not available. During the fiscal year, the Maritime Administration continued to administer war risk and certain marine and liability insurance programs authorized by Title XII of the Merchant Marine Act, 1936, as amended.

As of June 30, 1973, outstanding binders, covering shipowners from the time commercial war risk insurance terminates until 30 days after the outbreak of war involving the major powers, included 1,100 for war risk hull insurance, 1,039 for war risk protection and indemnity insurance, and 779 for war risk insurance of crew life and personal effects. From the inception of the binder program in 1952 to June 30, 1973, binder fees have totaled $1,092,818, and expenses have aggregated $904,974, of which $413,940 was paid as fees and expenses to the underwriting agent appointed by MarAd to process the binders.

War risk builder's risk insurance for the pre-launching construction period was written on 159 ships from the inception of the program in 1953 through June 30, 1973. Premiums totaled $3,423,630. From October 1962 through June 30, 1973, 52 policies were issued for war risk builder's risk insurance for the post-launching construction period, each with a service fee of $75, and each subject to attachment and premium assessment upon the automatic termination of commercial insurance resulting from outbreak of hostilities.

A standby war risk cargo insurance program was continued, which becomes effective when the Assistant Secretary of Commerce for Maritime Affairs finds that insurance adequate for the needs of U.S. waterborne commerce cannot be obtained on reasonable terms and conditions. Commercial underwriting agents are employed to write this insurance and on June 30, 1973, 38 were under contract.

At the request of the Navy, war risk insurance was provided without premium charge but on a reimbursable basis for losses incurred, as authorized under Section 1205 of the 1936 Act. During the fiscal year, insurance coverage in effect was as follows:

(1) Second seamen's war risk insurance was provided for the crews of 12 Government-owned tankers operated for the account of the Military Sealift Command (MSC).

(2) Second seaman's war risk insurance was provided on one privately owned U.S.-flag vessel and its crew while under bareboat charter to MSC.

(3) Second seamen's war risk insurance was provided for the crews of 91 privately owned U.S.-flag tankers and dry cargo vessels chartered to MSC. The coverage provided was limited to the "Vietnam Combat Zone," referred to by commercial underwriters as an additional premium trading area.

Net premium savings to the Department of the Navy under the first two programs from their inception in 1954 and 1964, respectively, to June 30, 1973, was estimated at $1,298,265 after deducting claim payments of $110,740. New premium savings to the Navy under the third program, from its inception in 1968, to June 30, 1973, was estimated at $5,198,928 after deducting claims payments of $56,401.

Under section 1208(a) of the 1936 Act, money in the War Risk Insurance Revolving Fund may be invested in securities of the United States or in securities on which the United States guarantees principal and interest. Since 1962, when the initial investment was made, interest earned has totaled $2,013,019.

Marine Insurance

During fiscal year 1973, MarAd continued to self-insure Government-owned ships. Claims outstanding of a marine and war risk insurance nature totaled 202, having an estimated settlement value of $3,500,000. Of this number, 161 marine protection and indemnity claims involved operations in Vietnam, with an estimated reimbursement value from commercial insurance (in effect during the Vietnam buildup) amounting to $3,240,000.

On September 22, 1972, the requirement for mortgagee insurance, which provides coverage when marine policies are invalidated, was cancelled. Previously, unsubsidized shipowners with vessel mortgages insured under Title XI were required to carry this type of insurance. During the 10-year life of this policy, operators paid approximately $2.5 million in premiums without a loss reported.

The Maritime Administration determines whether the insurance placed in commercial markets by mortgagors of ships on which the Government holds or insures mortgages, by charterers of Government-owned ships, and by sub-

TABLE 9 **MARINE AND WAR RISK INSURANCE APPROVED FISCAL YEAR 1973**

Kind of Insurance	Total Amount	Percentage	
		American	Foreign
Marine Hull	$2,672,860	66	34
Marine Protection and Indemnity	$2,547,220	41	59
War Risk Hull	$2,568,240	18	82
War Risk Protection and Indemnity	$2,579,650	18	82

sidized vessel operators, complies with contract requirements. Table 9 details the insurance amounts approved during fiscal year 1973.

MARAD/Navy Projects

In the continuing effort of the agency to work with industry and other Federal agencies, a joint Maritime Administration and Department of the Navy working group was established to determine design requirements necessary to facilitate underway refueling of naval vessels by merchant ships. As a result, a jointly designed astern refueling rig was completed in time to be incorporated in the 14 tanker construction contracts signed in June 1973.

Another MarAd/Navy working group is engaged in developing reliable and rapid radio communications systems between naval and merchant vessels.

After extensive study and coordination with MarAd, the Navy has established a new Naval Reserve Program designed to revitalize the Merchant Marine Naval Reserve.

Merchant ships on charter to the Navy as of June 30, 1973, had a total crew complement of 2,617. This compares with 4,693 as of June 30, 1972, the reduction being in connection with the Vietnam phase-down.

A Unified Seapower Symposium was held at San Diego, Calif., on January 18, 1973. Attended by more than 200 officials of MarAd, Navy, Coast Guard, steamship companies and related firms, the symposium centered on ways to foster closer cooperation between the Navy and the U.S. merchant marine.

Emergency Readiness

Plans for continuity of operations under all national emergency contingencies were maintained in a state of readiness. Existing plans and procedures were amended to incorporate changes in national policy and program emphasis. A revised emergency staffing plan was implemented to conform with new regulations and concepts which govern the criteria for executive and support personnel response to emergency requirements. Internal procedures were revised to reflect changes in national alert and warning systems. Special studies were conducted to determine the adequacy of MarAd's emergency operating facilities and equipment, and substantial improvement was made in their operational capability. Key emergency operating and logistic functions continued to receive close attention for ready response.

The Maritime Administration continued to furnish guidance and assistance to U.S. port entities in developing and updating port emergency plans and procedures. Plans for dealing with port disaster situations, particularly those in the hurricane and earthquake belts, were strengthened. In this respect, special studies were conducted in port reconstruction, emergency communications, and local losses in power and fresh water supplies. MarAd's disaster assistance program was maintained and staffed at normal readiness levels.

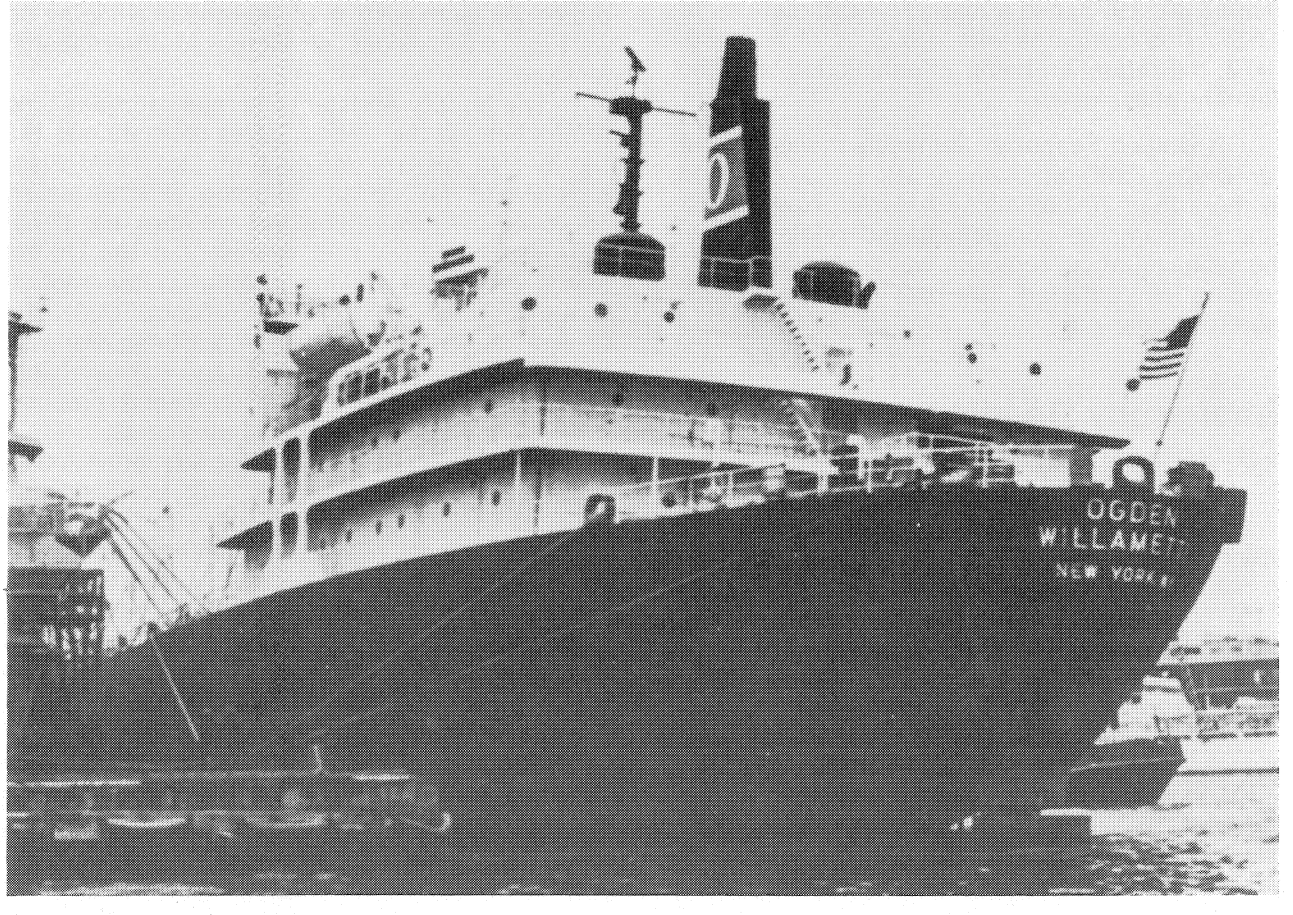
MarAd participated in frequent tests and exercises throughout the year to assess the effectiveness of emergency plans at the international, national and regional levels. Activities included a NATO-wide exercise for control and protection of merchant shipping and local testing of emergency communications systems. Operating plans for assessing nuclear weapon damage were updated. Agency representatives participated in interagency studies of nuclear attack models and their probable effects on selected emergency resources categories. Staff members assisted the Department of the Navy and NATO naval commands in the review and revision of military plans for the protection and control of merchant shipping in wartime and periods of increased international tension.

The Deputy Assistant Secretary for Maritime Affairs headed the United States delegation to the twenty-fifth plenary meeting of the NATO Planning Board for Ocean Shipping (PBOS) which convened in London, England, on April 10, 1973. During the year, MarAd represented the United States on PBOS working groups on the reorganization of the Defense Ship Authority (DSA), the control of neutral shipping in wartime, war risk insurance for merchant ships, and the establishment of a NATO agreement for sealift procurement to meet U.S. military requirements.

The executive reserve program continued as an integral part of MarAd's emergency executive staff plan. No significant changes were made in its organizational composition or position allocation. Plans were drafted and schedules were set for conducting training sessions for reservists in each region during the spring of 1974. Revised regulations issued by the Office of Emergency Preparedness for administration of the executive reserve program were implemented.

National Shipping Authority Orders were reviewed and revised during the year to reflect current conditions and the lessons learned during the Vietnam sealift. Publication of the amended orders is scheduled for fiscal year 1974.

(Right) Assistant Secretary Blackwell signs guest register at Maritime Museum in Odessa, U.S.S.R., during U.S./U.S.S.R. maritime negotiations in May 1973 (Below) OGDEN WILLAMETTE was first U.S.-flag vessel to deliver grain to Soviet Union under 1972 U.S./U.S.S.R. Maritime Agreement.



Chapter 8

International Activities

Fiscal year 1973 saw unprecedented U.S. participation in international maritime activities, including an historic agreement with the U.S.S.R. There were important missions to Brazil, Japan, Thailand, and Venezuela, as well as significant contributions to other international meetings such as those of the Intergovernmental Maritime Consultative Organization (IMCO), United Nations Conference on Trade and Development (UNCTAD), United Nations Economic Commission for Asia and the Far East (ECAFE).

U.S./U.S.S.R. Agreement

A landmark Maritime Agreement with the Soviet Union was signed October 14, 1972, by then-Secretary of Commerce Peter G. Peterson and the Minister of Merchant Marine of the Union of Soviet Socialist Republics, Timofey B. Guzhenko. By providing a broad framework and a clear set of ground rules for maritime activities between the two countries, this agreement which remains in force until December 31, 1975, is an important step toward normalizing and expanding maritime and commercial relationships between the two nations.

The negotiations which culminated in the agreement were initiated in the latter part of 1971, and were the subject of a series of meetings in Washington and Moscow throughout 1972.

The agreement has two basic objectives: 1. To establish channels of maritime commerce between the two nations by opening major U.S. and Soviet ports to each other's ships. 2. To provide each nation's merchant fleet the opportunity to participate equally and substantially in the carriage of all cargoes moving by sea between the two countries.

Under the agreement, 40 specified ports in each nation are open to vessels of the other on four days' advance notice. The four-day notice provision represents a relaxation of the requirement—still applicable to other ports—that permission to enter must be requested 14 days in advance. This port access agreement applies to U.S.- and Soviet-flag commercial vessels and maritime training ships. The selection of ports was based on commercial considerations, reasonable reciprocity, and protection of national security interests.

The agreement stipulates that the national-flag fleets of the U.S. and U.S.S.R. will each have the opportunity to carry at least one-third of all cargoes moving by sea between the two countries, including cargoes transshipped via third countries.

The remaining one-third of the cargo movement is available to ships of all nations.

The opportunity for carriage of equal and substantial shares of the trade between the two nations by national-flag ships is assured by the routing of controlled cargoes, i.e., cargoes with respect to which entities of either government have the power to designate the carrier. On the U.S. side, this includes only those cargoes which are subject to U.S. Government control under the cargo preference laws. On the Soviet side, all exports and imports for which entities of the U.S.S.R. have, or could have, the power at any time to designate the carrier are included.

In May 1973, a U.S. delegation travelled to Moscow for negotiations aimed at clarifying and amplifying the Maritime Agreement. The delegation, headed by Assistant Secretary Blackwell, succeeded in obtaining new pacts which, among other things, provided:

(1) Higher rates for U.S.-flag vessels engaged in the carriage of agricultural bulk commodities from the U.S. to the Soviet Union after June 30, 1973;
(2) Clarification of the terms under which U.S. and Soviet ships may participate in common carrier liner service between the two nations;
(3) For meetings between U.S. marine in-

surance underwriters and Soviet officials responsible for cargo insurance to discuss the participation of American firms in insuring U.S./U.S.S.R. cargo movements.

U.S./U.S.S.R. Exchange

Coordinating the interests of the Departments of State and Transportation and the U.S. Army Corps of Engineers, the Maritime Administration arranged an international exchange of information and views pertinent to the technological, geographical and operational aspects of inland waterways transportation in this country and in the Soviet Union.

In June 1973, a team of American inland waterways experts (from both Government and industry) toured the Soviet river transportation system. Co-sponsored by MarAd and the Department of Transportation, the tour was part of a cultural exchange program arranged by the U.S. Department of State. A similar delegation from the Soviet Union toured the United States in 1972. The specific areas of interest to the American delegation were national waterways planning, port and waterway facilities, vessel operations, aids to navigation and company management.

Shipping Attachés

MarAd provides Shipping Attachés at five United States Embassies: London, Paris, Rome, Tokyo, and Caracas.

The London attaché represented American interests at many meetings of IMCO, which is headquartered there. In addition, he provided MarAd with on-the-spot reporting on the changes during the year in the British shipbuilding industry, as well as providing in-depth data on the financing and insurance of ships.

The attaché assigned to Paris has been assigned the key role in the market development efforts in Europe and has contacted many companies in conjunction with the sales staffs of the American-flag lines. The Paris attaché made two trips to the Soviet Union to participate in talks on the U.S./Soviet Maritime Agreement.

MarAd's attaché in Rome inspected the scrapping of surplus NDRF vessels in Spanish and Yugoslav yards and visited Ghana in conjunction with MarAd's market development program. He also accompanied the members of the Commission on American Shipbuilding on their official tour of European yards.

Ship construction expertise is especially important in the duties of MarAd's Tokyo attaché. During the past year he maintained close contact with every major yard in Japan, and was the first American to call attention to the plans of Korea to develop a shipbuilding industry. He was on hand for critical talks with Thai officials which resulted in their dropping plans which would have made LASH service to that country uneconomic.

South American nations are moving rapidly to bilateralism in ocean shpping, and the Caracas attaché helped protect American interests in seven countries during fiscal year 1973. The usual procedure has been for a country to enact cargo preference legislation and then for American lines and MarAd to negotiate so that American-flag vessels get treatment equal to that of national-flag vessels.

International Meetings

The emergence of new technology in shipping has created problems in some countries which object to change. In some instances this resistance has been on the part of labor. In others, it has been the fear of competition to national-flag steamship lines. MarAd participated in several diplomatic initiatives in this respect, and the agency worked closely with an American-flag line, initiating LASH service, to secure friendly treatment in nations that had previously been reluctant to allow the start of such innovative services. The service began at the end of the fiscal year without incident.

In addition to various bilateral talks, the Maritime Administration participated in 50 international conferences during fiscal year 1973, most of which were under the auspices of IMCO. One of the most significant topics considered was marine pollution abatement. Other important meetings dealt with maritime safety and prevention of collisions, ship design and equipment, subdivision and stability, radio communications and maritime satellites, standards of training and watchkeeping and facilitation.

MarAd representatives participated in meetings of the Organization for Economic Cooperation and Development (OECD) groups, including those of the Maritime Transport Committee and the Working Party of the Council on Shipbuilding.

A representative of the agency attended the meeting of UNCTAD concerned with liner conference practices.

Container transport was the topic of two conferences of the Economic Commission for Europe (ECE), a United Nations organization, and at another session inland water transport was reviewed.

At meetings of the Economic Commission for Asia and the Far East (ECAFE), held in Bangkok, MarAd representatives took an active part in the discussions of the Working Party on Technical and Operational Aspects of Asian Shipping Development and of the Transport and Communications Committee.

Chapter 9

Administration

Maritime Subsidy Board

The Maritime Subsidy Board, by delegation from the Secretary of Commerce, exercises the authority vested in him to award, amend and terminate subsidy contracts for the operation and construction of vessels. The Board's functions are implemented through fact-finding investigations, compilation of domestic and foreign trade statistics and cost data, and public hearings. Decisions, opinions, orders, rulings and reports of the Maritime Subsidy Board are final unless the Secretary of Commerce, on his own motion or pursuant to a petition filed by an interested party, undertakes review of its action. Final actions by the Secretary may be appealed to the Federal courts.

The Assistant Secretary for Maritime Affairs, as *ex officio* Maritime Administrator, is Chairman of the three-member Maritime Subsidy Board, which also includes the Deputy Assistant Secretary and the General Counsel of the Maritime Administration. The Secretary of the Maritime Administration acts as an Alternate Member, in the absence of any one of the three permanent members.

In fiscal year 1973, the Board convened 48 formal meetings in which it considered and acted on some 491 items, including the issuance of 34 formal opinions, rulings and orders. It also published 102 notices in the *Federal Register* pertaining to subsidy applications subject to required statutory hearings and the development and adoption of rules and regulations proposed by the Board in the implementation of the Merchant Marine Act, 1936, as amended.

In accordance with Section 502(b) of the Act, as amended in 1970, 25 of these notices were announcements of intent to compute foreign costs for the construction of liquefied natural gas (LNG) carriers, roll on/roll off (RO/RO) ships, ore/bulk/oil (OBO) carriers, mini-LASH vessels and tankers ranging from 80,000 to 380,000 dwt.

Administrative Law Judges

Effective August 18, 1972, the title "Hearing Examiner" was changed by direction of the Civil Service Commission to "Administrative Law Judge." The functions continued as before, namely to conduct public hearings that are necessitated by the various merchant marine and shipping statutes and, thereafter, to prepare initial or recommended decisions. The judges also maintain the official dockets of formal proceedings. Cases are referred by the Assistant Secretary of Commerce for Maritime Affairs or the Maritime Subsidy Board.

During fiscal year 1973, there were 24 proceedings pending before the Administrative Law Judges. Of these, 10 involved ODS matters and 14 concerned appeals from final decisions of contracting officers on disputes between shipowners, shipyards, and MarAd. In addition, one of the Administrative Law Judges, serving as a member of the Department of Commerce Appeals Board, processed one contract appeal involving a dispute between the National Oceanic and Atmospheric Administration and a private contractor.

Of the MarAd proceedings, one was terminated by the Board, three were settled, and five were considered inactive at the end of the year. Initial decisions were rendered in three cases, and two hearings were completed in which initial decisions were pending at the close of the fiscal year.

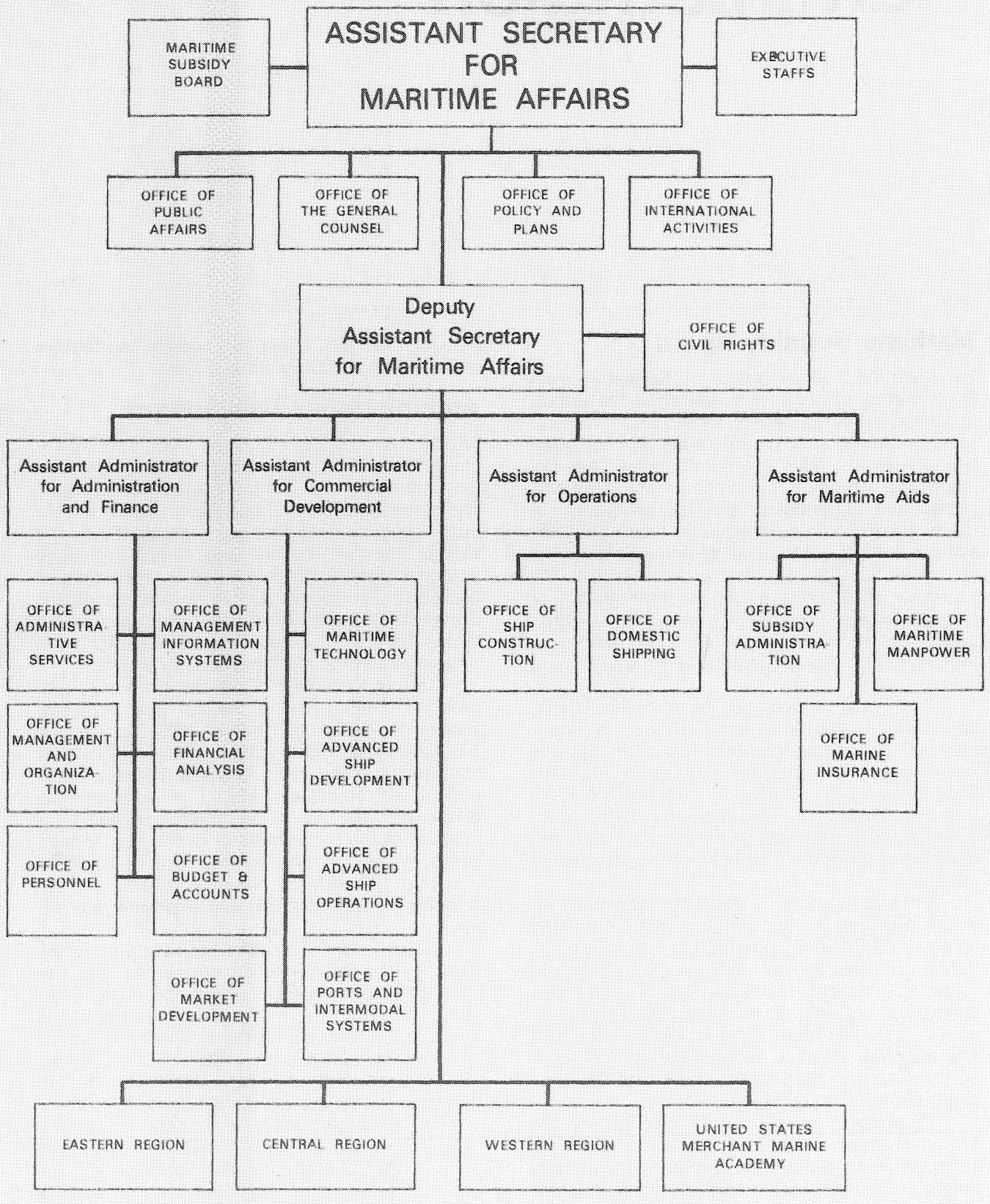
The proceedings initially decided by the Administrative Law Judges included the following.

1. *American Mail Lines, Ltd., et al.—Increased Sailings—Trade Routes 17 and 29 (U.S. Pacific/Far East)* Docket No. S-267, *et al.* This case involved applications by American Mail Lines, Ltd.,

CHART III. U. S. Department of Commerce

Maritime Administration

Organization Chart



June 30, 1973

American President Lines, Ltd., States Steamship Co. and Pacific Far East Lines, Inc. for additional break-bulk and/or containership services on Trade Routes 17 and 29. In recommending denial in respect to the proposed additional container services, the Administrative Law Judge determined that the existing services on the routes were adequate and that the evidence failed to demonstrate any policy objectives of the Merchant Marine Act, 1936, as amended, which would be accomplished with approval of the applications. However, existing non-containership services were found to be inadequate and the application of States Steamship Co. for additional subsidized sailings on Trade Route 29 with roll on/roll off vessels were recommended for approval. A portion of the application of Pacific Far East Line relating to a LASH vessel feeder service between Seattle, Wash., and San Francisco, Calif., was also recommended for approval.

2. *General Dynamics (Quincy Shipbuilding Division) v. Lykes Bros. Steamship Co., Inc.,* Docket CA-74. This dispute concerned installation of secondary accesses in cantilever sections on Seabee vessels. In this proceeding the Chief Administrative Law Judge found that the cost of installation of secondary accesses in the cantilever sections of three Seabee vessels was assignable to the shipbuilder as contract work required by the Coast Guard as a safety measure pursuant to Article 10(a)(ii) of the CDS contract. The Contracting Officer's decision was affirmed.
3. *Avondale Shipyards, Inc. v. Pacific Far East Line, Inc. and Prudential-Grace Lines, Inc.,* Docket No. CA-77. This case involved a determination of the responsibility between owner and shipyard for the cost of installation of lockstop switches on underdeck winch motors which was authorized by the shipowner, although not required under Coast Guard regulations. The Chief Administrative Law Judge found the cost assignable to the owners' accounts following the U.S. Court of Claims view that ambiguous contract specifications must be construed against the draftsman.

In addition to the MarAd proceedings, one of the Judges was designated by the Civil Service Commission to hear and initially decide several cases for the Federal Reserve Board and the Department of Housing and Urban Development on a reimbursable loan basis.

Internal Management

Actions under MarAd's Management Review and Improvement Program to reduce costs and increase effectiveness resulted in savings of $4,837,000. Principal actions were: (1) multi-year procurement of ship construction to permit series production of ships at lower cost; (2) value engineering review of ship design plans and specifications to achieve changes and lower costs, without sacrificing reliability; and (3) downgrading of 32 ships in the National Defense Reserve Fleet, eliminating need for manpower and funds to preserve these ships.

A major headquarters reorganization during the year brought together the agency's Research and Development activities, the Ports and Intermodal Systems and Market Development programs under a newly established Assistant Administrator for Commercial Development. This change was designed to strengthen MarAd's total promo-

Members of Maritime Subsidy Board during fiscal year 1973 were (left to right) Deputy Assistant Secretary Howard F. Casey, Assistant Secretary Robert J. Blackwell (Chairman), and General Counsel H. Clayton Cook

TABLE 10 SUITS AND NON-LITIGATED CLAIMS

	CASE LOAD ACTIVITY				AMOUNTS PENDING		AMOUNTS CLOSED			
	Pending 7/1/72	Opened	Closed	Pending 6/30/73	Claimed vs. U.S.	Claimed by U.S.	Claimed vs. U.S.	Recovered by Claimants	Claimed by U.S.	Recovered by U.S.
ADMIRALITY LITIGATION										
1. Seamen's and Shore-worker's Claims	179	1	56	124	$16,518,000.00	$ -0-	$5,212,000.00	$318,908.84	$ -0-	-0-
2. Ship Collision & Property Loss Claims										
a. Collision and Shore Damage	2	1	2	1	45,811.76	2,800.00	35,000.00	24,500.00	5,753.46	-0-
b. Exoneration or Limitation of Liability	1	0	0	1	-0-	-0-	-0-	-0-	-0-	-0-
c. Cargo Loss and Fire Damage	1	0	0	1	*	-0-	-0-	-0-	-0-	-0-
CIVIL LITIGATION										
1. Contract Claims										
a. Construction—differential subsidy	3	2	2	3	3,438,963.50	-0-	9,055,058.02	60,000.00	-0-	-0-
b. Operating—differential subsidy	13	14	5	22	11,713,256.49	*	100,000.00*	49,487.00	-0-	-0-
c. Ship Repair or Construction	2	0	1	1	20,000.00	-0-	7,978,093.00	*	-0-	-0-
2. Secured Lien Transactions										
a. Foreclosures and Bankruptcy	1	1	1	1	*	*	22,006.00	-0-	566,084.02	*
b. Title XI	0	1	0	1	*	*	-0-	-0-	-0-	-0-
3. Miscellaneous Litigated Actions										
a. Uncollected Judgments	1	0	0	1	-0-	5,794.88	-0-	-0-	-0-	-0-
b. Grievances	4	1	1	4	*	-0-	-0-	-0-	-0-	-0-
TOTAL LITIGATED CASES	207	21	68	160	$31,736,031.75	$8,594.88	$22,402,157.02	$452,895.84	$571,837.48	-0-
4. Tort Claims										
a. Litigated	0	0	0	0						
b. Unlitigated	0	1	1	0						

* Monetary value undetermined

tional efforts through more effective coordination of these programs (see Chart III).

A General Accounting Office Letter Report on MarAd's Title XI Federal Ship Financing Fund, and Title XII War Risk Insurance Fund recommended that MarAd purchase higher yield Treasury notes and/or bonds to obtain a greater investment return on the surplus cash in the stated insurance funds. In response to this recommendation, MarAd initiated a program of reinvestment in the longer term securities with the ultimate plan to increase its investment level to 90 percent in longer term securities.

During the past year there were eight internal audit reports submitted by the Department Office of Audits. These were: (1) Market Development Activities, (2) Maritime Administration's Tax Deferral Capital Construction Fund, (3) Ship's Service Department, U.S. Merchant Marine Academy, (4) Maritime Administration's Research and Development Program, (5) National Maritime Research Center, Galveston, Tex., (6) National Maritime Research Center, Kings Point, N.Y., (7) Selected Pollution Abatement Activities and (8) External Audit Activities within each Maritime Administration Region.

With minor exceptions, the Maritime Administration concurred in all of the recommendations contained in these audit reports and appropriate implementing actions have been taken or are in progress.

Suits and Claims

The number of cases pending litigation was further reduced with respect to administrative proceedings, admiralty matters, and claims pertaining to Government-owned vessels operated under General Agency Agreements during the Vietnam conflict (see Table 10).

Management Information

The Maritime Administration has developed and maintains 15 major data bases which constitute a comprehensive source of information about U.S. and foreign merchant fleets and maritime trades. These data files are used in many applications including the determination and payment of ODS and CDS. The agency employs automatic data processing systems to acquire and assess the large quantities of data involved. Through the fulfillment of requests from MarAd program offices and managers, a wide range of information is compiled. This information is used by all segments of the maritime community including ship operators, shipbuilders, trade associations, and labor and management groups. During the year the agency made substantial progress in carrying forward an ADP improvement program.

Program Planning

Program planning involves determining objectives and designing and evaluating programs to meet these objectives. During the past year the agency initiated a comprehensive management improvement effort called "Management by Objectives." Under the guidelines of this new initiative, program planning and analysis were substantially improved within MarAd by identifying objectives of Presidential, Secretarial, and agency level significance consistent with the "Management by Objectives" philosophy.

Other program planning functions include analyzing MarAd programs in terms of proper utilization of resources, justifying MarAd requests to higher echelons, preparing reports on program progress for MarAd and the Department, evaluating the agency's programs, and preparing its long-range plans. During fiscal year 1973, the Program Memorandum, the primary program and budget document for the agency, was developed.

A series of plans was developed relative to the U. S. Merchant Marine Academy. Revisions were made in the proposed capital outlay program to bring the facilities plan into current focus. Work was started on developing an academic plan examining all activities related to the curriculum, and another plan was initiated to define an organizational framework for detailed management and operation of constituent units at the Academy.

Economic/Analytic Studies

Work begun in the prior year was continued to develop and utilize computer-based information systems and analytical techniques to aid the Maritime Administration in the performance of its functions and in the formulation of new policies and plans to aid U.S. shipping. Added to the computer-based tools were (1) the Wharton Econometric Forecasting Model to provide reports on the U.S. economy in terms of the aggregate statistics of national income and (2) the Bulk Movement Information System to assess operating costs of fleets on the various trade routes. A Ship Demand Model was developed to forecast the quantities and types of ships that will be needed on the essential trade routes to serve a given market for American shipping. The U.S. Foreign Trade Forecast Model was improved and a new long-term prediction of U.S. foreign trade was issued.

A study, titled *U.S. Passenger Fleet: Summary and Prospects,* was prepared to support testimony in Congressional hearings on this subject. The document examines Maritime Administration aid to the U.S. passenger ship fleet and includes a summary of testimony by members of Congress, labor and management representatives,

and Federal Government officials preceding the passage of the Passenger Ship Sales Act.

Personnel

EMPLOYMENT

Robert J. Blackwell continued as the Assistant Secretary for Maritime Affairs.

During the year, total employment in the agency decreased from 1,642 to 1,568 through such measures as closing one reserve fleet site and other personnel resource economies. However, the reduction was effected without any major concomitant change in mission and functions.

EQUAL OPPORTUNITY

Notwithstanding the reduction in total employment and reduction in the average grade of agency employees, there was an increase in percentage of both minority group and female employees. Minority group employees increased from 24 to 26 percent of the total employment. Although the number of supervisory employees declined from 233 to 188, minority group supervisory employees increased from 12 to 14 percent of the total. Similarly, minorities comprised seven percent of total employees in grades GS-12 and above—up from 6.2 percent last year. This was accomplished even though there was a small reduction in overall strength of higher-grade employees in MarAd.

The percentage of women employees increased to 30 percent, but the proportion of female supervisors and high grade employees decreased slightly, to seven and four percent respectively.

TRAINING

A total of 1,356 employees, including 175 at the U.S. Merchant Marine Academy, received training through Government and non-Government facilities in professional, technical, supervisory and management matters. Managers at all levels participated in the training programs.

Upward Mobility Programs provided training for low-level employees to enhance their opportunities for advancement. Nine employees attended the new Department of Commerce Upward Mobility College, which was initiated with the assistance of Central Michigan University. Under the Public Service Careers Program, 12 employees received training suitable for their positions.

AWARDS

Nine employees received awards, including two Department of Commerce Gold Medals, the highest recognition given by the Department; five Department Silver Medals, the second highest award given by the Department; and two Bronze Medals, the Maritime Administration's top award. In fiscal year 1973, 116 employees received Outstanding Performance Ratings, 115 received Special Achievement Awards and 22 received Quality Step Increases. In addition, 70 suggestions submitted by employees were adopted by management officials.

Installations and Logistics

MATERIAL CONTROL

Rental of mobilization reserve machine tools and equipment to commercial concerns working on defense contracts or in support of merchant marine programs produced a revenue of $123,952.

Excess property having an acquisition value of $538,381 was disposed of during the year, including property with an acquisition value of $471,895, which was donated or transferred to other Government agencies.

REAL PROPERTY

At year's end MarAd's real property included the reserve fleet sites at Suisun Bay, Calif., Beaumont, Tex. and James River, Va.; warehouses at Kearny, N.J., and San Francisco, Calif.; the U.S. Merchant Marine Academy at Kings Point, N.Y.; and the Wilmington, N.C., facility.

The lease-purchase agreement for certain port property at Wilmington, N.C., was consummated. MarAd now owns and occupies only 11 acres of land at the facility. Seventy-seven acres were sold or leased to the North Carolina State Ports Authority to enhance port development.

A master five-year plan was developed as a guide to improving and renovating real property at the U.S. Merchant Marine Academy. Included are modernization of the air conditioning and electrical systems, building repairs, and new-facilities construction.

Accounting

The accounts of the Maritime Administration were maintained on an accrual basis and in conformity with the principles, standards and related requirements prescribed by the Comptroller General. The cost of combined operations of the Maritime Administration for the year totaled $481.3 million. This included $406.9 million for ODS and CDS, $29.9 million for research and development, $21.9 million for administrative expenses, $7.6 million for training expense and operation of the U.S. Merchant Marine Academy, $3.6 million for maintenance and preservation of reserve fleet vessels, $2.1 million for financial assistance to State marine schools and $9.3 million for other operating costs and miscellaneous expenses.

Region Activities

The field organization of the Maritime Administration consists of three regions with geographic areas of responsibility as shown on Chart IV.

Each region is headed by a Region Director who is responsible for the field operations and programs of MarAd within his region, except for ship construction activities and the U.S. Merchant Marine Academy. Agency programs and activities under the Director's jurisdiction include the custody and preservation of ships in the National Defense Reserve Fleet; operation, repair and maintenance of ships; vessel inspections; training for marine personnel in radar, loran, and gyrocompass; accounting and external auditing; financial analysis of shipping companies; contract compliance to assure equal employment opportunity in the water transportation industry; market development; development of ports and intermodal systems; facilities management; and administrative support activities.

Eastern Region

The Eastern Region, headquartered in New York, N.Y., covers an area of 23 States, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

ODS ACTIVITIES

MarAd's award of ODS contracts during the fiscal year for ships engaged in carrying agricultural commodities from the U.S. to the U.S.S.R. added a new dimension to the audit and accounting responsibilities of the Eastern Region. By the end of fiscal year 1973, 47 ships, owned by East Coast operators, had been fixed for a total of 83 voyages involving the payment of ODS. Since these voyages were all by bulk operators never before subsidized, the Eastern Region's ODS audit and payment workload was significantly increased.

During the fiscal year, the region instituted an improved ODS voucher processing procedure which provided for direct monthly and other payments to the subsidized operators. Under this procedure operators receive subsidy payments approximately six days earlier than in the past, with the result that operators' cash flow has improved and their requirements for short-term loans have been reduced.

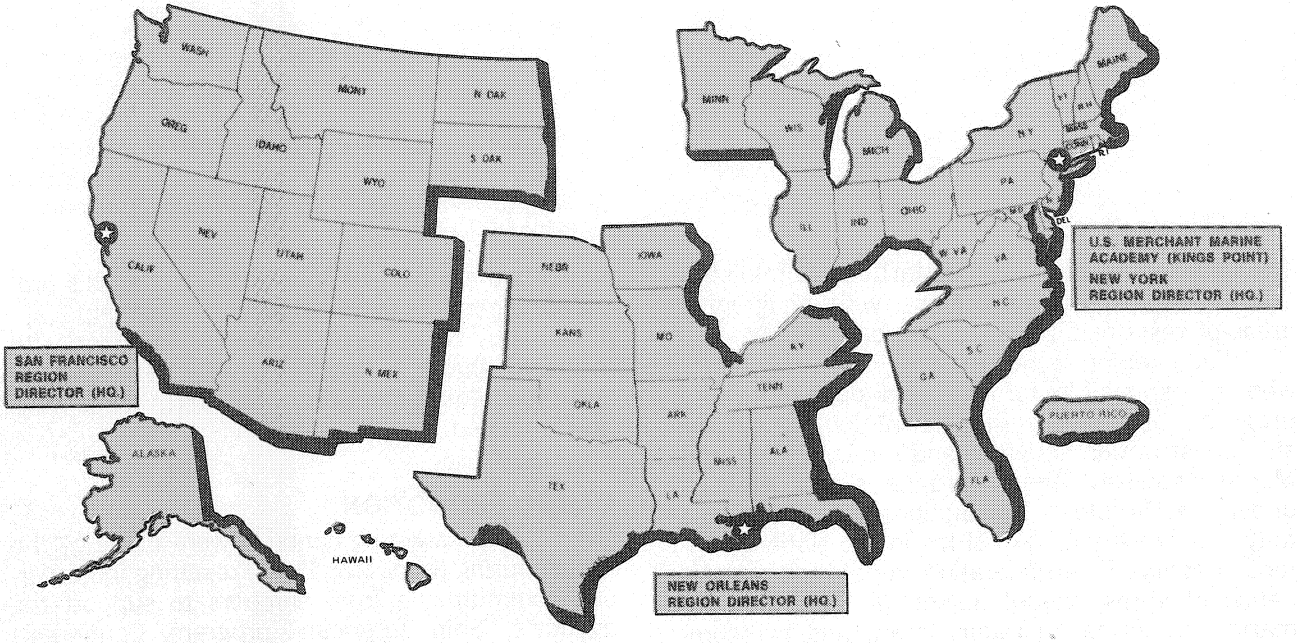
CARGO PROMOTION

Over 1,300 marketing contacts were made by the region during fiscal year 1973, resulting in numerous commitments from shippers to support the agency's "Ship American" program. Continuous liaison with importers and exporters located within the region increased cargo bookings for American-flag vessels.

As part of the agency's market development program, the Eastern Region inaugurated a commodity target project during the year involving the importation of alcoholic beverages. As a result of discussions with approximately 800 importers of this commodity, the U.S.-flag percentage of alcoholic beverages carried on six trade routes increased during the first four months of calendar year 1973. At the end of the fiscal year, the region was beginning a similar project on the transportation of household goods.

The National Maritime Council's Eastern Region Action Group sponsored its second annual Unity Dinner in New York City during April 1973. Secretary Dent spoke to over 500 shippers and maritime industry executives who attended the dinner, which was held to promote direct contact between exporters and importers and the shipping industry. Also during the year, about 2,000 executives involved in international trade participated in functions sponsored by the region action group. A select group of 25 shippers joined the action group as Shipper Advisors. Representing a wide cross section of the major shippers in the region, they advise the group on matters of mutual concern.

CHART IV. Field Organization
U. S. Department of Commerce
Maritime Administration



INTERMODAL SYSTEMS

Recognizing that rail/marine interface is the key to the efficiency and effectiveness of a multimodal transportation system, the Eastern Region completed in-depth studies and analyses of terminal transfer operations in several major ports on the Eastern Seaboard. The report on *The Rail and Marine Interface at the Port of New York* was published during fiscal year 1973 and was well received by the shipping community. The comparative information developed in the report and suggested means for eliminating intermodal constraints should prove helpful to both U.S.-flag ocean carriers and the rail industry in the formulation of improvement plans.

Analyses of the relative merits and uses of the Container on Flat Car (COFC) and the Trailer on Flat Car (TOFC) systems in intermodal movements were completed as part of MarAd's overall objective of promoting advanced cargo handling systems and the integration of transport modes.

Current labor and operational practices of LASH barge-ship operators at North Atlantic ports were assessed by the region in fiscal year 1973 to promote the utilization of barge-ships by the maritime industry.

PORT DEVELOPMENT

The Eastern Region provided major input to the New England River Basin Commission studies of the Southeastern and Long Island Sound regions. Several working papers were prepared during the year; final reports and briefings were almost complete at the end of the year. The studies will assist the Commission in determining regional needs for port development, commercial navigation and commercial planning.

MARITIME TRAINING

In response to a request from the City of New York for a replacement for its schoolship, the Liberty Ship JOHN W. BROWN, the Eastern Region delivered custody of the TWIN FALLS VICTORY to the city, which renamed it the JOHN W. BROWN II. With acquisition of the new vessel, New York City can provide a broad range of marine-oriented vocational courses, in addition to teaching the basic skills of seamanship, to high school students.

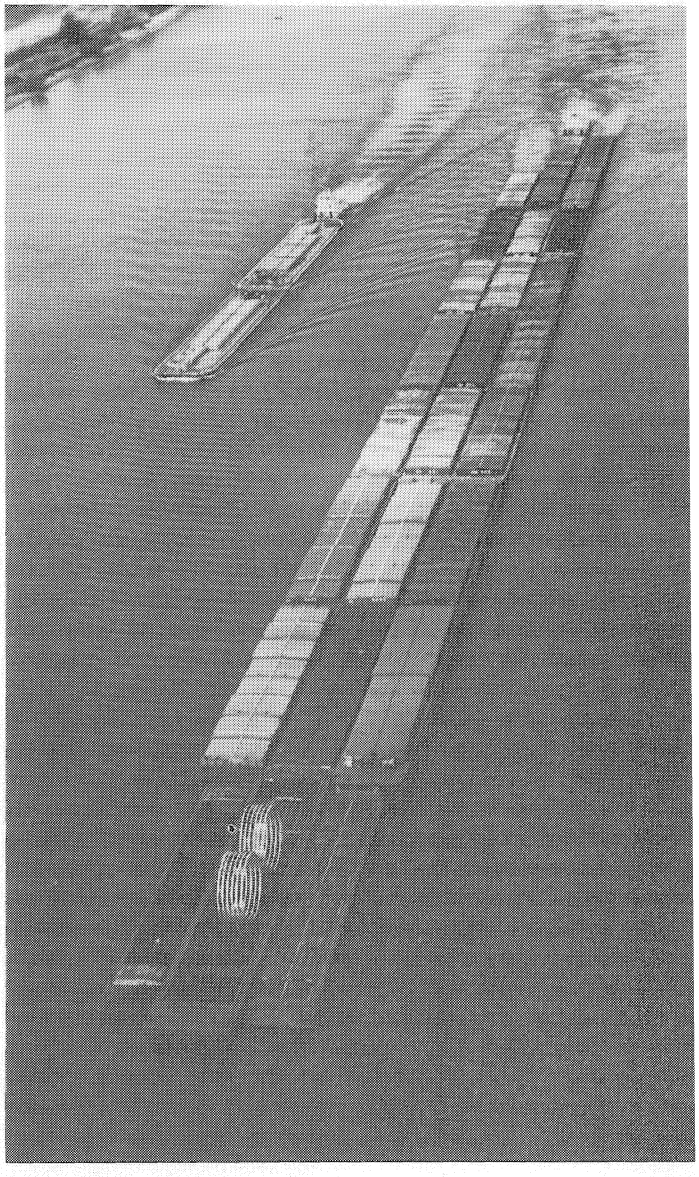
The region also delivered a training ship to the Maine Maritime Academy during the fiscal year. The former USNS UPSHUR, which has been renamed the STATE OF MAINE, replaced the former troopship ANCON which was previously used by the Academy.

During the fiscal year, almost 800 seamen completed courses conducted by the Eastern Region in radar/radar simulation, gyrocompass and loran. In addition, over 500 students completed courses required by the U.S. Coast Guard for recertification of radar qualifications. Over 1,200 men completed courses in fire-fighting and damage control offered by the region in conjunction with the Military Sealift Command.

CIVIL RIGHTS

A program to increase the use of minority business firms as suppliers of goods and services to the maritime industry was developed by the Eastern Region in fiscal year 1973. A pilot program to encourage shipyards to employ minority subcontractors was initiated in the region and, as a result of its success, MarAd will develop a nationwide program in fiscal year 1974.

The region also sponsored a first-of-a-kind forum to explore the creation of Minority Enterprise Small Business Investment Companies



(MESBIC's) by maritime firms.

During the fiscal year, the Eastern Region performed 128 compliance reviews and made 44 compliance checks to insure equal employment opportunity within the water transportation industry.

Additionally, the region awarded 16 percent of its total procurement budget to minority firms during the year.

Central Region

Headquartered in New Orleans, La., the Central Region has responsibility for MarAd's programs in 12 Mid-Western and Southern States.

ODS ACTIVITIES

In fiscal year 1973 the Central Region implemented payment of ODS vouchers at the field level, a move which reduced processing time thus resulting in substantial savings to subsidized operators.

Two tanker operators from the Central Region entered into ODS contracts with MarAd for the carriage of bulk cargoes between the U.S. and the Soviet Union.

Also during the year, a system of financial analysis was incorporated into the activities of the region to provide MarAd with an early warning reporting system to avoid defaults under the Federal Ship Financing Guarantee program.

CARGO PROMOTION

Closer liaison was established during the year with U.S.-flag lines serving the ports in the region, including a new service inaugurated from the Gulf Coast by an American carrier. The region was also active in discussions with American carriers who were not then serving the Gulf on a direct basis but were interested in the region's commerce for their mini-bridge services.

In a continuing effort to increase usage of U.S.-flag ships, more than 300 executives of importing and exporting firms were made aware of the benefits of shipping their cargoes on American-flag vessels. As a result of this activity and referrals by the other regions, over 1,500 leads were provided to American carriers in the Central Region during the year. Also because of region efforts, one local government unit now uses an American-flag preference statement on all its purchase orders.

The region's Action Group of the NMC conducted shipper orientation programs in Memphis, Tenn.; Houston, Tex.; Louisville, Ky.; and the Dallas/Ft. Worth, Tex., area, which were attended by over 800 members of the foreign trade community.

An ongoing program of NMC Shipper Appreciation Awards was initiated during 1973. The Awards are presented by the region on behalf of the Council to U.S. exporters and importers who have made a continuing effort to increase their use of American-flag ships.

INTERMODAL SYSTEMS

The Central Region has in the past been successful in removing constraints to LASH and Seabee barge operations. During fiscal year 1973, its efforts continued, especially in the area of customs regulations. In cooperation with the Bureau of Customs and the industry, MarAd helped translate the need for new regulations to facilitate this innovative shipping system into proposed regulations.

The continuing and strengthened efforts of an *ad hoc* committee of barge-ship operators contributed to new policies enunciated by various United Nations committees. Also in the regulatory sphere, the Central Region investigated constraints which could have resulted from a State's decision to tax and regulate barges employed in U.S. foreign commerce as domestic barges.

During the year, several Southern railroads withdrew their interchange agreements with steamship operators and the Central Region took constructive steps to mediate the dispute. This involved working directly with major rail carriers for the first time in order to obtain insight into the problem of empty-container positioning as seen from the railroads' point of view.

PORT DEVELOPMENT

The unforeseen and unprecedented movement of grain from Gulf ports resulting from 1972's record sales of agricultural commodities to the Soviet Union and other countries was monitored by the Central Region. The region also served as the key source of marine information for other interested agencies, as well as for Washington headquarters. The status of each ship loading grain in the Gulf for any port in the world was routinely checked, and the region identified or confirmed unusual developments which occasionally threatened to impede the flow of grain.

A second Port Engineer's Conference sponsored by the region resulted in the formation of a team of port specialists to provide emergency damage analysis aid to ports in the event of natural or man-made disasters.

The Central Region worked with interested parties and concerned Federal agencies to determine the feasibility of using a reserve fleet vessel as an oil reception and processing plant at a major Gulf port. The Environmental Protection Agency's regional office has endorsed the design concept.

MARITIME TRAINING

During fiscal year 1973 the Central Region radar training facility continued its expansion and curriculum improvement. A closed-circuit television system was installed as a training aid on an experimental basis, enabling the instructor to handle larger numbers of students, while providing the opportunity to improve established programs and develop new ones.

A total of 894 students completed programs at the training facility during the year.

The region also completed preliminary outlines and recommendations for a revised MarAd radar instruction textbook which will incorporate the latest information and techniques in the field.

CIVIL RIGHTS

To insure that contractors and subcontractors in the Central Region were complying with applicable agency regulations and prescribed equal employment standards, 61 compliance reviews and 107 compliance checks were conducted during the year. Two formal complaints of noncompliance were investigated.

The employment of females in nontraditional classifications was given priority attention during fiscal year 1973. While most contractors reported progress in this area, Ingalls Shipbuilding Division of Litton Industries, Pascagoula, Miss., leads all other yards with 551 females employed in blue collar positions.

DOMESTIC SHIPPING

Due to its advantageous geographical location at the intersection of the Mississippi River and the Gulf Intercoastal Waterway, the Central Region office effectively lends itself as an "Ombudsman" to the inland waterways industry. The same is true of the offshore oil and gas industry because a significant number of this industry's diversified elements are headquartered in the region.

Participation by the region in industry and Government-sponsored meetings in connection with inland waterways and offshore marine matters was accelerated during 1973.

Western Region

Agency programs in a 15-State area are supervised by the Western Region. Its headquarters are located in San Francisco, Calif.

ODS ACTIVITIES

By successfully reducing the time required to process ODS vouchers, the Western Region made actual payments to subsidized operators on a more timely basis during the year. The region estimated that savings in operators' short-term interest expense as a result of the more efficient processing procedure can total more than $100,000 annually.

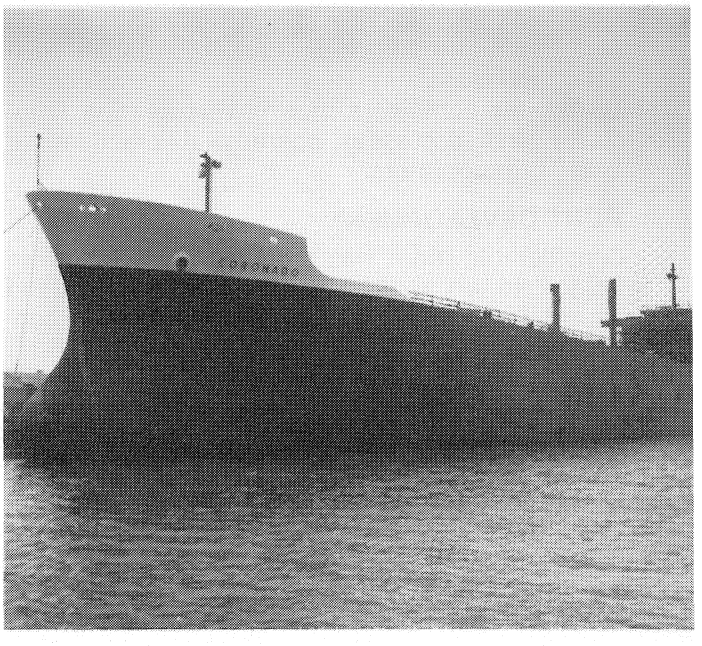
On November 30, 1972, the Western region sponsored an all-day seminar on "Financing the U.S. Merchant Fleet in the Seventies." Attended by about 300 industry, financial and Government personnel, the seminar covered the entire spectrum of financial activity under the Merchant Marine Act of 1970, ranging from the economic outlook for the future to Title XI, domestic shipping and lease financing.

Also during the year, the region completed the final audits permitting the payment of 100 percent of subsidy due two operators for calendar year 1969.

CARGO PROMOTION

The Western Region expanded its ongoing efforts to assist U.S.-flag operators in securing a greater share of international trade for their ships. During the year a stepped-up program of calls on shipper and freight forwarder executives resulted in increasing support for U.S. ships from Japanese trading houses and other exporters and importers of refrigerated cargo and containerized freight. Additionally, the region aided American-flag steamship operators in applying modern marketing techniques and provided them with shipping and cargo intelligence to guide their marketing efforts.

In cooperation with the National Maritime Council, a Shipper Advisor program was inaugurated to provide the Council with a team of expert advisors to help steamship lines assess their services.



The region also actively promoted the use of U.S.-flag vessels through various forums, seminars and other types of meetings. Presentations of topics of special interest to the trade community, such as "Trade with China," and "Cargo Preference," were sponsored by the region's NMC Action Group.

A new type of program, the "Shipper Forum," was presented to shippers in Fresno, Calif., and Salt Lake City, Utah. The forum utilizes a panel of experts in international trade and transportation to answer questions from shippers. In Los Angeles, Calif., a special program featuring steamship company services for refrigerated cargoes was presented by the action group.

INTERMODAL SYSTEMS

The most important achievement of 1973 of the Western Region's program was bringing West Coast U.S.-flag berth operators together as a group to discuss common industry problems. The region also acted as a catalyst for a series of meetings between railroads and the water carriers of the Pacific Region Steamship Operators Intermodal Committee. These discussions explored operational problems and solutions to facilitate the intermodal transfer of containers.

Other region activities included participating in a marine container traffic study of the terminal complex at Oakland, Calif.; soliciting industry reaction to proposed legislation to amend the Shipping Act of 1916 to permit single-factor rates under a through bill of lading in U.S. foreign and domestic offshore commerce; cooperating with the National Maritime Council in informing shippers of the positive efforts being made by U.S.-flag carriers to develop intermodal systems; studying the efficiency of container interchange between inland and ocean carriers at major West Coast ports; assisting in a study of a cargo control system for containers moving through San Francisco; and assessing operational practices of LASH ship operators.

PORT DEVELOPMENT

Considerable input was provided by the Western Region to an evaluation of the feasibility and acceptability of a regional port cooperation concept for the San Francisco Bay Area. As a result of the region's efforts, the San Francisco Mayor's Port Committee adopted the agency's recommendations.

During fiscal year 1973, the region also participated in the San Francisco Bay Area In-Depth Study by analyzing port facilities in the area. To aid in the collection of data for the study, the region developed a study plan and merchant fleet inventory. In addition, the region participated with the U.S. Army Corps of Engineers in conducting a survey of oil refineries to provide information for the Corps' West Coast Deepwater Port Facilities Study.

In cooperation with the U.S. Coast Guard, the region completed a vessel traffic control study of San Francisco Bay which resulted in the San Francisco Vessel Traffic System (VTS) being put in operation by the Coast Guard on April 15, 1973. The VTS incorporates radar surveillance of marine traffic and bridge-to-bridge radiotelephone communications, along with a system of voluntary traffic separation on the Bay.

POLLUTION ABATEMENT

The region and the National Maritime Research Center, Galveston, Tex., studied a new shipboard sewage disposal system which is designed for no-discharge operation and, consequently, will comply with the most stringent pollution-control requirements. The system will be installed for testing on the TS GOLDEN BEAR, the training vessel of the California Maritime Academy.

MARITIME TRAINING

Additional simulator equipment valued at $53,000 was installed at the Western Region training facility at Fort Mason, Calif., during the year, increasing the scope and effectiveness of the instruction given to students.

During fiscal year 1973, 501 seamen completed courses in radar and gyrocompass offered by the region training school. Also, 193 men completed the region's fire-fighting and damage control courses.

CIVIL RIGHTS

The Western Region was instrumental in achieving positive results in the hiring and promotion of minorities in the shipbuilding and water transportation industries. In fiscal year 1973, 84 compliance reviews and 12 compliance checks were conducted.

Special progress was realized in the placement of females in the maritime industry on the West Coast. Females are now being employed as welders, shipfitters, pipefitters, machinists, carpenters, longshoreworkers and crew members on towboats.

Designed to provide equal opportunity for employment and advancement, the affirmative action plans of the major shipyards in the region were revised to include new requirements relating to females.

During the year, the Western Region also assisted the California Maritime Academy in recruiting qualified minority applicants.

Shipping Studies and Reports

The following studies or reports were released by the Maritime Administration during fiscal year 1973. Where prices are not included, a limited number of copies are available from the Office of Public Affairs, Maritime Administration. Publications marked GPO are available from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Those labelled NTIS may be purchased from National Technical Information Service, 5285 Port Royal Rd., Springfield, Va. 22151.

General

Index of Current Regulations of the Maritime Administration, Maritime Subsidy Board, National Shipping Authority, Revised as of January 1, 1973, 43 pp., $.50, GPO.

Domestic Shipping and Maritime Policy, 33 pp., free, MarAd.

Report of the First National Planning Conference on Domestic Shipping

Volume 1—Conference Reports, 71 pp., COM-73-10232, $3.00, NTIS

Volume 2—Program Elements, 144 pp., COM-73-10233, $3.00, NTIS

Volume 3—Remarks Presented at the Conference, 87 pp., COM-73-10234, $3.00, NTIS.

MARAD 1972—A New Wave in American Shipping, (Report of the Maritime Administration for fiscal year 1972), 108 pp., $1.50, GPO.

Vessel Inventory Report as of December 31, 1972, 88 pp., free, MarAd.

Statistical

Foreign Flag Ships Owned by U.S. Parent Companies, December 31, 1971, 40 pp., free, MarAd.

Foreign Oceanborne Trade of U.S., Containerized Cargo on Selected Trade Routes, CY 1971, 44 pp., $.45, GPO.

Merchant Fleets of the World, as of December 31, 1972, 19 pp., $.20, GPO.

New Ship Construction, Parts I and II, 12 pp., free, MarAd.

Relative Cost of Shipbuilding in the Various Coastal Districts of the United States, June 1972, 30 pp., $.40, GPO.

Technical

Standard Specifications for Merchant Ship Construction, prepared by Maritime Administration, 501 pp., COM-72-11469, $12.50, NTIS.

Trim and Stability Guide for Container and Barge-Carrying Ships, prepared by Maritime Administration, 501 pp., COM-73-50169, NTIS.

Economic Viability Analysis of the Contract Vessels Pursuant to Stipulation in Environmental Defense Fund, et al vs. Peter G. Peterson, et al, 505 pp., $7.50, MarAd.

Environmental Impact Statement—Maritime Administration Tanker Construction Program

Draft Report, EIS 730392D, $12.50.

Final Report, EIS 730725F, $26.00.

Development of An Integrated VHF Communications System for the Great Lakes, 94 pp., COM-73-10505, $3.00.

Offshore Terminal Systems Concepts, prepared by Soros Associates, Inc.

Volume 1—Evaluation of Requirements and Capabilities for Determination of the Need for Offshore Terminals, 80 pp., COM-72-11372, $6.75, NTIS

Volume 2—Connections Between Deep-Draft Terminals and Existing Facilities by Utilization of Feeder Vessels, Pipelines and/or Shore Facilities Relocation, 85 pp., COM-72-11373, $9.00, NTIS

Volume 3—Formulation of Advanced Concepts for Offshore Terminals, COM-72-11274, 85 pp., $6.75, NTIS

Volume 4—Executive Summary, 80 pp., COM-72-11156, $6.00, NTIS.

Research Prospectus for Maritime Pollution Control in the Great Lakes, prepared by A. T. Kearney, Inc., 204 pp., COM-73-10677, $6.75, NTIS.

Survey of Water Transportation Potential to Reduce Congestion and Pollution in Washington, D.C. and other Major Cities, prepared by Lelejuan & Associates, 30 pp., COM-73-10253, $3.00, NTIS.

Final Report of Phase I—Development Program of a Continuous Regenerating Moving Bed to Remove Oil from Oil-Water Suspensions, prepared by Hydronautics, Inc., 176 pp., COM-72-11041, $3.00, NTIS.

Oil/Water Interface Detector—Final Report on Task II Sub-Task 1, prepared by Esso Research and Engineering Company, 99 pp., COM-72-11295, $3.00, NTIS.

Flocculant Test, prepared by Esso Research and Engineering Co., 60 pp., COM-72-10541, $3.00, NTIS.

Bailey Oil Content Monitor, prepared by Esso Research and Engineering Co., 63 pp., COM-73-10940, $3.00, NTIS.

Oil Water Tank Content Profiles, prepared by Esso Research and Engineering Co., 127 pp., COM-72-10540, $3.00, NTIS.

Oily Water Separation System prepared by Esso Research and Engineering Co., 54 pp., COM-72-10561, $4.50, NTIS.

Removal of Oil from Seawater, prepared by AMF/Beaird Maxim Evaporaters, 137 pp., COM-71-01095, $3.00, NTIS.

Evaluation of Maritime Satellite Communications for Inland Waterways, prepared by General Electric Company, 74 pp., COM-73-10764, $3.00, NTIS.

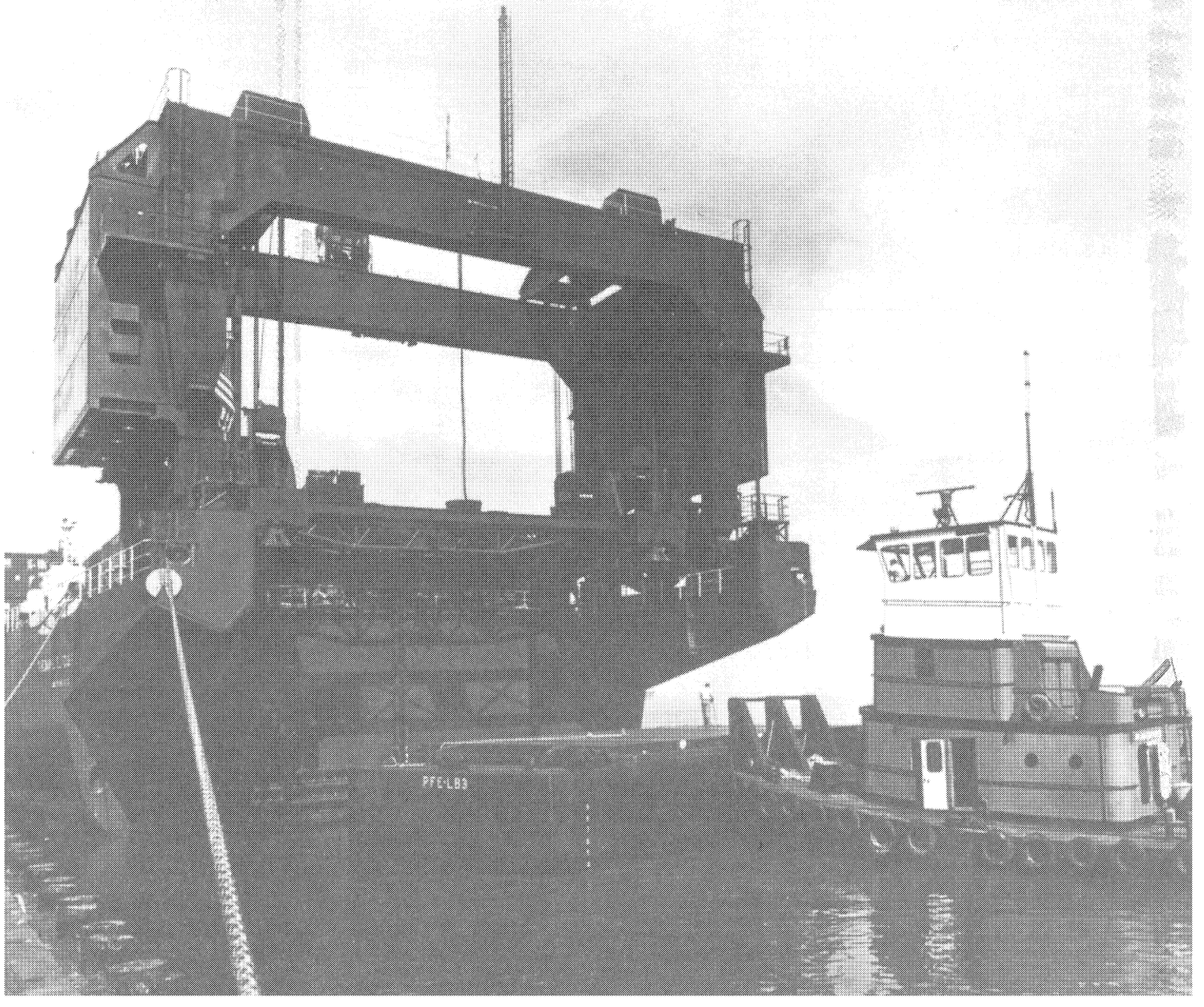
Segregated Ballast Tanker Study, prepared by J. J. Henry, Co., Inc.

Volume 1—Text Summary Data, COM-73-10764, $3.00, NTIS

Volume 2—COM-73-10579, $3.00, NTIS.

Report on Rail & Marine Interface at the Port of New York, Maritime Administration, 39 pp., COM-73-10588, $3.00, NTIS.

Appendix



APPENDIX I Merchant Fleets of the World as of December 1972

Country of Registry	Total			Type of Vessel: Combination Passenger and Cargo			Type of Vessel: Combination Passenger and Cargo Refrigerated		
	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons
Total—All Countries	**21,009**	**250,543**	**399,552**	**830**	**6,638**	**3,754**	**30**	**452**	**264**
United States[1]	1,150	13,111	17,949	149	1,345	920	4	45	37
Privately owned	651	9,300	13,638	8	150	72	4	45	37
Government-owned	499	3,811	4,311	141	1,195	848	—	—	—
Reserve Fleet	470	3,588	3,996	141	1,195	848	—	—	—
Other[2]	29	223	315	—	—	—	—	—	—
The British Commonwealth of Nations									
United Kingdom	1,627	27,214	43,495	38	624	280	7	168	86
Australia	91	928	1,326	3	11	7	—	—	—
Bangladesh	2	10	14	—	—	—	—	—	—
British Colonies	100	1,289	2,080	5	19	17	—	—	—
Canada	66	260	313	15	41	17	—	—	—
Cyprus	401	2,284	3,271	8	71	55	—	—	—
Ghana	16	118	154	—	—	—	—	—	—
India	253	2,672	4,125	12	71	69	—	—	—
Jamaica	2	12	9	—	—	—	—	—	—
Kenya	5	13	20	—	—	—	—	—	—
Malaysia	19	176	219	1	2	1	—	—	—
New Zealand	40	120	155	—	—	—	2	8	6
Nigeria	14	92	134	—	—	—	—	—	—
Pakistan	63	527	708	7	69	61	—	—	—
Singapore	176	1,025	1,425	18	92	90	—	—	—
Tanzania	2	14	22	—	—	—	—	—	—
Tonga	1	2	3	—	—	—	—	—	—
Trinidad-Tobago	4	9	7	2	6	3	—	—	—
Uganda	1	6	9	—	—	—	—	—	—
Zambia	1	6	9	—	—	—	—	—	—
*Albania	10	50	68	—	—	—	—	—	—
Algeria	14	125	158	—	—	—	—	—	—
Argentina	155	1,224	1,687	10	64	47	2	25	19
Austria	19	86	128	—	—	—	—	—	—
Belgium	76	1,086	1,629	2	24	25	—	—	—
Brazil	233	1,722	2,436	6	37	16	—	—	—
*Bulgaria	110	705	1,011	4	22	8	—	—	—
Burma	10	58	73	2	5	3	—	—	—
Chile	47	388	577	3	8	5	—	—	—
China (Taiwan)	162	1,423	2,166	5	19	17	1	18	12
*China (Communist)	272	1,500	2,033	20	67	41	2	17	10
Colombia	40	224	289	—	—	—	—	—	—
Costa Rica	1	3	4	—	—	—	—	—	—
*Cuba	57	345	465	—	—	—	—	—	—
*Czechoslovakia	12	113	162	—	—	—	—	—	—
Denmark	297	3,718	6,084	7	18	16	1	3	1
Dominican Republic	3	6	9	—	—	—	—	—	—
Ecuador	9	50	59	—	—	—	—	—	—
Ethiopia	7	43	64	—	—	—	—	—	—
Finland	213	1,455	2,166	5	20	5	1	2	1
France	427	7,337	11,733	11	171	57	1	10	2
Germany (West)	797	7,612	11,536	6	89	25	—	—	—
*Germany (East)	140	1,009	1,381	5	51	33	—	—	—
Greece	1,549	16,227	25,926	59	492	259	1	3	1
Guatemala	2	4	6	—	—	—	—	—	—
Guinea	2	14	19	—	—	—	—	—	—
Honduras	13	60	57	—	—	—	—	—	—
*Hungary	17	41	55	—	—	—	—	—	—
Iceland	25	51	70	1	4	2	—	—	—
Indonesia	139	443	529	29	117	82	—	—	—

[1] Excludes 73 non-merchant type ships which are currently in the National Defense Reserve Fleet.
[2] Comprised of vessels under general agency agreement, bareboat charter, and in the custody of the Departments of Defense, State and Interior.

(Oceangoing Steam and Motor Ships of 1,000 Gross Tons and Over)

(Tonnage in Thousands)

Type of Vessel											
Freighters			Freighters — Refrigerated			Bulk Carriers			Tankers (Including Whaling Tankers)		
Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons
11,087	**65,179**	**88,970**	**942**	**4,894**	**5,158**	**3,539**	**64,822**	**108,512**	**4,581**	**108,558**	**192,894**
666	6,449	7,990	19	99	107	32	419	702	280	4,754	8,193
361	4,210	5,063	—	—	—	32	419	702	246	4,476	7,764
305	2,239	2,927	19	99	107	—	—	—	34	278	429
284	2,078	2,704	17	87	95	—	—	—	28	228	349
21	161	223	2	12	12	—	—	—	6	50	80
700	5,178	6,610	119	1,094	1,285	326	6,507	10,787	437	13,643	24,447
36	219	251	—	—	—	37	505	766	15	193	302
2	10	14	—	—	—	—	—	—	—	—	—
48	236	342	3	3	3	26	368	582	18	663	1,136
25	82	102	—	—	—	7	40	55	19	97	139
325	1,636	2,350	1	4	4	38	268	388	29	305	474
16	118	154	—	—	—	—	—	—	—	—	—
183	1,342	1,924	1	9	13	44	951	1,609	13	299	510
—	—	—	2	12	9	—	—	—	—	—	—
3	10	16	—	—	—	1	2	2	1	1	2
13	112	139	—	—	—	3	56	71	2	6	8
26	84	111	3	6	7	9	22	31	—	—	—
14	92	134	—	—	—	—	—	—	—	—	—
54	435	616	—	—	—	2	23	31	—	—	—
135	683	950	3	17	16	6	148	240	14	85	129
2	14	22	—	—	—	—	—	—	—	—	—
1	2	3	—	—	—	—	—	—	—	—	—
1	1	2	—	—	—	—	—	—	1	2	2
1	6	9	—	—	—	—	—	—	—	—	—
1	6	9	—	—	—	—	—	—	—	—	—
7	41	56	—	—	—	3	9	12	—	—	—
7	29	40	—	—	—	3	25	36	4	71	82
61	389	533	13	48	47	12	135	211	57	563	830
17	63	94	—	—	—	2	23	34	—	—	—
36	330	437	7	38	36	16	382	630	15	312	501
148	783	1,024	6	24	24	29	348	564	44	530	808
60	260	376	2	12	10	27	216	309	17	195	308
8	53	70	—	—	—	—	—	—	—	—	—
30	196	274	1	2	2	7	81	133	6	101	163
101	585	823	15	62	66	25	379	621	15	360	627
198	1,134	1,582	1	1	2	21	77	98	30	204	300
38	212	271	—	—	—	1	2	2	1	10	16
1	3	4	—	—	—	—	—	—	—	—	—
40	263	361	8	28	25	2	2	2	7	52	77
9	51	67	—	—	—	3	62	95	—	—	—
178	1,120	1,454	24	105	129	29	524	860	58	1,948	3,624
2	5	7	1	1	2	—	—	—	—	—	—
5	34	43	2	13	13	—	—	—	2	3	3
4	19	26	—	—	—	1	1	2	2	23	36
137	545	732	6	16	22	15	127	194	49	745	1,212
182	1,264	1,657	37	191	171	64	1,058	1,694	132	4,643	8,152
591	3,515	4,701	52	282	349	78	1,945	3,277	70	1,781	3,184
103	575	760	8	30	26	15	184	272	9	169	290
903	5,521	8,123	37	185	196	293	4,453	7,499	256	5,573	9,848
2	4	6	—	—	—	—	—	—	—	—	—
1	3	4	—	—	—	1	11	15	—	—	—
—	—	—	13	60	57	—	—	—	—	—	—
17	41	55	—	—	—	—	—	—	—	—	—
15	27	43	7	17	21	2	3	4	—	—	—
87	244	328	—	—	—	7	16	23	16	66	96

APPENDIX I **Merchant Fleets** (Continued)

Country of Registry	Total			Type of Vessel: Combination Passenger and Cargo			Type of Vessel: Combination Passenger and Cargo Refrigerated		
	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons
Iran	16	160	225	—	—	—	—	—	—
Iraq	9	116	177	—	—	—	—	—	—
Ireland	14	120	179	—	—	—	—	—	—
Israel	71	626	853	—	—	—	—	—	—
Italy	625	7,762	11,688	57	699	240	1	14	8
Ivory Coast	11	79	112	—	—	—	—	—	—
Japan	2,210	31,804	52,267	32	120	80	—	—	—
Korea (South)	119	874	1,361	1	10	11	—	—	—
*Korea (North)[3]	8	30	33	1	5	2	—	—	—
Kuwait	34	655	1,095	—	—	—	—	—	—
Lebanon	38	103	147	1	5	4	—	—	—
Liberia	2,139	45,695	83,208	26	264	186	2	41	30
Malagasy	15	74	115	—	—	—	—	—	—
Maldives	25	69	88	—	—	—	—	—	—
Mexico	41	351	535	—	—	—	—	—	—
Monaco	6	41	59	—	—	—	—	—	—
Morocco	14	40	55	—	—	—	—	—	—
Nauru	3	24	26	2	19	20	—	—	—
Netherlands	436	4,442	6,495	11	187	88	—	—	—
Nicaragua	8	18	26	—	—	—	—	—	—
Norway	1,188	22,665	38,211	29	240	64	2	37	18
Panama	887	7,767	12,348	32	288	184	—	—	—
Peru	35	257	367	1	9	12	—	—	—
Philippines	170	870	1,253	21	42	37	—	—	—
Poland	253	1,793	2,499	2	16	7	—	—	—
Portugal	114	912	1,191	19	201	124	—	—	—
*Rumania	56	394	571	1	7	2	—	—	—
Saudi Arabia	11	47	64	2	6	4	—	—	—
Senegal	3	6	8	—	—	—	—	—	—
Sierra Leone	1	1	1	—	—	—	—	—	—
Somalia	148	1,034	1,510	2	9	8	—	—	—
South Africa	53	403	494	—	—	—	2	58	32
Spain	423	3,706	5,911	38	225	149	—	—	—
Sudan	7	32	39	—	—	—	—	—	—
Sweden	337	5,217	8,309	5	71	16	—	—	—
Switzerland	27	219	312	—	—	—	—	—	—
Thailand	21	74	109	—	—	—	—	—	—
Trucial States	1	4	8	—	—	—	—	—	—
Tunisia	10	25	34	—	—	—	—	—	—
Turkey	93	628	851	16	78	34	—	—	—
United Arab Republic	44	199	256	7	43	40	—	—	—
Uruguay	16	154	238	1	8	10	—	—	—
*U.S.S.R.[3]	2,140	12,116	15,413	78	455	202	1	3	1
Venezuela	40	360	523	—	—	—	—	—	—
Vietnam (South)	6	15	24	—	—	—	—	—	—
Yugoslavia	187	1,516	2,191	11	61	60	—	—	—
Zaire	4	36	46	1	11	9	—	—	—
U.S.S.R. (Lend-Lease)	44	305	450	—	—	—	—	—	—

[3] Includes the following U. S. Government-owned ships transferred to U.S.S.R. under lend-lease agreement, 42 of which are still under that registry; and 2 under North Korean registry.

* Source material limited.

** Excludes ships operating exclusively on the Great Lakes and inland waterways and special types such as channel ships, icebreakers, cable ships, etc., and merchant ships owned by any military force.

Type of Vessel											
Freighters			*Freighters — Refrigerated*			*Bulk Carriers*			*Tankers (Including Whaling Tankers)*		
Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons
11	104	141	1	3	4	—	—	—	4	53	80
6	52	71	—	—	—	—	—	—	3	64	106
7	36	50	—	—	—	5	82	126	2	2	3
50	282	350	10	78	87	11	266	416	—	—	—
201	946	1,356	22	100	83	136	2,654	4,388	208	3,349	5,613
10	75	109	1	4	3	—	—	—	—	—	—
1,148	6,512	9,210	69	220	276	525	11,875	19,420	436	13,077	23,281
74	309	424	2	3	4	18	212	340	24	340	582
5	21	26	2	4	5	—	—	—	—	—	—
27	230	304	1	1	1	—	—	—	6	424	790
31	87	125	3	5	9	3	6	9	—	—	—
513	3,447	5,144	36	164	180	753	15,163	27,395	809	26,616	50,273
11	45	68	—	—	—	—	—	—	4	29	47
22	64	83	2	3	2	1	2	3	—	—	—
16	83	116	1	4	4	3	39	61	21	225	354
2	8	10	—	—	—	—	—	—	4	33	49
10	31	45	4	9	10	—	—	—	—	—	—
—	—	—	1	5	6	—	—	—	—	—	—
288	1,830	2,423	28	93	96	27	446	688	82	1,886	3,200
7	17	24	—	—	—	—	—	—	1	1	2
390	2,306	3,210	29	124	137	362	8,754	14,502	376	11,204	20,280
528	2,166	3,151	18	51	51	111	1,044	1,649	198	4,218	7,313
25	165	234	1	5	3	3	33	49	5	45	69
102	522	724	9	25	28	9	101	168	29	180	296
176	1,072	1,447	15	54	57	56	598	909	4	53	79
65	346	485	2	5	5	6	79	125	22	281	452
37	128	179	—	—	—	14	190	280	4	69	110
6	20	28	2	4	4	—	—	—	1	17	28
2	4	5	—	—	—	—	—	—	1	2	3
1	1	1	—	—	—	—	—	—	—	—	—
122	703	998	—	—	—	13	179	273	11	143	231
40	242	320	6	43	61	3	33	49	2	27	32
210	696	1,015	20	41	49	46	705	1,183	109	2,039	3,515
6	28	34	1	4	5	—	—	—	—	—	—
148	1,010	1,264	27	207	217	79	1,863	3,017	78	2,066	3,795
22	166	236	2	3	4	3	50	72	—	—	—
11	42	63	—	—	—	1	2	2	9	30	44
1	4	8	—	—	—	—	—	—	—	—	—
7	12	15	—	—	—	1	3	4	2	10	15
59	328	468	—	—	—	4	54	86	14	168	263
28	91	115	—	—	—	—	—	—	9	65	101
7	31	45	1	3	3	—	—	—	7	112	180
1,250	5,883	7,747	232	1,261	1,111	135	676	915	444	3,838	5,437
20	82	114	—	—	—	4	14	19	16	264	390
6	15	24	—	—	—	—	—	—	—	—	—
136	888	1,225	3	9	11	20	327	513	17	231	382
3	25	37	—	—	—	—	—	—	—	—	—
43	298	438	—	—	—	—	—	—	1	7	12

APPENDIX II Ship Deliveries Calendar Year 1972

(Tonnage in Thousands)

FOR REGISTRY IN	Total NO.	Total DWT	BUILT IN: Japan NO.	Japan DWT	Sweden NO.	Sweden DWT	Spain NO.	Spain DWT	United Kingdom NO.	United Kingdom DWT	Germany (West) NO.	Germany (West) DWT	Denmark NO.	Denmark DWT
SUMMARY—ALL TYPES														
TOTAL	**1,119**	**44,350**	**417**	**22,756**	**38**	**3,695**	**63**	**1,913**	**61**	**1,849**	**85**	**1,764**	**17**	**1,677**
United States	15	658	—	—	—	—	—	—	—	—	1	28	—	—
United Kingdom	132	5,213	21	1,870	15	1,223	6	92	45	1,158	13	412	3	35
Denmark	29	1,087	—	—	1	3	—	—	—	—	11	40	10	970
France	22	1,067	1	16	1	5	1	2	—	—	2	258	—	—
Germany, West	89	1,034	—	—	1	3	3	26	3	45	39	544	—	—
Italy	13	1,249	—	—	—	—	3	47	—	—	—	—	—	—
Japan	198	9,406	198	9,406	—	—	—	—	—	—	—	—	—	—
Liberia	138	11,140	104	7,039	3	737	5	238	4	316	2	256	2	570
Norway	77	4,062	8	1,230	5	674	1	16	3	223	6	69	1	51
Sweden	28	1,264	—	—	10	945	2	5	—	—	—	—	—	—
U.S.S.R.*	76	570	—	—	—	—	—	—	—	—	—	—	—	—
All Others	302	7,600	85	3,195	2	105	42	1,487	6	107	11	157	1	51
FREIGHTERS														
TOTAL [2]	**570**	**5,715**	**118**	**1,176**	**9**	**84**	**37**	**311**	**35**	**370**	**71**	**1,090**	**10**	**151**
United States	9	243	—	—	—	—	—	—	—	—	1	28	—	—
United Kingdom	63	825	2	12	1	6	3	12	26	232	11	407	3	35
Denmark	22	168	—	—	1	3	—	—	—	—	10	37	7	116
France	13	128	—	—	1	5	1	2	—	—	—	—	—	—
Germany, West	71	666	—	—	—	—	3	26	1	15	33	394	—	—
Italy	3	47	—	—	—	—	3	47	—	—	—	—	—	—
Japan	77	769	77	769	—	—	—	—	—	—	—	—	—	—
Liberia	23	254	13	122	—	—	3	24	3	51	1	6	—	—
Norway	34	251	1	35	—	—	1	16	—	—	5	64	—	—
Sweden	19	162	—	—	5	67	2	5	—	—	—	—	—	—
U.S.S.R.*	51	338	—	—	—	—	—	—	—	—	—	—	—	—
All Others	185	1,864	25	238	1	3	21	179	5	72	10	154	—	—
BULK CARRIERS [3]														
TOTAL	**333**	**17,394**	**219**	**11,194**	**13**	**1,604**	**16**	**465**	**15**	**804**	**2**	**83**	**2**	**102**
United States	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom	45	3,213	18	1,635	7	820	3	80	10	527	—	—	—	—
Denmark	2	50	—	—	—	—	—	—	—	—	—	—	—	—
France	2	174	1	16	—	—	—	—	—	—	—	—	—	—
Germany, West	9	287	—	—	—	—	—	—	2	30	1	80	—	—
Italy	6	551	—	—	—	—	—	—	—	—	—	—	—	—
Japan	76	4,266	76	4,266	—	—	—	—	—	—	—	—	—	—
Liberia	76	3,491	71	2,905	—	—	—	—	—	—	—	—	—	—
Norway	22	1,666	4	479	4	578	—	—	2	212	—	—	1	51
Sweden	5	328	—	—	1	104	—	—	—	—	—	—	—	—
U.S.S.R.*	4	100	—	—	—	—	—	—	—	—	—	—	—	—
All Others	86	3,268	49	1,893	1	102	13	385	1	35	1	3	1	51
TANKERS														
TOTAL	**216**	**21,241**	**80**	**10,386**	**16**	**2,007**	**10**	**1,137**	**11**	**675**	**12**	**591**	**5**	**1,424**
United States	6	415	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom	24	1,175	1	223	7	397	—	—	9	399	2	5	—	—
Denmark	5	869	—	—	—	—	—	—	—	—	1	3	3	854
France	7	765	—	—	—	—	—	—	—	—	2	258	—	—
Germany, West	9	81	—	—	1	3	—	—	—	—	5	70	—	—
Italy	4	651	—	—	—	—	—	—	—	—	—	—	—	—
Japan	45	4,371	45	4,371	—	—	—	—	—	—	—	—	—	—
Liberia	39	7,395	20	4,012	3	737	2	214	1	265	1	250	2	570
Norway	21	2,145	3	716	1	96	—	—	1	11	1	5	—	—
Sweden	4	774	—	—	4	774	—	—	—	—	—	—	—	—
U.S.S.R.*	21	132	—	—	—	—	—	—	—	—	—	—	—	—
All Others	31	2,468	11	1,064	—	—	8	923	—	—	—	—	—	—

[1] The U.S.S.R., with 42 ships of 364,000 dwt., ranked 14th as a shipbuilder on a deadweight tonnage basis.
[2] Includes 17 combination passenger and cargo ships of 70,000 dwt tons.
[3] Includes ore-bulk-oil (OBO) carriers and ore/oil carriers.

* Source Material Limited.

BUILT IN															
Italy		France		Norway		Nether-lands		Yugo-slavia		Poland		United States		All Others [1]	
NO.	DWT	NO.	DWT	NO.	DWT	NO.	DWT	NO.	DWT	NO.	DWT	NO.	DWT	NO.	DWT
SUMMARY—ALL TYPES															
25	**1,669**	**23**	**1,620**	**58**	**1,401**	**41**	**1,254**	**17**	**1,088**	**45**	**663**	**13**	**602**	**216**	**2,399**
—	—	—	—	—	—	1	28	—	—	—	—	13	602	—	—
2	29	2	58	14	239	8	24	1	28	—	—	—	—	2	45
—	—	—	—	6	71	1	3	—	—	—	—	—	—	—	—
4	18	10	752	—	—	1	5	—	—	—	—	—	—	2	11
2	39	—	—	6	17	15	161	—	—	—	—	—	—	20	199
10	1,202	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	306	4	485	—	—	2	499	2	449	1	54	—	—	6	191
—	—	2	264	25	1,048	2	235	—	—	15	162	—	—	9	90
—	—	4	49	3	10	1	6	3	201	—	—	—	—	5	48
—	—	1	12	—	—	—	—	—	—	9	130	—	—	66	428
4	75	—	—	4	16	10	293	11	410	20	317	—	—	106	1,387
FREIGHTERS															
8	**118**	**16**	**244**	**29**	**130**	**32**	**201**	**5**	**72**	**31**	**218**	**7**	**187**	**162**	**1,363**
—	—	—	—	—	—	1	28	—	—	—	—	7	187	—	—
1	2	1	21	6	53	8	24	—	—	—	—	—	—	1	21
—	—	—	—	3	9	1	3	—	—	—	—	—	—	—	—
1	2	7	103	—	—	1	5	—	—	—	—	—	—	2	11
2	39	—	—	4	11	11	68	—	—	—	—	—	—	17	113
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	2	39	—	—	—	—	—	—	—	—	—	—	1	12
—	—	1	20	9	31	—	—	—	—	10	30	—	—	7	55
—	—	4	49	3	10	1	6	—	—	—	—	—	—	4	25
—	—	1	12	—	—	—	—	—	—	6	34	—	—	44	292
4	75	—	—	4	16	9	67	5	72	15	154	—	—	86	834
BULK CARRIERS [3]															
6	**551**	**1**	**158**	**14**	**387**	**4**	**93**	**11**	**991**	**14**	**445**	**—**	**—**	**16**	**517**
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	6	123	—	—	1	28	—	—	—	—	—	—
—	—	—	—	2	50	—	—	—	—	—	—	—	—	—	—
—	—	1	158	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	4	93	—	—	—	—	—	—	2	84
6	551	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	2	449	1	54	—	—	2	83
—	—	—	—	6	214	—	—	—	—	5	132	—	—	—	—
—	—	—	—	—	—	—	—	3	201	—	—	—	—	1	23
—	—	—	—	—	—	—	—	—	—	3	96	—	—	1	4
—	—	—	—	—	—	—	—	5	313	5	163	—	—	10	323
TANKERS															
11	**1,000**	**6**	**1,218**	**15**	**884**	**5**	**960**	**1**	**25**	**—**	**—**	**6**	**415**	**38**	**519**
—	—	—	—	—	—	—	—	—	—	—	—	6	415	—	—
1	27	1	37	2	63	—	—	—	—	—	—	—	—	1	24
—	—	—	—	1	12	—	—	—	—	—	—	—	—	—	—
3	16	2	491	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	2	6	—	—	—	—	—	—	—	—	1	2
4	651	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	306	2	446	—	—	2	499	—	—	—	—	—	—	3	96
—	—	1	244	10	803	2	235	—	—	—	—	—	—	2	35
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	132
—	—	—	—	—	—	1	226	1	25	—	—	—	—	10	230

NOTE: Excludes ships operating exclusively on the Great Lakes and inland waterways and special types such as tugs, ferries, cable ship, etc.

APPENDIX III Employment of U.S. Flag Oceangoing Merchant Fleet June 30, 1973

(Tonnage in Thousands) [1]

Status and Area of Employment	TOTAL			VESSEL TYPE: COMBINATION PASS./CARGO			VESSEL TYPE: FREIGHTERS			VESSEL TYPE: TANKERS		
	Number	Gross Tons	Dwt. Tons	Number	Gross Tons	Dwt. Tons	Number	Gross Tons	Dwt. Tons	Number	Gross Tons	Dwt. Tons
Grand Total	**1,051**	**12,577**	**17,294**	**120**	**1,099**	**758**	**658**	**6,736**	**8,318**	**273**	**4,744**	**8,220**
ACTIVE VESSELS [2]	595	8,807	12,848	6	74	50	357	4,456	5,335	232	4,277	7,462
Foreign Trade	311	4,810	6,610	4	44	37	236	3,171	3,741	71	1,595	2,832
Nearby Foreign	14	177	286	—	—	—	5	44	55	9	133	231
Great Lakes-Seaway Foreign	—	—	—	—	—	—	—	—	—	—	—	—
Overseas Foreign	297	4,633	6,324	4	44	37	231	3,127	3,686	62	1,462	2,601
Foreign to Foreign	1	9	8	—	—	—	1	9	8	—	—	—
Domestic Trade	196	2,980	4,725	2	30	13	59	686	796	135	2,264	3,916
Coastwise	113	1,770	3,026	—	—	—	8	73	113	105	1,697	2,913
Intercoastal	17	213	281	—	—	—	13	156	190	4	57	91
Noncontiguous	66	997	1,418	2	30	13	38	457	493	26	510	912
Other U.S. Agency Operations	87	1,008	1,504	—	—	—	61	590	790	26	418	714
MSC Charter	68	874	1,324	—	—	—	45	471	630	23	403	694
Bareboat & Other Custody	19	134	180	—	—	—	16	119	160	3	15	20
INACTIVE VESSELS	456	3,770	4,446	114	1,024	707	301	2,278	2,981	41	467	758
Temporarily Inactive	22	349	530	—	—	—	14	189	249	8	160	281
Merchant Types	22	349	530	—	—	—	—	—	—	—	—	—
Military Types	—	—	—	—	—	—	14	189	249	8	160	281
Laid-Up (Privately Owned)	27	316	386	4	90	39	18	146	219	5	80	128
National Defense Reserve Fleet	407	3,105	3,534	110	934	668	269	1,944	2,517	28	227	349
Merchant Types	207	1,540	2,182	—	—	—	200	1,470	2,070	7	70	112
Military Types	200	1,565	1,352	110	934	668	69	474	447	21	157	237

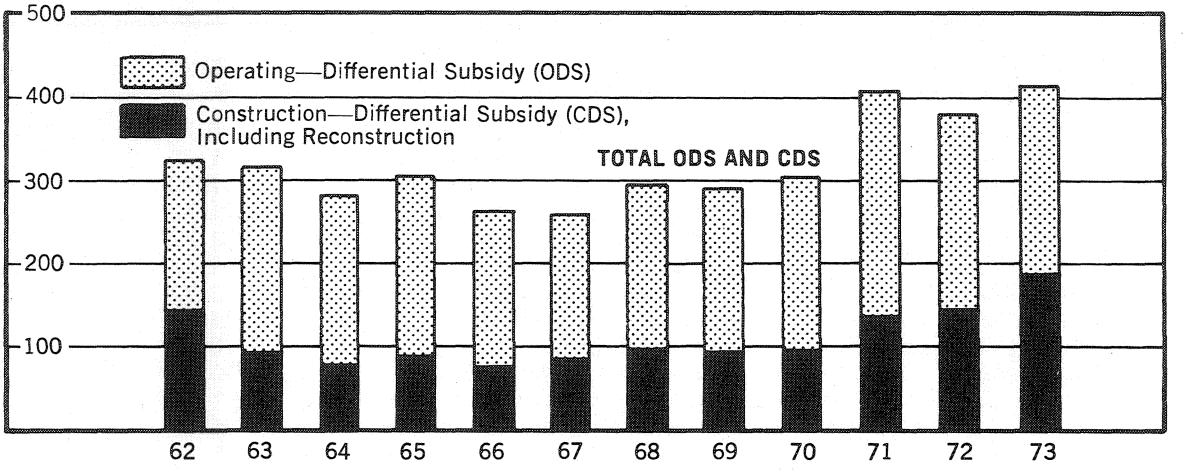
[1] Excludes vessels operating exclusively on the inland waterways, Great Lakes and those owned by the United States Army and Navy and special types such as cable ships, tugs, etc.

Note:

1. Tonnage figures may not be additive since the detailed figures have been rounded to the nearest thousand.
2. Nearby foreign includes Canada, Central America, West Indies, North Coast of South America, and Mexico.

APPENDIX IV Maritime Subsidy Expenditures

Millions of Dollars



FISCAL YEAR	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
TOTAL ODS & CDS	323.0	315.4	282.0	301.0	260.0	258.2	297.8	290.2	302.5	404.7	378.9	412.6
ODS	181.9	220.7	203.0	213.3	186.6	175.6	200.1	194.7	205.7	268.0	235.6	226.7
CDS (incl. Reconst.)	141.0	94.7	78.9	87.7	73.4	82.5	97.7	95.5	96.7	136.7	143.3	185.9

Fiscal Year	Construction—Differential Subsidy[1]	Reconstruction—Differential Subsidy[1]	Total Construction—and Reconstruction—Subsidy (CDS)[1]	Operating-Differential Subsidy (ODS)[2]	Total ODS and CDS
1936					
1937					
1938					
1939	$ 131,571,571				
1940	(Reflects CDS				
1941	adjustments cov-				
1942	ering World War			$ 16,601,213	
1943	II period)				
1944	plus				
1945	$ 105,852,291	$ 3,286,888	$ 246,249,167		$ 471,968,043
1946	(Equivalent to				
1947	CDS—allowances				
1948	made in connec-				
1949	tion with Mariner				
1950	ship construction			$ 5,784,595	
1951	program)			14,018,284	
1952				41,437,567	
1953				62,838,704	
1954	$ 5,538,417	0	$ 5,358,663	85,038,513	
1955	5,358,663	$ 14,368,688	15,982,405	115,391,111	$ 120,749,774
1956	1,613,737	3,909,695	20,288,271	135,342,146	151,324,551
1957	16,379,076	4,709,383	27,346,923	108,292,274	128,580,545
1958	22,637,540	7,065,416	28,744,963	120,031,522	147,378,445
1959	21,679,547	4,828,227	73,985,021	127,693,052	156,438,015
1960	69,156,794	1,215,432	103,333,951	152,756,154	226,741,175
1961	102,118,519	4,160,591	141,018,854	150,142,575	253,476,526
1962	136,858,263	4,181,314	94,695,616	181,918,753	322,937,607
1963	90,514,302	1,665,087	78,899,545	220,676,685	315,372,301
1964	77,234,458	38,138	87,687,146	203,036,847	281,936,392
1965	87,649,008	2,571,566	73,382,505	213,334,409	301,021,555
1966	70,810,939	932,114	82,524,616	186,628,357	260,010,862
1967	81,592,502	96,707	97,707,268	175,631,860	258,156,476
1968	97,610,561	57,329	95,517,421	200,129,670	297,836,938
1969	95,460,092	21,723,343	96,722,652	194,702,569	290,219,990
1970	74,999,309	27,450,968	136,701,369	205,731,711	302,454,363
1971	109,250,401	29,748,076	143,315,316	268,021,097	404,722,466
1972	113,567,240	17,384,604	185,877,663	235,666,821	378,982,137
1973	168,493,059			226,710,926	412,588,589
Total all FY	1,685,946,289	149,393,046	1,835,339,335	3,647,557,415	5,482,896,750

[1] Data for construction and reconstruction subsidies are stated on an accrued expenditure basis and do not include any refunds of CDS made for operation of CDS ships in domestic trades.

[2] Data for operating—differential subsidy are stated on basis of vouchers approved for payment.

APPENDIX V Ship Financing Guarantees Approved in FY 1973

No. of Ships	Name or Type	Company	Date	Amount
1	OVERSEAS JUNEAU	Overseas Bulktank Corp.	7/26/72	$ 27,000,000
1	15,000 HP Tug	Litton Industries Leasing Corp.	7/31/72	4,600,500
1	52,000 DWT Barge	Litton Industries Leasing Corp.	7/31/72	21,649,500
3	DELTA MAR	Delta Steamship Lines, Inc.	7/31/72	7,330,000
	DELTA NORTE	Delta Steamship Lines, Inc.	7/31/72	12,970,000
	DELTA SUD	Delta Steamship Lines, Inc.	7/31/72	13,100,000
1	NEW ZEALAND BEAR	Pacific Far East Line, Inc.	8/23/72	11,220,000
1	Oil Drilling Barge	La-Tex Gulf Drilling Corp.	9/11/72	825,789
1	Offshore Tug/Supply	Three R Trust Co.	9/13/72	1,933,000
2	Oceangoing Barges	Hannah Inland Waterways Corp.	9/27/72	822,000
		Hannah Inland Waterways Corp.	"	812,000
3	LNG's	Methane Alpha Co.	9/28/72	67,725,000
		Methane Beta Co.	"	62,625,000
		Methane Gamma Co.	"	61,800,000
3	LNG's	Cryogenic Energy Transport, Inc.	9/28/72	55,137,000
		Liquegas Transport, Inc.	"	55,137,000
		LNG Transport, Inc.	"	55,137,000
1	FORTALEZA	663 Leasing Co.	10/12/72	19,350,000
2	Ocean Tug/Barge	Bulk Food Carriers, Inc.	10/25/72	9,975,000
1	Semi-submersible Drilling	Diamond M Drilling Co.	11/24/72	12,750,000
1	PACESETTER III	Western Co. of N.A., Inc.	12/08/72	18,519,000
4	COMET	Offshore Logistics, Inc.	12/18/72	948,000
	ALLIANCE	Offshore Logistics, Inc.	"	355,424
	Drilling Supply	Offshore Logistics, Inc.	"	972,800
	Drilling Utility	Offshore Logistics, Inc.	"	362,000
7	Ocean Tugs	Nolty J. Theriot, Inc.	1/09/73	15,991,000
1	DELTA QUEEN	Greene Line Steamers	1/10/73	13,154,000
8	Ocean Deck Cargo Barges	World Services, Inc.	1/11/73	1,487,500
4	Drilling Barges	Mallard Well Service, Inc.	2/28/73	835,000
		Mallard Well Service, Inc.	"	878,000
		Mallard Well Service, Inc.	"	923,000
		Mallard Well Service, Inc.	"	970,000
4	Ocean Tug/Supply (Drill)	Aquamarine Associates	3/15/73	5,761,875
6	Ocean Supply (Drill)	Offshore Logistics, Inc.	3/27/73	12,459,740
2	Ocean Tugs	General Marine, Inc.	4/10/73	2,536,000
3	Boeing Hydrofoils	Pacific Sea Transport, Ltd.	4/18/73	12,990,000
11	River Barges	National Marine Services, Inc.	"	2,918,000
5	River Towboats	National Marine Services, Inc.	"	2,199,000
1	ILLINOIS	States Steamship Co.	4/25/73	18,000,000
2	River Towboats	Central Marine Corp.	5/15/73	1,950,000
6	River Barges	Central Marine Corp.	"	1,137,499
1	NOTRE DAME VICTORY	660 Leasing Co.	5/18/73	20,000,000
4	Tankers (89,700 DWT)	Third Group, Inc.	6/26/73	14,812,500
		Third Group, Inc.	"	14,812,500
		Third Group, Inc.	"	14,812,500
		Third Group, Inc.	"	14,812,500
1	Tanker (225,000 DWT)	Fillmore Tanker Co.	6/29/73	34,493,000
3	LNG's	Methane Delta Co.	"	74,250,000
		Methane Epsilon Co.	"	72,750,000
		Methane Zeta Co.	"	71,250,000
95				**$949,239,627**
450	Shipboard Lighters	Waterman Steamship Corp.		**16,635,000**
545				**$965,874,627**

APPENDIX VI Mortgages Executed-Committed in Previous Fiscal Year

Name of Vessel	Owner	Amount	Date
EXPORT FREEDOM	American Export Lines, Inc.	$ 6,550,000	08/07/72
EXPORT PATRIOT	American Export Lines, Inc.	7,050,000	01/22/73
OREGON MAIL*	American Mail Line, Ltd.	4,350,000	09/15/72
PRESIDENT JEFFERSON	American President Lines, Ltd.	7,824,000	02/16/73
PRESIDENT MADISON	American President Lines, Ltd.	7,824,000	04/12/73
PRESIDENT TAFT*	American President Lines, Ltd.	3,080,000	07/11/72
PRESIDENT McKINLEY*	American President Lines, Ltd.	2,926,000	09/08/72
PRESIDENT FILLMORE*	American President Lines, Ltd.	2,926,000	10/10/72
PRESIDENT POLK*	American President Lines, Ltd.	3,096,000	09/22/72
PRESIDENT MONROE*	American President Lines, Ltd.	3,096,000	11/28/72
PRESIDENT HARRISON	American President Lines, Ltd.	3,010,000	02/16/73
AUSTRAL ENVOY	Farrell Lines, Inc.	8,100,000	09/29/72
AUSTRAL ENSIGN	Farrell Lines, Inc.	8,100,000	02/27/73
AUSTRAL ENDURANCE	Farrell Lines, Inc.	8,100,000	05/31/73
JESSE MECHEM	Gulf Overseas Marine Corp.	768,000	03/06/73
TITUSVILLE	Gulf Overseas Marine Corp.	769,000	04/27/73
PAM ALARIO	Nolty J. Theriot, Inc.	1,594,000	09/15/72
ROBIN ALARIO	Nolty J. Theriot, Inc.	1,624,000	09/15/72
PHILIPPINE BEAR	Pacific Far East Line, Inc.	8,160,000	03/19/73
SEDKO K	Sedco Maritime, Inc.	16,450,000	05/08/73
SEDKO 702	Sedco Maritime, Inc.	20,050,000	05/08/73
25 river barges	Wisconsin Barge Line, Inc.	2,200,000	01/26/73
50 Shipboard lighters	Medbarge (Prudential-Grace Lines, Inc.)	1,667,000	11/08/72
50 Shipboard lighters	Medbarge (Prudential-Grace Lines, Inc.)	1,667,000	11/28/72
66 Shipboard lighters	BANT & SA (Pacific Far East Line, Inc.)	2,473,000	11/10/72
10 Shipboard lighters	Ohio Banclease (Pacific Far East Line, Inc.)	397,000	01/19/73
		$133,851,000	

* Second Mortgages

APPENDIX VII Construction Reserve Funds June 30, 1973

Operator	Cash	Securities	Total
Central Gulf Steamship Corp.	$ 2,436	$ 312,678	$ 315,114
Penn Export Company, Inc.	2,283	-0-	2,283
Penn Navigation Co.	644	548,000	548,644
Tank Barge 8, Inc.	91,226	1,134,937	1,226,163
Nolty J. Theriot, Inc.	802,000	-0-	802,000
Kathleen Turecamo, Inc.	4,282	-0-	4,282
Total June 30, 1973	$902,871	$1,995,615	$2,898,486
Total June 30, 1972	38,986	1,068,000	1,106,986
Net Increase	$863,885	$ 927,615	$1,791,500

APPENDIX VIII Ships Under Construction-Differential

Owner	Shipbuilder	Type of Ship
Prudential-Grace Lines, Inc.	Avondale Shipyards, Inc.	LASH — C9-S-81b
Farrell Lines, Inc.	Litton Systems, Inc.	Cargo — C6-S-85a
American President Lines, Ltd.	Litton Systems, Inc.	Cargo — C6-S-85b
Pacific Far East Line, Inc.	Bethlehem Steel Corp.	Containership — C7-S-88a
American Export Lines, Inc.	Bath Iron Works Corp.	Containership — C5-S-73b
Delta Steamship Lines, Inc.	Avondale Shipyards, Inc.	LASH — C9-S-81d
Waterman Steamship Corp.	Avondale Shipyards, Inc.	LASH — C9-S-81d
Central Gulf Steamship Corp.	Avondale Shipyards, Inc.	LASH — C9-S-81d
Aries Marine Shipping Co.	National Steel & Shipbuilding Co.	OBO — OB8-S-90a
Margate Shipping Co.	National Steel & Shipbuilding Co.	Tanker — T6-S-93a
Aeron Marine Shipping Co.	National Steel & Shipbuilding Co.	Tanker — T8-S-100b
MFC-Boston Tankers, Inc. II	Bethlehem Steel Corp.	Tanker — T10-S-101b
MFC-Boston Tankers, Inc. IV	Bethlehem Steel Corp.	Tanker — T10-S-101b
MFC-Boston Tankers, Inc. VI	Bethlehem Steel Corp.	Tanker — T10-S-101b
Sea Service Tankers	Todd Shipyards Corp.	Tanker — T6-M-98a
States Steamship Co.	Bath Iron Works Corp.	RO/RO — C7-S-95a
Langfitt Shipping Corp.	Seatrain Shipbuilding Corp.	Tanker — T10-S-92a
Tyler Tanker Corp.	Seatrain Shipbuilding Corp.	Tanker — T10-S-92a
Polk Tanker Corp.	Seatrain Shipbuilding Corp.	Tanker — T10-S-92a
Methane Alpha Co.	Newport News Shipbuilding & Drydock Co.	LNG — LG9-S-94a
Methane Beta Co.	Newport News Shipbuilding & Drydock Co.	LNG — LG9-S-94a
Methane Gamma Co.	Newport News Shipbuilding & Drydock Co.	LNG — LG9-S-94a
Cryogenic Energy Transport, Inc.	General Dynamics Corp.	LNG — LG8-S-102a
Liquegas Transport, Inc.	General Dynamics Corp.	LNG — LG8-S-102a
LNG Transport, Inc.	General Dynamics Corp.	LNG — LG8-S-102a
Methane Delta Co.	Avondale Shipyards, Inc.	LNG — LG9-S-107a
Methane Epsilon Co.	Avondale Shipyards, Inc.	LNG — LG9-S-107a
Methane Zeta Co.	Avondale Shipyards, Inc.	LNG — LG9-S-107a
Third Group, Inc.	National Steel & Shipbuilding Co.	Tanker — T8-S-100b
Gulf Oil, Corp.	Bethlehem Steel Corp.	Tanker — T10-S-101b
Fillmore Tanker Corp.	Seatrain Shipbuilding Corp.	Tanker — T10-S-92a

Total Ships under CDS Construction contracts on June 30, 1973

APPENDIX IX Maritime Administration Research and

PROJECT	VENDOR	CONTRACT	AMOUNT
Maritime Research Information System	National Academy of Sciences Washington, D.C.	C-O-35498	$ 200,000
Maritime Transportation Research Board	Department of the Navy Arlington, Va.	4000-38032	108,160
Ship Structure Committee	Department of the Navy Hyattsville, Md.	400-38033	135,000
NS SAVANNAH Facilities and Support	Todd Shipyards Corp. Galveston, Tex.	MA-2206 3-36302	264,140

Subsidy, June 30, 1973

No. of Ships	Total DWT Tonnage	Estimated Completion Date	Total Estimated Cost [1]	Estimated Cost to Gov't of Construction-Differential Subsidy	Estimated Cost to Gov't of National Defense Features
2	59,640	[2]	$ 46,652,000	$ 22,462,376	$ 26,000
1	20,000	11/06/73	20,963,560	11,002,968	13,518
2	41,640	12/18/73	43,452,624	20,687,249	25,263
2	52,124	1/31/74	50,565,000	23,521,000	50,000
1	16,345	7/02/73	16,993,333	7,083,333	.....
3	117,300	10/30/73	85,395,000	37,718,070	60,000
3	117,300	6/15/74	83,589,000	36,919,818	60,000
3	117,300	1/31/75	82,200,000	35,649,984	60,000
2	161,000	3/29/74	60,092,000	27,000,000	92,000
3	114,900	3/14/75	54,665,100	23,435,043	165,000
3	269,100	7/03/75	83,566,461	35,814,000	166,461
1	265,000	3/14/75	71,234,000	30,566,000	133,000
1	265,000	8/29/75	71,234,000	30,566,000	133,000
1	265,000	1/30/76	71,234,000	30,566,000	133,000
4	140,000	3/31/76	79,460,000	34,120,000	.....
4	71,436	9/22/76	149,467,124	62,878,000	934,124
1	225,000	9/30/73	46,043,200	19,766,000	43,200
1	225,000	5/31/74	62,929,700	27,017,500	57,700
1	225,000	1/31/75	62,929,700	27,017,500	57,700
1	63,460 [3]	5/15/76	106,577,000	27,291,000	17,000
1	63,460 [3]	10/31/76	96,837,500	24,792,000	17,500
1	63,460 [3]	4/15/77	94,238,000	24,125,000	18,000
1	63,600 [3]	12/31/75	89,575,000	21,231,535	20,000
1	63,600 [3]	3/31/76	89,575,000	21,231,535	20,000
1	63,600 [3]	3/31/77	89,575,000	21,231,535	20,000
1	63,170 [3]	10/15/76	106,020,000	17,495,000	20,000
1	63,170 [3]	4/15/77	103,020,000	17,000,000	20,000
1	63,170 [3]	10/15/77	100,020,000	16,505,000	20,000
4	358,800	12/31/76	112,760,000	41,040,000	240,000
2	530,000	4/30/77	162,918,400	66,570,500	302,000
1	225,000	3/30/76	70,603,500	28,800,000	63,500
55	**4,452,575**	.....	**$2,464,385,202**	**$871,103,946**	**$2,987,966**

[1] Total Contract Cost Including CDS and National Defense Features, but Excluding Engineering and Change Orders.
[2] Vessels completed, but not accepted by owner.
[3] 125,000 Cubic Meter Liquefied Natural Gas Carriers.

Development Contracts Awarded During Fiscal Year 1973

PROJECT	VENDOR	CONTRACT	AMOUNT
Consolidated Nuclear Steam Generator (CNSG) Pump Bearing Test	Babcock & Wilcox Co. Lynchburg, Va.	1-35555	101,120
Tanker and General Cargo Forecasts: FY 1975, 1985, 1990	Computer Network Corp. Washington, D.C.	3-23632	2,200
AEC License No. 1 NS SAVANNAH	Atomic Energy Commission Washington, D.C.	400-38029	2,400
Nuclear-Powered Arctic Ships-Offshore Oil Exploration	Global Marine, Inc. Los Angeles, Calif.	3-36263	82,690

APPENDIX IX Maritime Administration Research and

(Continued)

PROJECT	VENDOR	CONTRACT	AMOUNT
CNSG Environmental Impact Statement for an Electrical System	Babcock & Wilcox Co. Lynchburg, Va.	2-36216	25,102
CNSG Pre-Procurement Engineering	Babcock & Wilcox Co. Lynchburg, Va.	2-36216	1,144,000
CNSG-Fuel Assembly Mechanical and Hydraulic Evaluation and Helical Coil Tube Test	Babcock & Wilcox Co. Lynchburg, Va.	1-35555	544,519
CNSG Design & Development	Babcock & Wilcox Co. Lynchburg, Va.	1-35030	19,669
CNSG Environmental Tasks	NUS Corp. Rockville, Md.	3-36273	130,000
Competitive Marine Propulsion System	Booz-Allen Applied Research Inc. Bethesda, Md.	1-35058	5,940
Self-Regulating Steam Generator	Combustion Engineering Corp. Windsor, Conn.	MA-3477	47,192
Power Systems Study	J. J. McMullen New York, N.Y.	MA-3730	5,640
Marine Planetary Transmission Systems "A" and "F"	Curtiss-Wright Woodridge, N.J.	3-36247	1,525,026
Closed Cycle Gas Turbine LNG Refrigeration System	AiResearch Phoenix, Ariz.	3-36300	250,000
Port Collection and Separation Facilities for Oily Wastes	Frederic R. Harris, Inc. New York, N.Y.	2-36202	74,343
Great Lakes Pollution Reports	Cleveland Cliffs Iron Co. Cleveland, Ohio	3-23682	1,165
Regenerative Oil-Water Separator	Hydronautics Laurel, Md.	O-35467 Ph. III	219,120
Segregated Ballast Tanker	J. J. Henry, Co. New York, N.Y.	2-36313	11,500
Oil-Water Instrument	Illinois Institute of Technology Research Institute Chicago, Ill.	MA-3854	924
Pollution Prevention & Control	Esso Research, Inc. Florham Park, N.J.	1-35049	200,000
Supertankers—Environmental Impact Statement	Ecology & Environment Inc. Buffalo, N.Y.	3-36270	52,850
Tanker Model Tests—Varying Ballasts	Stevens Institute of Technology Hoboken, N.J.	3-36299	45,000
Tug-Barge Calculations	Marshall Space Flight Center Huntsville, Ala.	400-28008	33,700
Structural Test—Rigid Tug/Barge	Ingram Ocean Systems, Inc. New Orleans, La.	1-35475	29,398
Tug/Barge Architecture	G. G. Sharpe, Inc. New York, N.Y.	2-36285	19,812
Rational Ship Structural Design Criteria—Wave Meter— PHILLIPINE MAIL and JAPANESE MAIL	Sea Use Council Seattle, Wash.	2-36210	30,705
Submarine Transportation Financing	National Bureau of Standards Washington, D.C.	400-38035	11,000
Submarine Transportation Project	J. B. Lassister & J. S. Devanney, Martingale Co. Cambridge, Mass.	3-36230	21,000

Development Contracts Awarded During Fiscal Year 1973

PROJECT	VENDOR	CONTRACT	AMOUNT
Establish Corrosion Fatique Properties of Propeller Alloys in Sea Water	Battelle Memorial Institute Columbus, Ohio	3-36208	146,900
LASH Ship Instrumentation Load Response of Ship Structure	Avondale Shipyards, Inc. New Orleans, La.	3-36264	50,000
Seakeeping Bilge Keel Effect	Massachusetts Institute of Technology Cambridge, Mass.	3-36277	106,415
Bluff Form Model Testing	Hydronautics Laurel, Md.	1-35387	377,430
Ship Maneuvering Studies	Massachusetts Institute of Technology Cambridge, Mass.	3-36291	40,600
Shipbuilding—Cable & Ventilation	Todd Shipyards Corp. Seattle, Wash.	2-36233	150,000
Shipbuilding—Ship Design	Bath Iron Works Corp. Bath, Maine	3-36233	880,000
Shipping Market Analysis Inland Commodity Movement	Corps of Engineers Vicksburg, Miss.	400-38034	7,500
Test & Evaluation—Welding	Bethlehem Steel Corp. Sparrows Point, Md.	2-36214	119,000
Prelikon Development (Autokon)	Shipping Research Services Alexandria, Va.	3-36306	90,000
Shipyard Automation—Autokon 71	Shipping Research Services Oslo, Norway	2-36257	3,000,000
Shipbuilding Computer Aids	Avondale Shipyards, Inc. New Orleans, La.	3-36228	300,000
Shipbuilding Systems Management	Illinois Institute of Technology Research Institute Chicago, Ill.	3-36235	329,663
Shipbuilding Management & Cost Information System	Todd Shipyards Corp. Galveston, Tex.	3-36259	700,000
LNG Technology and Transport	Booz-Allen Applied Research Corp. Bethesda, Md.	3-36201	376,582
LNG Test Tanks—Liquid Sloshing	Southwest Research Institute San Antonio, Tex.	3-36281	19,734
Leakage Through Crack in LNG Tankage	Versar Corp. Springfield, Va.	3-36301	75,733
LNG Cryogenic Program	National Bureau of Standards Boulder, Colo.	400-38041	300,000
Neo-Bulk Shipping System	Harbridge House Washington, D.C.	1-35520	45,000
Neo-Bulk Shipping System	Harbridge House Washington, D.C.	3-36276	49,331
Shipping Systems Analysis and Requirements	Bath Iron Works Corp. Bath, Maine	3-36289	48,100
U.S. Ocean Shipping Technology and Assessment	United Aircraft Corp. Hartford, Conn.	3-36204	376,769
Harbor Service Craft Requirements	City of Tacoma Tacoma, Wash.	3-36268	53,600
Computer Time Sharing Services and Terminal Rental	General Electric Washington, D.C.	1-35031	70,000
Shipbuilding Program Support	Mark Battle Associates Washington, D.C.	2-36203	156,000

APPENDIX IX Maritime Administration Research and
(Continued)

PROJECT	VENDOR	CONTRACT	AMOUNT
Container on Deck System	Matson Steamship Co. San Francisco, Calif.	3-36292	127,810
Cargo Stowage Program	States Steamship Co. San Francisco, Calif.	3-36290	50,000
Ice Transiting Cost Benefit Analysis Model—Great Lakes	University of Michigan Ann Arbor, Mich.	1-35487	89,425
Ice Transiting System	Wartsila Shipyard Helsenki, Finland	1-35502	166,000
De-icing Bubbler System—Great Lakes	Arctec, Inc. Columbia, Md.	3-36266	228,300
De-icing Bubbler System—Great Lakes	U.S. Steel Corp. Duluth, Minn.	3-36225	539,050
Economic Assessment of Great Lakes/St. Lawrence Seaway Extended Season Operations, Phase III	University of Michigan Ann Arbor, Mich.	1-35487	225,000
Installation of Anti-Stranding Sonar Device	Avondale Shipyards, Inc. New Orleans, La.	MA/MSB-10600	35,600
Marine Radar Transponder Experiment, Phase II	Sperry Systems, Inc. Charlottesville, Va.	3-36249	265,000
Satellite Nav/Comm System NMRC, Kings Point	Applied Information Industries Moorestown, N.J.	3-35594	21,996
Maritime Digital Selective Calling Support	Office of Telecommunications Boulder, Colo.	400-38036	55,000
Inland Waterways Evaluation of MarAd Satellite Communications	General Electric Schenectady, N.Y.	3-36216	13,500
Develop VHF Communication System in the Great Lakes	Advanced Technology Systems Arlington, Va.	3-36214	32,050
Maritime Digital Selective Calling Encoder/Decoder	STE, Sylvania Corp. Mountain View, Calif.	3-36220	245,954
Radio Technical Commission Marine (TRCM)	Federal Communications Commission Washington, D.C.	400-38027	6,400
Inland Waterways Communications System	Airinc, Inc. Annapolis, Md.	3-36258	111,172
Improved VHF Communications Great Lakes	Lorain, Inc. Lorain, Ohio	3-36280	245,000
Satellite Experiment	Computer Sciences Corp. Falls Church, Va.	3-36278	18,000
NASA Navigation/Communication	Goddard Space Flight Center Beltsville, Md.	400-38040	25,000
Advanced Maritime Comm/Nav Trade-off Study	Magnavox, Corp. Silver Spring, Md.	3-36297	38,855
Floatable Waste Treatment Plan	Lockheed Shipbuilding Corp. Seattle, Wash.	2-36200	207,285
Offshore Terminal	Soros Associates New York, N.Y.	1-35409	234,336
Hurricane Effects on Port Facilities—Atlantic & Gulf Coast Ports	National Bureau of Standards Gaithersburg, Md.	400-38042	106,000
Intermodal Documentation Demonstration Project	Port of San Francisco San Francisco, Calif.	3-36212	76,942
Arctic Marine Requirements Study	Arctic Institute Inc. Washington, D.C.	2-36288	65,380

Development Contracts Awarded During Fiscal Year 1973

PROJECT	VENDOR	CONTRACT	AMOUNT
Automatic Container Identification	Computer Identics Westwood, Mass. & American Export Lines, Inc. New York, N.Y.	3-36255	1,122,000
Shipping Operations Information System (S.O.I.S.)	Computer Sciences Corp. Falls Church, Va.	2-36238	27,232
VIDEC	Raytheon, Inc. Providence, R.I.	2-36251	106,327
VIDEC	Litton Industries Pascagoula, Miss.	1-35482	336,000
Advanced Conning System	American Export Lines, Inc. New York, N.Y.	1-35410	41,165
Shipboard Skills & Disciplines	Stanwick Corp. Norfolk, Va.	0-35505	31,710
VIDEC System on-Board SS PRESIDENT JOHNSON	American President Lines, Ltd. San Francisco, Calif.	3-36246	50,000
Integrated Ship System Chevron, Phase I	Sperry Systems, Inc. Charlottesville, Va.	3-36725	475,000
Computer Aided Operations Research Facility Simulator (AURF)	Sperry Systems, Inc. Great Neck, N.Y.	1-35515	5,670,183
National Maritime Research Center	Kings Point, N.Y.	various	1,744,254
National Maritime Research Center	Galveston, Tex.	various	1,851,560
Radio Frequency Management	National Oceanic & Atmospheric Administration Rockville, Md.	400-38028	9,936
Marine Insurance Information System	PRC Information Systems Sciences McLean, Va.	3-36203	139,797
Cost Accounting & Cost Information System	Peat, Marwick & Mitchell Corp. San Francisco, Calif.	3-36229	350,000
Maritime Data Coding System	Data Architects Corp. Waltham, Mass.	2-36278	14,883
Rates of Vessels Operating in Foreign Trade with U.S.	S. J. Hille Beltsville, Md.	2-36318	2,230
Domestic Shipping Data Tapes	Sun Shipbuilding Co. Chester, Penna.	3-36219	7,000
Maritime Contract Impact System	Computer Network Corp. Washington, D.C.	3-36244	125,000
Life Cycle Costs of Tank Barge Designs	Breit Engineering Co. New Orleans, La.	3-36234	51,000
Union/Management Evaluation Project 72	Computer Network Corp. Washington, D.C.	2-36283	10,000
Intercoastal Movement of U.S. Forest Products & Bulk Forecasts	Jones, Bardelmeier, Co. Nassau, Bahamas	2-36245	85,000
Time Movement Profiles, Export of Selected Agricultural Perishables	TRC Development, Inc. La Jolla, Calif.	3-36248	25,036
Bulk Movement Information System	Marine Management Systems Stamford, Conn.	3-36211	10,000
Wharton Forecasting Model	Wharton School, University of Penna. Philadelphia, Penna.	3-36243	11,000
Gulf Coast Shipyard Program	J. D. Hatley Galveston, Tex.	3-36283	11,775

APPENDIX X Status of United States Merchant Marine, June 30, 1973

(Oceangoing merchant vessels 1,000 gross tons and over, excluding privately owned tugs, barges, etc.

(Tonnage in Thousands)[1]

	Privately Owned			Government Owned			Total		
Type of Vessel	Number Ships	Gross Tons	Deadweight Tons	Number Ships	Gross Tons	Deadweight Tons	Number Ships	Gross Tons	Deadweight Tons
ACTIVE FLEET:									
Combo Pass/Cargo	6	74	50	0	0	0	6	74	50
Freighters	194	1,988	2,583	20	154	209	214	2,142	2,792
Bulk Carriers	24	312	526	0	0	0	24	312	526
Tankers	226	4,226	7,383	6	51	79	232	4,277	7,462
Intermodal	118	1,995	2,007	1	7	10	119	2,002	2,017
TOTAL ACTIVE FLEET	**568**	**8,595**	**12,549**	**27** [2]	**212**	**298**	**595**	**8,807**	**12,848**
INACTIVE FLEET:									
Combo Pass/Cargo	3	52	23	111	972	684	114	1,024	707
Freighters	22	189	261	267	1,932	2,503	289	2,120	2,764
Bulk Carriers	5	63	105	0	0	0	5	63	106
Tankers	13	240	409	28	227	349	41	467	758
Intermodal	5	83	98	2	12	14	7	95	111
TOTAL INACTIVE FLEET	**48**	**627**	**896**	**408** [3]	**3,143**	**3,550**	**456**	**3,770**	**4,446**
TOTAL:									
Combo Pass/Cargo	9	126	73	111	972	684	120	1,099	758
Freighters	216	2,177	2,844	287	2,086	2,712	503	4,263	5,557
Bulk Carriers	29	375	632	0	0	0	29	375	632
Tankers	239	4,466	7,792	34	278	428	273	4,744	8,220
Intermodal	123	2,078	2,105	3	19	24	126	2,098	2,129
TOTAL AMERICAN FLAG	**616**	**9,222**	**13,445**	**435**	**3,355**	**3,849**	**1,051**	**12,577**	**17,294**

[1] All tonnage figures are preliminary and may not be additive due to rounding.
[2] Includes 8 vessels in bareboat charter; and 19 vessels in custody of other agencies.
[3] National Defense Reserve Fleet which consists of 407 vessels, of which 153 are scrap candidates.

APPENDIX XI Combined Condensed Financial Statements of Subsidized and Unsubsidized Operators[1]

Statement A—Combined Condensed Balance Sheets
December 31, 1972
(Stated in Thousand Dollars)

(See Notes)

	Subsidized	Unsubsidized	
		Tanker	Cargo
ASSETS			
Current Assets:			
Cash	$ 17,031	$ 39,139	$ 16,032
Marketable Securities	42,715	7,966	33,534
Accounts Receivable	170,452	28,253	51,174
Other	64,122	17,430	12,456
Total Current Assets	$ 294,320	$ 92,788	$113,196
Special Funds and Deposits	178,735 [2]	60,866	6,647
Investments	21,536	22,154	27,370
Deferred ODS Receivable (See Contra)	23,246 [3]	—0—	—0—
Property and Equipment—Less Depreciation:			
Vessels	876,986	303,677	291,901
Other	269,471	10,151	62,475
Other Assets	64,271	69,319	34,695
Voyages in Progress—Net	—0—	200	—0—
Total Assets	$1,728,565	$559,155	$536,284
LIABILITIES AND NET WORTH			
Liabilities:			
Current Liabilities:			
Accounts Payable and Accruals	$ 199,570	$ 28,170	$ 59,688
Current Long-Term Debt	16,499	20,944	14,204
Other	13,768	2,677	23,964
Total Current Liabilities	$ 229,837	$ 51,791	$ 97,856
Voyages in Progress—Net	30,592	8,502	9,168
Long-Term Debt	642,088 [2]	315,550	195,839
Recapture ODS (See Contra)	23,246 [3]	—0—	—0—
Operating Reserves	47,783	1,174	26,328
Other Liabilities	48,115	36,025	37,806
Total Liabilities	$1,021,661	$413,582	$366,997
Net Worth:			
Capital Stock	$ 112,446	$ 41,375	$ 28,809
Surplus:			
Capital	$ 254,086	$ 50,734	$134,988
Earned	340,372	53,464	5,490
Total Surplus	$ 594,458	$104,198	$140,478
Total Net Worth	$ 706,904 [4]	$145,573	$169,287
Total Liabilities and Net Worth	$1,728,565	$559,155	$536,284

APPENDIX XI (Continued)

Statement B—Income and Surplus Accounts
December 31, 1972
(Stated in Thousand Dollars)

	Subsidized	Unsubsidized	
		Tanker	Cargo
Shipping Operations:			
Revenue:			
Terminated Voyages	$778,041	$130,674	$335,973
Other Shipping Operations	11,028	2,629	12,943
Total Revenue	789,069	133,303	348,916
Expenses:			
Terminated Voyage Expense:			
Wages, Payroll Taxes, Welfare Contributions	262,399	38,041	65,764
Subsistence	11,319	1,641	2,541
Maintenance and Repair	42,053	872	10,730
Insurance (Hull and P and I)	46,893	10,214	18,340
Total	362,664	50,768	97,375
Less: Operating-Differential Subsidy (ODS)	202,894	—0—	—0—
Total	159,770	50,768	97,375
Other Vessel Expense	66,641	22,977	26,624
Voyage Expense	343,648	10,735	117,927
Total Terminated Voyage Expense	570,059	84,480	241,926
Other Shipping Operations Expense:			
Overhead	98,331	7,137	36,370
Depreciation on Shipping Property	49,172	18,706	21,503
Other Miscellaneous Shipping Expenses	44,867	3,210	26,621
Total Expense	762,429	113,533	326,420
Gross Profit from Shipping Operations	26,640	19,770	22,496
Interest and Other Income	16,612	6,378	8,396
Interest and Other Deductions	(35,272)	(20,354)	(17,968)
Net Profit from Shipping Operations	7,980	5,794	12,924
Non-Shipping Operations—Net Profit (loss)	(2)	145	94
Ordinary Income before Federal Income Taxes	7,978	5,939	13,018
Provisions for Federal Income Taxes	1,175	781	2,359
Ordinary Income After Taxes	6,803	5,158	10,659
Extraordinary and Prior Period Items:			
Extraordinary Items—Net Income (Net Expense)	5,421	—0—	(2,871)
Prior Period Items—Net Income (Net Expense)	(355)	23	(4)
Federal Income Taxes Thereon (Net Expense)	2,407	(34)	28
Total	7,473	(11)	(2,847)
Net Income	14,276	5,147	7,812
Add: Surplus (Capital and Earned) Beginning of Year	593,971 [5]	101,072	140,183
Total Surplus Available	608,247	106,219	147,995
Surplus Changes:			
Cash Dividends	(11,275)	(1,900)	(9)
Other (Net)	(2,514) [6]	(121) [6]	(508) [6]
Total	(13,789)	(2,021)	(7,517)
Surplus (Capital and Earned) End of Year	$594,458	$104,198	$140,478

APPENDIX XI (Continued)

NOTES to Statements A & B

(Amounts Stated in Thousand Dollars)

[1] The data were obtained from Forms MA-172 filed (1) by the 11 subsidized operators for the calendar year 1972 and (2) by 13 cargo and 32 tanker unsubsidized operating companies for various 1972 fiscal year periods, covering 204 subsidized vessels, 51 unsubsidized tankers, 132 unsubsidized cargo vessels.

[2] Long-Term Debt includes $5,685 of mortgage indebtedness due within one year and payable from special funds and deposits of subsidized operators.

[3] Represents Government's share of recapturable subsidy deducted from subsidy payments pending settlement of 10 year subsidy recapture periods. Of the amount shown $19,488 applies to completed but unsettled subsidy recapture periods, and $3,558 applies to current incomplete subsidy recapture periods. The corresponding amounts at December 31, 1971, were $25,005 and $10,466.

[4] Net Worth of the 11 subsidized operators includes earnings of $524,701 on which Federal income taxes have been deferred as of December 31, 1972. This reflects an increase of $18,686 when compared with $506,015 as of December 31, 1971. Deferred earnings of $17,772 were eliminated from the above 1971 figures for companies which are no longer subsidized.

[5]

Opening Surplus 1972 annual report	$609,747
Less: Surplus for companies no longer subsidized	23,385
	$586,362
Add: Surplus for new subsidized companies	7,609
Opening surplus for 1973 annual report	$593,971

[6] Other Surplus changes for subsidized and unsubsidized operators resulted from contributions of capital and prior period adjustments.

APPENDIX XII Operating-Differential Subsidy Contracts in Force, June 30, 1973

Operator	ODS Agreement Contract No. (Effective Date)	Contract Termination Date	Number of Subsidized Ships 6/30/73	Service	Annual Sailings Minimum	Annual Sailings Maximum
A. Liner Trades:						
American Export Lines, Inc.	FMB-87 (1-1-60)	12-31-79	21	U.S. North Atlantic/ Mediterranean (T.R. 10)	76	102
				U.S. Atlantic/India-Pakistan (T.R. 18)	24	29
				U.S. Atlantic/Far East (T.R. 12)	24	30
American Mail Line Ltd.	FMB-76 (1-1-59)	12-31-78	10	U.S. Pacific/Far East (T.R. 29)	40	60
American President Lines, Ltd.	FMB-50 (1-1-57)	12-31-76	20	California/Far East (T.R. 29) Freight	32	54
				Round-the-World (Westbound) combined service minimum of 42	24	36
				Atlantic Straits (T.R. 17) combined service minimum of 42	12	28

APPENDIX XII Operating-Differential Subsidy Contracts in Force, June 30, 1973

Operator	ODS Agreement Contract No. (Effective Date)	Contract Termination Date	Number of Subsidized Ships 6/30/73	Service	Annual Sailings Minimum	Annual Sailings Maximum	
Delta Steamship Lines, Inc.	FMB-63 (1-1-58)	12-31-77	8	U.S. Gulf/East Coast South America (T.R. 20)	43		Overall maximum not to exceed 79
				U.S. Gulf/West Africa (T.R. 14)	24		
Farrell Lines, Inc.	FMB-64 (1-1-58)	12-31-77	12	U.S. Atlantic/West Africa (T.R. 14)	20		Overall maximum not to exceed 89
				U.S. Atlantic/South & East Africa (T.R. 15A) (Max. 30)	20		
				U.S. Atlantic & Gulf/Australia (T.R. 16)	16		
Lykes Bros. Steamship Co., Inc.	FMB-59 (1-1-58)	12-31-77	41	U.S. Gulf/Mediterranean (T.R. 13)	42	48	Overall maximum not to exceed 246
				U.S. Gulf/South & East Africa (T.R. 15B)	18	24	
				U.S. Gulf/U.K.-Continent (T.R. 21)	24	84	
				U.S. Gulf/Far East (T.R. 22)	48	60	
				U.S. Gulf/West Coast South America (T.R. 31)	30	36	
Moore-McCormack Lines, Inc.	FMB-48 (Rev.) (1-1-58)	12-31-77	14	U.S. Atlantic/East Coast South America (T.R. 1) Freight	50	86	
				U.S. Atlantic/South & East Africa (T.R. 15A) Freight	20	30	
Pacific Far East Lines, Inc.	FMB-81 (1-1-59)	12-31-78	8	U.S. Pacific/Australia (T.R. 27) Comb. (excl. cruises)	12	16	
				Freight	8	13	
				California/Far East (T.R. 29) Freight	48	63	
Prudential-Grace Lines, Inc.	FMB-49 (1-1-58)	12-31-77	15	U.S. North Atlantic/Mediterranean (T.R. 10)	34	43	
				U.S. Atlantic/West Coast South America (T.R. 2) Freight	48	62	
				U.S. Atlantic/Caribbean (T.R. 4) Freight	24	30	
				U.S. Pacific/So. American, Caribbean, Central America & Mexico (T.R. 23, 24, 25) Combination	25	42	
States Steamship Co.	FMB-62 (1-1-58)	12-31-77	13	Washington-Oregon/Far East (T.R. 29) (Service A)	10	16	
				Washington-Oregon-California/Far East (T.R. 29) (Service B)	20	35	
				California/Far East (T.R. 29) (Service C)	22	33	

Operator	ODS Agreement Contract No. (Effective Date)	Contract Termination Date	Number of Subsidized Ships 6/30/73	Service	Annual Sailings Minimum	Annual Sailings Maximum
Waterman Steamship Corp.	MA/MSB-115 (6-4-71)	6-3-91	16 [1]	U.S. Atlantic-Gulf/India-Persian Gulf & Red Sea (T.R. 18)	20	26
	MA/MSB-138 (5-8-72)	5-7-75		U.S. Gulf/Far East (T.R. 22)	18	30
	MA/MSB-253 (4-23-73)	12-31-74		U.S. Gulf Ports/United Kingdom and Continent (T.R. 21)	20	35
Total Liner Trades			**178**		**902**	**1,313**
B. Bulk Trades:						**No. of Ships to be Subsidized**
Aeron Marine Shipping Co.	MA/MSB-166 (6-30-72)	[2]	0	Worldwide Bulk Trade		3
American Shipping, Inc.	MA/MSB-272 (6-26-73)	[2]	0	Worldwide Bulk Trade		1
American Steamship Co.	MA/MSB-137 (4-21-72)	[3]	6	Great Lakes/Canada		—
Aries Marine Shipping Co.	MA/MSB-129 (6-30-71)	[2]	0	Worldwide Bulk Trade		2
Atlas Marine Shipping Co.	MA/MSB-274 (6-26-73)	[2]	0	Worldwide Bulk Trade		1
Ecological Shipping Corp.	MA/MSB 275 (6-15-73)	[4]	1	Worldwide Bulk Trade		1
Margate Shipping Co.	MA/MSB-134 (1-4-72)	[2]	0	Worldwide Bulk Trade		3
Pacific Shipping, Inc.	MA/MSB-273 (6-26-73)	[2]	0	Worldwide Bulk Trade		1
Sea Service Tankers, Inc.	MA/MSB-167 (6-30-72)	[2]	0	Worldwide Bulk Trade		4
Worth Oil Transport Co.	MA/MSB-271 (6-26-73)	[2]	0	Worldwide Bulk Trade		1
Total Bulk Trades			**7**			**17**
Total Liner and Bulk Trades			**185**			

[1] Includes 3 ships chartered from P.F.E.L. The total Waterman fleet of 16 vessels is interchangeable between the company's 3 subsidized services.
[2] 20 years from the date of entry of the first vessel into its subsidized service.
[3] Contract terminated 6/30/73.
[4] Five years from date of entry of vessel in subsidized service.

APPENDIX XIII Operating-Differential Subsidy Contracts as of June 30, 1973

Company	Contract No.	Date	Ships
Academy Tankers, Inc.	MA/MSB-219	12/07/72	THOMAS A THOMAS Q THOMAS M
Albany River Transport, Inc.	MA/MSB-234	03/09/73	ALBANY
American Eagle Tanker Corp.	MA/MSB-245	01/31/73	AMERICAN EAGLE
American Rice Steamship Co.	MA/MSB-214	04/24/73	AMERICAN RICE
American Trading Transportation Co., Inc.	MA/MSB-221	12/14/72	VIRGINIA TRADER MARYLAND TRADER WASHINGTON TRADER
Blackships, Inc.	MA/MSB-246	02/09/73	GULFKING GULFQUEEN GULFPRINCE GULFKNIGHT
Cities Service Tankers, Corp.	MA/MSB-244 Addendum	01/18/73 06/07/73	CANTIGNY CITIES SERVICE BALTIMORE BRADFORD ISLAND FORT HOSKINS CITIES SERVICE NORFOLK CITIES SERVICE MIAMI
Connecticut Transport, Inc.	MA/MSB-191	11/24/72	CONNECTICUT
Chas Kurz & Co., Inc.	MA/MSB-188	11/22/72 04/19/73	JULESBURG TULLAHOMA SANDY LAKE BIRCH COULIE FORT FETTERMAN GAINES MILL MILL SPRING NORTHFIELD
Eagle Terminal Tankers, Inc.	MA/MSB-210	11/29/72	EAGLE CHARGER EAGLE LEADER EAGLE COURIER EAGLE TRANSPORTER
Empire Transport, Inc.	MA/MSB-235	03/09/73	POTOMAC
Freighters, Inc.	MA/MSB-213	04/24/73	AMERICAN WHEAT
Globe Seaways, Inc.	MA/MSB-209	11/24/72	OVERSEAS ANCHORAGE
Hudson Waterways Corp.	MA/MSB-206	11/28/72	TRANSERIE TRANSPANAMA TRANSSUPERIOR
Intercontinental Bulktank Corp.	MA/MSB-216	12/05/72	OVERSEAS ALASKA
Intercontinental Carriers, Inc.	MA/MSB-227	01/22/73	OVERSEAS CARRIER
Interseas Bulk Carriers, Inc.	MA/MSB-229	01/22/73	OVERSEAS BULKER
James River Transport, Inc.	MA/MSB-236	03/09/73	JAMES
Keystone Shipping Co.	MA/MSB-189	11/22/72	PERRYVILLE
Keystone Tankship Corp.	MA/MSB-190	11/22/72	KEYTANKER KEYTRADER TICONDEROGA

Approved for Transportation of Grain to U.S.S.R.

Company	Contract No.	Date	Ships
Manhattan Tankers Co., Inc.	MA/MSB-204	11/28/72	MANHATTAN
Mathiasen's Tanker Industries, Inc.	MA/MSB-212	12/13/72	PRAIRIE GROVE JOSEPH D. POTTS SOHIO INTREPID SOHIO RESOLUTE
Meadowbrook Transport, Inc.	MA/MSB-237	03/09/73	MISSOURI
Mohawk Shipping Co., Inc.	MA/MSB-238	03/09/73	MOHAWK
Monticello Tanker Co.	MA/MSB-250	04/17/73	MONTICELLO VICTORY
Montpelier Tanker Co.	MA/MSB-247	02/20/73	MONTPELIER VICTORY
Mount Vernon Tanker Co.	MA/MSB-223	12/18/72	MOUNT VERNON VICTORY
Mount Washington Tanker Co.	MA/MSB-224	12/18/72	MOUNT WASHINGTON
National Transport Corp.	MA/MSB-186	11/15/72	NATIONAL DEFENDER
Nautilus Petroleum Carriers Corp.	MA/MSB-231	01/05/73	SISTER KATINGO
Newport Tankers Corp.	MA/MSB-248	03/05/73	ACHILLES
Ocean Clippers Inc.	MA/MSB-228	01/22/73	OVERSEAS TRAVELER
Ocean Tankships Corp.	MA/MSB-217 MA/MSB-187	12/05/72 11/15/72	OVERSEAS VIVIAN OVERSEAS NATALIE
Ocean Transportation Co., Inc.	MA/MSB-208	11/24/72	OVERSEAS ALEUTIAN OVERSEAS ULLA
Ogden Merrimac Transport, Inc.	MA/MSB-239	03/09/73	MERRIMAC
Ogden Sacramento Transport, Inc.	MA/MSB-240	03/09/73	SACRAMENTO
Ogden Sea Transport, Inc.	MA/MSB-241	03/09/73	COLUMBIA OGDEN YUKON
Overseas Bulktank Corp.	MA/MSB-218	12/05/72	OVERSEAS ARCTIC
Overseas Oil Carriers, Inc.	MA/MSB-207	11/24/72	OVERSEAS JOYCE OVERSEAS PROGRESS
Penn Tanker Co.	MA/MSB-222	01/03/73	PENN CHAMPION PENN CHALLENGER
Platte Transport, Inc.	MA/MSP-242	03/09/73	PLATTE
Plaza Shipping, Inc.	MA/MSB-205	11/29/72	JULIE
Rio Grande Transport, Inc.	MA/MSB-243	03/09/73	YELLOWSTONE
Rye Marine Corp.	MA/MSB-251	04/17/73	THETIS
Sea Tankers, Inc.	MA/MSB-233	01/22/73	OVERSEAS EVELYN OVERSEAS ROSE
Sea Transport Corp.	MA/MSB-211	11/29/72	EAGLE TRAVELER EAGLE VOYAGER
Texas City Tankers Corp.	MA/MSB-215	01/23/73	WILLIAM J. FIELDS
Transeastern Shipping Corp.	MA/MSB-203	11/28/72	TRANSEASTERN
Vancor Steamship Corp.	MA/MSB-226	12/19/72	VANTAGE HORIZON
Wabash Transport, Inc.	MA/MSB-192	11/24/72	OGDEN WABASH
Willamette Transport, Inc.	MA/MSB-193	11/24/72	OGDEN WILLAMETTE
World Wide Tankers, Inc.	MA/MSB-225	05/15/73	BARBARA JANE

APPENDIX XIV **Operating-Differential Subsidy**

Expenditures for FY 73 And Total Accruals and Expenditures January 1, 1937 to June 30, 1973

	Accruals			Expenditures		
Calendar Year of Operation	Subsidies	Recapture	Net Accrual	In Fiscal Year 1973	Cumulative Through Fiscal Year 1973	Net Accrued Liability
1937-46	$ 48,725,478	$ 32,695,537	$ 16,029,941	—	$ 16,029,941	-0-
1947	13,438,553	10,066,979	3,371,574	—	3,371,574	-0-
1948	28,077,303	13,794,768	14,282,535	—	14,282,535	-0-
1949	44,213,377	14,553,310	29,660,067	—	29,660,067	-0-
1950	57,874,056	9,265,433	48,608,623	—	48,608,623	-0-
1951	71,968,636	25,805,608	46,163,028	—	46,163,028	-0-
1952	89,361,880	26,108,608	63,253,272	—	63,253,272	-0-
1953	106,296,046	13,271,864	93,024,182	—	93,024,182	-0-
1954	107,357,156	1,069,909	106,287,247	—	106,287,247	-0-
1955	115,145,469	11,000,930	104,144,539	—	104,144,539	-0-
1956	128,189,900	25,483,596	102,706,304	—	102,706,304	-0-
1957	148,309,951	25,541,138	122,768,813	—	122,768,813	-0-
1958	147,008,266	6,336,805	140,671,461	—	140,671,461	-0-
1959	160,026,827	1,217,639	158,809,188	—	158,809,188	-0-
1960	167,895,154	5,176,231	162,718,923	—	162,718,923	-0-
1961	170,884,261	2,042,748	168,841,513	—	168,841,513	-0-
1962	179,748,676	4,947,848	174,800,828	—	174,470,225	$ 330,603
1963	189,130,206	(1,388,903)	190,519,109	—	190,519,109	-0-
1964	217,933,606	674,506	217,259,100	$ 9,938,435	217,259,100	-0-
1965	183,959,582	1,014,004	182,945,578	—	182,823,684	121,894
1966	202,927,346	3,229,471	199,697,875	93,977	199,697,875	-0-
1967	220,579,702	5,162,831	215,416,871	97,113	215,416,871	-0-
1968	222,763,009	3,673,790	219,089,219	107,494	219,089,219	-0-
1969	228,708,705	2,240,643	226,468,062	17,986,193	218,030,014	8,438,048
1970	216,430,472	(1,546,290)	217,976,762	585,200	200,312,808	17,663,954
1971	194,709,543	(2,821,259)	197,530,802	3,669,928	181,342,484	16,188,318
1972	191,359,713	-0-	191,359,713	101,307,919	174,330,148	17,029,565
1973	97,076,292	-0-	97,076,292	83,059,996	83,059,996	14,016,296
Soviet Grain Programs	32,412,712	-0-	32,412,712	9,864,671	9,864,671	22,548,041
Total	**$3,982,511,877**	**$238,617,744**	**$3,743,894,133**	**$226,710,926**	**$3,647,557,414**	**$96,336,719**

APPENDIX XV Operating-Differential Subsidy

Accruals and Expenditures By Lines
January 1, 1937 to June 30, 1973

Lines	Accruals			Subsidies Net Paid	Net Accrued Liability
	Subsidies	Recapture	Net Accrual		
American Banner Lines [1]	$ 2,626,512	$ —	$ 2,626,512	$ 2,626,512	$ —
American Diamond Lines [1]	185,802	28,492	157,310	157,310	—
American Export Lines, Inc.	543,489,258	10,700,587	532,788,671	521,803,694	10,984,977
American Mail Line Ltd.	142,841,408	7,908,469	134,932,939	128,867,704	6,065,325
American President Lines, Ltd.	523,684,285	17,676,493	506,007,792	496,841,982	9,165,810
American Steamship Co.	111,751	—	111,751	51,065	60,686
Atlantic & Caribbean S/N Co.[1]	63,209	45,496	17,713	17,713	—
Baltimore Mail Steamship Co.	416,269	—	416,269	416,269	—
Bloomfield Steamship Co.[1]	15,634,431	2,613,688	13,020,743	12,898,850	121,893
Delta Steamship Lines, Inc.	144,433,005	8,185,313	136,247,692	133,570,081	2,677,611
Farrell Lines, Inc.	184,433,162	1,855,376	182,577,786	178,404,178	4,173,608
Prudential-Grace Lines, Inc.	377,266,457	24,223,564	353,042,893	350,375,886	2,667,007
Gulf & South American Steamship Co.[4]	33,434,450	5,271,674	28,162,776	27,198,997	963,779
Lykes Bros. Steamship Co.	448,543,121	52,050,599	396,492,522	385,097,714	11,394,808
Moore-McCormack Lines, Inc.	416,830,638	17,762,445	399,068,193	394,323,457	4,744,736
N. Y. & Cuba Mail Steamship Co.[1]	8,090,107	1,207,331	6,882,776	6,882,776	—
Oceanic Steamship Co.[3]	109,400,238	1,171,756	108,228,482	106,949,725	1,278,757
Pacific Argentina Brazil Line [1]	7,963,939	270,701	7,693,238	7,693,238	—
Pacific Far East Line, Inc.	176,833,149	23,646,489	153,186,660	142,538,453	10,648,207
Prudential Steamship Co.[1]	25,898,952	1,415,791	24,483,161	24,449,882	33,279
Sea Shipping Co.[1]	25,819,800	2,429,102	23,390,698	23,390,698	—
South Atlantic Steamship Co.[1]	96,374	84,692	11,682	11,682	—
States Steamship Co.	160,867,778	5,110,997	155,756,781	149,826,638	5,930,143
U. S. Lines, Inc.[2]	584,800,599	54,958,689	529,841,910	527,843,350	1,998,560
Waterman Steamship Corp.	16,334,471	—	16,334,471	15,454,890	879,581
Soviet Grain Program [5]	32,412,712	—	32,412,712	9,864,670	22,548,042
Total	**$3,982,511,877**	**$238,617,744**	**$3,743,894,133**	**$3,647,557,414**	**$96,336,719**

[1] No longer subsidized or combined with other subsidized lines.
[2] Ceased to be a subsidized line November, 1970.
[3] Purchased by Pacific Far East Line.
[4] Purchased by Lykes Bros. Steamship Co.
[5] Includes 52 subsidized operators.

APPENDIX XVI Approvals For Foreign Transfers

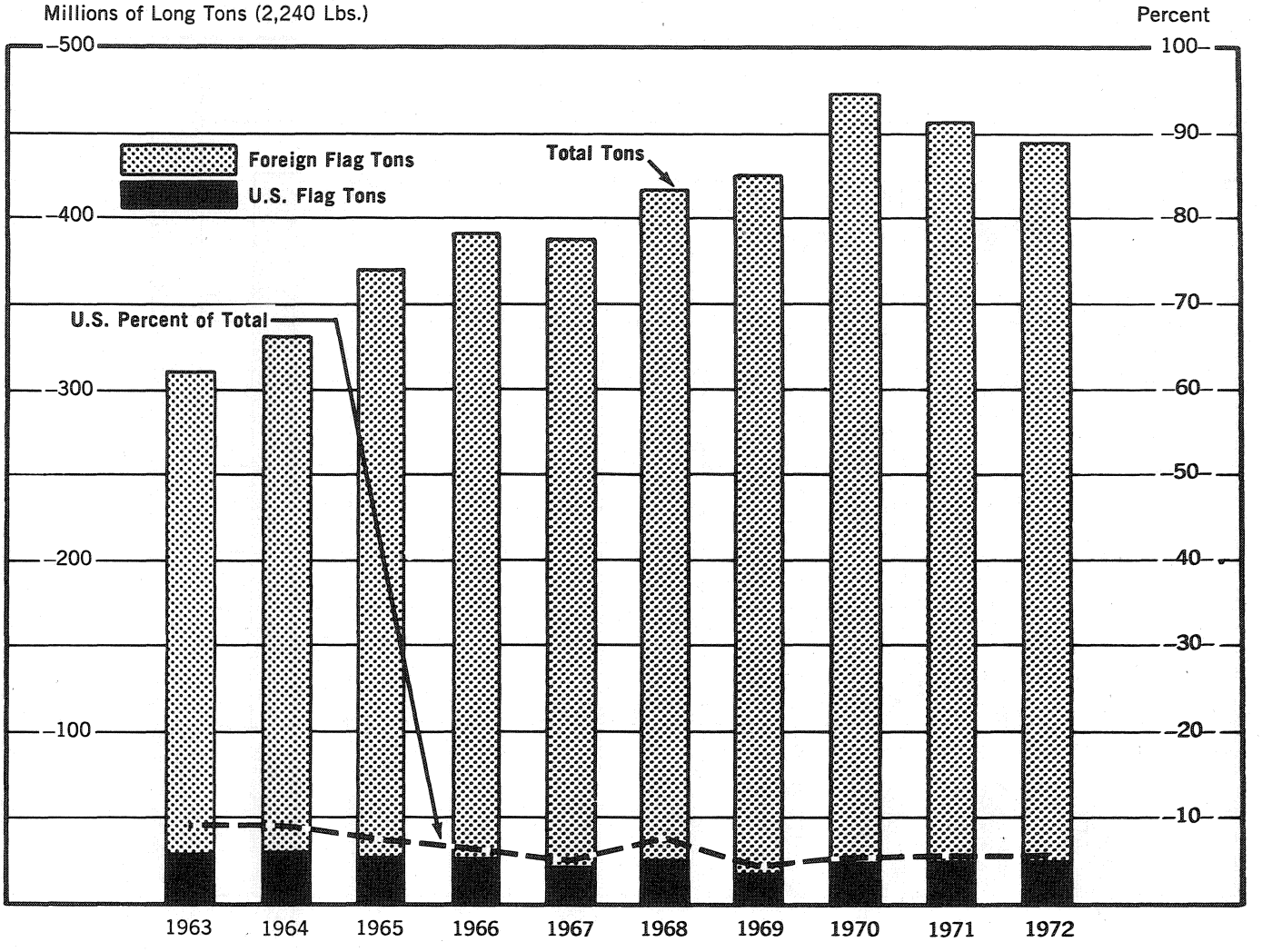
(Approvals granted, pursuant to Sections 9 and/or 37 of the Shipping Act, 1916, as Amended, of the transfer to foreign ownership and/or registry of vessels of 1,000 gross tons and over by type, number, size, and age for period 7/1/72 through 6/30/73)

	Pursuant to Sections 9 and 37 (U.S. owned and U.S. documented)			Pursuant to Section 37 (Only) (U.S. owned, Not U.S. documented)			Combined Totals		
	No. of Vessels	Gross Tons	Average Age	No. of Vessels	Gross Tons	Average Age	No. of Vessels	Gross Tons	Average Age
U.S. Privately Owned:									
Tankers	14	166,492	28.0	16	416,479	17.6	30	582,971	23
Cargo	55	445,820	33.7	4	45,090	8.3	59	490,910	30
Cargo/Passenger	5	73,319	18.6	—	—	—	5	73,319	18
Miscellaneous	26	83,983	20.7	13	92,795	12.0	39	176,778	18
TOTAL	**100**	**769,614**	**28.7**	**33**	**554,364**	**14.2**	**133**	**1,323,978**	**26**
Departure from U.S. Port	—	—	—	2	5,900	—	2	5,900	—
U.S. Government Owned:									
Cargo (For Scrapping)	34	196,349	28.9	4	18,664	30.0	38	215,013	29
Tankers (For Scrapping)	—	—	—	1	3,000	29.0	1	3,000	29
TOTAL	**34**	**196,349**	**28.9**	**5**	**21,664**	**29.8**	**39**	**218,013**	**29**

RECAPITULATION

	Sections 9 and 37		Section 37 (Only)		Combined Totals	
	Number	Gross Tons	Number	Gross Tons	Number	Gross Tons
U.S. Privately Owned:						
Transferred Foreign for Operation:	26	269,315	23	461,069	49	730,384
Transferred Foreign for non-transportation or scrapping:	74	500,299	10	93,295	84	593,594
TOTAL PRIVATELY OWNED	**100**	**769,614**	**33**	**554,364**	**133**	**1,323,978**
U.S. Government Owned:						
Transferred Foreign for Scrapping:	34	196,349	5	21,664	39	218,013
TOTAL	**34**	**196,349**	**5**	**21,664**	**39**	**218,013**

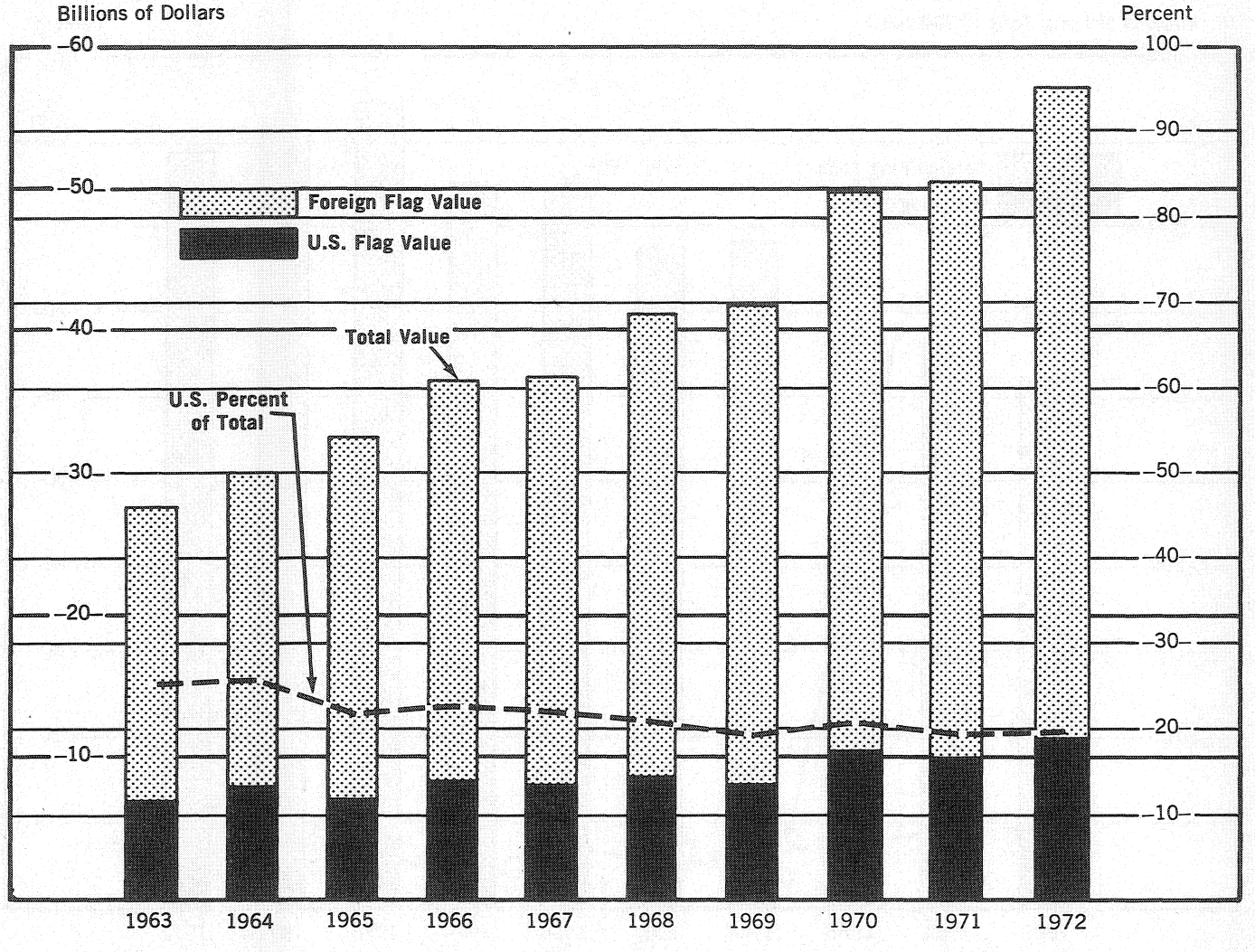
APPENDIX XVII U.S. Oceanborne Foreign Trade: Commercial Cargo Carried [Tonnage]



Calendar Year	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972*
Total Tons (Millions)	311.6	332.8	371.3	392.3	387.6	418.6	426.1	473.2	457.4	446.7
U.S. Flag Tons	28.5	30.5	27.7	26.2	20.5	25.0	19.1	25.2	24.4	24.6
U.S. Percent of Total	9.2	9.2	7.5	6.7	5.3	6.0	4.5	5.3	5.3	5.5
Liner Total Tons	48.9	50.3	49.2	49.9	47.9	46.1	41.0	50.4	44.2	45.1
Liner U.S. Flag Tons	13.5	14.2	11.2	11.4	10.6	11.1	9.2	11.8	10.1	10.0
Liner U.S. Percent	27.7	28.1	22.8	22.9	22.2	24.0	22.6	23.5	22.9	22.2
Non-Liner Total Tons	136.2	161.4	171.6	189.5	190.4	209.5	211.6	240.7	220.7	201.4
Non-Liner U.S. Flag Tons	8.2	9.8	8.2	6.9	5.4	6.4	4.4	5.4	4.8	3.1
Non-Liner U.S. Percent	6.0	6.1	4.8	3.6	2.8	3.0	2.1	2.2	2.1	1.6
Tanker Total Tons	126.5	121.1	150.5	152.8	149.3	163.1	173.5	182.1	192.5	200.1
Tanker U.S. Flag Tons	6.8	6.6	8.2	7.9	4.5	7.5	5.5	8.0	9.5	11.5
Tanker U.S. Percent	5.4	5.4	5.5	5.2	3.0	4.6	3.2	4.4	4.9	5.7

* Preliminary data subject to future revision.

APPENDIX XVIII U.S. Oceanborne Foreign Trade: Commercial Cargo Carried [Dollar Value]



Calendar Year	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972*
Total Value ($ billions)	27.5	30.0	32.4	36.4	36.6	41.1	41.7	49.7	50.4	57.0
U.S. Flag Value ($ billions)	6.9	7.7	6.9	8.2	7.9	8.5	8.0	10.3	9.9	11.2
U.S. Percent of Total	25.1	25.8	21.4	22.5	21.7	20.7	19.2	20.7	19.6	19.7
Liner Total Value	19.5	21.3	22.3	24.8	24.8	26.8	27.0	33.5	32.4	36.8
Liner U.S. Flag Value	6.2	7.0	6.2	7.5	7.4	7.8	7.4	9.7	9.2	10.5
Liner U.S. Percent	31.5	32.8	27.8	30.4	29.8	29.0	27.3	28.8	28.4	28.5
Non-Liner Total Value	5.2	5.9	6.6	8.2	8.6	10.8	11.0	12.2	13.2	15.1
Non-Liner U.S. Flag Value	.5	.5	.4	.4	.4	.5	.4	.4	.4	.4
Non-Liner U.S. Percent	9.6	8.6	6.3	4.9	4.5	4.6	3.8	3.3	3.1	2.4
Tanker Total Value	2.8	2.8	3.5	3.4	3.2	3.4	3.6	4.0	4.9	5.0
Tanker U.S. Flag Value	.2	.2	.3	.3	.2	.2	.2	.2	.3	.4
Tanker U.S. Percent	9.0	8.8	8.2	7.7	4.8	6.6	5.2	5.6	5.5	7.4

* Preliminary data subject to future revision.
Note: Includes Government sponsored cargo; excludes Department of Defense cargo and U.S./Canada translakes cargo.

APPENDIX XIX **Capital and Special Reserve Funds**

Cash, Approved Interest Bearing Securities and Common Stock Under Approved Common Stock Trust on Deposit in the Statutory Capital and Special Reserve Funds of Subsidized Operators as of June 30, 1973

Operator	Capital Reserve Fund			Special Reserve Fund			Combined	Common Stock Cost Included In Total
	Cash	Securities	Total	Cash	Securities	Total	Total	
American Export Lines, Inc.	$ 35,655	$ 370,000	$ 405,655	$ -0-	$ -0-	$ -0-	$ 405,655	$ -0-
American Mail Line Ltd.	546	202,000	202,546	-0-	-0-	-0-	202,546	-0-
American President Lines, Ltd.	5,280	—	5,280	-0-	-0-	-0-	5,280	-0-
Delta Steamship Lines, Inc.	365	7,415,766	7,416,131	-0-	-0-	-0-	7,416,131	-0-
Farrell Lines Inc.	877,848	3,200,000	4,077,848	-0-	-0-	-0-	4,077,848	-0-
Lykes Bros. Steamship Co., Inc.	360,716	9,749,966	10,110,682	-0-	-0-	-0-	10,110,682	(C) 97,988 [1]
Pacific Far East Line, Inc.	20,109	—	20,109	-0-	-0-	-0-	20,109	-0-
Prudential Steamship Co.	8,697	9,719	18,416	688	—	688	19,104	-0-
States Steamship Co.	4,679	8,375,567	8,380,246	—	—	—	8,380,246	-0-
June 30, 1973	1,313,895	29,323,018	30,636,913	688	—	688	30,637,601	(C) 97,988
June 30, 1972	943,908	46,328,255	47,272,163	20,751	8,726,104	8,746,855	56,019,018	(C&S) 608,205
Increase (Decrease)	369,987	(17,005,237)	(16,635,250)	(20,063)	(8,726,104)	(8,746,167)	(25,381,417)	(510,217)

[1] Market Value at June 30, 1973: $110,395.67

Note: . Accrued mandatory deposits at June 30, 1973, are not included in the above; at December 31, 1972, the accrued deposits amounted to $49,084,537, comprised of $46,508,859 applicable to the Capital Reserve Fund (depreciation, and $2,575,678 applicable to the Special Reserve Fund (excess profits).

C = Capital Reserve Fund **S = Special Reserve Fund**

EXHIBIT 1. BALANCE SHEET—

ASSETS	JUNE 30 1973	JUNE 30 1972
CASH AND FUND BALANCES (note 2)	$ 801,057,848	$ 518,976,474
ADVANCES:		
U. S. Government agencies	82,584	86,654
Others	68,101	40,743
	150,685	127,397
NOTES AND ACCOUNTS RECEIVABLE:		
U. S. Government agencies	545,617	550,642
Domestic firms and individuals	4,376,002	6,017,056
Foreign governments and nationals	45,938	45,938
	4,967,557	6,613,636
Less allowance for losses	171,216	174,015
	4,796,341	6,439,621
ACCRUED INTEREST RECEIVABLE (note 3)	207,979	814,191
MATERIAL AND SUPPLIES (at cost or estimated cost)	552,218	610,702
INVESTMENTS—U. S. TREASURY SECURITIES	47,720,558	37,793,391
LOANS RECEIVABLE:		
Ship mortgage loans—domestic	50,975,745	56,133,423
Loan to foreign government		
	50,975,745	56,133,423
Less allowance for losses	11,408,197	9,927,825
	39,567,548	46,205,598
VESSELS UNDER CONSTRUCTION	65,154,453	65,352,868
FIXED ASSETS USED IN OPERATIONS (at cost, estimated cost or assigned amounts)	38,105,689	37,218,134
Less accumulated depreciation	22,507,531	18,366,019
	15,598,158	18,852,115
ASSETS HELD PRIMARILY FOR MOBILIZATION PURPOSES (at cost, estimated cost or assigned amounts):		
Vessels	1,645,754,019	1,857,939,600
Less accumulated depreciation	1,580,278,618	1,798,677,627
	65,475,401	59,261,973
Facilities and equipment	27,444,591	38,004,181
Less accumulated depreciation	6,634,776	14,946,917
	20,809,815	23,057,264
Stand-by inventories	4,988,341	5,002,901
	91,273,557	87,322,138
OTHER ASSETS:		
Vessels held primarily for scrapping	63,702,503	133,150,676
Less allowance for losses	60,949,180	128,201,037
	2,753,323	4,949,639
Deferred charges:		
Unamortized construction-differential subsidies (note 10)	—0—	—0—
Other deferred charges and miscellaneous items	747,549	777,825
Less allowance for losses	747,549	777,825
	747,249	733,339
	300	44,486
	$1,068,832,968	**$ 787,488,620**

The notes and schedules to financial statements are an integral part of this statement.

June 30, 1973 and June 30, 1972 (note 1)

	JUNE 30	
LIABILITIES	**1973**	**1972**
ACCOUNTS PAYABLE AND OTHER LIABILITIES (note 4)		
U. S. Government agencies:		
Liability for vessels under construction	$ 65,154,453	$ 65,352,867
Advances and contributions	2,406,950	2,545,568
Accounts payable and accrued liabilities	56,023	133,266
	67,617,426	68,031,701
Other:		
Accrued operating-differential subsidies (note 5)	103,814,137	75,451,633
Less estimated recapture subsidies	7,477,417	4,477,591
	96,336,720	70,974,042
Vessel trade-in allowance payable	16,688,852	17,310,566
Amount due shipbuilders for construction of vessels	25,642,916	41,526,079
Accrued annual leave	2,620,090	2,863,036
Accounts payable and accrued liabilities	13,837,109	6,965,919
Deposits by contractors and others	401,995	1,105,555
Withholding for purchases of savings bonds and payments of State and local taxes	240,306	225,304
Unearned insurance premiums (note 6)	5,561,797	3,569,728
Other deferred credits	898,244	1,169,798
	162,228,029	145,710,027
	229,845,455	213,741,728
EQUITY OF THE UNITED STATES GOVERNMENT (exhibit 2)		
Maritime Regular	771,496,787	513,536,307
Vessel Operations Revolving Fund	16,725,258	16,801,008
Federal Ship Financing Fund, Revolving Fund	45,137,075	38,146,704
War Risk Insurance Revolving Fund	5,628,393	5,262,873
	838,987,513	573,746,892
	$1,068,832,968	**$ 787,488,620**

The notes and schedules to financial statements are an integral part of this statement.

EXHIBIT 2. STATEMENT OF EQUITY OF THE U.S. GOVERNMENT For Year Ended June 30, 1973 and June 30, 1972 (note 1)

	YEAR ENDED JUNE 30	
	1973	1972
BALANCE, BEGINNING OF FISCAL YEAR	$1,659,295,209	$1,444,174,555
ADDITIONS:		
Funds appropriated by Congress	750,464,775	525,031,000
Contributions received for Chapel at United States Merchant Marine Academy, Kings Point, N. Y.	718	56,866
Property capitalized without use of funds	18,066,780	
	2,427,827,482	1,969,262,421
DEDUCTIONS:		
Net cost of combined operations (Exhibit 3)	481,271,326	387,856,699
Payments into General Fund Receipt	21,768,947	18,818,625
Unobligated balance of appropriation transferred to U.S. Treasury	182,129	176,875
Appropriation transferred out	69,225	
Property other than vessels transferred to others (net)		51,956
Vessels transferred to others—Government Agencies (net)		12,306,463
Unamortized ship construction costs (note 10)	1,085,548,342	976,304,911
	1,588,839,969	1,395,515,529
BALANCE, CLOSE OF FISCAL YEAR (EXHIBIT 1)	**$ 838,987,513**	**$ 573,746,892**

The notes and schedules to financial statements are an integral part of this statement.

EXHIBIT 3. STATEMENT OF OPERATIONS For Years Ended June 30, 1973 and June 30, 1972 (note 1)

	YEAR ENDED JUNE 30	
	1973	1972
OPERATIONS OF MARITIME ADMINISTRATION:		
Net costs of operating activities (note 6)		
Reserve Fleet Program:		
Depreciation of reserve fleet vessels	$ 2,063,693	$ 1,887,514
Maintenance and preservation	3,572,318	1,178,550
	5,636,011	3,066,064
Maritime Training program	7,554,546	6,967,766
Maintenance of reserve shipyards	193,008	186,044
Operation of warehouses	29,624	47,026
	13,413,189	10,266,900
Direct subsidies and costs attributable to National Defense:		
Estimated operating-differential subsidies (note 5)	252,691,090	181,979,747
Construction-differential subsidies (note 10)	154,217,838	167,184,577
Cost of National Defense features (note 10)	302,887	309,122
	407,211,815	349,473,446
Administrative expenses	21,913,378	21,277,437
Research and development	29,874,922	12,349,763
Uncapitalized expenses incidental to ship construction Financial assistance to State Marine Schools	2,092,963	2,222,420
	53,881,263	35,849,620
Other costs (-income)		
Depreciation facilities and equipment not allocated to current program	192,477	194,242
Adjustments applicable to prior years	25,401,363	—309
Loss on sale of surplus material and scrap	—8,315,204	87,633
Loss (-gain) on sale of fixed assets other than vessels	—4,239,869	452,043
Inventory and property adjustments	—13,144	877,050
Interest income	—1,112,334	—1,579,858
Miscellaneous (net)	2,131,911	195,924
	14,045,200	226,725
Net cost of Maritime Administration operations	488,551,467	395,816,691
OPERATIONS OF REVOLVING FUNDS (-net income or loss):		
Vessel Operations Revolving Fund	75,750	129,593
War Risk Insurance Revolving Fund	—365,520	—285,515
Federal Ship Financing Fund, Revolving Fund	—6,990,371	—7,804,070
NET COST OF COMBINED OPERATIONS (EXHIBITS 2 and 4)	**$ 481,271,326**	**$ 387,856,699**

The notes and schedules to financial statements are an integral part of this statement.

EXHIBIT 4. STATEMENT OF SOURCES AND APPLICATION OF FUNDS For the Year Ended June 30, 1973 (note 1)

SOURCES:		
Funds appropriated by Congress		$ 750,464,775
Collections on mortage loan receivable		7,363,265
Proceeds from sale of vessels		11,776,564
Proceeds from sale of non-current assets other than vessels		9,267,461
Contributions received for construction of Chapel		718
Total funds provided		778,872,783
APPLICATION:		
Net cost of combined operations (exhibit 3)	$ 481,271,326	
Items considered in net cost of combined operations:		
Provision for depreciation	—3,026,081	
Amortization of construction-differential subsidies	12,508,530	
Gain or (-loss) on disposal of non-current assets	—8,241,447	
Property and other adjustments	1,139,794	483,652,122
Payments into General Fund of U. S. Treasury		21,768,947
Increase in investments of U. S. Treasury		9,750,000
Unobligated balance returned to U. S. Treasury		182,129
Appropriation transferred out		69,225
Total funds applied		515,422,423
Increase in working capital		$ 263,450,360

SUMMARY OF CHANGES IN WORKING CAPITAL Year Ended June 30, 1973

	JUNE 30 1973	JUNE 30 1972	Increase (—Decrease)
Assets:			
Cash	$801,057,848	$518,976,474	$282,081,374
Advances	150,685	127,397	23,288
Notes and accounts receivable	4,796,341	6,439,621	—1,643,280
Accrued interest receivable	207,979	814,191	—606,212
Material and supplies	552,219	610,702	—58,483
Other deferred charges and miscellaneous items (net)	300	44,486	—44,186
Total	806,765,372	527,012,871	279,752,501
Liabilities:	164,691,002	148,388,861	—16,302,141
Accounts payable and other liabilities	$642,074,370	$378,624,010	$263,450,360

The notes and schedules to financial statements are an integral part of this statement.

Notes to Financial Statements —June 30, 1973 and 1972

1. The preceding financial statements include the assets, liabilities, income and expense of the Maritime Administration, the Vessel Operations Revolving Fund, the War Risk Insurance Revolving Fund, and the Federal Ship Financing Fund, Revolving Fund, and also accounts maintained by certain steamship companies for vessels operated for the Vessel Operations Revolving Fund under General Agency agreements.

2. Cash and fund balances consist of:

	1973	1972
Fund Balances with U. S. Treasury:		
Operating funds	$799,818,758	$516,265,498
Trust and deposit funds	642,301	1,330,859
Allocations from other agencies	596,789	1,380,117
	$801,057,848	$518,976,474

3. Accrued interest receivable:

	1973	1972
On ship mortgage loans:		
Domestic firms and individuals	$ 77,991	$755,358
On other loans and investments	129,988	58,833
	$207,979	$814,191

4. The Maritime Administration was contingently liable under agreements insuring mortgages and construction loans payable to lending institutions totaling $1,260,400,713 at June 30, 1973, and $1,065,025,491 at June 30, 1972. Commitments to insure additional loans and/or mortgages amounted to $1,318,872,357 at June 30, 1973, and $627,427,570 at June 30, 1972. U. S. Government securities and cash of $97,104,901 at June 30, 1973, and $87,756,060 at June 30, 1972, were held in escrow by the Government in connection with insurance of loans and mortgages which were financed by the sale of bonds to the general public. There were also conditional liabilities for prelaunching War Risk Builder's Risk Insurance of $18 billion at June 30, 1973, and $17 billion at June 30, 1972. The Maritime Administration was also contingently liable for undetermined amounts in connection with settlements to be made under 166 claims against the Administration aggregating $3,774,200 at June 30, 1973, and 378 claims aggregating $4,755,583 at June 30, 1972. Based on previous experience, it is anticipated that settlements of these claims will be made for amounts substantially less than the gross amounts of the claims.

   At June 30, 1973, and 1972 the U. S. Treasury held in safekeeping for the Maritime Administration $130,000 and $40,000 respectively, of U. S. Government securities which had been accepted from vessel charterers, subsidized operators, and other contractors as collateral for their performance under contracts.

5. Operating-differential subsidies are paid subject to final adjustments at the end of the operators recapture periods which are established by contracts generally as ten-year terms. The Administration was contingently liable for subsidies in the amounts of $1,917,108 and $1,798,484 at June 30, 1973, and June 30, 1972, respectively, which had not been paid because of estimated recapturable excess profits in the same amounts pending final accountings for applicable recapture periods.

6. Costs on the Statement of Operations are shown after deductions for revenue and reimbursements and include depreciation on facilities and equipment used in operations and on reserve fleet vessels held primarily for mobilization purposes.

   Costs shown for the following programs include:

	Year Ended June 30			
	1973		1972	
	Depreciation	Revenue and Reimbursements	Depreciation	Revenue and Reimbursements
Maintenance and preservation of reserve fleet vessels	$144,358	$ 67,220	$145,821	$1,069,736
Maritime training program	269,469	607,495	272,199	211,203
Maintenance of reserve shipyards	182,401	17,708	204,149	18,105
Operation of warehouses	29,324	—	29,165	—
Administrative expense	48,119	834,675	48,607	1,182,457
Research and development	96,239	—	77,771	—
TOTAL	$769,910	$1,527,098	$777,712	$2,481,501

7. Accounts payable and other liabilities shown on exhibit exclude $65,154,453 at June 30, 1973, and $65,352,867 at June 30, 1972, which were offset against related costs for vessels under construction.

8. Fixed assets used in operations are as follows:

	June 30	
	1973	1972
Facilities and equipment	$30,859,229	$30,413,893
Land and land improvements	3,600,112	3,600,112
Construction in progress	3,646,348	3,204,129
	$38,105,689	$37,218,134

Depreciation shown on exhibit applies to Facilities and Equipment only.

9. Facilities and equipment held primarily for mobilization purposes are as follows:

	June 30	
	1973	1972
Land and land improvements	$21,686,090	$38,004,181
Other facilities and equipment	5,758,501	14,946,917
Total	$27,444,591	$52,951,098

Depreciation shown on exhibit applies to Facilities and Equipment only.

10. The Maritime Administration as of July 1, 1972 discontinued the practice of amortizing the Government's interest in privately-owned vessels, represented by the costs of construction and reconstruction-differential subsidies and National Defense Features (in excess of $24,999 per vessel), over the statutory economic lives of the vessels. The financial statements as of June 30, 1972, and for fiscal year 1972 have been adjusted accordingly for comparative purposes, including adjustments to remove from intangible assets $976,304,911 of subsidies and National Defense Features which were unamortized as of June 30, 1972.

ACKNOWLEDGEMENT
The Maritime Administration acknowledges with appreciation the courtesy of the following in supplying photographs for this report:

American Export Lines, Inc.
American Waterways Operators, Inc.
ARCTEC, Inc.
Bath Iron Works Corp.
Bethlehem Steel Corp.
Delta Steamship Lines, Inc.
Farrell Lines, Inc.
Keystone Shipping Co.
Litton Industries
Marine Engineering/Log
Military Sealift Command
National Maritime Council
National Steel & Shipbuilding Co.
Port Authority of New York & New Jersey
Raytheon Co.
Seafarer's Log
Seatrain Shipbuilding Corp.
States Steamship Co.
U.S. Coast Guard
United States Lines, Inc.