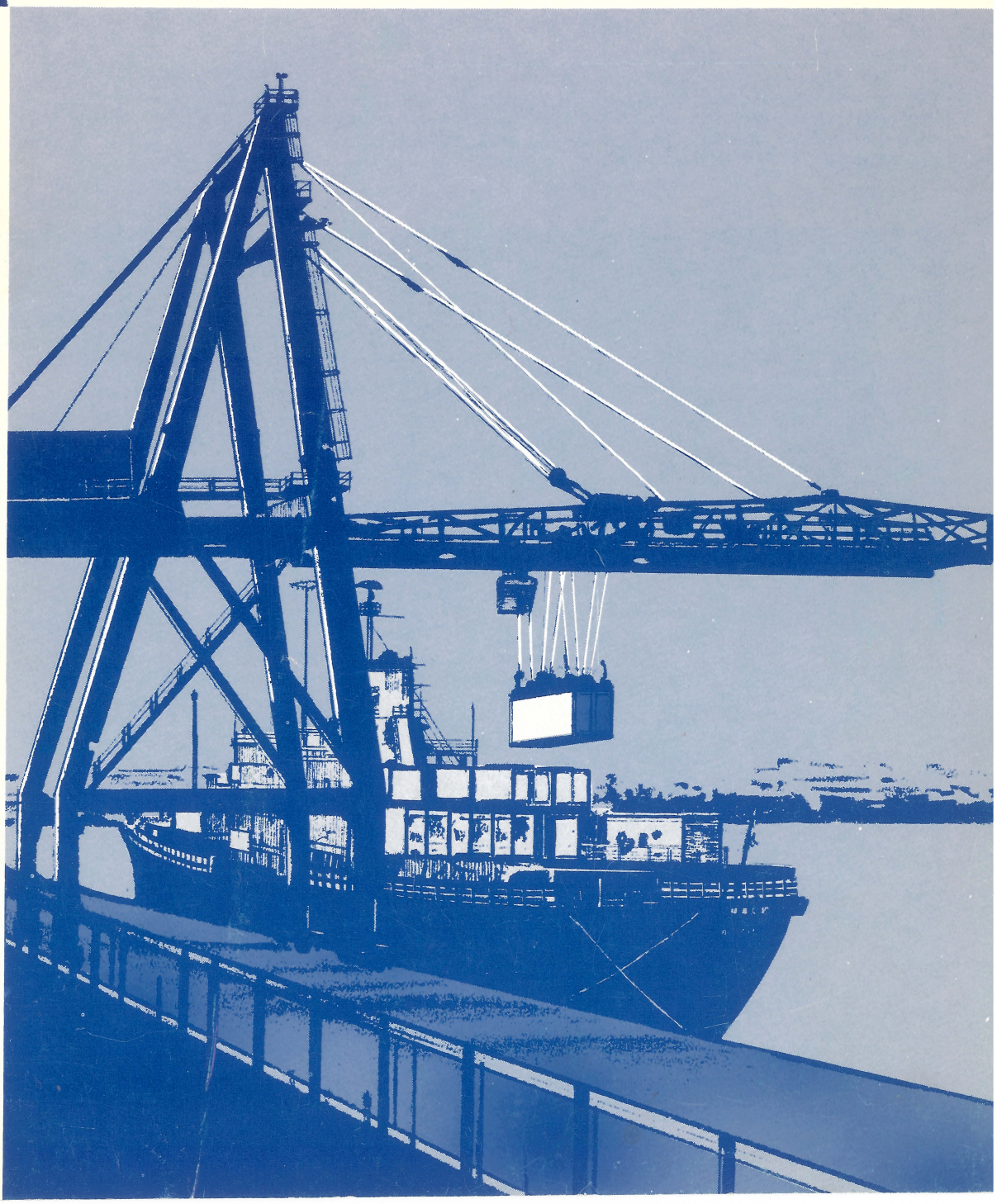
A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

MARAD 1970

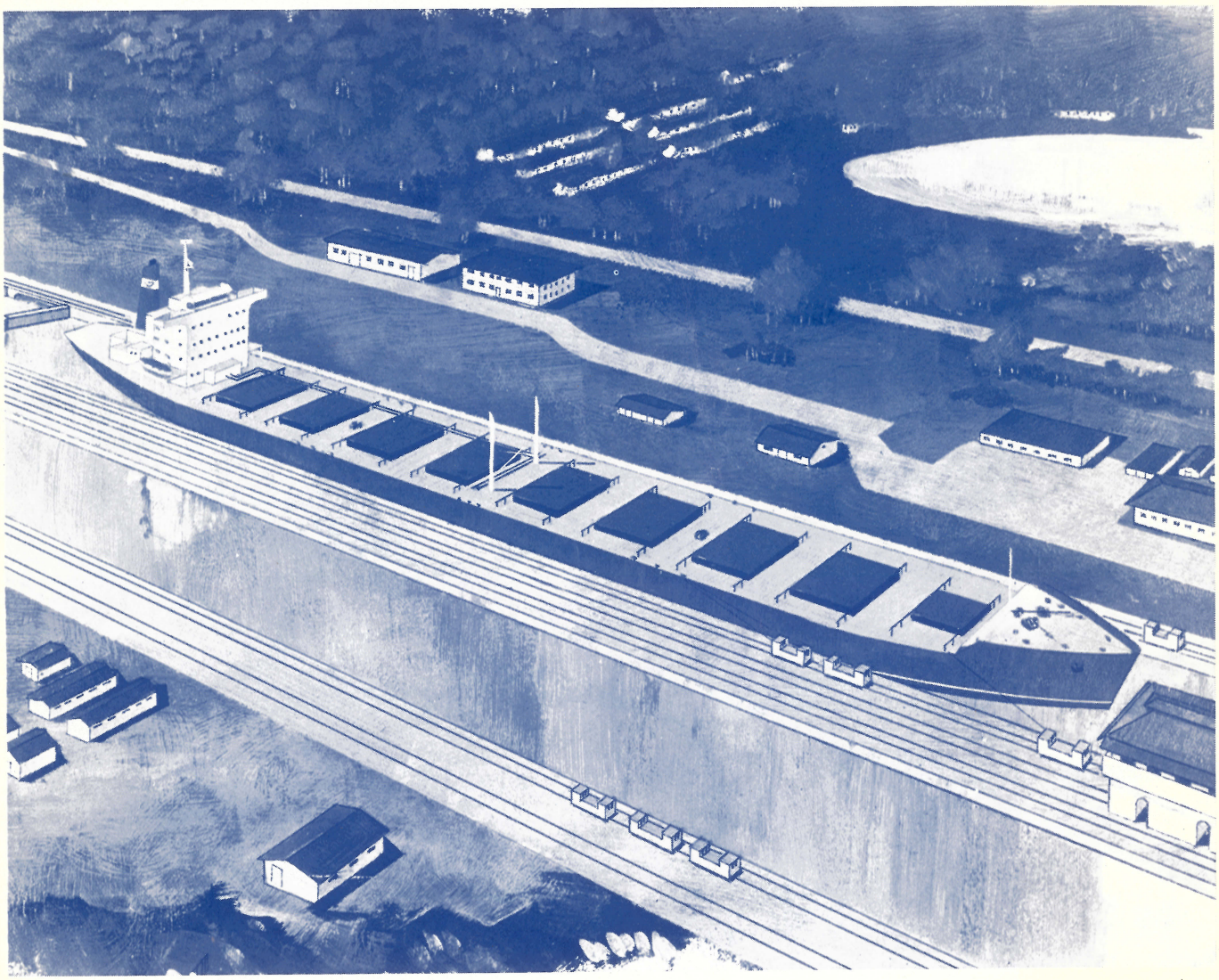
Year of Transition



U.S. DEPARTMENT OF COMMERCE

Maritime Administration

OBO's or ore/bulk/oil carriers are a class of high productivity ships to be built in the future which will permit U.S.-flag operators to compete with their foreign counterparts. The design shown here was unveiled to the shipping industry in May 1970 by the Maritime Administration.



Marad 1970
Year of Transition

The Annual Report of the Maritime Administration for Fiscal Year 1970

1971

U.S. DEPARTMENT OF COMMERCE
Maurice H. Stans, Secretary
James T. Lynn, Under Secretary

Maritime Administration
A. E. Gibson, Assistant Secretary
for Maritime Affairs

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LETTER OF TRANSMITTAL

THE PRESIDENT
THE HONORABLE PRESIDENT OF THE SENATE
THE HONORABLE SPEAKER OF THE HOUSE OF REPRESENTATIVES

Sirs:

It is with great pleasure that I transmit to the Congress this report of the Maritime Administration's activities during Fiscal Year 1970.

With the enactment of President Nixon's new policy for the modernization of the American Merchant Marine, America's maritime industries are embarking on a new phase in their history. This program offers the long-term commitment of Federal assistance necessary for our vital shipping and shipbuilding industries to maximize their contributions to our sustained economic growth.

The revitalized fleet resulting from the program will insure that this Nation's commercial and military cargoes are carried expeditiously at all times. It will assist in improving the U.S. Balance of Payments, thus protecting our position in the international economy. And it will furnish jobs at sea and in supporting industries which will be open to all Americans.

The Maritime Administration's Annual Report reflects the numerous changes and improvements made by that agency in preparation for implementing the President's program. They provide a firm foundation on which future progress toward the realization of a modern, competitive merchant fleet will be based.

Maurice H Stans
Secretary of Commerce

INTRODUCTION AND SUMMARY

"I am announcing today a new maritime program for this Nation, one which will replace the drift and neglect of recent years and restore this country to a proud position in the shipping lanes of the world."

President Richard M. Nixon
—October 23, 1969

A NEW COURSE IS CHARTED

By A. E. Gibson,
Assistant Secretary of Commerce
for Maritime Affairs

1970 was a pivotal year for the American Merchant Marine.

Almost twelve months to the day after he had transmitted to the Congress a new maritime program, President Nixon on October 21, 1970 signed the enabling legislation—the Merchant Marine Act of 1970—into law. The measure was the most significant and far reaching maritime legislation enacted in more than three decades. When the legislation came up for approval in the Senate and House of Representatives, only two dissenting votes were cast. This overwhelming bipartisan endorsement reflected the strength of the national commitment to reverse the maritime decline that had been proceeding unchecked for ten years.

At the end of World War II this Nation had the largest, newest and most modern fleet in the world—totaling 4,446 ships. By June 30, 1970, the active fleet numbered only 819 vessels, more than two-thirds of which were 25 years old and at the end of their economic utility.

By contrast to the mounting obsolescence and attrition of the American commercial fleet, the fleet of other nations such as Norway, the U.K. and Japan became progressively larger, more productive and consequently more competitive. Thus in the period 1960–1969, while U.S. foreign trade export/import tonnage increased by more than 50 percent—from 278 to 428 million tons—the percentage carried by the American-flag fleet fell from 11 percent to 5 percent.

It became apparent in 1969 that by 1980, unless corrective measures were promptly instituted, the Nation's foreign trade fleet would be reduced to about 200 ships capable of handling less than 3 percent of U.S. waterborne foreign commerce. It was also recognized that the capability of such a fleet to meet even the most limited Department of Defense emergency sealift requirements would be minimal.

It was against this background that the President announced a reaffirmation of the national requirement for a strong and modern merchant marine, and for a United States maritime industry that, with sufficient Government impetus, could become considerably more independent during the decade of the 1970's. He summarized the new program in these words:

> *"Our program is one of challenge and opportunity. We will challenge the American shipbuilding industry to show that it can rebuild our Merchant Marine at reasonable expense. We will challenge American ship operators and seamen to move toward less dependence on government subsidy. And, through a substantially revised and better administered government program, we will create the opportunity to meet that challenge."*

The principal aims of the new maritime programs were to:

- Restore the United States to the rank of a first-class maritime power by providing it with a modern, efficient merchant marine commen-

President Nixon signs into law the Merchant Marine Act of 1970, embodying his program for the revitalization of the American Merchant Marine. Looking on at the history-making White House ceremony are, left to right, Secretary of Commerce Maurice H. Stans; Assistant Secretary of Commerce for Maritime Affairs A. E. Gibson; Federal Maritime Commission Chairman Helen D. Bentley; and, Secretary of Transportation John A. Volpe.

surate with the Nation's leading position in world trade and its national and collective security commitments.

- Provide an environment in which the American shipping and shipbuilding industries could marshall the inherent strengths of the free enterprise system to improve their competitive positions. The Program encouraged and rewarded innovative management, the application of advanced technology, improved labor productivity and aggressive marketing to reduce dependence upon government subsidies.

- Establish a foundation for industry stability and planned orderly growth that would avoid future bloc obsolescence of our merchant fleet and contribute to more cooperative labor-management relations.

The Merchant Marine Act of 1970

A large number of highly productive merchant ships of advanced designs will be constructed annually with Federal assistance over a 10-year period. The mix of ships will vary from year to year but will include general cargo ships, such as container and lighter/barge carrying vessels; tankers, and combination oil/bulk/ore (OBO) ships. The capacity to be added to the U.S. merchant fleet each year will equal that of 30 highly productive modern ships.

Because of their larger sizes, faster speeds, and rapid cargo handling, each of the ships to be built will be the equivalent of three to five of the ships built during World War II.

To the extent practicable, the ships will be of standardized designs and will be ordered in quantities that will permit series production and lower unit costs. Their involvement in the design process should contribute to further cost savings. Since shipyards are in a unique position to eliminate unnecessary features which add to construction prices, they will be encouraged to develop and market their designs.

Multi-Year Procurement Contracts, similar to those employed for other government programs, will be utilized. Under the terms of such contracts, the government's share of the cost of a subsidized shipbuilding contract may be funded over the term of construction period—rather than being appropriated in full during a single year. This procedure provides the ability to order ships in large lots to facilitate series construction.

Construction-Differential Subsidy (CDS), was previously extended only to ships built for operators receiving operating subsidy for the carriage of general cargo in foreign trade, has been broadened. It now will be available to ships built for nonsubsidized foreign trade operators, including those to be used in the dry and liquid bulk trades.

Applications for new construction subsidized will be made by the shipyards, which are the beneficiaries of the CDS, rather than by prospective shipowners. For projects involving the conversion or reconstruction of existing ships, either shipyards or the shipowners can apply for the subsidy. The price of subsidized ships may be negotiated by shipyards and the shipyard operators.

CDS will continue to be based upon the difference between U.S. and foreign shipbuilding price levels. However, the new program prescribes a descending scale of CDS targets stabilizing at a ceiling of 35% in FY 1976.

Presidential Commission. To monitor the progress of the shipyards in meeting the CDS goals, the Merchant Marine Act establishes a seven-member Commission on American Shipbuilding. The Commission will assess the capabilities of the shipbuilding industry to increase productivity and reduce costs. If it determines that the industry will be unable to meet the targeted CDS reductions, it must recommend alternatives to the shipbuilding program then in effect. It also is required to submit a comprehensive report of its findings and recommendations to the President by October 1973.

Construction Reserve Funds. The new program broadly extends the eligibility to establish tax-deferred construction reserve funds. Previously, this privilege was restricted to those operators who received operating-differential subsidies. Eligibility to establish such funds now is accorded to operators seeking to accumulate capital to build ships for nonsubsidized foreign trade operations, service on the Great Lakes, the noncontiguous domestic trades (Puerto Rico, Hawaii, Alaska), and vessels of the fishing fleet.

Eligible operators with approved construction plans are permitted to deposit earnings, proceeds

from the sale or loss of vessels, and depreciation into these tax-deferred funds. The level of such reserves must be limited to the amount necessary for the operator to undertake his agreed upon shipbuilding or vessel acquisition plan.

Federal Ship Mortgage Insurance (Title XI). The Government is empowered to guarantee commercially placed ship mortgages and construction loans aggregating $3 billion in unpaid principal. The previous maximum amount that could be insured was $1 billion. The increased ceiling will assist the ship operating companies to procure at attractive rates the private investment capital needed to undertake the expanded shipbuilding program.

Buy American. Materials to be used in subsidized ship construction under the Merchant Marine Act of 1970 must continue to be of U.S. origin. However, the Secretary of Commerce is empowered to waive this requirement for certain items if ship deliveries would be delayed by tardy receipt of the domestic materials and equipment used in their construction.

Operating-Differential Subsidy (ODS). The new, high productivity ships to be built under the Merchant Marine Act of 1970 will reduce the need for ODS to offset the lower operating cost advantages of foreign-flag competitors. Several American containership operators are already competing effectively in the North Atlantic and trans-pacific trades without ODS. For the near future, however, ODS will be essential for many American-flag operators operating in foreign trade.

The Merchant Marine Act of 1970 makes several modifications in the ODS program. For the first time bulk carriers engaged in foreign trade are eligible to receive an operating subsidy. This change reflects the fact that bulk cargoes currently account for 90 percent of this Nation's international trade tonnage and all signs point to further substantial growth through the end of this decade.

The CDS and ODS assistance extended to bulk carriers should eventually lead to the elimination of premium freight rates paid for the transportation of government-sponsored cargoes.

The differential between U.S. and foreign seafaring wage rates will continue to be the principal factor in determining ODS levels. In calculating subsidy, subsidizable U.S. wage costs will be adjusted for escalation by application of a national wage index compiled by the Bureau of Labor Statistics. This provision provides an incentive to the industry to insure that offshore maritime labor contracts are reasonably consistent with the general trend of labor contracts throughout the economy and the transportation section in particular. The wage index provision also eliminates the retrospective review of wage costs and their after-the-fact disallowance for subsidy is not being "fair and reasonable".

Elimination of Recapture. A provision in the Merchant Marine Act of 1936 enabled the Government to recapture one half of all profits of subsidized operators which were in excess of 10 percent of the capital they employed. This is repealed in the 1970 Act. Such a provision is no longer necessary since present corporate taxes largely achieve the same result.

Research and Development. The R&D activities of the Maritime Administration will be enlarged and redirected. Priorities have been redirected to place emphasis on near-term projects to improve the competitiveness of the shipping and shipbuilding industries. This is in accord with the President's desire to generate practical benefits from R&D activities, and apply them to the design, construction and operation of ships built pursuant to the Merchant Marine Act of 1970. The number of cooperative government/industry research programs has also been substantially increased.

Seaports. The Secretaries of Commerce and Transportation in conjunction with related industries and local governments will coordinate the development of ports to accommodate the advanced ships and systems contemplated by the Merchant Marine Act of 1970.

Equal Employment Opportunities. The Secretaries of Commerce and Labor will work with industry and labor organizations to ensure that employment opportunities within the maritime industry are equally available to all.

The Maritime Administration. While program and legislative development was proceeding, complimentary activity was undertaken to streamline the operations of the Maritime Administration.

The headquarters staff was restructured to provide more effective direction and coordination of the Agency's missions. Four new Assistant Administrator positions were established:

Assistant Administrator for Operations, responsible for technical programs, including ship construction, ship operations, and ports and intermodal systems.

Assistant Administrator for Maritime Aids, responsible for administering shipbuilding and ship operating subsidies, mortgage insurance, manpower and market development programs.

Assistant Administrator for Research and Development, responsible for all R&D activities, including advanced ship development and operations and maritime technology.

Assistant Administrator for Finance, responsible for the Agency's financial management, and data systems activities.

The post of Assistant Administrator for Administration was retained. This office overseas administrative services, management and organization, and personnel.

The Office of Policy and Plans was reorganized and strengthened to provide additional capabilities in the areas of economic and operational analyses, encompassing such areas as collective bargaining, balance of payments, military use of merchant ships, and general development of marine resources. This office also assumed the responsibility for the Agency's budget.

In addition, three new offices were established:

The Office of Civil Rights, which is responsible for seeing that maritime contractors do not engage in discriminatory practices in the hiring or advancement of employees.

The Office of Market Development, which is engaged in a program of assisting American-flag lines to achieve a larger share of the carriage of the Nation's foreign trade cargoes.

The Office of Ports and Intermodal Systems, the objective of which is to promote modernized port and terminal facilities needed to accommodate high technology ships and to remove the constraints impeding intermodal transportation systems.

The Agency's field organization, which formerly was oriented towards seacoasts, was reorganized into three regional areas encompassing all 50 states. This change extends the Agency's operations to the inland areas which figure importantly in the market development and intermodal systems programs now underway.

Cost Reductions. Substantial savings accrued to the Government from the elimination or phasing out of unnecessary activities, paperwork and industry surveilance. Actions initiated by the industry also conserved government expenditures.

Following are some of the highlights of these activities:

By encouraging operators to build ships similar to those previously constructed, the construction-differential subsidy rate approved during FY 1970 averaged 45.8 percent, as compared to a 53.4 percent average in FY 1969. This reduction translated into a savings of approximately $10.5 million to the Government.

Two long-established subsidized operators relinquished subsidy during the year. United States Lines' fleet of 16 containerships operating in U.S. North Atlantic and U.S.-Far East trades are competing without subsidy. In addition, American Export Isbrandtsen Lines took three containerships operating in the U.S. North Atlantic trade off subsidy. The annual savings to the Government that results from the non-subsidized operations of these 19 ships amounts to $19,214,000.

A reduction of excessive Federal surveillance of ship maintenance and repair activities of subsidized operators was initiated. By reducing costly inspections and surveys and substituting computerized checks of invoices, coupled with random spot checking of the vessels and invoices, some $200,000 in annual savings will be realized by the Government. Similar streamlining of the methods of administering subsidized shipbuilding and conversion contracts is producing savings in personnel costs amounting to $115,000 annually. Overall, the Agency's manpower reductions during the year represented savings of approximately $2 million, some of which is permanent and some of which will be applied to support new program initiatives.

By taking actions which will reduce the six National Defense Reserve Fleet anchorages to four, additional annual savings of $870,000 annually will be realized. A total of 137 obsolete ships from the reserve fleet were sold for scrap during the fiscal year. The collective sales amounted to almost $10 million, of which $5.3 million came from sales to foreign scrap firms.

During FY 1970, the Agency's warehouse stock inventory of ship parts was reduced from $13 million to $8.5 million. The reduction of surplus inventory will ultimately permit the closing of one of three warehouses and produce savings of $50,000 annually.

Other Achievements

In advance of the enactment of the program, the Agency commissioned two teams of contractors, each of which was headed by a major shipyard, to develop a family of preliminary designs of standardized ships to be available to ship operators for construction under the new maritime program.

Five additional designs were developed "in-house" by the Maritime Administration's Office of Ship Construction. The designs, which encompassed containerships, a lighter-aboard-ship (LASH) vessel, tankers, dry-bulk carriers, combination oil/bulk/ore carriers (OBO), "neo-bulk" vessels and multi-purpose ships were presented to the shipping industry in May 1970.

From the design preferences expressed by the shipping community, it was readily apparent that OBO's, LASH, containerships, and tankers will figure prominently in the early portion of the shipbuilding program.

As a consequent of the decreased cargo requirements to supply operations in Southeast Asia, by the end of the fiscal year the Agency had withdrawn from service all but two of the ships reactivated from the reserve fleet to provide sealift to Vietnam.

As the Federal Agency responsible for eliminating discriminatory employment practices in the shipyard industry, the Maritime Administration succeeded in instituting precedent-setting affirmative action plans in two of the Nation's largest shipyards. These plans require the yards to compensate for the present effects of past discrimination against minority employees.

The Agency successfully interceded with British marine underwriting organizations on behalf of U.S.-flag liner operators who had been confronted with a substantial surcharge on cargo insurance rates for ships 25 or more years of age. The surcharge, if implemented, would have driven into retirement more than 250 of the 650 American-flag ships engaged in foreign trade.

A high-priority program to increase American-flag carriage of U.S. foreign trade was initiated by the creation of the Office of Market Development. Using analytical and promotional tools and a seasoned staff of traffic and marketing experts making direct contacts with leading importers and exporters, this office is providing valuable assistance to the ship operating industry to increase shipper patronage of its services.

During the year the quality and magnitude of communications between the Agency and the military services was improved. As a consequence, the Navy and Maritime Administration agreed jointly to sponsor a broad study of the military uses of merchant ships.

Significant progress was made in strengthening and redirecting the maritime planning functions required for long-range development of the maritime industry. Plans also were initiated to develop analytical, data-processing and other computer services to be used in a totally integrated information system.

In a series of Maritime Sudsidy Board rulings substantial reductions were prescribed for the subsidizable crew complements of conventional and automated ships. Most of these reductions and the attendant savings to the Government will become effective June 16, 1972 when present collective bargaining agreements terminate. Manning scales on the initial group of 11 LASH ships contracted by Prudential-Grace Lines and Pacific Far East Line were set at 38. Subsequent vessels of this class will receive subsidy for crews of 32.

The Maritime Subsidy Board will establish subsidizable manning scales for ships to be built prior to the award of the construction contracts. This policy should substantially reduce the amount of litigation which has, in the past, proceeded from such determinations when they were made after the construction has begun.

During the year substantial progress was made in reducing the backlog of unpaid operating subsidy owed to ship operators. In FY 1970, payments of approximately $10.1 million were made in settlement of outstanding balances.

Further details of the Maritime Administration and activities during FY 1970 are provided in the succeeding sections of this report.

OPERATIONS

SHIP CONSTRUCTION

Ships under Construction

On June 30, 1970, contracts for the construction or conversion of 74 large merchant ships were in force in private U.S. shipyards. These covered 53 new ships under construction or on order and 21 existing ships undergoing or awaiting conversion. The corresponding totals a year earlier were 54 new ships and 25 conversions (Table 1).

TABLE 1—*Ships Under Construction/Conversion*

	Number of Ships		
	Total	New	Conversion
Under Contract July 1, 1969	79	54	25
Contracts Awarded During FY 1970	28	16	12
Subtotal	107	70	37
Completed During FY 1970	33	17	16
Under Contract June 30, 1970	74	53	21

The 74 ships under contract at year's end had a contract value of $1,271.6 million. Of these, 26 ships, with a contract value of approximately $606 million, were being built under the subsidized operators' replacement program (See Appendix V). The other 27 new ships under construction or on order included 20 tankers, one containership, two Great Lakes ore carriers, three bulk chemical carriers and one roll on/roll off ship.

Subsidized ships under conversion included eight full containerships and nine partial containerships. Under conversion without subsidy was one private C4 troop ship to a containership and three private tankers being jumboized.

Contract Awards

In addition to contracts for five ships to be built with construction-differential subsidy (See Table 2), orders were placed for 11 nonsubsidized ships, including five tankers at Bethlehem Steel Corporation's Sparrows Point, Md., Yard, two 225,000-ton deadweight tankers at the new Seatrain Shipyard in Brooklyn, N.Y., three tankers and one roll on/roll off ship at Sun Shipbuilding and Dry Dock Company in Chester, Pa. Contracts for nine subsidized conversions (see Table 2) and three nonsubsidized conversions also were awarded.

TABLE 2—*CDS Contracts Awarded in Fiscal Year 1970*

Shipping Line	Shipyard	Type of Ship	No. of Ships	Total Estimated Cost[1]	Estimated CDS Cost	Estimated Cost of NDF
United States Lines, Inc.	Sun SB&DD Co., Chester, Pa.	C7-S-68e	2	$35,176,000	$15,776,000	—
The Oceanic Steamship Co.	Bethlehem Steel Corp., Sparrows Point, Md.	C7-S-88a	2	$50,565,000	$23,521,000	$50,000
American President Lines, Ltd.	Litton Systems, Inc. Pascagoula, Miss.	C6-S-85b	1	$23,229,700	$10,450,000	$10,858
Lykes Bros. Steamship Co., Inc.	Todd Shipyards Corp. Galveston, Texas	C5-S-37e	9*	$30,640,122	$13,927,122	—
				$139,610,822	$63,674,122	$60,858

[1] Total Contract Cost including CDS and National Defense Features, but excluding engineering and change orders.
* Reconstruction

This view of a section of the Avondale Shipyards, New Orleans, La., illustrates the new techniques U.S. yards are employing to modernize their production facilities. The use of the modularization technique to achieve "assembly line" production flow, as well as the use of rotating jigs to allow "downhand" welding of hulls, represent improvements which shipyards can develop to achieve economies leading to reduced U.S. shipbuilding costs.

TABLE 3—*Ship Deliveries*

Owner	Builder	Design	Delivered
Moore-McCormack Lines	Ingalls Shipbuilding Division	C5–S–78a*	3
American Mail Line	Newport News Shipbuilding & Drydock Co.	C5–S–75a**	2
States Steamship Co.	Avondale Shipyards	C4–S–69b**	2
			7
	Non-Subsidized		
Eagle Terminal Tanker	Bethlehem, Sparrows Point Yard	Tanker	1
Keystone Shipping	"	"	1
Penn Tanker	"	"	1
Matson Navigation Co.	"	Containership	1
Sun Oil Company	Sun Shipbuilding & Dry Dock Co.	Tanker	1
Mathiesen's Tanker	"	"	1
Humble Oil	Avondale Shipyards	"	3
Coast & Geodetic Survey	American Ship Building	S2–MT–MA74a	1
			10
TOTAL			17

* Roll on/Roll off
** Partial Containership

Deliveries

Of the 54 ships being constructed in U.S. shipyards on July 1, 1969, 17 were delivered during the fiscal year. These comprised seven subsidized ships, one ocean survey ship for the U.S. Coast and Geodetic Survey, one containership and eight tankers for nonsubsidized owners (See Table 3).

Small Vessels

The Maritime Administration administers the technical aspects of design and oversees construction of fishing vessels built under the United States Fishing Fleet Improvement Act, which authorizes the Secretary of the Interior to pay up to 50 percent of the construction cost. Nine vessels were delivered during the year under this program, six being tuna vessels for the West Coast. Only one subsidized fishing vessel was under construction as of June 30, 1970.

During the year, three construction subsidy applications were withdrawn after receipt of bids. However, bids were being invited at the year's end for two vessels. The United States Fishing Fleet Improvement Act of 1964 was extended until June 30, 1972, by the enactment of H.R. 4813, but appropriations for FY 1971 were not requested.

At the close of the fiscal year, the oceanographic surveying ship RESEARCHER was delivered to the Maritime Administration by the American Ship Building Company and, subsequently, was redelivered to the ESSA, Coast and Geodetic Survey. This vessel contains the latest in equipment for navigation, communications, ship handling, and surveying.

Trial and Guarantee Surveys

Sea trials and acceptance surveys were conducted on five subsidized ships and one Coast and Geodetic oceanographic survey ship. In addition, sea trials were observed by the Trial & Guarantee Survey Board on five ships insured under the Title XI Mortgage Insurance program. Final guarantee surveys were conducted on 16 subsidized ships and six Title XI ships.

Design and Development

During the year, a major in-house effort was undertaken to complete five preliminary designs to provide benchmarks for evaluation of contractors' designs and to serve as possible standard ships for the Maritime Administration's new merchant marine program, "Merchant Ships for the Seventies." These designs consisted of a 60,000-ton deadweight ore/bulk/oil carrier, 15,000-ton

deadweight general-purpose cargo ship, a 24-knot, single-screw containership, a 26-knot, twin-screw containership, and a 23-knot barge carrier. In conjunction with these designs, a condensed version of the Maritime Administration's Standard Specification for Cargo Ship Construction was developed to supplement the outline specifications written for the five designs. The revision will form the basis for quality control of ship construction under the new standard ship program.

The Agency continued to promote shipboard mechanization and automation by the completing of a design for a standardized engine-room control console. The completed project was published in a report entitled "Maritime Administration Guide for a Standardized Engine Room Propulsion Control Console."

A project study begun in FY 1969 was continued during the year to develop a standard bridge control console and arrangement so that future ship designs can take advantage of the benefits of such standardization. In a similar area of mechanization, preliminary design requirements were developed for an unattended engine room steam propulsion plant.

A project was initiated to design a shipboard system to monitor and evaluate equipment performance. Utilizing a general-purpose computer, the system will monitor operating parameters, compare them to acceptable norms, and advise operating personnel on developing problems or performance degradation. It will provide an experience base from which a wide variety of future shipboard computer applications can be drawn.

Supplementing the initial development of a shipboard information system, the Maritime Administration, with the cooperation of a shipowner, will place this data collecting system into prototype operation. It is expected to provide management with the information to determine proper work schedules for effecting efficient maintenance and repair.

A project covering the effect of steam conditions and cycle arrangements on performance of high powered propulsion plants as determined by computer was completed during this fiscal year. The results of the computer calculations derived specific fuel consumption rates for a horsepower range up to 45,000 HP for three steam cycles. The information obtained will be useful in updating current computer programs for future marine power plants.

A research program into propeller vibration and stress was initiated jointly with two ship operators and the American Bureau of Shipping.

A propeller of a C4-S-69a class freighter, SS MICHIGAN, was instrumented and hull vibrations and propeller blade stresses were recorded. It is anticipated that test results will help to determine factors which cause propeller blade failures.

To further dampen propeller induced ship vibrations, the Maritime Administration joined with a ship operator in conducting a full-scale test of a skewed propeller. The propeller will be installed on a ship in an effort to verify model test research data on this type of propeller.

A study into the use of contra-rotating propellers was initiated in connection with the proposed installation on a large twin-screw containership. A new stern was designed and model tests performed on twin-screw, contra-rotating, single-screw and overlapping propeller versions for the same hull. Machinery and economic studies were conducted which demonstrated the feasibility of contra-rotating propellers for this design.

A gas-turbine power plant design was completed for a low-cost commercially acceptable cargo ship. This design supplemented, a completed steam turbine and two diesel engine designs of the same ship. The gas-turbine design is to be readily adaptable for construction under emergency conditions and for meeting National Defense Reserve Fleet requirements. To further encourage the development of improved marine propulsion plants, the Agency plans to undertake a comprehensive research and development project to adapt the industrial gas turbine to shipboard applications.

During FY 1971, contributions were made to the development of technical publications, such as the revision of the Society of Naval Architects and Marine Engineers' authoritative text books on "Ship Design and Construction" and "Marine Engineering." Thsee new editions will be basic educational tools for training naval architects and marine engineers.

The Maritime Administration's on-going program of conducting performance evaluation trips on foreign and domestic ships of unusual design

and application contributed to the dissemination of information vital for furthering of advanced marine technology applicable to the Agency's new construction program. The program also provided insight into operational methods employed by foreign ship operators.

During the year, additional data was collected to verify a new method of calibrating shaft horsepower meters using ultrasonics. Three additional tests during fiscal 1971 should help decide whether to abandon the conventional and much more expensive system of forcibly twisting the propeller shaft itself.

New electronic systems, including the first marine automatic direction finder to be manufactured in the United States, have been provided for special purpose cargo ships (LASH and Seabee) now under construction. The Agency has authorized the shipboard installation of single sideband radio-telephone transmitters and receivers to extend the range of high seas voice communications. Work involving improvements to marine radar equipment including development of the first (10 c.m.) transistorized main radar for merchant ships built in the United States was initiated during fiscal year 1970. Radar reliability testing to the highest performance requirements in the world have been successfully completed on five shipboard systems.

Pollution Abatement

The Office of Ship Construction represented the Department of Commerce in a series of interagency task group meetings under the direction of the White House Executive Office, which developed a national oil spill prevention action plan. These meetings led to the decisions embodied in the President's Message to the Congress of May 20, 1970, assigning to the Secretary of Commerce two important tasks in the action plan for the prevention of oil spills from ships. The President directed the Secretary to: (1) develop specific technical standards which could form the basis of multilateral action by the Department of State to negotiate international standards for the construction and operation of tankers, and (2) to coordinate a joint effort with private industry and port authorities to develop additional shoreside facilities for the reception and treatment of oily wastes. In turn, the Maritime Administration has assumed departmental responsibilities for the tasks.

The Office of Ship Construction has developed action plans responsive to the President's Message. Recognizing the indispensable contribution which U.S. industry must make in collaboration with the Government, the President established by executive order the National Industrial Pollution Control Council, (NIPCC) composed of chief executive officers drawn from all parts of industry. The Council reports through the Secretary of Commerce to the President and the Council on Environmental Quality. The Agency has met with and sought the advice and assistance of the NIPPC Shipping Sub-Council, with particular emphasis on the industry's cooperation in implementing the specific measures developed in the Agency's pollution abatement action plan.

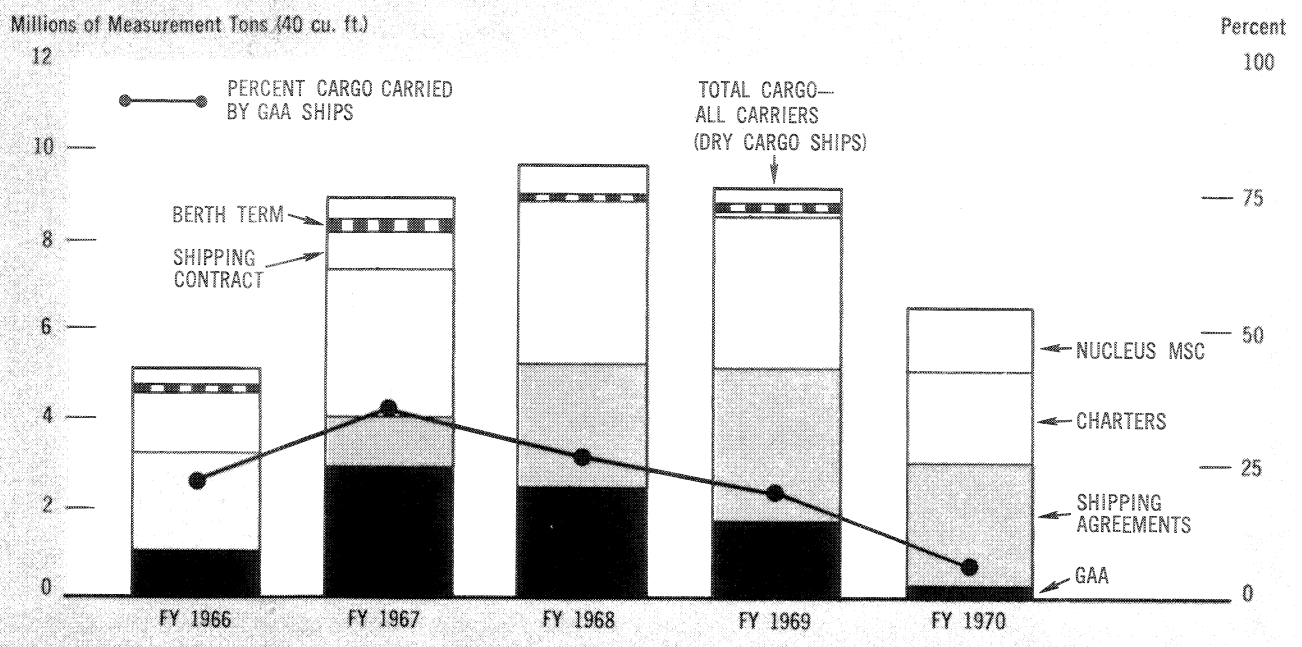
With regard to the development of international standards for the construction and operation of tankers to achieve maximum abatement and prevention of oil pollution emanating from tanker operation, the Maritime Administration is participating as active members of State Department delegations to several international conferences. The Agency is accredited as a member of the U.S. SOLAS (Safety of Life at Sea) Working Groups preparing for three IMCO (Intergovernmental-Maritime Consultative Organization) Technical Sub-committee meetings in London seeking international agreements on pollution abatement through improved ship construction and operating standards. Technical studies by the Maritime Administration in support of U.S. Delegation positions were prepared. The Agency was accredited as a member of the U.S. delegation to NATO's Committee on Challenges of Modern Society Ocean Oil Spills Conference to be held in Brussels, November 2–6, 1970, and presented a paper on "Ship Construction and Operation Standards for Oil Pollution Abatement."

SHIP OPERATIONS

General Agency

Beginning in July 1965, the Maritime Administration provided ships from the National Defense Reserve Fleet (NDRF) for the Vietnam sealift at the request of the Department of Navy. At the height of the operation, 161 Reserve Fleet and

Chart I. GAA/MSC Operations: Shipping Trends



MSC OUTBOUND CONTINENTAL U.S. MILITARY CARGO MANIFESTED FOR DISCHARGE IN REPUBLIC OF VIETNAM*

FISCAL YEAR		FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	TOTAL 7/1/65-6/30/70
Cargo Carried (Measurement Tons)	Total—All Carriers	5,138,700	9,032,900	9,727,300	9,322,200	6,540,100	39,761,300
	Nucleus MSC	472,300	591,500	549,200	518,300	244,700	2,376,000
	Berth Term	128,100	288,100	100,600	89,600	—	606,400
	Shipping Contract	1,197,800	560,200	—	700	—	1,758,700
	Charters	2,168,100	3,572,400	3,661,400	3,273,500	3,123,800	15,799,200
	Shipping Agreement	—	960,300	2,865,600	3,629,500	2,810,900	10,266,400
	General Agency Agreement	1,172,400	3,060,400	2,550,500	1,810,600	360,700	8,954,600
Cargo Carried	Total—All Carriers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Nucleus MSC	9.2%	6.5%	5.6%	5.6%	3.7%	6.0%
	Berth Term	2.5%	3.1%	1.0%	1.0%	—	1.5%
	Shipping Contract	23.3%	6.2%	—	.0%	—	4.5%
	Charters	42.2%	39.6%	37.7%	35.1%	47.8%	39.7%
	Shipping Agreement	—	10.6%	29.5%	38.9%	42.9%	25.7%
	General Agency Agreement	22.8%	34.0%	26.2%	19.4%	5.6%	22.6%
Coast of Origin (% Measurement Tons)	Atlantic Coast	17%	17%	23%	16%	25%	19%
	Gulf Coast	14%	15%	11%	16%	12%	14%
	Pacific Coast	69%	68%	66%	68%	63%	67%

NOTE: No GAA cargo for Vietnam carried prior to July 1, 1965. Figures may not be additive due to rounding.

* Does not include tanker cargo.

TOTAL CARGO BY SEA AND AIR, CONUS TO VIETNAM (SHORT TONS)

YEAR	SEA	AIR	TOTAL
1965 (7/1-12/31)	971,000	26,300	997,300
1966	2,831,500	117,500	2,949,000
1967	4,114,000	207,400	4,321,400
1968	5,046,400	212,800	5,259,200
1969	3,941,200	175,800	4,117,000
1970 (1/1-6/30)	1,575,900	49,400	1,625,300
TOTAL	18,480,000	789,200	19,269,200
TOTAL PERCENT	96%	4%	100%

TOTAL PASSENGERS BY SEA AND AIR, CONUS TO VIETNAM

YEAR	SEA	AIR	TOTAL
1965 (7/1-12/31)	71,900	65,900	137,800
1966	91,000	371,100	462,100
1967	50,800	425,300	476,100
1968	7,800	574,100	581,900
1969	0	519,200	519,200
1970 (1/1-6/30)	0	211,000	211,000
TOTAL	221,500	2,166,600	2,388,100
TOTAL PERCENT	9%	91%	100%

11 operating ships assigned to General Agency Agreement (GAA) service for operation under the direction of the Military Sea Transportation Service (MSTS), now the Military Sealift Command (MSC), accounted for 34 percent of the military shipments to Southeast Asia. (See Chart 1)

As mentioned earlier, by July 1, 1970, only two refrigerator ships, the CONTEST and FLYING DRAGON, remained active, thus virtually eliminating Maritime Administration-owned ships from competing with the private sector of the American Merchant Marine.

A number of actions were taken to keep the lay-up expense for the returning vessels at a minimum. These included holding the ships in the reserve fleet, instead of at commercial piers while awaiting deactivation, and selective scheduling and group contracting for "moth-balling."

Charters

Five Government-owned ships were under bareboat charter at year end, a decrease of one from FY 1969. One was the NS SAVANNAH, chartered to First Atomic Ship Transport, Inc. The other four were traded in to the Government for credit toward construction of new ships and operated under charter by the former owners to maintain their services until the new ones are delivered.

Repair and Maintenance

A procedure was initiated whereby invoices for maintenance and repair work sent in by the subsidized operators are coded and fed into a computer. Comparison of costs among different ships and lines by frequent computer print-outs are used to assure that costs are fair and reasonable. Random spot checking of invoices and a detailed survey by the Agency in conjunction with the quadrennial American Bureau of Shipping Special Inspection are used to verify computer findings. Annual savings resulting from utilization of these streamlined procedures will reach $200,000 per year.

During the fiscal period, a total of 411 Job or Work Orders were awarded in the United States for repairs and permanent lay-up of GAA ships. These awards, totaling $8,259,619, and representing approximately 125,000 man-days of work throughout the marine industry and its supporting services, were distributed between the three Coast Regions as follows:

Eastern Region	$2,913,381
Central Region	1,834,916
Western Region	3,511,322

Estimated cost of foreign repairs to GAA ships for the same period was $269,838.

In connection with the Exchange Program, the Agency reviewed invoices and supporting documents covering underwater class repairs performed on 12 transfer ships. These repairs amounted to $1,212,796, of which $413,990 was disallowed as being for the owners' account.

Fifty-two surveys were made to establish defects and deficiencies on ships in subsidized service and to establish eligibility of costs for operating-differential subsidy.

There were 855 repair inspections, including drydocking and underwater work, to verify the need for repairs and their satisfactory completion on subsidized ships. Repair costs, totaling $41 million, were reviewed to determine eligibility for subsidy and the fair and reasonable cost for repairs. Some $3.1 million was found ineligible for subsidy.

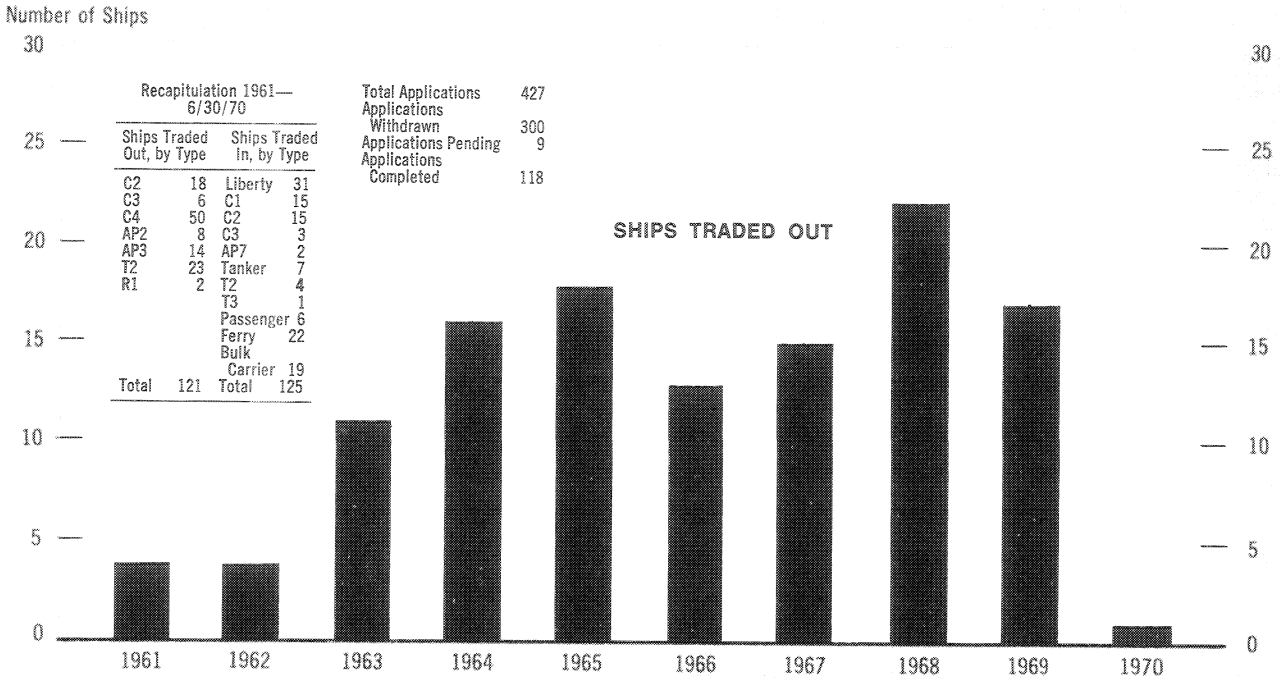
Approximately 1,425 other surveys, inspections and repair cost estimates were made to assure compliance with various contractual requirements.

Vessel Exchanges

Thirteen applications were filed during the year for the exchange of ships under the Ship Exchange Act of 1960, as amended, (Public Laws 86–575 and 89–254). Maritime exchanged one ship, the USNS MERCURY, a converted missile-tracking ship released from service by the MSTS during the fall of 1969. The MERCURY was allocated to Matson Navigation Company in exchange for the HAWAIIAN BUILDER. The shipowner proposed to convert the vessel to carry bulk sugar and, at its election, to convert the ship to carry containers and molasses as well.

Since the inception of the Ship Exchange Program in 1960, some 427 applications have been filed for exchanges. During this 10-year period, the Maritime Administration exchanged 121 government-owned for 125 privately owned ships. It received $24,421,231 in excess value of the ships going to operators over those traded-in,

Chart II. Ship Exchange Program (Since Inception on July 5, 1960)



FISCAL YEAR	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	TOTAL
Ships Traded Out	4	4	11	16	18	13	15	22	17	1	121
Ships Traded In	4	4	13	18	18	13	15	22	17	1	125
Cash Received By Marad ($)[1]	276,836	115,473	920,274	1,146,279	1,341,280	3,413,653	3,695,947	7,461,746	5,814,783	235,000	24,421,231
Est. Cost of Putting Traded-Out Ships To Sea, or $ To U.S. Shipyards ($)[2]	2,871,834	8,241,341	3,902,164	39,247,609	109,930,133	42,334,486	58,046,347	89,235,866	N.A.	N.A.	353,773,780

SHIP EXCHANGE ACTIVITY, FISCAL YEAR 1970

Company	Ship Traded In (Type)	Ship Traded Out (Type)	Cash Received By Marad[1]	Est. Cost Of Putting Traded Out Ship To Sea
Matson Navigation Company	C3	T2	$235,000	N.A.

ANALYSIS—The 50 C4's shown as trade-out ships were mostly troopships made available for the exchange program with the concurrence of the Department of Defense on the condition that the ships would be converted by the unsubsidized ship operator recipients to conventional cargo ships, containerships, roll-on/roll-off, or heavy-lift cargo ships, and that, further, the ships would be made available after conversion to the MSTS at fair and reasonable rates. These requirements were lifted after the first group of 25 were offered for exchange. Conversions proposed and in process include 18 breakbulk cargo vessels, 26 containerships, 1 vehicle and container carrier, 2 bulk carriers, 1 liquid chemical carrier, and 2 heavy-lift cargo vessels.

[1] The "cash received" figures, FY 1965, FY 1968, & FY 1969, are subject to adjustment when contract work, hearings, etc., on certain of the ships are completed.

[2] Due to lack of information, figures on cost of putting traded out ships to sea, 1968 to present, are only partial; 1968 figures reflect data available on sixteen ships; 1969 figures are not available.

NOTE: Public Law 86-575, enacted July 5, 1960, authorized the exchange of certain unsubsidized war-built vessels for more modern and efficient war-built vessels owned by the United States. Public Law 89-254, enacted Oct. 10, 1965, amended P.L. 86-575. Among its provisions: extension of time period for exchange program to 1970, further defining U.S. citizen ownership requirements, and certain requirements for operation of traded-out tanker vessels.

subject to adjustment when contract work on certain of the ships is completed. (See Chart II)

Ship Sales

In view of rising costs for retaining ships slated for scrapping, steps were taken to sell some scrap candidates in the East Coast NDRF abroad.

During fiscal 1970, a total of 137 ships were scrapped, of which 38 were sold abroad for $5.3 million and 99 to domestic scrappers for $4.7 million. Thus, the collective sales amounted to $10 million instead of the approximately $6.5 million they would have brought if all were disposed of on the domestic market. As a result $3.5 million additional revenue was realized from these transactions.

A detailed breakout shows 100 Liberties and 17 non-Liberties from NDRF anchorages were sold for scrap during the year for $6,707,278. Additionally, two Liberties and 18 non-Liberties from other locations brought $3,282,286.

During the 1958–70 period, 1,126 Liberties and 171 non-Liberties from NDRF anchorages were sold for $76,315,600. Another $9,970,197 was realized from the sale of 20 Liberties and 106 non-Liberties from other locations. In summary, the 1,423 ships sold between 1958 and 1970 brought in revenues totaling $86,285,793.

There are no outstanding principal balances due on mortgages on ships sold to U.S. citizens and foreign nationals under the 1946 Act.

During the fiscal year, $75,853 in principal and $6,310 in interest were collected from Banco do Brazil under its agreement with the Maritime Administration dated June 1, 1965, whereby Banco assumed the payment of 11 outstanding Brazilian mortgages with total balances of $379,270. On June 30, 1970 the principal balance outstanding under this agreement was $132,743.

A total of $115,418,920 in interest had been collected from U.S. and foreign ship sales under the 1956 Act.

Foreign Transfers

A total of 167 ships of 1,000 gross tons and over, 72 more than in fiscal 1969, were transferred foreign with the Maritime Administration's approval. Over 60 percent were sold for scrapping abroad. Twenty-seven of the 167 ships were undocumented or registered under foreign flag though owned by U.S. citizens (See Appendix V).

Charters of U.S.-owned ships to aliens were approved on 28 ships of 1,000 gross tons and over.

Applications for transfer foreign of 473 ships of less than 1,000 gross tons, 295 commercial and 178 pleasure craft, were approved, along with charters of 42 ships to aliens.

Of 18 violations involving the sale of privately-owned ships without Maritime Administration's prior approval, 16 were mitigated or settled.

National Defense Reserve Fleet

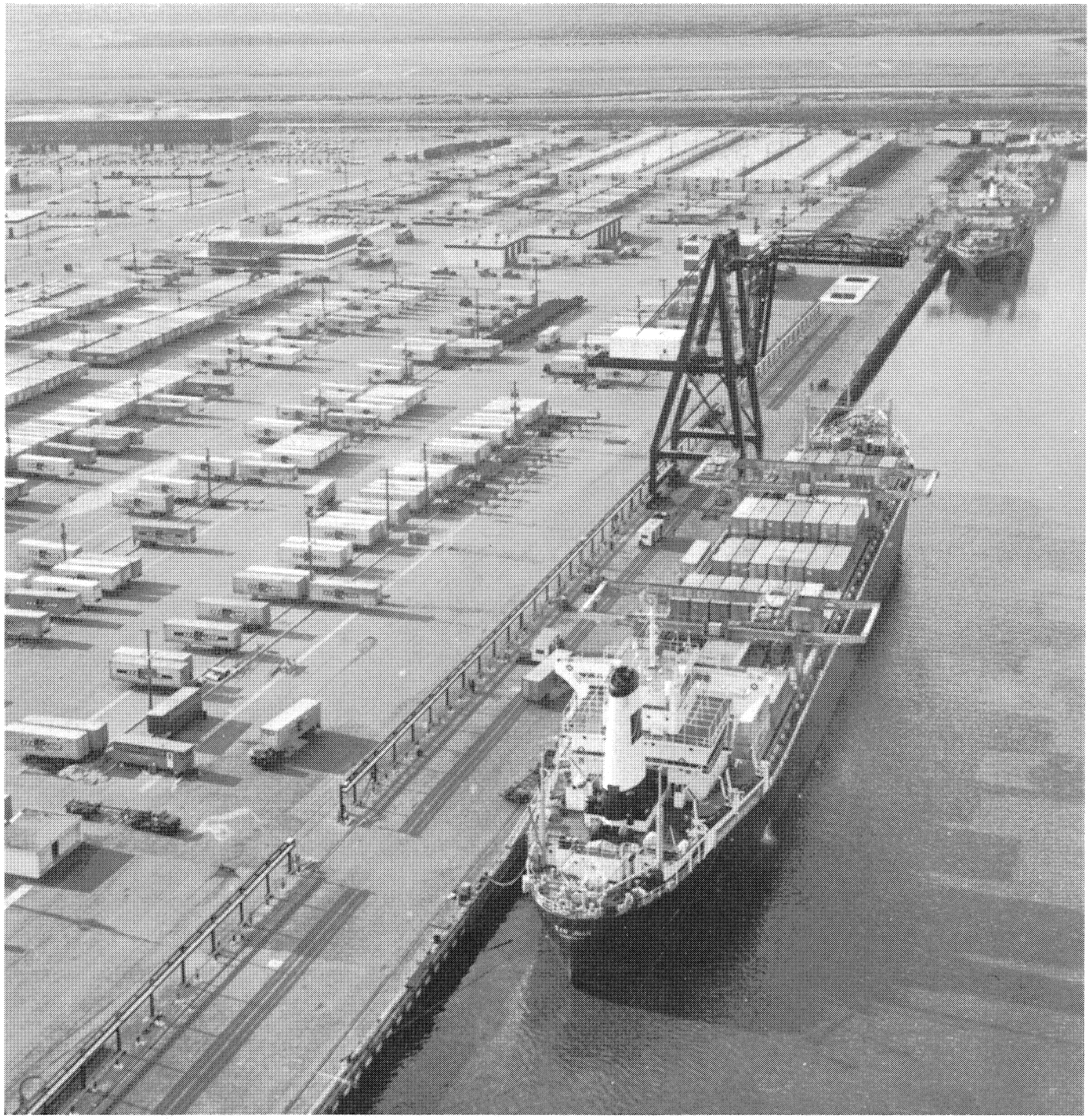
At the end of FY 1970, the Agency maintained six National Defense Reserve Fleet (NDRF) anchorages containing 1,027 merchant ships, virtually all of which were in the 25-year-age bracket. Because of advanced obsolescence, inferior operating characteristics, and excessive reactivation costs, only about 350 of these are considered suitable for reactivation to meet national shipping emergencies. Accordingly, plans were initiated to close the Hudson River, N.Y. and Mobile, Ala., anchorages.

During the year, 204 ships were placed in the fleet and 190 withdrawn, of which 101 were affected by the Southeast Asia sealift. See Table 4 for arrivals and withdrawals tabulations and Table 5 for ships in NDRF anchorages. Number of ships in the Reserve Fleet at each year end since 1945 is shown in Appendix VII.

TABLE 4—*Reserve Fleet Arrivals and Withdrawals*

Reasons or Sources	Arrivals	Withdrawals
Sold Scrap	0	120
Navy	23	8
Deactivation/Drydocking	52	55
Military Sea Transport Service	21	0
ROS/RS Ships*	101	1
Exchange Program	0	1
Equipment Removal	1	1
Inter-Fleet Transfers/Retention Ships	4	4
Use Agreement	2	0
TOTAL	204	190

* Reduced operational status/Reduced status.



To implement its market development effort, the agency created an Office of Ports and Intermodal Systems to assist with development and expansion of new transport systems and to promote containerization and the modernization of U.S. port facilities.

TABLE 5—*Ships in Reserve Fleets, June 30, 1970*

Fleets	Retention	Scrap	Special Program	Total
Hudson River, N.Y.	0	77	1	78
James River, Va.	130	169	27	326
Mobile, Ala.	21	100	0	121
Beaumont, Tex.	107	12	17	136
Suisun Bay, Calif.	145	92	29	266
Olympia, Wash.	79	15	6	100
TOTALS	482	465	80	1,027*

* Excludes 14 ships sold for scrap but not delivered. Represents a decrease of 973 ships in the past 10 years.

The recurring preservation program for the the necessity to adjust the fiscal plan to contract remaining retention ships moved ahead despite 45,226 man-days of work downward to 34,719.

PORTS AND INTERMODAL SYSTEMS

New Organization

The revitalization of the U.S. merchant marine depends heavily upon the use of advanced cargo handling systems on vessels and in ports. These systems will be successful only when integrated fully with highway and rail transport at home and abroad. To complement the market development aspect, the Office of Ports and Intermodal Systems was established during fiscal 1970. It was staffed with both marine and inland transportation experts having the knowledge and initiative needed to assist in the development and expansion of new transport systems. The staff will play a key role in promoting containerization and the modernization of U.S. port facilities.

Intermodal Transport

To encourage the adoption of technological innovation by the U.S. merchant marine, the Maritime Administration sponsored the Automatic Container Identification Conference on January 20, 1970. The Conference acquainted the maritime industry with an electronics and computer aided approach to transport equipment identification and control. A key result has been stimulated interest in the utilization of optical scanning devices for the processing of container-control information.

Intermodal Coordination

During the year, the Maritime Administration promoted the wide-spread use of cargo containers which can readily be moved from ship to flat-bed truck or rail car with minimum handling, by encouraging highway, rail, and water transport industries to negotiate agreements for standardized container-handling equipment.

Joint efforts with industry and other government agencies resulted in the redrafting of new standards for intermodal containers. These will provide the U.S. maritime industry with structural testing and establish criteria for intermodal containers of various sizes.

Because of the impact of international controls on container movement, continued efforts were made to insure active U.S. participation at all international conferences and meetings regarding intermodal transport. U.S. positions on container handling were developed for numerous sessions entailing inland transport activities of the United Nations' Economic Commission for Europe and the work of the Inter-governmental Maritime Consultative Organization.

Containerization of Commodities

The "Experimental Export Shipment of U.S. Cotton in Containers" was launched to demonstrate the practicality of a more economic and efficient alternative to the traditional "breakbulk" handling methods for the movement of domestic cotton to foreign markets. The cotton loaded into intermodal containers at Lubbock, Tex., arrived in good condition at Kobe, Japan, with a substantial savings in transit time realized. Similar "trial shipments" for other commodities are envisioned for fiscal 1971.

Federal Consultants in Port Development

The Maritime Administration continued to serve as port consultants to the Economic Development Administration in determining the technical and economic feasibility of proposed projects submitted by economically distressed communities for financial assistance in the construction of commercial marine terminal facilities. Economic evaluations of port and waterway projects in Alaska, California, Texas, Mississippi, South Carolina, Puerto Rico, and the Virgin Islands were provided during FY 1970.

Water Resources

As a lead member of the Department of Commerce Water Resources Coordinating Committee, the Maritime Administration continued to consolidate views of other Commerce agencies and provide technical input to the U.S. Army Corps of Engineers for use in their evaluation of proposed ocean and inland channel improvement projects. A comprehensive evaluation was prepared relative to certain proposed navigational improvements at Tampa, Fla., and Baltimore, Md.

Future Port and Terminal Requirements

Recognizing the major problem posed by the rapid growth in size of tankers and dry-bulk carriers, the Maritime Administration initiated preparation of a major study entitled "Evaluation of Offshore Terminal Systems Concepts." The objective will be to develop more effective and economical ways to enable U.S. ports and ship operators to overcome, with a minimization of pollution hazards, the present vessel size constraints imposed by channel depth limitations. Completion of this study is foreseen in FY 1972.

This office prepared plans to encourage and coordinate the development of adequate facilities, stationary and mobile, within port areas to receive and dispose of oil discharges from vessels and oil recovered from spills at sea.

MARITIME AIDS

SUBSIDY ADMINISTRATION

Operating-Differential Subsidy

Thirteen operators participated in the operating-differential subsidy program, with a total of 247 ships under contract at the end of the fiscal year. Payments during the year on operating subsidy due for 1970 and for prior years totaled $205,731,711. (See Chart III)

Operating-differential subsidy, accrued from January 1, 1937 to June 30, 1970 totaled $3,302 million; recapture amounted to $245 million; net payable as of June 30, 1970 was $3,057 million, of which $2,917 million had been paid out, leaving an estimated unpaid balance of $140 million at the end of fiscal 1970.

Passenger services continued to decline, with the SS ARGENTINA and SS BRAZIL of Moore-McCormack Lines and the SS UNITED STATES of United States Lines being withdrawn from service. As a result, there were six passenger ships in lay-up at the end of the year since American Export Isbrandtsen Lines, Inc., had previously withdrawn three ships from subsidized service.

Three applications for operating-differential subsidy were pending at the end of the year. Waterman Steamship Corporation's subsidy requests involve Trade Route No. 21 (U.S. Gulf/U.K. and Continent), and on Trade Routes Nos. 12 and 22 (U.S. Atlantic and Gulf/Far East). Isthmian Lines, Inc. applications cover two services (U.S. Atlantic and Gulf/India—Pakistan—Ceylon, and U.S. Atlantic and Gulf/Persian Gulf), primarily on Trade Route No. 18 (U.S. Atlantic and Gulf/India, Persian Gulf and Red Sea). Central Gulf Steamship Corp. has requested subsidy for services primarily on Trade Route No. 18.

Oceanic Steamship Company applied for a new operating-differential subsidy contract to commence December 17, 1972, when its present contract terminates.

Grace Line Inc., and Prudential Lines, Inc., during the year merged to form Prudential-Grace Lines, Inc. Under this merger the operating-differential subsidy contract of Prudential Lines was terminated and all assets, liabilities, contract provisions, etc. of the terminated contract were combined into the remaining operating-differential subsidy contract of Grace Line.

Appeals were entered with Department of Commerce against a number of decisions involving subsidy disallowances where operators and the unions had previously agreed that operators would make certain benefit contributions for specified categories of seamen, which the Maritime Subsidy Board later found ineligible for subsidy payment. During the year, three separate suits brought in U.S. courts by operators seeking reversal of the Secretary of Commerce's decisions on certain disallowances were either withdrawn with prejudice or motions to this effect had been filed by the operators involved.

In an effort to overcome the large backlog of operating-differential subsidy rates pending at the start of fiscal 1970, the Board and the subsidized operators agreed in practically all cases to extend the 1965 subsidy rates (or an earlier year for certain passenger or combination ships) through December 31, 1968. This will allow concentration on new rates applicable to calendar 1969 and subsequent years.

Trade Routes

A revised version of the booklet, "Essential United States Foreign Trade Routes," was published in April 1970. The new publication, whose format was changed to incorporate information items frequently requested, offers more statistical data on cargo movements than earlier editions in the series.

Limited reviews of several trade routes were made in connection with applications for operating-differential subsidy, mortgage insurance, and

One of the largest U.S. containerships, the HAWAIIAN ENTERPRISE, moves at speeds of 24 knots, and carries more than 1000 containers as it serves the Pacific area.

The SS MARIPOSA is one of four passenger ships still operating under the U.S.-flag.

The AMERICAN LEGION is typical of modern U.S.-flag ships approved for government mortgage insurance during 1970.

for construction-differential subsidy on new ships or the conversion of old ones.

The new maritime legislation amends Section 211 of the 1936 Merchant Marine Act to require a determination of the bulk carrying services needed for the promotion, development, expansion and maintenance of the foreign commerce of the United States for national defense or other national requirements. As a result, this Agency will make an assessment of the bulk trades, liquid and dry, to determine their service requirements.

Construction-Differential Subsidy

Under President Nixon's new merchant marine program, construction-differential subsidy (CDS) funds will be used to aid in rebuilding all segments of the United States flag merchant fleet that are engaged in foreign trade. The past practice was to limit such aid to steamship companies holding operating-differential subsidy contracts. To implement this program, the Maritime Administration is formulating new ship procurement procedures which will be responsive to the needs of the unsubsidized as well as the subsidized ship operators.

To assist the Maritime Administration to formulate its subsidized shipbuilding program, the U.S.-flag ship operators were requested to advise the Maritime Administration of the number and types of ships they proposed to build under the new program from available designs for highly productive ships. These include the "CMX" designs developed by Bath Iron Works Corp. and Newport News Shipbuilding and Dry Dock Co. and five Maritime "Benchmark" designs developed in-house. The CMX designs include several types and sizes of containerships, bulk carriers, ore-bulk-oil carriers, tankers, and multi-purpose bulk carriers. The Maritime Benchmark designs include an ore-bulk-oil carrier, a general purpose cargo ship and two sizes of containerships, and a Lighter-Aboard-Ship (LASH) type barge carrier design.

Early responses to this program by ship operators indicate considerable interest in construction of containerships, ore-bulk-oil carriers, large tankers and LASH-type barge carriers.

CDS contracts were executed during FY 1970 covering construction of five new containerships for three operators and the conversion of nine conventional C-3 type cargo ships into partial containerships for another shipping line. The total domestic cost of this construction and reconstruction work is estimated at $139,610,822, of which $63,674,122 is estimated to be CDS payable. (See Table 2 and Chart IV.)

At year's end, applications were pending from three subsidized and three nonsubsidized operators for CDS on eight new and eight converted ships, including two tankers, each of 230,000 DWT. (See Table 6.) Bids had been received for the reconstruction of two ships and the construction of three new vessels. (See Table 7.)

Federal Ship Mortgage Insurance

During FY 1970 applications were approved for Federal Ship Mortgage and/or Loan Insurance totaling $204,181,146, covering 29 vessels. In addition, mortgage insurance contracts aggregating $79,271,000 were placed on 14 ships, based on commitments made in earlier fiscal years. (See Table 8.) Additionally, two Title XI Mortgages were terminated when American President Lines, Ltd. paid the balance on the SS PRESIDENT ROOSEVELT and The Cabins Tanker, Inc. on the tanker THE CABINS.

At year's end, Title XI contracts in force covered a total of 171 ships and 360 barges for a total outstanding balance of principal and interest of $919,418,003. (See Chart V.)

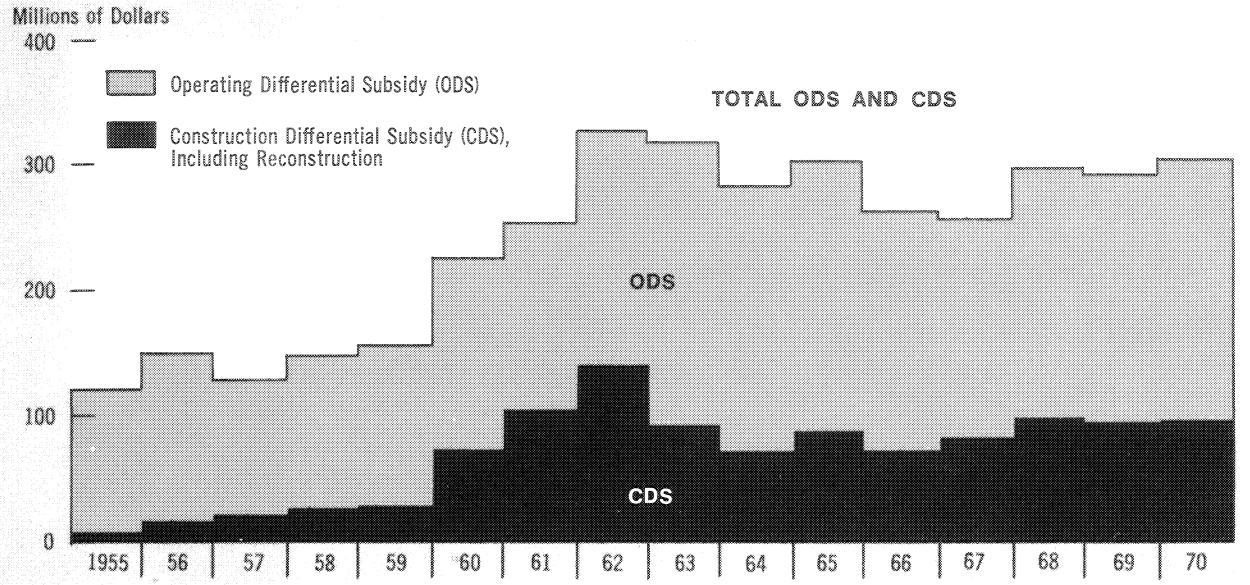
At the same time pending applications for loan and/or mortgage insurance encompassed construction or reconstruction of 29 freighters, four tankers, 12 tugs, barges or miscellaneous types, and 565 lighters and barges to be carried on board ship, at a total estimated cost to the applicants of $328,894,455, of which $258,432,556, is the estimated amount to be covered by mortgage insurance.

The Federal Ship Mortgage Insurance Fund received $5,278,050 in net income during the year, making the retained income of the fund $25,129,664.

Reserve Funds

The Maritime Administration also assists U.S. ship operators by administering construction re-

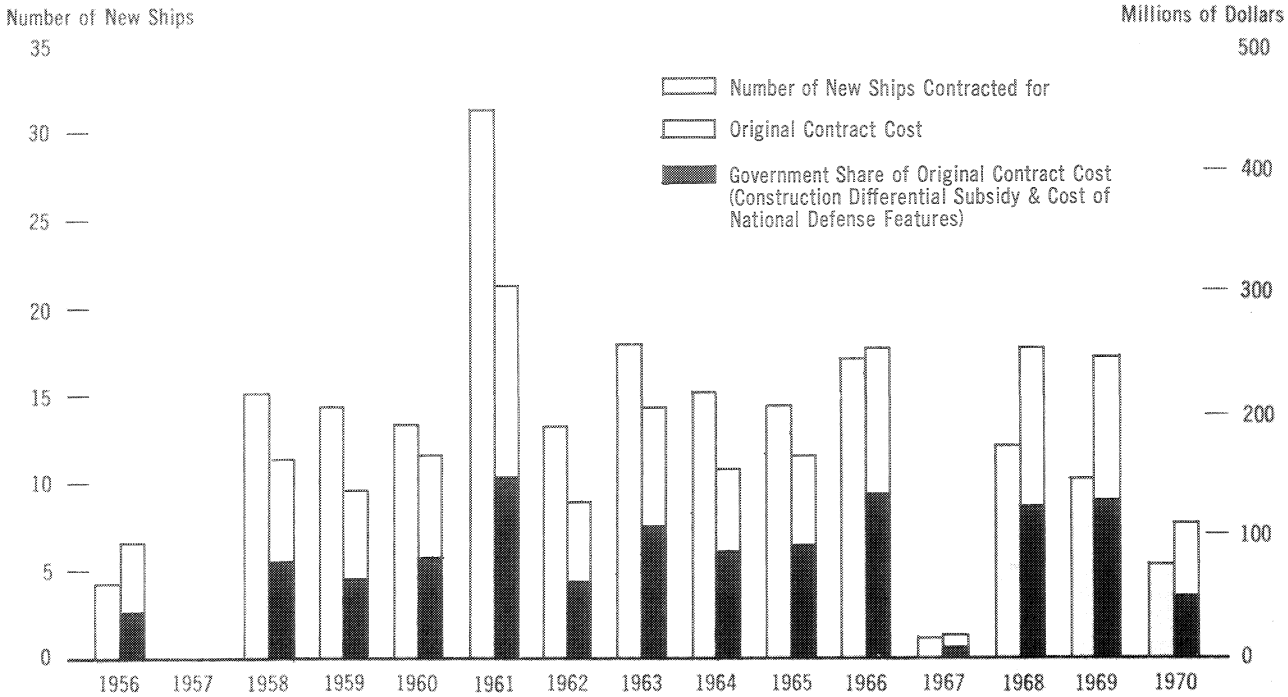
Chart III. Maritime Subsidy Expenditures



FISCAL YEAR	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Total ODS & CDS	120.7	151.3	128.6	147.4	156.4	226.7	253.5	323.0	315.4	282.0	301.0	260.0	258.2	297.8	290.2	302.4
ODS	115.4	135.3	108.3	120.0	127.7	152.8	150.1	181.9	220.7	203.0	213.3	186.6	175.6	200.1	194.7	205.7
CDS (incl. Reconst.)	5.4	16.0	20.3	27.3	28.7	74.0	103.3	141.0	94.7	78.9	87.7	73.4	82.5	97.7	95.5	96.7

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			85,038,513	
1955	5,358,663	0	$ 5,358,663	115,391,111	$ 120,749,774
1956	1,613,737	$14,368,668	15,982,405	135,342,146	151,324,551
1957	16,379,076	3,909,195	20,288,271	108,292,274	128,580,545
1958	22,637,540	4,709,383	27,346,923	120,031,522	147,378,445
1959	21,679,547	7,065,416	28,744,963	127,693,052	156,438,015
1960	69,156,794	4,828,227	73,985,021	152,756,154	226,741,175
1961	102,118,519	1,215,432	103,333,951	150,142,575	253,476,526
1962	136,858,263	4,160,591	141,018,854	181,918,753	322,937,607
1963	90,514,302	4,181,314	94,695,616	220,676,685	315,372,301
1964	77,234,458	1,665,087	78,899,545	203,036,847	281,936,392
1965	87,649,008	38,138	87,687,146	213,334,409	301,021,555
1966	70,810,939	2,571,566	73,382,505	186,628,357	260,010,862
1967	81,592,502	932,114	82,524,616	175,631,860	258,156,476
1968	97,610,561	96,707	97,707,268	200,129,670	297,836,938
1969	95,460,092	57,329	95,517,421	194,702,569	290,219,990
1970	74,999,309	21,723,343	96,722,652	205,731,711	302,454,363
TOTAL	$1,294,635,589	$74,809,398	$1,369,444,987	$2,917,158,571	$4,286,603,558

Chart IV. Ship Replacement Program

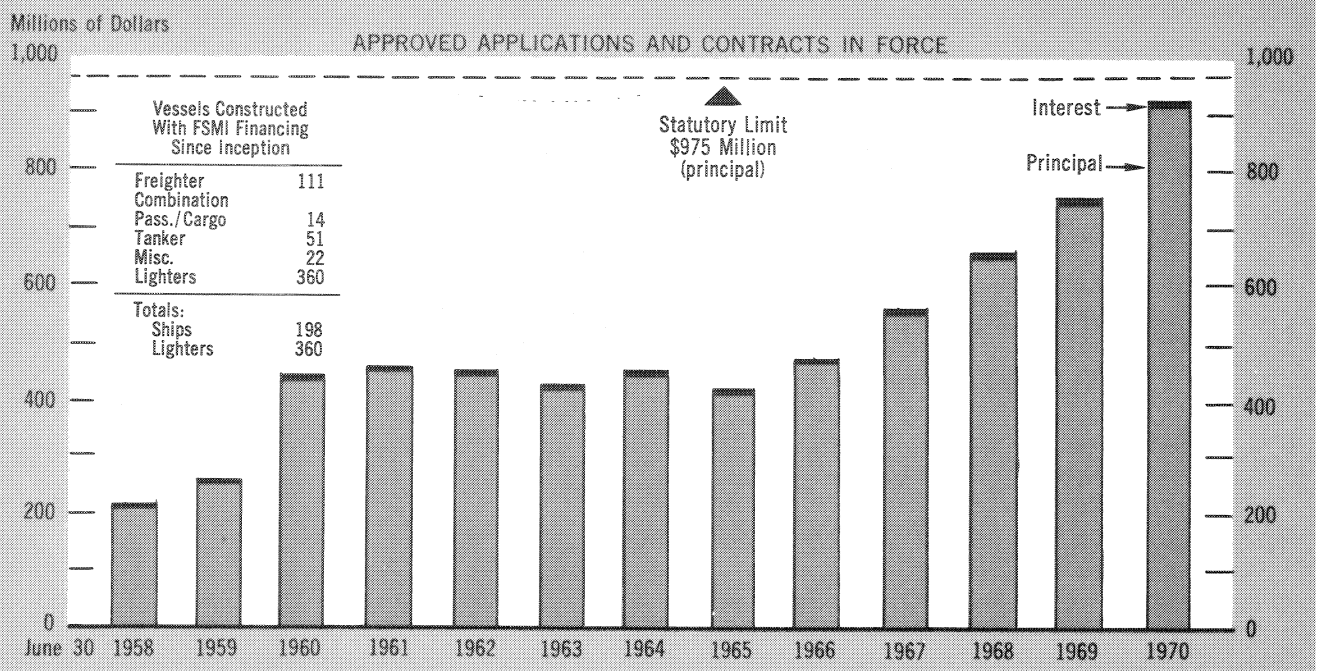


FISCAL YEAR	1956	1957	1958	1959	1960	1961	1962	1963
New Ships Contracted for	4	0	15	14	13	31	13	18
Construction Contract Award ($)	94,899,332	0	166,931,831	140,434,775	170,274,379	302,066,749	128,855,000	205,598,652
Owner's Share	55,637,470	0	87,429,528	73,366,595	87,431,905	152,054,988	65,090,000	98,991,000
Special Features Paid 100% by Owner	0	0	291,100	368,796	146,089	0	0	0
Construction Differential Subsidy	38,609,730	0	77,921,575*	65,051,776	81,479,145	147,146,807	63,353,628	106,294,792
National Defense Features	652,132	0	1,289,628	1,647,608	1,217,240	2,864,954	411,372	312,860

FISCAL YEAR	1964	1965	1966	1967	1968	1969	1970	TOTAL
New Ships Contracted for	15	14	17	1	12	10	5	182
Construction Contract Award ($)	155,999,087	168,283,260	254,436,365	15,715,450	250,536,000	247,515,076	108,970,700	2,410,516,656
Owner's Share	71,702,712	78,273,000	117,727,048	7,047,000	124,646,000	117,527,013	58,444,000	1,195,368,259
Special Features, Paid 100% by Owner	0	0	1,959,010	110,450	907,028	2,191,106	718,842	6,692,421
Construction Differential Subsidy	83,988,655	89,644,770	133,029,953	8,513,000	124,839,972	127,269,153	49,747,000	1,196,889,956
National Defense Features	307,720	365,490	1,720,354	45,000	143,000	527,804	60,858	11,566,020

NOTE: Figures exclude escalation, changes, and engineering and outfitting budgets.
*Includes extra cost of allocation of shipbuilding contracts involving 10 ships, rather than award by competitive bidding. This is in accordance with provisions of Sec. 502 (f) of 1936 Merchant Marine Act, which allow for contract allocation in special cases.

Chart V. Federal Ship Mortgage and Loan Insurance Program (Title XI)



Date	6/30/58	6/30/59	6/30/60	6/30/61	6/30/62	6/30/63	6/30/64	6/30/65	6/30/66	6/30/67	6/30/68	6/30/69	6/30/70
Total Approved Applications and Contracts in Force (millions of $)	219.093	257.119	448.990	464.119	458.847	431.169	454.467	421.584	485.184	562.096	651.552	751.555	919.418
Interest	.642	1.213	1.833	2.896	3.038	3.274	3.452	2.946	3.407	4.002	6.004	5.876	7.827
Principal	218.451	255.906	447.157	461.223	455.809	427.895	451.015	418.638	481.777	558.094	645.548	745.679	911.591
Number of Vessels	26	34	53	64	67	70	82	79	98	113	129	144	171
Number of Lighters (LASH, etc.)	—	—	—	—	—	—	—	—	—	—	—	360	360

CURRENT STATUS 6/30/70

	In Force		Pending	
Vessel Type	Number	Amount	Number	Amount
Freighter	110	$485,011,406	29	$117,139,000
Combination Passenger/Cargo	11	40,312,000	—	—
Tanker	38	358,604,961	4	48,210,250
Miscellaneous (tugs, hydrofoils, etc.)	12	18,062,582	12	76,350,000
Lighters (LASH, etc.)	360	9,599,850	565	16,733,306
TOTALS:				
Ships	171	$901,990,949	45	$241,699,250
Lighters	360	$ 9,599,850	565	$ 16,733,306

NOTE: Under Title XI of the Merchant Marine Act of 1935, the Maritime Administration is authorized to insure mortgages not to exceed 87½% of actual cost on (1) passenger vessels 1,000 g.t. and over and capable of at least 8 knots sustained speed, to be used solely on inland rivers and waterways, (2) oceangoing tugs of more than 2,500 h.p., (3) oceangoing barges of more than 2,500 g.t. and (4) other vessels of not less than 3,500 g.t., capable of 14 knots sustained speed. On ships not meeting these requirements, and on those built or rebuilt with construction subsidy, the agency may insure loans and mortgages for up to 75% of the actual cost of building and rebuilding.

TABLE 6—*Pending CDS Applications*

Company	Number of Ships	Type
Subsidized		
American Mail Line Ltd.	2	Containerships*
American Export Isbrandtsen Lines, Inc.	3	Containerships
States Steamship Co.	6	C-4 Cargo Ships**
Nonsubsidized		
Central Gulf Steamship Corp.	3	LASH
Haan Shipping Corp.	1	Tanker
Hase Shipping Corp.	1	Tanker

* Conversion of C-4 type cargo ships to full containership—Subsidy approved but contracts not executed at end of FY 1970.

** Retrofit and install flume stabilizers on C4-S-lu type ships.

TABLE 7—*Pending CDS Bids*

Company	Number of Ships	Design	Invitation Date	Apparent Low Bid
American Mail Line Ltd.	2*	C6-S-1x	April 3, 1970	Bethlehem Steel Corporation, San Francisco, Calif. ($8,404,000 for each of 2)
American Export Isbrandtsen Lines, Inc.	3	C5-S-73b	May 15, 1970	Bath Iron Works Corporation, Bath, Me. ($16,993,333 for each of 3)

* Reconstruction

TABLE 8a—*Mortgage Insurance Applications Approved in FY '70*

No. of Ships	Name or Type	Company	Date	Amount
1	Hopper Dredge Barge	Construction Aggregates Corp.	7/10/69	$6,386,000
2	ROBERT E. LEE	Waterman Carriers, Inc.	9/19/69	2,055,000
	STONEWALL JACKSON	"	"	2,060,000
3	AFRICAN DAWN	Farrell Lines, Inc.	10/1/69	3,000,000
	AUSTRAL PATRIOT	"	"	3,500,000
	AUSTRAL PILOT	"	"	3,500,000
8	Tugs & Barges of various sizes	National Marine Service Inc., etc.	10/17/69	2,532,200
1	228,600 DWT Tanker	Langfitt Shipping Corp.	12/29/69	41,822,813
1	228, 600 DWT Tanker	McRae Shipping Corp.	12/29/69	41,822,812
5	AMERICAN LANCER	United States Lines, Inc.	3/18/70	5,800,000
	AMERICAN LEGION	"	"	5,800,000
	AMERICAN LIBERTY	"	"	6,800,000
	AMERICAN LYNX	"	"	6,800,000
	AMERICAN LARK	"	"	6,800,000
1	OVERSEAS ANNA (Reconstruction)	Ocean Transportation Co., Inc.	4/29/70	6,463,000
1	Tug/Barge Unit	Ingram Ocean Systems, Ltd.	5/27/70	8,039,321
6	LASH Ships (Hulls 231-5 & 238)	Pacific Far East Line, Inc.	6/30/70	51,000,000
29				$204,181,146

TABLE 8b—*Title XI Mortgages Placed in FY '70 From Commitments in Previous Fiscal Years*

No. of Ships	Names	Company	Date	Amount
7	EXPORT BANNER	American Export—Isbrandtsen Lines	10/7/69	$2,890,000
	EXPORT BAY	"	"	2,890,000
	EXPORT BUILDER	"	"	2,890,000
	EXPORT BUYER	"	"	2,890,000
	EXPORT CHALLENGER	"	"	2,890,000
	EXPORT CHAMPION	"	4/2/70	2,720,000
	EXPORT COMMERCE	"	"	2,720,000
1	HAWAIIAN ENTERPRISE	Matson Navigation Co.	2/14/70	17,214,000
2	HONG KONG MAIL	American Mail Line Ltd.	7/25/69	5,680,000
	AMERICAN MAIL	"	10/22/69	5,362,000
1	PENN CHAMPION	Penn Tanker Corp.	11/10/69	10,325,000
1	EAGLE CHARGER	Eagle Terminal Tankers, Inc.	10/2/69	10,200,000
2	WYOMING	States Steamship Co.	8/11/69	5,280,000
	MICHIGAN	"	8/26/69	5,320,000
14				$79,271,000

serve funds which receive certain tax deferment benefits and which may be set up for the purpose of building new vessels for U.S. foreign and domestic commerce; and accepting old ships for allowances of credit on construction of new ships.

On June 30, 1970, balances in five construction reserve funds of operators totaled $2,354,687, compared with $1,966,261 in four funds at the beginning of the fiscal year, an increase of $388,426. One fund was established during the year. (See Appendix VIII).

At year's end, statutory reserve funds of subsidized operators totaled $95,161,343, consisting of $46,362, 193 in capital funds and $48,799,150 in special reserve funds, as compared with a total of $135,950,367 at the beginning of the fiscal year, a decrease of $40,789,024. (See Appendix XI.)

In addition to the mandatory deposits in special and capital reserve funds, one subsidized operator was authorized to make a voluntary deposit of $1 million.

TABLE 9—*U.S. Flag Carryings Under Government-Sponsored Programs in Calendar Year 1969*

Program		Total Tonnage or freight revenue	U.S. Flag	Percent U.S.
Public Law 480	tons	8,130,000	4,215,000	51.8
AID	tons	6,171,000	3,326,000	53.9
Export-Import Bank	freight revenue	$86,867,739	$75,164,183	86.5
Inter-American Development Bank	tons	15,000	11,000	73.3

MARKET DEVELOPMENT

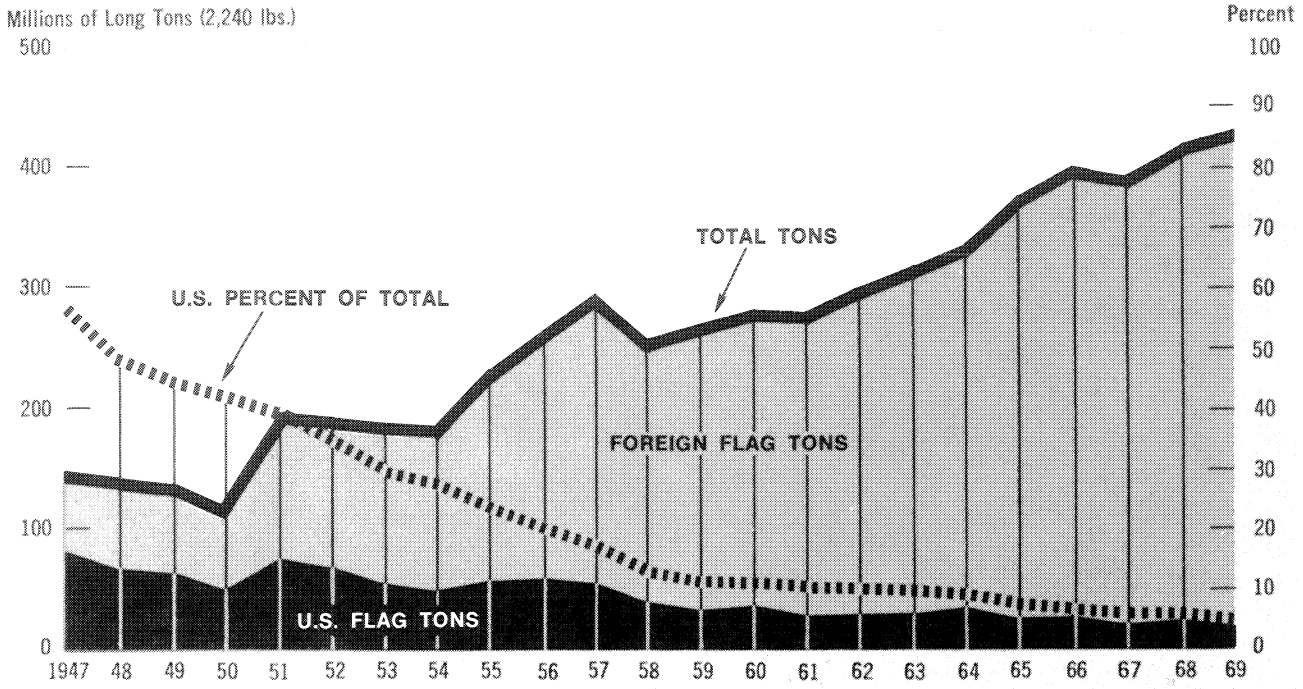
New Organization

In March of 1969 the Office of Maritime Promotion was disbanded and its functions transferred to other offices. At the end of FY 1970, the Office of Market Development was established to promote increased use of American-flag ships.

The Office of Market Development is implementing a program to strengthen the marketing capabilities of U.S.-flag carriers. The goal of the program is to increase the percentage of commercial and Government-impelled cargoes carried in ships of American registry. (See Table 9.)

The Market Development Program includes direct assistance to U.S.-flag steamship companies in the form of statistical market data showing cargo movements and performance by

Chart VI. U.S. Oceanborne Foreign Trade: Commercial Cargo Carried (Tonnage)

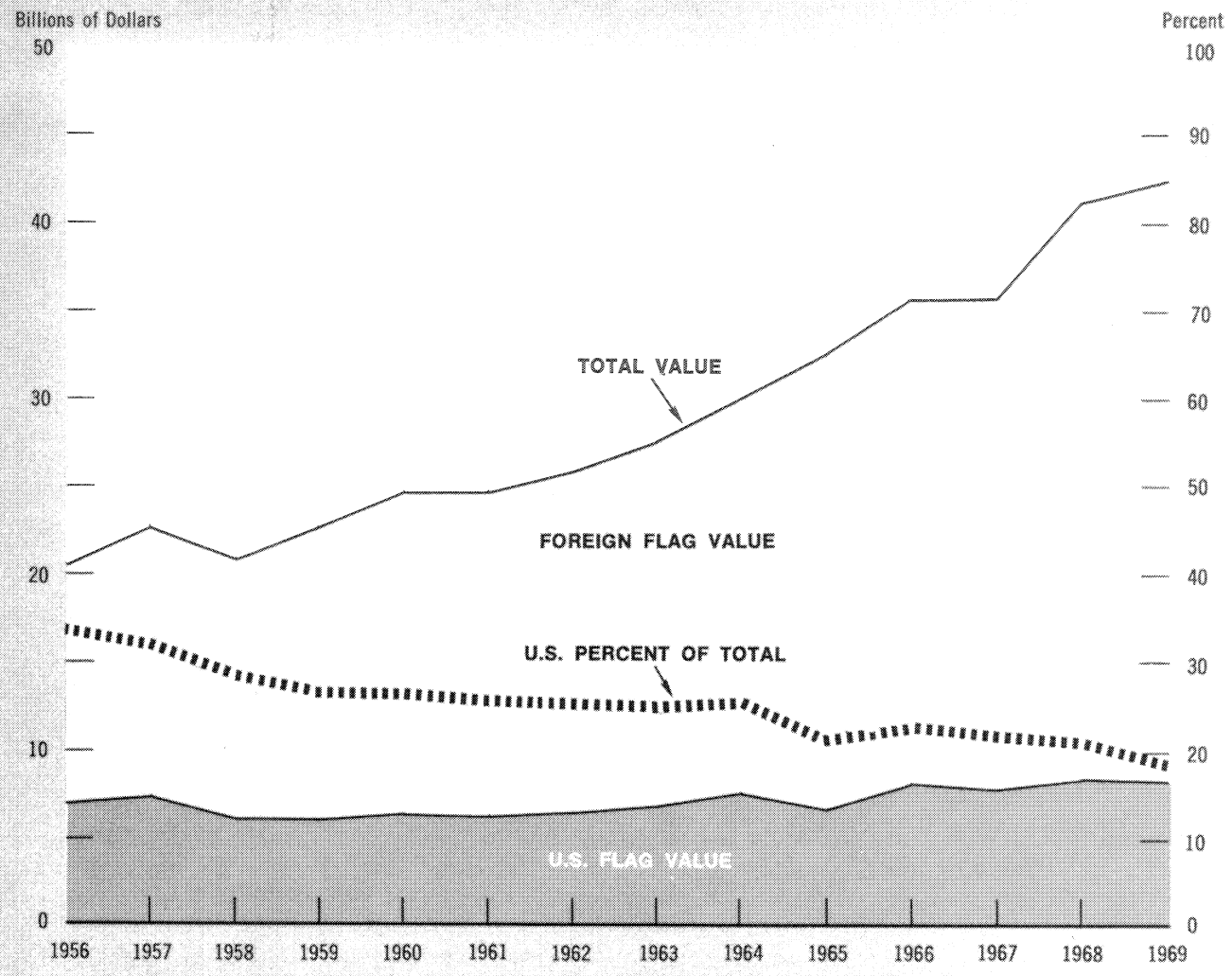


CALENDAR YEAR	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Total Tons (Millions)	142.2	139.0	133.2	117.5	193.1	187.9	178.0	177.0	226.2	260.1	289.3	253.3
U.S. Flag Tons	81.9	67.0	60.3	49.7	76.8	64.4	51.7	48.7	53.1	53.9	50.8	30.9
U.S. Percent of Total	57.6	48.2	45.2	42.3	39.8	34.3	29.1	27.5	23.5	20.7	17.6	12.2
Liner Total Tons	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	46.4	46.7	43.4
Liner U.S. Flag Tons	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	18.0	17.8	14.0
Liner U.S. Percent	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	38.7	38.0	32.3
Non-Liner Total Tons	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	116.0	135.1	105.1
Non-Liner U.S. Flag Tons	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	15.8	16.2	8.8
Non-Liner U.S. Percent	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	13.6	12.0	8.4
Tanker Total Tons	36.1	38.6	43.2	51.1	58.0	63.7	67.0	66.0	74.2	97.7	107.5	104.8
Tanker U.S. Flag Tons	22.6	24.3	27.7	27.4	26.7	24.4	22.1	19.9	17.8	20.1	16.8	8.0
Tanker U.S. Percent	62.8	63.1	64.0	53.6	46.0	38.3	32.9	30.2	23.1	20.6	15.7	7.6

CALENDAR YEAR	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968[1]	1969[2]	1970
Total Tons (Millions)	267.0	277.9	272.4	296.8	311.6	332.8	371.3	392.3	387.6	418.6	427.9	
U.S. Flag Tons	27.1	31.0	26.3	29.6	28.5	30.5	27.7	26.2	20.5	25.0	20.7	
U.S. Percent of Total	10.2	11.1	9.7	10.0	9.2	9.2	7.5	6.7	5.3	6.0	4.8	
Liner Total Tons	48.1	50.7	49.0	48.3	48.9	50.3	49.2	49.9	47.9	46.1	47.2	
Liner U.S. Flag Tons	13.5	14.5	12.6	12.7	13.5	14.2	11.2	11.4	10.6	11.1	10.0	
Liner U.S. Percent	28.1	28.6	25.8	26.2	27.7	28.1	22.8	22.9	22.2	24.0	21.3	
Non-Liner Total Tons	106.9	109.0	106.7	125.2	136.2	161.4	171.6	189.5	190.4	209.5	206.5	
Non-Liner U.S. Flag Tons	8.2	8.4	7.8	8.3	8.2	9.8	8.2	6.9	5.4	6.4	4.4	
Non-Liner U.S. Percent	7.7	7.7	7.3	6.7	6.0	6.1	4.8	3.6	2.8	3.0	2.1	
Tanker Total Tons	112.0	118.2	116.7	123.3	126.5	121.1	150.5	152.8	149.3	163.1	174.2	
Tanker U.S. Flag Tons	5.4	8.1	5.9	8.5	6.8	6.6	8.2	7.9	4.5	7.5	6.3	
Tanker U.S. Percent	4.8	6.9	5.1	6.9	5.4	5.4	5.5	5.2	3.0	4.6	3.6	

N.A.—Not Available.
[1] 1968 data revised 5/8/70. [2] Preliminary data—subject to future revision.
NOTE: Includes Government sponsored cargo; excludes Department of Defense cargo and U.S./Canada translakes cargo.
[1] 1968 data revised 5/8/70. [2] Preliminary data—subject to future revision.

Chart VII. U.S. Oceanborne Trade: Commercial Cargo Carried (Dollar Value)



CALENDAR YEAR	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968[1]	1969[2]
Total Value ($ billions)	20.6	22.8	20.9	22.8	24.7	24.7	25.9	27.5	30.0	32.4	36.4	36.6	41.1	42.3
U.S. Flag Value ($ billions)	7.0	7.3	6.0	6.0	6.5	6.3	6.5	6.9	7.7	6.9	8.2	7.9	8.5	8.2
U.S. Percent of Total	33.8	32.1	28.6	26.1	26.4	25.6	25.1	25.1	25.8	21.4	22.5	21.7	20.7	19.5
Liner Total Value	15.3	16.4	15.3	16.8	18.5	18.3	18.9	19.5	21.3	22.3	24.8	24.8	26.8	27.8
Liner U.S. Flag Value	6.1	6.4	5.4	5.5	5.9	5.7	5.8	6.2	7.0	6.2	7.5	7.4	7.8	7.6
Liner U.S. Percent	39.6	39.1	35.3	32.5	32.1	31.4	30.1	31.5	32.8	27.8	30.4	29.8	29.0	27.3
Non-Liner Total Value	3.3	4.0	3.4	3.7	3.6	3.7	4.3	5.2	5.9	6.6	8.2	8.6	10.8	10.8
Non-Liner U.S. Flag Value	.5	.5	.3	.3	.3	.4	.4	.5	.5	.4	.4	.4	.5	.5
Non-Liner U.S. Percent	15.0	12.6	9.2	8.4	9.0	10.6	9.6	9.6	8.6	6.3	4.9	4.5	4.6	4.2
Tanker Total Value	2.0	2.4	2.2	2.3	2.6	2.7	2.7	2.8	2.8	3.5	3.4	3.2	3.4	3.6
Tanker U.S. Flag Value	.4	.4	.3	.2	.3	.2	.3	.2	.2	.3	.3	.2	.2	.2
Tanker U.S. Percent	20.4	16.8	11.4	7.5	10.4	7.3	9.4	9.0	8.8	8.2	7.7	4.8	6.6	5.5

NOTE: Includes Government sponsored cargo; excludes Department of Defense cargo and U.S./Canada-translakes cargo.

[1] 1968 data revised 5/8/70. [2] Preliminary data—subject to future revision.

U.S.-flag and foreign-flag carriers broken down by commodity, trade route, tonnage, value, etc. The program also involves intensive contact by regional Market Development officers with major shippers to identify areas where lucrative cargoes can be secured by American-flag ship operators. Regional Market Development offices are staffed with personnel who have extensive commercial steamship experience, and the Washington headquarters Market Development staff are selected professionals capable of providing strong support to the industry's efforts to solve the marketing problems identified in the field.

Market Development also encompasses promotion of the American-flag fleet through a campaign of publicity and education of shippers and the general public as to the modernity and capability of U.S.-flag ocean transport services. This includes presentations by the Market Development staff before trade groups and the use of all communications media to promote shipper patronage of American shipping.

The Market Development program remains flexible to effectively render Maritime Administration assistance to individual carriers and the American shipping industry as a whole in the area of increased market penetration. It is anticipated that this form of government assistance will raise the industry level of marketing expertise and foster market orientation among industry management.

It is further anticipated that changes in the administration of Cargo Preference regulations will substantially increase U.S.-flag participation in Government-impelled cargoes.

A significant step in the market development program was made when the Secretary of Commerce sent letters to 1,200 top export officials urging their increased utilization of U.S.-flag merchant ships. The responses to these letters indicated a sincere interest by the export community in supporting the American Merchant Marine and provided information which will be very helpful in formulating promotional efforts by the Office of Market Development and the carriers in the implementation of this program.

For related statistics concerning U.S. oceanborne foreign trade in terms of commercial cargo tonnage and dollar value see Charts VII and VIII

Cargo Preference

House Report 80 of the 84th Congress directs the Maritime Administration to exercise general surveillance over the administration and observance by the shipping agencies of PL 664, the Cargo Preference Act.

Agricultural exports of PL 480 cargoes carried in U.S.-flag vessels in calendar year 1970 amounted to 50.5 percent of the total movements. In calendar year 1969, 51.8 percent was shipped under U.S. flag. The comparable figure for 1968 was 44.4 percent.

Public Resolution 17 Administration

Public Resolution 17 is applicable to cargoes generated under loans and certain guarantees of payment issued by the Export-Import Bank of the United States. The basic requirement is 100 percent carriage by U.S.-flag vessels, but under administrative determination this may be reduced to 50 percent. The remainder may be waived to vessels of the recipient nation when that nation does not discriminate against United States vessels.

During 1969, 33 general waivers were granted and three rejected waiver applications were reinstated after the recipient nations eliminated discriminatory practices. Headway was made in resolving some areas of difficulties concerning cargo preference and discrimination in our South American trades. As a result of this progress, waivers formerly denied were granted to Argentina and Brazil in FY 1970.

Domestic Shipping

Delta Steamship Lines' application to serve Gulf ports and Puerto Rico was granted thus relieving a recurring shortage of shipping space for non-containerizable cargo. The space shortage in this trade was further reduced by two other operators who increased their break bulk services from Atlantic coast ports. Work was started to determine what actions by the Agency would help ship operators inaugurate coastal feedership service to reduce the number of U.S. coastal ports of call.

Shipping Restrictions

Free world and Polish flag vessels which call at Cuba or North Vietnam ports are barred from

carrying U.S. Government-financed cargoes. They may become eligible to carry such cargoes upon promise of the controlling party to keep all vessels under its control from calling at ports of these nations.

At the end of FY 1970 there were 181 ships of 1,331,574 gross tons on the Maritime Administration list of those ineligible to carry Government cargoes because of calls at Cuban ports since January 1, 1963. Forty-three ships were added to the list during the year and 35 were removed, of which six were reinstated and 29 were broken up, sunk or wrecked. The number of reported arrivals in Cuba of ships listed was 233, 43 more than in 1969.

At year's end there were 53 ships of 354,232 gross tons ineligible to carry government cargoes because of calls at North Vietnam ports since January 25, 1966. One ship was added to the list during the year and three removed, having been broken up, sunk or wrecked.

MARITIME MANPOWER

Labor Data

Seafaring employment declined approximately 15.8 percent from the 1969 normal monthly average. More than half of the drop was caused by the withdrawal of Government-owned General Agency ships from active service to the Southeast Asia area. Another one-third was due to the termination of several passenger ship services The total workforce in commercial shipyards remained relatively stable during the year, falling less than one percent. The longshore labor force experienced a loss of 3.8 percent in average employment. (See Table 10.)

TABLE 10—*Maritime Manpower Daily Average Employment*

Type	Normal Daily Average 1970	1969
Seafaring (Shipboard Jobs)	41,731	49,534
Shipyard (commercial yards able to construct oceangoing ships 475 by 68 feet)		
Production Employees	61,731	64,290
Total force including management and clerical	77,766	78,209
Longshore	66,120	68,700

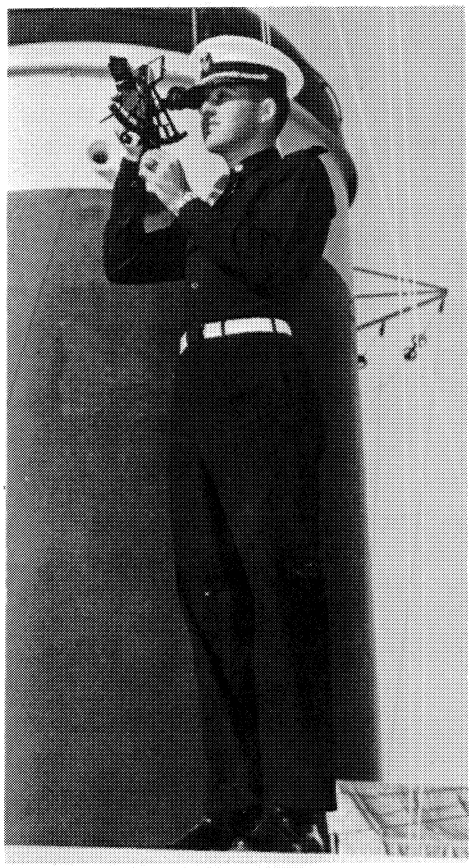
Labor-Management Relations

While the major seafaring contract negotiations for Atlantic and Gulf Coast employers were resolved by July 1, 1969, Pacific Coast negotiations continued through the balance of the calendar year and contract accords were reached without incident. The pursers and pharmacists' mates (Staff Officers of America) initiated strike action against several U.S. Lines' container ships for six days to safeguard members' job rights. The deck officers (Masters, Mates and Pilots) also took issue in a two-day work stoppage against the same employer to obtain representation rights for masters aboard U.S. Lines' ships who previously had been excluded from MM & P representation. A Matson Navigation Co. proposal reducing manning of engine department members for two container ships under construction led the Marine Firemen's Union, representing unlicensed engine-room personnel on the Pacific Coast, to withhold assignment of its members to Matson Line ships. The Pacific Maritime Association, representing the employers, countered by refusing to engage vessel personnel for any ship.

The ensuing work stoppage of 35 days immobilized 43 U.S. flag merchant ships, though passenger ship services and military cargo movements were not affected. The cumulative impact of these seafaring disputes approximated 37,500 man-days of lost productivity.

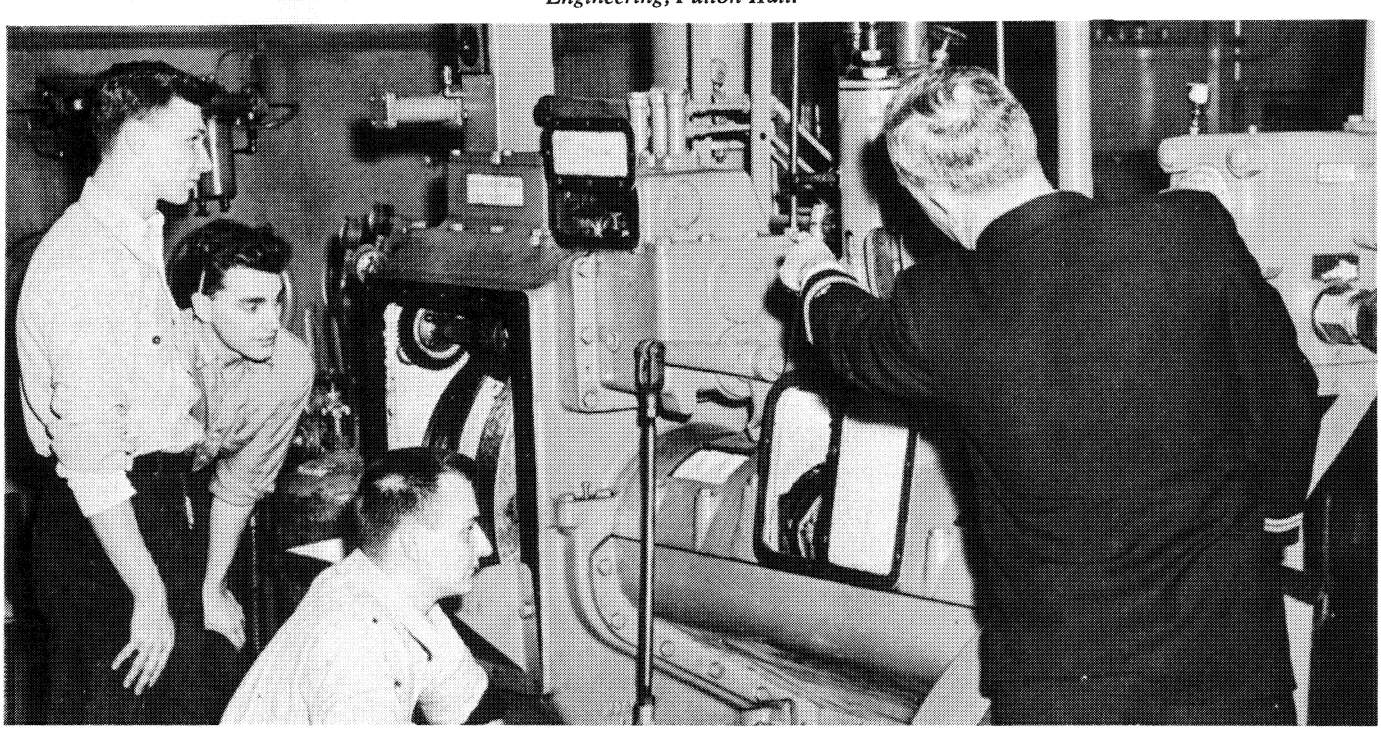
The Atlantic Coast longshore container agreements were instrumental in provoking work stoppages at several major ports. The Port of Baltimore was immobilized for three days as longshoremen sought to obtain more frequent payments of their Guaranteed Annual Income. Baltimore port employers had proposed annual GAI payments while longshoremen sought quarterly payments similar to the practice established at the Port of New York. The Port of Hampton Roads, Va., was struck two days when timekeepers picketed for inclusion of work guarantees in their new contract. Three U.S. and 15 foreign flag ships were affected. When American Export Isbrandtsen Lines terminated its use of a major New York passenger pier facility and abolished a number of longshore jobs, it triggered longshore work stoppages against three of its cargo ships then loading at New York and Baltimore. The two-day strike ended with an interim accord to ease

Shooting the Sun—A Midshipman uses his sextant to observe the altitudes of the celestial bodies to find his ship's position at sea. This is the classic method of obtaining a ship's position at sea.



Midshipmen receive instruction in radar plotting using Radar Simulators in the Electronics Laboratory, Department of Nautical Science, Bowditch Hall. This is a part of the Electronics course given to 1st Classmen.

U.S. Merchant Marine Academy Midshipmen receive instruction on the Nordberg main diesel engine unit, especially prepared for training purposes in the Department of Engineering, Fulton Hall.



the impact of the job loss. At the Port of New York longshoremen staged a two-day strike over alleged abuses in the stuffing and stripping of containers by non-longshore labor. The ensuing glut of containers was removed when the dispute was resolved by agreeing to increase the penalty for violations from $250 to $1,000 per container. A jurisdictional dispute at Pacific Northwest ports prevailed for 25 days while longshoremen took issue with the right of non-affiliated workers to process the unloading and cleaning of imported motor vehicles. Stop-work meetings involved some 3,500 longshoremen from several Columbia River ports, immobilizing 31 U.S. and foreign flag merchant ships and impeding the movement of grain and lumber shipments. This resulted in a loss of 52,000 man-days of longshore productivity.

Harbor tug services were suspended for periods of 55 days at the Port of Savannah, 60 days at the Port of New York, and 277 days at the Port of San Francisco, all due to the expiration of labor contracts. Ocean shipping was inconvenienced when entering or clearing these ports and local harbor activities involving the distribution of fuel and building materials and the removal of municipal refuse were in some instances seriously curtailed.

The expiration of regional teamster contracts immobilized the trucking industry at Pacific Coast ports resulting in glutted container terminals and railroad piggyback marshaling yards. The disruption to container movements during the 45-day dispute caused some minor delays to ocean shipping and resulted in a number of ship departures without full utilization of cargo capacities.

Labor-management agreements expired during the year at several major shipyards. Bethlehem Steel's Shipbuilding Division experienced a ten-day strike at their Sparrows Point, Md. and Beaumont, Tex., facilities as did the Alabama Drydock Company at Mobile. Bath Iron Works at Bath, Me. suffered a 40-day walkout. The General Dynamics' yard at Quincy, Mass. was closed for two days, and the Toledo and Lorain, Ohio facilities of the American Shipbuilding Company were immobilized for 73 days before a new contract accord was reached. The aggregate of these shipyard work stoppages totaled 217,800 man-days of lost productivity.

Seamen Training

Eight hundred and ninety-four seamen completed the Maritime Administration's radar, gyro, and loran training programs, and 2,027 completed the fire fighting and damage control courses sponsored by the Agency and Military Sealift Command.

Two hundred and twenty-six deck and engine officers and 33 purser-pharmacist mates were graduated from the various seafaring labor union training programs, while upgrading programs were sponsored by several unlicensed unions.

Academy Training

Eighty-one third mates, 86 third assistant engineers, and 16 with dual training as third mates and third assistant engineers were graduated from the U.S. Merchant Marine Academy, Kings Point, N.Y. The 16 with dual training were the second class of graduates under the dual deck-engine curriculum. In addition to their licenses, the graduates received Bachelor of Science degrees, and, if qualified, commissions as ensigns in the U.S. Naval Reserve. The Academy had an average of 945 students during the year.

Effective January 1, 1970, cadet sea-year pay was increased from $193.20 to $208.80 per month.

Two hundred and four third mates and 237 third assistant engineers were graduated from the State marine schools at Vallejo, Calif.; Castine, Me.; Buzzards Bay, Mass.; Galveston, Tex., and Fort Schuyler, N.Y. All who qualified received commissions as ensigns in the U.S. Naval Reserve in addition to their licenses.

The schools had a combined average enrollment of 1,623 cadets during the year, most of whom received a government allowance of $600 toward the cost of uniforms, textbooks, and subsistence. Each of the above State Marine Schools received an annual federal assistance payment of $75,000 for maintenance and support.

The Great Lakes Maritime Academy, a part of the Northwestern Michigan College, Traverse City, Mich. was established in FY 1970.

Merchant Marine Awards

A Merchant Marine Meritorious Service Medal

was presented to Alex W. Pantalone for his heroic efforts as Radio Operator on the SS PRESIDENT BUCHANAN, while the vessel was under attack in the Long Tao River, Saigon, November 18, 1967.

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

A Merchant Marine Meritorious Service Medal was awarded to Captain Leon E. Jean, Master of the SS TRANSGLOBE, for his outstanding performance when his ship was attacked several times while transiting the Saigon River in 1968–69. U.S. Ambassador Ellsworth Bunker made the presentation Captain Jean in a ceremony at the American Embassy on December 13, 1969.

Merchant Marine Meritorious Service Medals were presented to James B. Harrington and Morgan L. Jones, crew members of the SS ANNISTON VICTORY, for saving two pilots from a ditched USAF plane in the Luzon Straits, Phillippine Islands, February 26, 1968.

A Merchant Marine Meritorious Service Medal was awarded to Chief Engineer Albert E. Kinkade, SS SPIRIT OF LIBERTY, for his performance of duties when his vessel sustained a severe machinery casualty to an auxiliary generator while at sea on December 25, 1968.

There were 100 authorizations for the Vietnam Service Bar completed during the year.

Civil Rights Specialist William Ellis, left, is welcomed aboard by Assistant Secretary for Maritime Affairs A. E. Gibson as part of the Agency's program for monitoring Equal Opportunity Programs of Government in the Maritime Industry.

ADMINISTRATION

During the year, restructuring of the Maritime Administration headquarters organization continued toward the goals of making it more responsive to program needs, to upgrade the organizational level and place increased emphasis on certain priority activities, and to provide for more effective coordination and direction of related functions. (See Chart VIII)

Previously, the Agency's field organization generally concentrated only on the coastal areas. In January 1970, a shift was made from a coastal to a regional field organization encompassing all 50 states and divided into three regions with headquarters in New York, New Orleans, and San Francisco. In conjunction with the reorganization, a greater share of the Agency's functions and authorities were assigned to the three regions. (See Chart IX)

In order to promote closer working relationship between the Maritime Administration and its parent agency and provide the staff with a greatly improved working environment, the Headquarters were moved from General Accounting Office (GAO) Building to newly renovated sections of the Commerce Building. The move included the combining of some Maritime Administration personnel with their Commerce Department counterparts, and the direct transfer of some functions and personnel to Commerce.

To supplement the nucleus of competent civil servants already on board to meet the requirements of the new maritime program, the Agency succesfully recruited top executive talent from government, academic, and industry sources.

Deficiencies in its accounting system adopted some years ago prompted the Agency to devise a fully automated and integrated financial system which would meet the information needs of management as well as GAO and Commerce Department standards. The design phase was completed during the year, and the system, known as the Maritime Administration Financial Information System (MAFIS) was submitted to the Comptroller General for review and approval.

Another cost reduction achievement during the year involved a program to reduce warehouse stock inventories of ship parts and materials by declaring surplus all equipment and ship components except those required for vessels in the reserve fleet still needed for national defense, and for a small number of ships remaining in operation. By the end of FY 1970, warehouse stock inventory totaling $13 million had been reduced $2.8 million.

MANAGEMENT

Audits

In response to recommendations in the General Accounting Office Report to Congress, "Improvements Needed in the Operation of Government-owned Vessels in Support of Military Activities in Southeast Asia," the Maritime Administration and the Navy agreed to place vessels going into reduced operational status in a Reserve Fleet site, rather than commercial piers, in the interest of economy. In addition, closer surveillance was instituted to insure that prescribed procedures for advancing funds to general agents were being followed. Another report issued at year's end on "Cost of Operating the Nuclear Merchant Ship Savannah" was pending review.

Internal audits were conducted and reports issued during the year on: (1) Review of Subsidy Operations Examining Functions; (2) Survey of Management of Equipment and Warehouse Standby-Inventories; and (3) Audit of Support Services at the U.S. Merchant Marine Academy.

Internal Management

Actions to reduce costs of the Maritime Administration operations resulted in savings of $7,193,000 during FY 1970. Principal actions

were: (a) beginning phase-out of the Hudson River and Mobile Reserve Fleets; (b) comprehensive agency-wide review of manpower requirements; (c) a Value Engineering-Ship Replacement Program to eliminate unnecessary components and introduce new materials and technologies as a means of reducing ship construction costs; (d) reduction in costs of daily stores, supplies and equipment on GAA-operated ships; and (e) sale of scrap ships in foreign areas at considerably higher net proceeds to the Government than if sold in domestic markets.

The major headquarters reorganization mentioned earlier included establishment of four new Assistant Administrators for Maritime Aids, Operations, Research and Development, and Finance, respectively. Additionally, three new offices were established: (a) an Office of Ports and Intermodal Systems; (b) an Office of Market Development and (c) an Office of Civil Rights.

FACILITIES

Real Property

At year's end the Agency's Real Property included the former reserve shipyard at Wilmington, N.C.; warehouses at Kearny, N.J., New Orleans, La., and San Francisco, Calif.; a terminal at Hoboken, N.J.; the U.S. Merchant Marine Academy at Kings Point, N.Y.; and National Defense Reserve Fleet sites at Tomkins Cove, N.Y.; Lee Hall, Va.; Mobile, Ala.; Beaumont, Tex.; Benicia, Calif.; and Olympia, Wash.

The Wilmington, N.C. shipyard was under lease-purchase and long-term lease agreements with the North Carolina State Ports Authority. Another long-term agreement included the Port of New York's lease of the Hoboken Terminal.

The former National Defense Reserve Fleet anchorage at Astoria, Ore., was under lease to the Ports of Astoria and Portland. The General Services Administration is disposing of the remaining acreage of the former Wilmington, N.C. fleet anchorage.

Rents from lease of real property to private interests during the year amounted to $5,250.

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 $167,699.

Marine equipment valued at $73,220 was loaned on an emergency basis to steamship operators and Government agencies during the year increasing the total value of such equipment on loan to $97,974.

Excess personal property having an acquisition value of $5,553,801, was disposed of during the year, including property with an acquisition value of $3,141,345, donated or transferred to other Government agencies. Property valued at $13,704, was destroyed or abandoned, and property with acquisition value of $2,398,252, was sold for $370,049. Warehouse inventories were reduced by $2.8 million in the fiscal year; equipment in stock was valued at approximately $10.1 million.

PERSONNEL

Equal Employment Opportunity

During the year, the number of personnel employed by the Maritime Administration decreased by 101—from 2,232 to 2,131. These figures do not include an average of 3,318 seamen employed by contractors operating ships under the GAA program. About 24.6 percent of the Agency's work force consisted of minority group employees, a gain of 1.3 percent for the year. Minority employment in high grade jobs reached 4.3 percent or more than double what it was a year earlier.

During FY 1970, the first Equal Employment Opportunity Seminar for Supervisors was conducted. Freddie T. Johnson, Office of Ship Construction and Chairman of the Agency's Equal Employment Opportunity Program, received a special Department award for his role in furthering the program. Mr. Johnson was one of the first recipients to receive the award within the Government.

Training

During FY 1970, a total of 764 employees were trained in the following categories: professional; scientific and engineering; supervisory

and management; technical and other. Of these, 114 were minority employees.

The supervisory program was continued during the year with two courses being offered, "Supervision and Group Performance" and "Introduction to Supervision". A new problem solving discussion skills course was established from which graduates of the pilot program were utilized to conduct classes for other Maritime Administration employees. To help personnel keep abreast of technological changes in their fields, a graduate study program was developed for implementation in FY 71, whereby individuals study full-time at an accredited college or university for up to one year.

Thirty-eight employees, including seven from other agencies, completed reading improvement, shorthand and typing courses offered under the secretarial development program set up in FY 69. Another 19 persons were trained in the fourth annual middle management program, and 10 finished courses for naval architects and marine engineers.

Awards

Fourteen employees received outstanding awards during the year including nine Department of Commerce Silver Medals, the second highest recognition given by the Department; and five Bronze Medals, the Maritime Administration's top honor.

Ten of these awards went to employees in the field. Of these, the most notable achievement involved a group of seven Beaumont Reserve Fleet employees, each of whom received a medal for valor for helping extinguish a blaze in the Pan American Petroleum Corporation docks on the Neches River.

At the Department of Commerce 1969 Annual Honor Awards Ceremony, Secretary Stans singled out the Maritime Administration for special commendation for the outstanding contribution its employees had made to the Special Suggestion Campaign of August 1969. Agency employees submitted 33.8 percent of all suggestions received by the Department during the campaign. As a result, Maritime Administration's participation and adoption rates for FY 1970 rose to an all-time high of 43.3 percent and 11.1 percent respectively, far above the Federal averages of 18.2 percent and 5.3 percent published by the Civil Service Commission for FY 1969.

Two hundred thirty-eight employee suggestions were adopted at an estimated first year savings of $31,307. Other employee contributions resulted in savings of $460,000 for a total of $491,307.

One hundred seventy-six employees, or 8.2 percent, received Outstanding Performance ratings for performance which not only exceeded normal requirements in all respects, but was deserving of special mention. Forty-five employees, or 2.1 percent, received a Quality Step Increase—a salary step increase in addition to a regular pay increase—for high quality performance which exceeded normal requirements in all major aspects. One hundred thirty-nine employees, or 6.5 percent, received an award for special achievement.

Safety

Through the printed word, on the job training and safety surveys of all Reserve Fleet and Office facilities, attention was focused on hazardous acts or conditions that could be potential killers or accident traps for employees. "Safety First" was more than a slogan in the Maritime Administration, it was a requirement throughout the year. As a result, the Agency's work injury experience decreased in 1970 in comparison to the 1969 record in both numbers and rates. The President's Mission Safety 70 goal of injuries sustained was surpassed by the Maritime Administration in 1969 and in 1970, when the injury frequency rate was reduced by 73.8 percent and 75.0 percent, respectively.

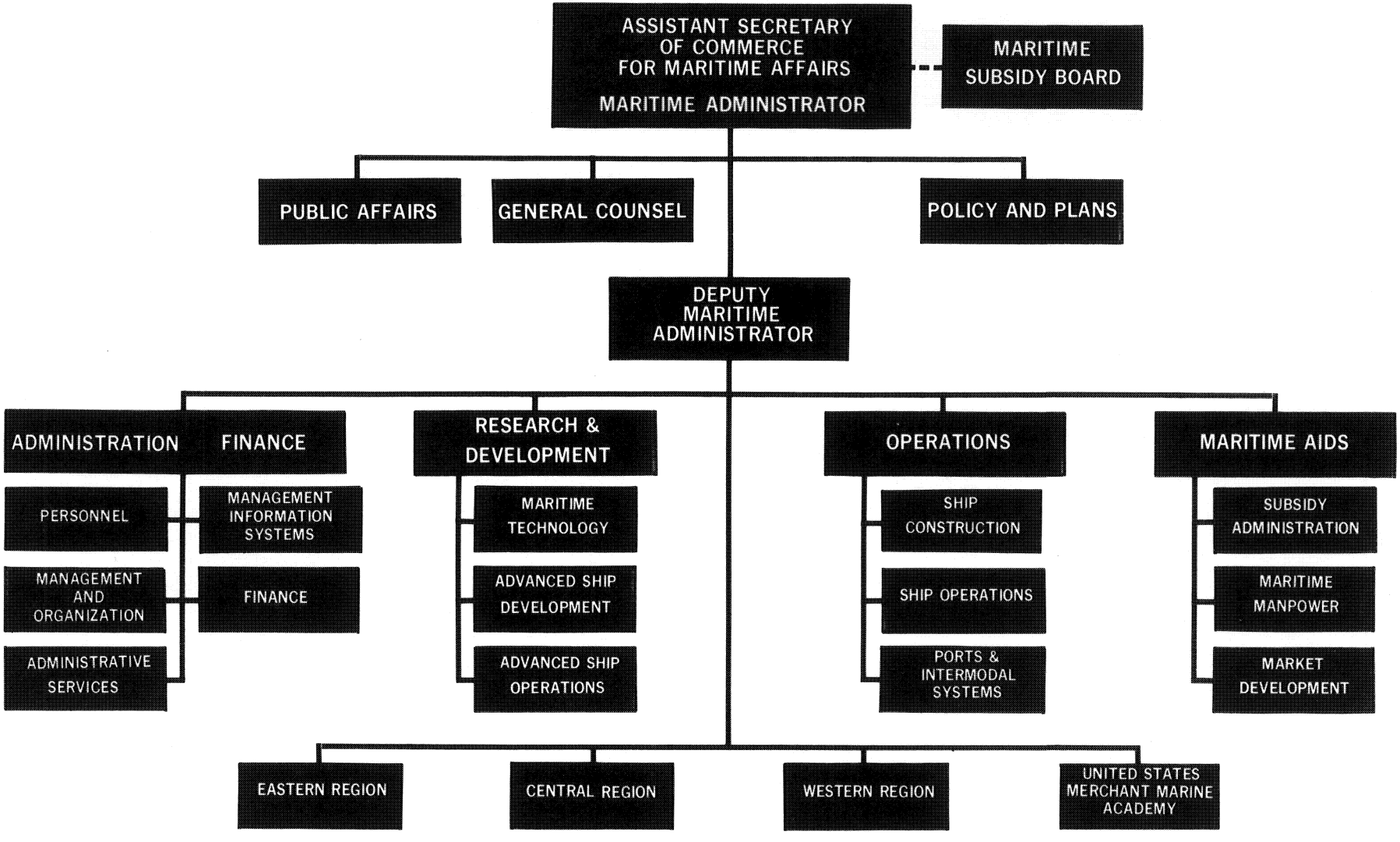
FINANCE

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 of the United States.

Net cost of combined operations of the Maritime Administration for the year totaled $289.4 million. The cost included $237.1 million for

U.S. DEPARTMENT OF COMMERCE
MARITIME ADMINISTRATION

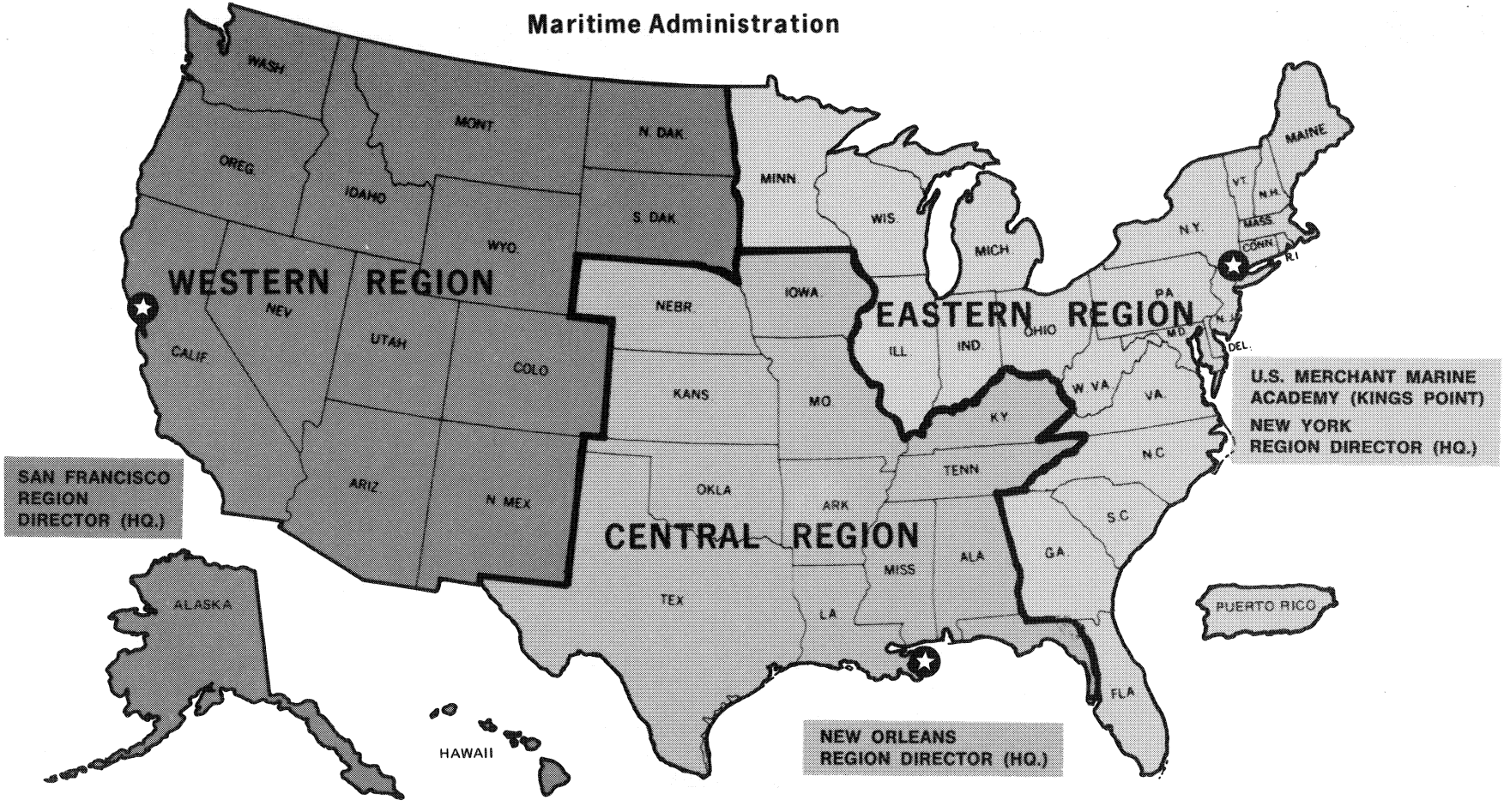


NEW POSITION/REORGANIZATION

FIELD ORGANIZATION

U. S. DEPARTMENT OF COMMERCE

Maritime Administration



operating and construction-differential subsidies, $22.6 million for depreciation on Reserve Fleet vessels and other assets, $6.5 million for research and development, and $15.1 million for administrative expenses. The equity of the Government at June 30, 1970, totaled $1,301 million, a decrease of $48 million from June 30, 1969. The decrease included the net cost of combined operations of $289.4 million and the return of $20.1 million in collections and unobligated balances to the Treasury, offset by $251.7 million appropriated by Congress and $9.8 million in property transfers from other agencies. See Appendix EXHIBITS 1–4 for detailed financial statements.

At year's end, work continued to fully automate accounting, payroll, cost accounting, and financial information systems.

Contract Auditing

The Maritime Administration auditors review the operators' annual subsidy accountings, which have been certified by independent public accountants, before payment of the final five percent of operating-differential subsidy. They also audit expenses eligible for subsidy to permit payment to the operators of up to 95 percent of the accrued operating-differential subsidy for such expenses. Agency auditors are unable to complete final audits until such time operators file their final accountings.

Audits to permit final payments were completed for seven operators generally covering the periods from 1959 through 1964. Most of the audits of expenses eligible for subsidy of the 14 subsidized operators were completed through calendar year 1965. Wage expenses of nine of the operators were audited through Fiscal Year 1968.

Audits were made to determine the actual operating costs of the NS SAVANNAH under its charter agreement. Other audits included General Agency Agreements, contracts for ship construction and repair, research and development, and related contracts.

Audits completed during the fiscal year resulted in reduced billings of about $5.3 million to the Government.

Title XII Insurance

During the year, the Maritime Administration continued to administer war risk and certain marine and liability insurance programs authorized by Title XII, Merchant Marine Act of 1936, as amended.

War risk insurance binders cover shipowners from the time commercial war risk insurance ceases to provide adequate coverage until 30 days after the outbreak of war involving the major powers. Binders outstanding on June 30, 1970, were: 1,267 for war risk hull insurance, 1,205 for war risk protection and indemnity insurance, and 999 for war risk insurance of crew life and personal effects. From the inception of the binder program in 1952 to June 30, 1970, binder fees totaled $1,042,138, and expenses totaled $704,247, of which $377,932 was paid as fees and expenses to the underwriting agent appointed by the Agency to process the binders.

War risk builder's risk insurance for the prelaunching construction period was written on 157 ships from the inception of the program in 1953 through June 30, 1970. Premiums totaled $3,153,015. From October 1962 through June 30, 1970, 50 policies were issued for war risk builder's risk insurance for the postlaunching 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, which becomes effective when the Maritime Administrator finds that insurance adequate for the needs of U.S. waterborne commerce cannot be obtained on reasonable terms and conditions from companies authorized to insure in any state, was continued. Commercial underwriting agents are employed to write this insurance, and as of June 30, 1970, 38 were under contract.

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

1. Second Seamen's war risk insurance was provided for the crews of 19 Government-owned tankers operated for Military Sea Transportation Service, now the Military Sealift Command (MSC).

2. War risk hull and Second Seamen's war risk insurance were 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 170 privately-owned U.S.-flag tankers and dry cargo vessels chartered to MSC. The coverage provided is limited to the "Vietnam Combat Zone," referred to by commercial underwriters as an additional premium trading area.

Net premium savings to the Navy under programs Nos. 1 and 2 above, from inception in 1954 and 1964, respectively, to June 30, 1970 are estimated at $1,016,592, after deducting claim payments of $110,740. Net savings to the Navy under program No. 3, from July 15, 1968 to June 30, 1970 is estimated at $2,510,475. Claim payments of $40,075 were made under that program with an estimated $2,500 still pending.

Under section 1208(a) of the 1936 Act, money in the war risk insurance revolving fund may be invested in United States securities or in those on which the Government guarantees principal and interest. Since 1962, when the initial investment was made, through June 30, 1970, interest earned totaled $1,239,968.

Other Insurance Activities

The Maritime Administration continued to self-insure Government-owned ships, with the exception of two ships operated by its general agents on which marine protection and indemnity insurance was purchased to take advantage of the worldwide claims settling facilities of commercial underwriters. By assuming the war risk hull and Second Seamen's war risk insurance, it is estimated that the Agency has effected for MSC a net premium saving of $6.6 million during the Vietnam buildup from July 1965 through June 30, 1970.

Claims of a marine and war risk insurance nature assumed by the Government, and not recoverable from commercial insurance are shown in Table 11.

TABLE 11—*Marine and War Risk Insurance Claims*

Fiscal Year 1970	Claims Reported	Number of claims settled [1]	Amount Settled
Marine protection and indemnity:			
Against the Government [2]	1,900	2,000	$1,125,000
Marine Hull:			
In favor of the Government	46	108	35,321
Against the Government	1	6	101,542
Marine Builder's risk:			
Against the Government	0	0	
Second Seamen's war risk:			
Against the Government	3	0	

[1] Settlements include claims reported in prior years.
[2] Approximate.

Mortgage insurance providing coverage when marine policies are invalidated was renewed on April 1, 1970, at expiring premium rates on ships owned by unsubsidized operators who have mortgages insured under Title XI. Owners of 36 vessels were covered. Primary coverage was placed in the American market to the extent of nine percent, the maximum available, with the balance plus 100 percent of the excess coverage over $13 million per vessel placed in the British market. The mortgagor pays the insurance premium.

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 subsidized operators of ships, complies with the contract requirements. See Table 12 for insurance amounts approved during FY 1970.

TABLE 12—*Insurance Approved During FY 1970*

Kind of Insurance	Total Amount	% U.S.	% Foreign
Marine Hull	$2,017,890,740	66	34
Marine Protection and Indemnity	1,580,688,000	40	60
War Risk Hull	2,366,001,900	7	93
War Risk Protection and Indemnity	2,332,078,900	7	93

CIVIL RIGHTS ACTIVITIES

During FY 1970, the Maritime Administration established an Office of Civil Rights to meet the Federal Government's commitment to insure that equal employment opportunities for all exists in the Government and among Government contractors.

Until January 1, 1970, the Agency had equal

employment opportunity contract compliance responsibility only for the major shipyards and subsidized ship operators. Since then, it has taken on responsibility for facilities of the entire shipbuilding and ship repair industry, all subsidized and non-subsidized ship operators, the inland water transportation industry, and the stevedoring industry.

The Agency monitors the personnel practices of ship operators, shipbuilders, and other maritime contractors, and assists in developing each contractor's affirmative action plan to meet Labor Department standards.

The principal focus of compliance during the past year was on the shipyard industry since President Nixon particularly noted the importance of achieving equal employment opportunity in this area in his message to Congress calling for the new maritime program. There were 179 compliance reviews, revisits or pre-award reviews made within the maritime industries. All of the major shipyards were reviewed and affirmative actions plans approved for nine of the 15 yards. With employment levels as a whole relatively stable from early 1969 to early 1970, minority utilization improved for white collar positions from 3.4 percent to 5.0 percent and for the skilled job classifications from 16.1 percent to 19.8 percent among the major shipyards.

Since January 1, 1970, the focus on compliance has been directed towards the white collar office employment of ship operators. There have been 36 reviews of, or revisits, to major shipping companies. Despite a 10 percent decline in white collar employment opportunities, minority utilization rose from 9.9 percent in early 1969 to 11.9 percent in early 1970.

A program was initiated to encourage the expanding shipbuilding industry to utilize federal manpower training programs for the hard-core unemployed and underemployed. Since December 1969, 10 contracts for the training of 1,419 hard-core unemployed have been entered into by major shipyards. In addition, proposals have been submitted by other shipyards to the Labor Department for 1,445 additional training slots.

An intensive recruiting program was undertaken during 1969 and early 1970 to attract qualified minority group applicants to the U.S. Merchant Marine Academy. The minority population among the cadets at the Academy had remained at token levels throughout its history. As a result of this recruitment effort, 97 Congressional nominations of black students were received. Of these, 90 were initiated by the civil rights staff.

As a result, 22 of the 54 black cadets found physically and academically qualified were tendered appointments to the Academy, accepted them, and were enrolled in the Class of 1974. This number exceeds the total black population that passed through the school in the past 25 years.

RESEARCH & DEVELOPMENT

The Maritime Administration Research & Development (R&D) programs have been structured to be responsive to national objectives for the U.S. merchant marine. These objectives were given a new thrust by President Nixon last year when he expressed the need for augmented practical applications of R&D to aid in improving the U.S. competitive posture. As a result, the emphasis is on near-term programs to reduce life-cycle costs of American merchant ships, and increase productivity in both ship operations and shipbuilding. Thus the Maritime Administration's research and development program is designed to improve the competitive position of the U.S. merchant marine while reducing the Government's share of the cost of its construction, operation, and maintenance.

Within the near-term area, first consideration has been given to key shipbuilding programs to develop standardized ships which can be produced economically utilizing series production methods and multiyear procurement. Also, programs are underway to improve shipbuilding through the development of more effective equipment standards, computerized design and construction, and more efficient production facilities, organization and control. Finally, competitive ship subsystems (e.g., propulsion systems), to augment the standardized designs, are being developed and new ship concepts which can be added to our fleet in the near-term future are being examined.

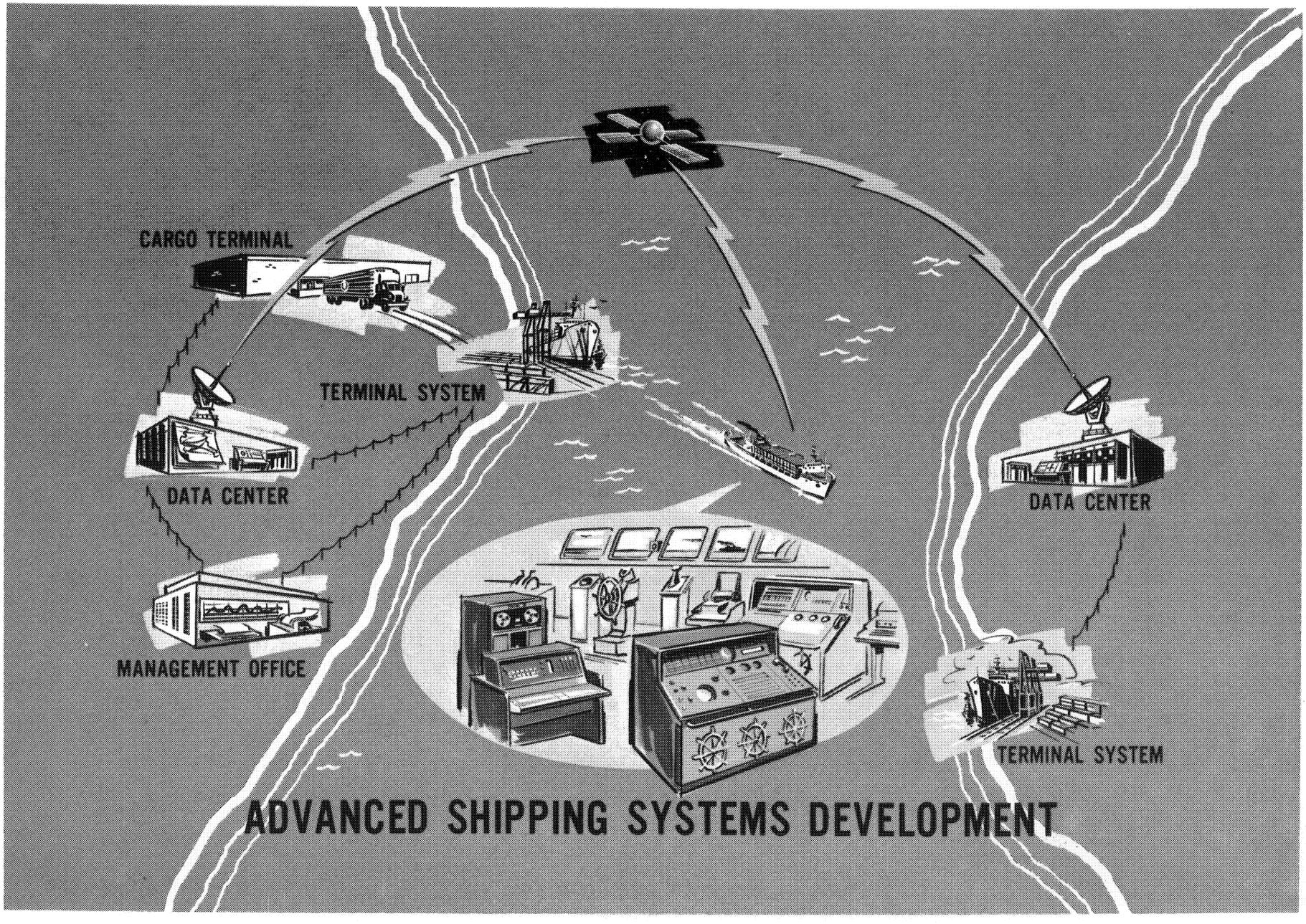
Another phase of near-term R&D activities is pointed directly towards improved shipping operations. First priority programs include improved shipboard operations such as computer applications, pollution abatement, improved shoreside operations, including maintenance and repair. Additionally, cargo and market research such as commodity-form change, utilization of the Reserve Fleet, and logistic support for the U.S. Navy are other major pursuits. A major program in this area is one of personnel research. The Agency is jointly investigating with the Coast Guard the impact of advanced ship technology upon the crewing skills and crew composition of future vessels.

Other priority programs are underway using more advanced technology. Herein the Maritime Administration seeks to determine the future role of high-speed ships, high-power and technologically advanced power plants, future nuclear applications, ice-transiting commercial vessels, offshore terminals, and the commercial advantages of improved navigation, communication and automation.

For both near-term and mid-term programs, supporting economics, systems analyses and requirements studies are being carried out complementary with scientific and engineering efforts so as to outline American commercial objectives and lay out the stepping stones to the ultimate goal—the creation of a viable, healthy and competitive merchant marine.

The fundamental technological program involves the assessment of improved facilities not now available in the country such as a ship operation simulator center, a shipbuilding automation center, technical data center and ships-of-opportunity programs which are essentially shipboard data centers on merchant ships. It also includes the implementation of institutional programs, e.g., university, international, interagency, as well as the Marine Research Information Service (MRIS), to undertake the necessary research, provide the scientific manpower and to disseminate information to the maritime community.

To accomplish this, the aid of the entire maritime community has been enlisted. In July 1969, the Maritime Administration sponsored a national conference on maritime research and development at Woods Hole, Mass. The three-week conference was attended by 200 executives and pro-


CARGO TERMINAL
TERMINAL SYSTEM
DATA CENTER
MANAGEMENT OFFICE
DATA CENTER
TERMINAL SYSTEM
ADVANCED SHIPPING SYSTEMS DEVELOPMENT

fessionals representing shipbuilders, steamship companies, labor organizations, research organizations, universities and government agencies.

The conference generated 114 clearly defined research tasks which have served as a basis for formulating a new long-range research program. The mutual goals subscribe to by industry, management, labor and research organizations have provided the Government with a synthesis of industry objectives on which to base a greatly increased R&D effort.

ADVANCED SHIP DEVELOPMENT

Competitive Merchant Ship Design Program

By initiating the Competitive Merchant Ship, or "CMX", Project in September 1969, the Agency moved decisively forward to develop a group of standard designs for multi-year, multi-ship production in this decade. The three-phase CMX program—preliminary design, engineering development, and construction—will enable ships to be built at lower unit costs. As these ships enter service they will upgrade the competitive capabilities of the U.S.-flag fleet.

Contracts were awarded to Bath Iron Works, Corp., Bath, Me., and Newport News Shipbuilding and Drydock Co., Newport News, Va., to produce a number of basic ship designs. At the same time, parallel in-house ship designs were prepared by the Agency's Office of Ship Construction. The contracts called for completion of five specific tasks: analysis of the commercial shipping market and ship operators' needs; integration of the information into ship performance requirements; development of the preliminary designs insuring that the ships can be produced at acceptable costs; planning for their production, including the determination of costs, financing, scheduling, and facilities and manpower requirements; preparation of tentative construction contracts for production of the developed designs.

In May 1970, at a forum attended by more than 600 members of the maritime industry, the two contractors unveiled a total of 11 basic designs comprising large and medium-sized containerships, tankers and combination bulk carriers, as well as general cargo vessels. Shipowners and operators were asked to review all preliminary designs in advance of awarding contracts for the second phase calling for the development of detailed engineering plans.

Advanced Propulsion Systems

The Maritime Administration and the General Electric Co. entered into a five-year cost sharing contract which is directed towards the development of heavy-duty gas turbines as marine propulsion systems in conjunction with improved fuel analysis, treatment and handling systems. Concurrently, development will be undertaken in the areas of marinized regenerators for improved thermal cycle efficiencies and the development of reversing gas turbines for shipboard applications. The use of heavy-duty marine gas turbines as propulsion systems offers potential economic gains in both capital and operating costs when conventional residual fuels can be satisfactorily utilized as opposed to the more expensive distillate fuels. The size of the General Electric cost-sharing is a significant breakthrough in bringing about industry participation in the Agency's R&D programs.

Foreign Trade Data Interrogation System

This project has as its goal the improvement of decision making by giving the manager or researcher the ability to "speak" with the computer to interrogate historical records and data banks. A computer will be programmed with instructions so that it can translate requests for information into machine language, screen the relevant data tapes, and give the desired answers in a usable format. The developed system will be able to retrieve any data that can be organized in a uniform format, such as trade statistics, fleet characteristics, port information, personnel records and manpower histories. The data request will be initiated by the researcher himself from a remote teletype unit; the job will be processed by a central time-shared computer where the data tapes are stored, and the output will be via central site or remote printer, depending on the magnitude of the output.

A contract was awarded to the Information Services Department of the General Electric Co. in March 1970 to develop and test the systems utilizing maritime foreign trade tapes as the initial data bank. The system is being designed so that other data banks can be added without additional programming. It is expected that the system will be functioning in the spring of 1971.

Commodity Form Change

An in-house investigation of major bulk commodity transportation systems was conducted with the assistance of the Bureau of Mines and the Department of Agriculture to determine the present state of the art of transporting and handling bulk commodities moving in United States ocean commerce. The prime objective was to determine a commodity's susceptibility to a physical form change and/or alternate transport mode that could lead to a technological innovation that would reduce bulk commodity transportation and handling costs. A contract for industrial analysis and follow-up is under initiation.

ADVANCED SHIP OPERATIONS

Marine Pollution Abatement

The major emphasis in the Agency's pollution abatement research has been directed at the development of equipment to separate oil from ballast water, as well as instrumentation to monitor the water as it is discharged. A prototype unit and attendant instrumentation have been completed and are now undergoing shipboard testing. Additionally, a contract was awarded to evaluate an oily waste separator aboard the coastal tanker SS GULF KING.

A contract to develop a second-generation separator was awarded to test a novel concept for separating oil from water by recycling a moving bed of absorbsion media, or slurry, through the discharge system.

Actions were initiated with the U.S. Navy's Naval Ship R&D Laboratory, Annapolis, Md., to establish pollution-sampling test procedures and personnel training programs.

Utilization of Reserve Fleet Vessels

In May 1970, a joint project was established with the Department of Housing and Urban Development (HUD) to convert obsolete vessels, such as World War II Liberty ships, to mobile factories for building modules and components used in industrialized production of housing. After considering various uses including community services for such vessels, the mobile factory concept was selected as the most potentially fruitful alternative. Based on a memorandum of understanding which calls for the funding to be shared equally between the Agency and HUD, proposals were solicited covering a contract to: determine the economic and technical feasibility of a shipboard plant as compared to a shore based plant of modern design; develop a bid package for a prototype conversion; and prepare a test plan and other information covering a series of trial operations to validate estimates of performance. Completion was scheduled for December 1970.

Merchant Ship Crew Skills & Disciplines

The Maritime Administration and U.S. Coast Guard have undertaken a cooperative contract with Stanwick Corp., Arlington, Va., to study the changing nature of merchant ship crew skills and technical disciplines required by emerging technology and innovations in ship operations. The study will investigate those skills and disciplines increasing in importance and those declining in importance, to suggest changes that should be made in training, licensing and composition of ships' officers and crew members.

Initial emphasis of the study will be on currently operating advanced technology ships in high productivity services. A review of documentation pertaining to training methods and techniques used by aviation and other transportation systems will be made to employ any unique aspects of these systems to simplify documentation for development of seamen skills, training equipment and/or techniques and examination methods. This will be followed by projections of potential crewing requirements in the future.

Transocean Tug-Barge Systems

The transocean tug-barge, a ship system with high economic potential, was explored in depth. The concept is based on the traditional logic implicit in detachable power units (tug) and cargo units (barge), namely, that it pays to keep the high cost power unit and crew in productive motion while a cargo unit is being unloaded and loaded. The application of this concept to transocean systems involves technological and institutional problems which were defined and must be solved before the inherent economic advantages of tug-barge systems can be realized.

Study results will be used by the Maritime Administration as a step towards further R&D

development of ocean going tug-barge systems; as an aid in formulating policy toward tug-barge systems, and by vessel operators as a guide for determining the potential of tug-barge systems. The economic characteristics of transocean tug-barge systems operating on national, international and domestic trade routes were developed and compared against the economic characteristics of self-propelled ships to determine their competitive potential. Instrumentation and ocean testing of advance tug-barge systems will be initiated to further develop this area.

Waterborne Feeder Subsystems

A contracted study on "Waterborne Feeder Subsystems for Unitized Cargo Transportation" was completed and submitted to the Maritime Administration by Arthur D. Little, Inc., Cambridge, Mass.

The objectives of the work were to determine the possible uses of feeder vessels as an adjunct to the large, fast container ships now being built with a view towards reducing their "unproductive" port time to a minimum. By having a smaller auxiliary vessel shuttle cargo to and from the smaller outlying ports, the larger ship could make a quick turnaround and more effectively utilize its high speed and large potential cargo movement capability.

The analysis has general application, but four specific environments were picked out for detailed study: the U.S. North Atlantic range, the U.S. Gulf Coast, southeastern Australia, and East Africa.

Impact of Containerization on the U.S. Economy

The Matson Research Corp. of San Francisco, Calif., undertook the first phase of a three-part study of the impact of containerization on the U.S. economy. The contract was awarded to Matson for the analysis of existing and proposed container services, forecast of demand for future container transportation, and examination of the legal and institutional constraints to the evolution of containerized cargo movements.

Robert Reebie & Associates of Greenwich, Conn., and Morgan, Lewis and Bockius are assisting Matson in this study, which was scheduled for completion in September 1970.

Look-Out Assist

The research work on the proximity warning Look-Out Assist device, under contract with Sperry Rand, was completed and the prototype device remains in service aboard the Cleveland Cliffs Company "SS WILLIAM GREEN" for extended service evaluation at no expense to the Government. The device is a simple radar coupled with sound detection to indicate proximity to ships and navigation buoys, providing radar return or emitting sounds. Tests indicate the device has detection capability superior to the human eyes and ears in low visibility conditions.

Guidelines for Deck Stowage of Containers

Guidelines were developed for the securing and protecting of cargo containers carried on the weather decks of ships, including restraint of the cargo within the containers.

The contractor, J. J. Henry Co., Inc., New York City, gathered the background data available from steamship companies, classification societies, insurance underwriters, National Cargo Bureau, U.S. Coast Guard and others. This data consisted of the extent and nature of the damage sustained in each instance, type of lashing used, location of container(s) on board, sea conditions, ship characteristics, etc.

Under a sub-contract, the Webb Institute of Naval Architecture made an analysis of ship accelerations and resultant forces from the data obtained. Shipping of green water appears to cause the greatest damage. If the container can be protected either by a breakwater, large freeboard, flared forebody or moderate ship motions, damage will be greatly reduced.

Human Factors in Ship Control

Experiments in conning effectiveness of merchant ship deck officers were completed by a team of experimental psychologists and experienced deck officers. It was determined that the effectiveness of officers in ship conning can be significantly improved by equipment aids and functionally designed ship's bridges.

Offshore Terminals

A new approach was developed for the long standing problem of enabling U.S. ports to serve

the larger bulk carriers even though their channel depths preclude entry of such vessels. The approach was to combine all bulk terminal requirements for a given region into a single, multipurpose, offshore complex connected to the mainland by a common transportation system of such size and type as to minimize the unit cost of trans-shipment. To this was added a concept of further defraying the cost by building the terminal complex on an offshore artificial island of such size and type as not only to accommodate the bulk terminal needs, but also to accommodate certain urban facilities which would benefit by being relocated to a more isolated position offshore. Typical of such facilities would be: atomic power plants, sewage treatment plants, and space for disposal of solid waste.

MARITIME TECHNOLOGY

Maritime Research Information Service (MRIS)

In June 1970, a national maritime data center, the Maritime Research Information Service (MRIS), became operational. This is a computer-based, technical data system capable of acquiring, processing, retrieving and disseminating technical information obtained from selected U.S. and foreign information sources. It includes maritime information currently found in the data systems of the Department of Defense, NASA, AEC, Engineering Index, the Federal Clearinghouse, the Science Information Exchange, and other Government facilities in addition to data received from industry sources.

MRIS, which is sponsored by the Maritime Administration and operated by the National Academy of Sciences, published its first bulletin from records in computer storage as of June 1970.

Ship Motion Prediction & Control

To meet the high speeds necessary to improve the competitive status of the U.S. merchant marine, a means has been needed to predict more accurately the powering losses attributable to ship response to rough wave action. In FY 1970, a major technological foundation was established for choosing the precise hull form which will give the best overall performance in the long run over a specific sea route. The use of this computerized seakeeping program has revealed the strong effect of hull length on power required in rough seas.

Propeller Strain and Hull Vibration

Early and unexpected fatigue failures of propeller blades on the 69a and 69b classes of ships raise questions as to the adequacy of methods for designing and manufacturing propellers for service on new high performance ships. Also, the attendant propeller-induced hull vibration at blade-beat frequencies resulted in some damage conditions which required corrective action. A test program, jointly funded by States Steamship Co., American President Lines, American Bureau of Shipping and the Maritime Administration, with the States Steamship Co. as the prime contractor, carried out during the year the most completely instrumented experiment on propeller strains and propeller-induced hull vibration ever undertaken.

NUCLEAR PROGRAM

N.S. SAVANNAH

The N.S. SAVANNAH in its fifth year of experimental commercial operation completed six voyages.

The training of marine officers in the operation and administration of nuclear powered merchant ships continued in order to maintain a competent crew aboard the SAVANNAH and to expand the cadre of experienced officers for future nuclear merchant ships and U.S. Coast Guard inspection officers. Thirty-four officers were trained and licensed as senior reactor operators, and/or certified as reactor operators, instrumentation/electronics officers, health physicists, water chemists, and deck officers for nuclear ships. A total of 53 licenses and/or certifications were earned.

Nuclear Ship Systems

A new program plan for Nuclear Ship Systems was developed during FY 1970 to be consistent with the Agency's position that further construction of nuclear merchant ships would be deferred until a competitive application of nuclear propulsion is identified. Contract actions have been taken in two major areas in parallel including

a systems analysis program to identify specific U.S. and foreign ship requirements through trade forecasts and to provide economic criteria which a standardized nuclear propulsion system must meet to serve the broadest possible variety of ship applications. The latter was a system developed to provide the design of one or more fully competitive, and cost-engineered, standard nuclear propulsion modules.

A request for a proposal was prepared for the Competitive Propulsion Systems Analysis for relase in early FY 1971.

Safety of Maritime Reactor

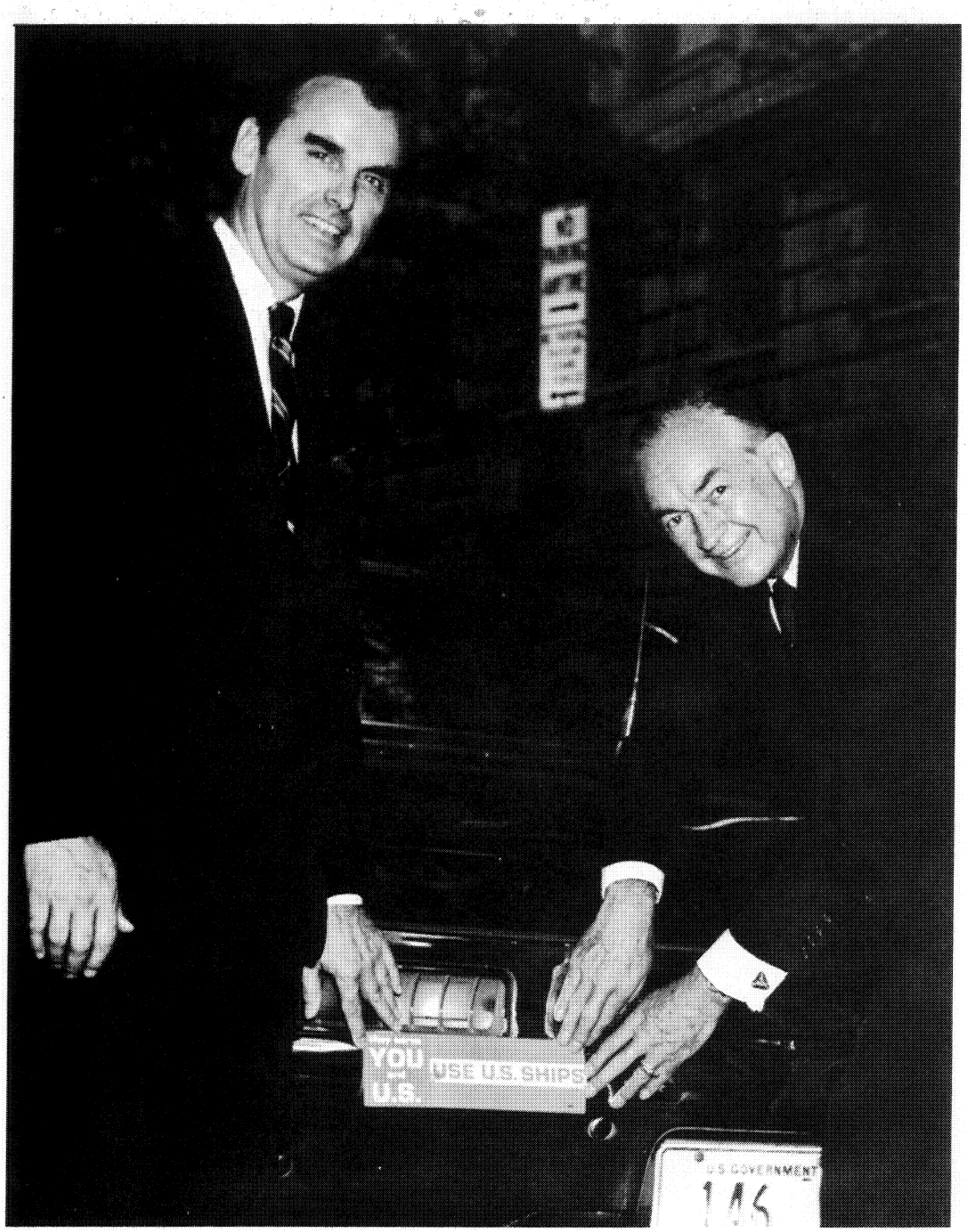
A contract was let with Westinghouse Electric Co. to perform additional safety studies of their proposed maritime reactor propulsion plant. A preliminary safety analysis was prepared and submitted to the U.S. Atomic Energy Commission for safety review in FY 1969 as a cooperative government-industry project. The extension of work reported here is intended to incorporate recently adapted AEC standards and specific AEC comments into the revised conceptual design. Also additional engineering computations were required to answer AEC safety questions concerning the original design. It is expected that advanced work in this category will result in a plant acceptable to the AEC regulatory staff being offered on a fixed price basis.

Consolidated Nuclear Steam Generator (CNSG)

The contract safety analysis was completed by Babcock and Wilcox Co. to be responsive to U.S. Atomic Energy Commission new design requirements for nuclear power plants. As a follow-on, Babcock and Wilcox Co. was awarded a contract to revise the conceptual design of their 100,000 SHP nuclear power plant to be suitable for horsepower up to 300,000. This effort was completed at the end of FY 1970.

The work is expected to shorten materially the delivery time for the CNSG reactor plant and enable firm fixed-price bidding by contractors on government or industry requirements for a competitive maritime reactor propulsion system.

Secretary of Commerce Maurice H. Stans, right, joins half a million other Americans who have placed red, white, and blue "USE U.S. SHIPS" bumper stickers on their cars urging shippers to use U.S.-flag ships whenever possible. Assisting Mr. Stans in placing one of the stickers produced through the joint efforts of the maritime industry and labor organizations is A. E. Gibson, Assistant Secretary for Maritime Affairs.



POLICY AND PLANS

During the year, significant progress was made in strengthening and redirecting the maritime planning functions required for the long-range development of the maritime industry. These included a thorough reorganization and expansion of the maritime planning functions, and recruitment of a new Director, Deputy and Assistant Directors, and five new Division Chiefs.

Not only was the new maritime program developed and successfully presented to both the Executive Branch and the Congress, but new studies were started in analysis of collective bargaining information, military roles of merchant ships, automatic data processing applications, and the general development of marine resources.

The new Maritime Administration planning organization provides capabilities for long-term and mid-term planning, program budgeting, economic and operations analyses, program evaluation, management information processing, and special studies in support of legislation and day-to-day management.

During FY 1970, the level and scope of communications between the Agency and the military services was stepped up to meet certain requirements affecting formulation of the new maritime program. As an outgrowth, the Navy and the Maritime Administration agreed jointly to sponsor a broad study of the military uses of merchant ships.

The Maritime Administration's leadership at the 22nd Plenary Session of the NATO Planning Board for Ocean Shipping (PBOS) resulted in the start of a full scale review of the work and organization of the Defense Shipping Authority, which serves as the primary NATO civil wartime maritime planning agency.

During FY 1970, the Agency began defining its long range requirements for analytical, data processing and other computer services as a part of an effort to develop a totally integrated information system called ADSPAR (Automated Data System for Planning, Analysis and Reporting).

Program Planning

The new maritime program was the focal point of planning activity throughout the year. Initially, time was spent refining quantified estimates of commercial and defense shipping needs during the next decade. Basic data was developed on all aspects of the shipping industry to identify the gap between capabilities and requirements.

The President's announcement of the program initiated two major staff efforts: the transmission of amplifying data to Congress, to the industry and to the press; and the development of the mechanics of program implementation. Graphic materials were developed to display program features in a meaningful format. A brochure describing the new program was prepared for distribution upon enactment of the new maritime program.

Details of the implementation of the new program were developed. Costs were updated to incorporate the latest available data. Refined projections were made of waterborne foreign trade, of ship productivity, and of the capability of shipyards to expand production and reduce costs. Procedures for determining operating subsidy under the index system were drafted.

Analyses were made of reports submitted by several contractors dealing with projected bulk commodity movements and with a proposed incentive subsidy system. Two CMX project studies of design characteristics for new ships were evaluated for their own program implications.

The Maritime Administration made significant progress toward fuller integration of Agency programs within the Planning Programming Budgeting System (PPBS). A program memorandum was prepared to emphasize significant changes in the Agency's activities and to act as the principal vehicle for transmitting its budget.

Several major studies were undertaken to analyze alternative methods for program execution and to determine the optimum use of major segments of the Maritime Administration's resources.

Projects were selected for inclusion in an Agency Executive Plan so that top management officials could assign work priorities and monitor progress throughout the coming year.

Marine Affairs

Over the past year the Maritime Administration has become more intimately involved in the marine affairs of the Nation than in the past. The President's Reorganization Plan No. 4 announced in FY 1970 consolidated most of the civil marine science activities of the Federal Government into a new agency named the National Oceanic and Atmospheric Administration (NOAA). The new agency will be located with the Department of Commerce and will result in a closer working arrangement with the Maritime Administration particularly within the Office of Policy and Plans. Present marine science and oceanic engineering programs within the Maritime Administration are expected to be strengthened by this reorganization.

In the fall of 1969, presentations were made on the Maritime Administration's research and development programs to a panel of consultants convened by the National Council on Marine Resources and Engineering Development. During the latter half of the fiscal year, a new Marine Affairs Division was established. This is designed to further active liaison between Maritime Administration and the marine science and ocean engineering community.

Emergency Readiness

Substantial progress was made in the upgrading of plans and facilities for agency continuity and operations by recomposing emergency staff units and instituting a program of orientation and training of the participants. Scheduled modification of emergency operating facilities was accomplished including the development of an operations command center at the Headquarters emergency site and improvement in survival equipment and administrative accommodations. Emergency communications networks were periodically tested at the national and local levels, and the Agency participated in a program of drills under the NATO alert system.

Technical studies were completed for estimating the probability of weapon damage and fallout hazard to merchant shipping in the event of nuclear attack on the United States. The studies served as a basis for revising plans for the dispersal of merchant ships to emergency anchorages in the event of nuclear attack. New charts were prepared and pre-positioned at Maritime Administration and Navy command centers.

A program to develop emergency manpower agreements between the Maritime Administration and the Employment Offices of all Atlantic coastal States was completed. The agreements are a cooperative arrangement designed to assure expeditious management of seamen and longshoremen under wartime conditions. Similar agreements between the Agency and Gulf and Pacific coastline States are under development.

The Maritime Administration continued to furnish guidance and assistance to U.S. seaports in preparing and updating emergency plans and procedures. Technical studies on the nuclear vulnerability of port areas were extended. Additional procedures for assessment and analysis of nuclear weapon effects on seaports were developed together with research on the improvement of port defense features. The inventory of ports, facilities, and capabilities continued to be updated and expanded in conjunction with the computer program of the National Resource Analysis Center.

The complement of National Defense Executive Reservists, private industry officials who are recruited and trained to assume operational assignments under national emergency conditions, continued at approximately 75 percent of authorized strength. Recruitment was limited to essential replacements due to extensive program review at the national level.

Maritime International Activities

Staff members of the Maritime Administration participated extensively in international activities during the past year and were particularly active in the study and working groups of NATO's Planning Board for Ocean Shipping (PBOS) which met five times during the fiscal year. The Maritime Administrator served as Chairman of the 22nd Plenary Meeting of the Planning Board held in Washington on April 14–16, 1970. Agency officials

coordinated U.S. policies within the Government; prepared U.S. position papers for the agenda items; and, with the Staff of the Office of International Conferences, made the conference administrative arrangements.

Additionally, the Maritime Administration was represented at the NATO SACLANT Training Conference on February 25–26, 1970 and at the NATO Shipping Working Group Extraordinary meeting on May 8–10, 1970, both of which were held at Norfolk, Va.

The Maritime Administrator and staff members visited Japan, September 23–October 5, 1969 to discuss a proposed visit of the NS SAVANNAH and to review the interchange program with Japanese officials. His other foreign visits included London, February 26 to March 1, 1970 to meet with British insurance underwriters on problems affecting ships of American flag operators, and Brazil, March 5–8, 1970, to consult with Brazilian government and shipping officials on mutual shipping problems.

Maritime Administration representatives attended meetings in London of the Intergovernmental Maritime Consultative Organization (IMCO) on marine pollution, September 6–15, 1969, and ship subdivision and stability, December 6–13, 1969. The Agency also participated in the U.S. Interagency Shipping Coordinating Committee charged with formulating a coordinated national position for the IMCO Council policy sessions and the IMCO Maritime Safety Committee Technical Meetings.

Other international activities in which Maritime Administration took part in FY 1970 included:

The Safety of Life at Sea (SOLAS) Fishing Vessel Panel Session, New York, September 12, 1969; The International Exposition on Shipping Containerization and Marine Engineering, New York, September 14–15, 1969; the meeting of the Maritime Transport Committee of the Organization for Economic Cooperation and Development (OECD) and the Consultative Shipping Group (CSG), Paris, October 2–3, 1969; The Technical Committee 104, on Freight Containers, International Standards Organization, Morristown, N.J., October 1969; The Europort Congress, Maritime Exhibition, Amsterdam, November 11–14, 1969; The Shipping Committee of the United Nations Commission for Trade and Development (UNCTAS), Geneva, April 25–May 3, 1970; and Medium and Long Term International Ship Forecasting Seminar, The Hague, June 16–19, 1970.

A major study of "Effective U.S. Control of Merchant Ships," especially from the point of view on an in-depth statistical analysis of that fleet, was completed during the year.

Program Evaluation

During FY 1970, a plan was undertaken to identify the agency's analytical, data, data processing and other computerized service requirements. The objective of such an information system, targeted for completion in FY 1971, is to assist decision-making at all levels.

The plan will contain identifiable current and future applications for ADP considering both business or record keeping applications as well as computerized services for scientific, engineering and other analytic processes. Over 300 proposals have been identified for inclusion in the system.

Economic Studies

The Maritime Administration initiated a study to develop a forecast of U.S. foreign trade through the next two decades which will examine levels of trade growth, modal distribution of commodity carriage, and sensitivity analysis of trade growth to alternate levels of economic development. The forecasting project is based on the analysis of trade statistics developed in the Census Bureau's Foreign Trade Division.

The Agency completed an analysis of the balance of payments impact of the new maritime program which consolidated substantive and technical issues of balance of payments methodology, derived from Office of Business Economics data.

Another project involves the initiation of an international dialogue on foreign-trade forecasting to promote inter-governmental economic research projects that might more fully use technical capabilities throughout the world research community.

In this context, Maritime Administration officials attended the 1970 long-term Forecasting Seminar at The Hague where they presented the Agency's position on promotion of such international research activities.

A Vietnamese stevedore watches as American military cargo is unloaded from the USNS BROSTROM and the Maritime Administration-owned MEREDITH VICTORY in Saigon. By the end of FY 1970, only two GAA ships remained in Southeast Asia Sealift Service where at the height of the operation 172 agency ships had carried 34 percent of the military shipments.

MARITIME SUBSIDY BOARD

Organization and Functions

The Maritime Subsidy Board is composed of three members; the Maritime Administrator, as Chairman, the Deputy Maritime Administrator, and the General Counsel. The Secretary of the Board serves as an alternate. The Board performs the functions and exercises the authority vested in the Secretary of Commerce to award, amend, and terminate operating-differential subsidy (ODS) and construction-differential subsidy (CDS) contracts. It conducts hearings, makes determinations, and investigates the relative costs of building and operating ships in the United States and abroad. Decisions and orders of the Board are final, unless within specified periods of time the Secretary of Commerce enters a written order stating that he elects to review the action of the Board. In some instances a review by the Secretary is requested by an interested party filing a petition for review and reversal of a Board decision. Final action by the Secretary may be appealed to the Federal Courts.

Board Actions

During FY 1970, the Board held 53 meetings and took 314 official actions, including the issuance of some 24 formal opinions, rulings and orders, in carrying out its functions.

Matters pertaining to ship construction and construction-differential subsidy, covered elsewhere in this report, were the subject of numerous Board actions during the year. In this regard, among the more important actions was the development and adoption of procedures to be followed in the making of foreign estimated ship construction cost redeterminations pursuant to a decision of the Court of Claims, dated July 16, 1969 (Court of Claims Nos. 51–68, 55–68, 74–68 and 75–68), involving disputes over unsettled CDS rates for new construction previously completed.

In essence, the new procedure provides for a more thorough and meaningful exchange of data between the agency staff and the shipowner with a further requirement upon the Board that such redeterminations shall be embodied in a Board opinion in which the reasons for it will be given.

At year's end, foreign cost redeterminations were being taken in the following order:

Moore-McCormack Lines, Inc.
American President Lines, Ltd.
Delta Steamship Co.
American Export Isbrandtsen Lines, Inc.

Succeeding cases were to be taken at approximately 30-day intervals in order to resolve all construction contract disputes as to the proper amount of Government subsidy.

In an effort to avoid such controversies in the future, the Board currently follows a policy of requesting final agreement on the CDS rate, crew quarters and manning scales for subsidy purposes, at the time of contract execution. Successful application of this policy will obviate the appeals and disputes over CDS rates and allowable subsidized manning that have accumulated over the past several years.

In respect to operating-differential subsidy the Board has been faced with an imposing backlog of ODS rate determinations. To combat this, the Board adopted a firm policy with respect to "Extension of 1965 Operating-Differential Subsidy Wage Rates" and authorized issuance of Circular Letter No. 1–70 dated April 27, 1970, to all subsidized operators. As a result, in practically all cases the operators have agreed to extend the 1965 rates through December 31, 1968. This action, coupled with one finalizing other subsidy wage rates, some of which went back to 1961, has not only substantially reduced the backlog but will permit the Board to direct its attention to new rates applicable to calendar year 1969 and subsequent years.

GENERAL COUNSEL

Functions

The Office of General Counsel has primary responsibility for handling legislative and litigated matters involving the Maritime Administration. The Office also provides legal services to the Administrator, the Maritime Subsidy Board, and the Agency's operating, promotional, research, and planning offices, including furnishing legal opinions and guidance, preparation and approval of documents, participation in Title XI insurance program closings and in contract appeal proceedings, as well as handling legal problems involving construction and operating subsidy programs.

Legislation

Appendix XII lists bills in which the Maritime Administration had some interest and on which testimony was given during the sessions of the 91st Congress, and shows their status at the end of FY 1970.

Litigation

Five hundred ninety-three lawsuits involving the Maritime Administration, filed by or against the United States, were pending on July 1, 1969, and 626 lawsuits were pending on June 30, 1970. During the fiscal year, 378 such lawsuits were terminated, either by negotiated settlements with the claimants or by court judgments, and 411 new lawsuits were filed. During this period, a total of $2,643,214.36 (the major portion thereof being recovered by the Maritime Administration from its commercial Protection and Indemity (P & I) insurance underwriters) was paid by the Agency to claimants in both litigated and nonlitigated disputes, disposing of a total of $33,200,606.54 claimed, while Maritime collected $1,167,935 on its claims, originally estimated at $1,057,804.37. A summary of lawsuits and nonlitigated claims appears in Table 13. For a report on the status of other nonlitigated claims, see Table 11.

TABLE 13—*Suits and Nonlitigated Claims*

	Case Load Activity				Amounts Pending		Amounts Closed			
	Pending 7/1/69	Opened	Closed	Pending 6/30/70	Claimed vs. U.S.	Claimed by U.S.	Claimed vs. U.S.	Recovered by Claimants	Claimed by U.S.	Recovered by U.S.
ADMIRALTY LITIGATION										
1. SEAMEN'S AND SHOREWORKERS' CLAIMS. Litigation authorized by the Suits in Admiralty Act (46 USC 741) and the Public Vessels Act (46 USC 781) for damages caused by a public vessel of the United States involving claims against the United States for death, injuries, illness, maintenance and cure, loss of effects, detention or repatriation.	551	392	361	582	$58,922,263.41		$31,690,950.00	$1,824,317.86		
2. SHIP COLLISION AND PROPERTY LOSS CLAIMS. Litigation authorized by the Suits in Admiralty Act and Public Vessels Act for damages caused by a public vessel of the United States involving claims against the United States for collision, striking submerged objects, ship damage to shore property, to navigational aids and to other property; exoneration or limitation of liability and cargo loss claims, and compensation for towage and salvage service, including contract salvage rendered to a public vessel.										
a. collision, etc.	6	4	4	6	$2,210,935.00	$79,553.46	$138,411.35	$32,553.46	$73,768.27	$68,000.00
b. exoneration	2	4	1	5	$103,875.00	$2,530,500.00	$245,000.00			
c. cargo loss & fire damage	0	2	0	2		$306,613.16				
3. CHARTER HIRE CLAIMS. Litigation involving program authorized by Merchant Ship Sales Act, 1946 (50 USC App. 1735) adjudicating rights under charter hire undertakings.	1	0	1	0			$33,220.28		$5,476.02	

TABLE 13—*(cont.)*

	Case Load Activity				Amounts Pending		Amounts Closed			
	Pending 7/1/69	Opened	Closed	Pending 6/30/70	Claimed vs. U.S.	Claimed by U.S.	Claimed vs. U.S.	Recovered by Claimants	Claimed by U.S.	Recovered by U.S.
CIVIL LITIGATION										
1. CONTRACT CLAIMS. Litigation involving program authorized by Merchant Marine Act, 1936, (46 USC 1101) adjudicating rights under construction-differential subsidy, operating-differential subsidy and ship repair or construction and supply contracts.										
a. Construction-differential subsidy	7	1	1	7	$15,330,300.50		$167,866.00			
b. Operating-differential subsidy	5	5	3	7			$789,451.47	$674,707.27		
c. Ship repair or construction	3	1	0	4	$9,103,118.00	$1,567,194.94				
2. SECURED LIEN TRANSACTIONS. Litigation involving program authorized by Merchant Marine Act 1936, (Title XI, 46 USC 1271) and Merchant Marine Act 1920 (46 USC 861) adjudicating rights under ship mortages and insured ship loans related to foreclosure on ships or bankruptcy of obligors.										
a. Foreclosures and Bankrupticies	9	0	1	8	$196,879.00	$34,853,515.17	$73,102.17		$923,560.08	$1,062,837.00
3. MISCELLANEOUS LITIGATED ACTIONS.										
a. Uncollected judgments in favor of United States.	1	0	0	1		$5,794.88				
b. Grievances	8	2	6	4	*					
TOTAL LITIGATED CASES					$85,867,370.97	$39,343,171.61	$33,139,001.27	$2,531,578.59	$1,002,804.37	$1,130,837.00
4. TORT CLAIMS. Litigation involving personal injury or death, or damage or loss of property authorized by the Federal Tort Claims Act (28 USC 2672).										
a. Litigated	0	0	0	0						
b. Nonlitigated	0	0	0	0						
MISCELLANEOUS NONLITIGATED CLAIMS (Collision, etc.)	14	3	7	10	$414,561.66	$115,440.55	$161,185.00	$111,635.77	$55,000.00	$36,558.00

* Monetary value undetermined.

SHIPPING STUDIES AND REPORTS

Where prices are not indicated, a limited number of copies are available from the Office of Public Affairs, Maritime Administration.

General

"Annual Report of the Maritime Administration," 1969, 88pp., $1.00, GPO.

"Automatic Container Identification Conference," 13pp., Maritime Administration.

"Report on the Effects of Hurricane Camille Upon the Seaports of the Gulf Coast," 12pp., Maritime Administration.

"Essential United States Foreign Trade Routes," 81pp., $1.00, GPO.

"A Report on the Experimental Export Shipment of Cotton in Containers," 9pp., Maritime Administration.

"Index of Current Regulations of the Maritime Administration, Maritime Subsidy Board, and National Shipping Authority (Revised as of January 1, 1970)," 38pp., 50¢, GPO.

"Merchant Ships and Seapower." An address by A. E. Gibson, Maritime Administration, U.S. Department of Commerce, before the Propeller Club, Port of San Diego, Calif., May 22, 1970, 9pp., Maritime Administration.

"Seafaring Guide . . . and Directory of Labor Management Affiliations 1969," 85pp., $1.00, GPO.

"Serving American Business—The U.S. Merchant Marine," 9pp., Maritime Administration.

"Ship Characteristics—July 1969," 19pp., Maritime Administration.

"Ship Designs for a U.S. Flag Merchant Fleet," 13pp., Maritime Administration.

"A Statistical Analysis of the World's Merchant Fleets as of December 31, 1968," 114pp., $1.00, GPO.

"Transfer and Sale of U.S. Ships to Aliens," 26pp., Maritime Administration.

"U.S. Owners of U.S. Flag Oceangoing Merchant Ships," 13pp., Maritime Administration.

"Vessel Inventory Report," June 30, 1969, 140pp., Maritime Administration.

Statistical

"Bulk Carriers in the World Fleet as of December 31, 1969," 50pp., 50¢, Department of Commerce.

"Containerships Under Construction and On Order (Including Conversions) in U.S. and Foreign Shipyards, Oceangoing Ships of 1,000 Gross Tons and Over, as of June 30, 1969," 9pp., Maritime Administration.

"Employment Report of U.S. Flag Merchant Fleet Oceangoing Vessels of 1,000 Gross Tons and Over," as of March 31, 1969; June 30, 1969; September 30, 1969; December 31, 1969. 6pp. each, Maritime Administration.

"Foreign Oceanborne Trade of the United States, Containerized Cargo on Selected Trade Routes," First Quarter 1969, Second Quarter 1969, Third Quarter 1969. 13pp. each, Maritime Administration.

"Merchant Fleets of the World—Oceangoing Steam and Motor Ships of 1,000 Gross Tons and Over," as of December 31, 1968, 20pp., 30¢, GPO.

"Merchant Type Ships of 100,000 Tons DWT and Over, Including Those in Operation and Those Under Construction or on Order," as of December 31, 1968, 18pp., Maritime Administration.

"New Ship Construction. Part I—Deliveries during 1968. Part II—Under Construction and on Order as of December 31, 1968." 15pp., Maritime Administration.

"Oceangoing Foreign Flag Merchant Type Ships of 1,000 Gross Tons and Over Owned by U.S. Parent Companies," as of June 30, 1969, 34pp., Maritime Administration.

"Relative Cost of Shipbuilding in the Various Coastal Districts of the United States, June 1970," 41pp., 50¢, Department of Commerce.

"Ships Registered Under the Liberian, Panamanian, and Honduran Flags Deemed by the Navy Department to be Under Effective U.S. Control," as of March 31, 1969; June 30, 1969; September 30, 1969; December 31, 1969. 8pp. each, Maritime Administration.

"U.S. Flag Containerships and U.S. Flag Ships with Partial Capacities for Containers and/or Vehicles," as of June 30, 1969, 9pp., Maritime Administration.

Technical

"Bulk Carrier Program—Technical Requirements," prepared by Booz Allen Applied Research, Inc., 115pp., PB 185 763.

"CMX Project—Phase I Research Report," prepared by Bath Iron Works, Corp., 300pp., PB 191 993.

"Great Lakes Port and Shipping Systems," prepared by Transportation Institute, Southern Illinois University. PART I, 63pp., PB 188 791. PART II, 252pp., PB 188 937.

"Guide for Standardized Engine Room Propulsion Control Console," prepared by the Office of Ship Construction, Maritime Administration. 39pp.

"Human Factors In Ship Control, Volume IV, Simulation Tests," prepared by General Dynamics, Electric Boat Division, 154pp., PB 188 819.

"Marine Mobile VHF Satellite Communications Terminal Specifications," prepared by Westinghouse Electric Corp., 129pp., PB 185 467.

"Methods to Improve Ship Stopping Performance," prepared by Davidson Laboratory of Stevens Institute of Technology, 47pp., PB 188 820.

"Study of Mobile Emergency Port Facilities," prepared by Bechtel Corp., 164pp., PB 184 348. SUMMARY Report, 80pp., PB 184 810.

"The Motions of Connected Hulls in Regular Head Seas," prepared by Massachusetts Institute of Technology, 274pp., PB 184 465.

"N. S. SAVANNAH Conversion to an Ocean Science Ship (A Feasibility Study)," prepared by Westinghouse Electric Corp., 400pp., PB 191 089.

"The National Need for a Dry Bulk Fleet," prepared by Booz Allen Applied Research, Inc., 46pp., PB 185 762.

"Non-Linear Prediction of Steering Performance of Series 60 Models," prepared by Davidson Laboratory of Stevens Institute of Technology, 47pp., PB 188 822.

"Optimization Studies for a Standardized Dry Bulk Carrier," prepared by Litton Systems, 291 pp., PB 184 461.

"Port Management Problem Study," prepared by Arthur D. Little, Inc., 30pp., PB 185 468.

"Resistance and Directional Stability of Barges in a Coastal Seaway," prepared by Davidson Laboratory of Stevens Institute of Technology, 96pp., PB 188 818.

"A Study of River Ports and Terminals," prepared by Transportation Institute, Southern Illinois University, 154pp., PB 183 322.

"Phase I Ship Design and Program Studies for a U.S. Flag Merchant Fleet," (CMX report) prepared by Newport News Shipbuilding and Dry Dock Company, 250pp., PB 192 038.

"Ship Motions in Response to Maneuvering System Actuation," prepared by Davidson Laboratory of Stevens Institute of Technology, 157pp., PB 188 817.

"Steering Control of Ships in Waves," prepared by Davidson Laboratory of Stevens Institute of Technology, 45pp., PB 188 821.

"Technical, Operations & Economic Report of the N. S. SAVANNAH, Fourth Period of Experimental Commercial Operation 1968–1969," prepared by the Office of Research and Development, Maritime Administration, 86pp., PB 191 204.

"Trading Opportunities for U.S. Flag Dry Bulk Carriers," prepared by Booz Allen Applied Research, Inc., 76pp., PB 185 761.

"Waterborne Feeder Subsystems for Unitized Cargo Transportation," prepared by Arthur D. Little, Inc., Volume I, 80pp., PB 191 478; Volume II, 120pp., PB 191 479.

"Report of the Woods Hole Conference on Maritime Research & Development," prepared by the Office of Research and Development, Maritime Administration, 48pp., PB 191 826. APPENDIX III, 262pp., PB 192 046.

The above technical reports may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia, 22151, for $3.00 each, or 65¢ in microfiche.

APPENDIX I

Employment of United States Flag Oceangoing Merchant Fleet as of June 30, 1970 Vessels of 1,000 Gross Tons and Over by Ownership, Status and Area of Employment

(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.)

(Tonnage in Thousands)

Status and Area of Employment	Total			Vessel Type: Combination Passenger & Cargo			Vessel Type: Freighters			Vessel Type: 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
SUMMARY												
Grand Total	1,780	16,918	23,280	177	1,625	1,147	1,302	10,641	14,298	301	4,652	7,835
Active Vessels	819	9,579	14,073	13	162	117	557	5,390	7,173	249	4,027	6,783
Foreign Trade	383	4,171	5,610	10	123	94	344	3,513	4,605	29	535	911
Nearby Foreign	20	247	374	2	23	17	8	62	84	10	162	273
Great Lakes-Seaway Foreign	1	8	11	—	—	—	1	8	11	—	—	—
Overseas Foreign	362	3,916	5,225	8	100	77	335	3,443	4,510	19	373	638
Foreign to Foreign	3	90	165	—	—	—	—	—	—	3	90	165
Domestic Trade	245	3,376	5,368	2	30	13	68	656	837	175	2,690	4,518
Coastwise	142	2,141	3,599	—	—	—	10	75	116	132	2,066	3,483
Intercoastal	25	274	417	—	—	—	17	173	252	8	101	165
Noncontiguous	78	961	1,352	2	30	13	41	407	469	35	524	870
Other U.S. Agency Operations	188	1,942	2,930	1	9	10	145	1,221	1,731	42	712	1,189
GAA and M.S.C. Charter	167	1,797	2,738	1	9	10	127	1,091	1,559	39	697	1,169
Other (Custody, etc.)	21	145	192	—	—	—	18	130	172	3	15	20
Inactive Vessels	961	7,340	9,206	164	1,463	1,030	745	5,251	7,124	52	626	1,052
Temporarily Inactive	36	487	814	1	9	10	20	180	256	15	298	548
Merchant Types	36	487	814	1	9	10	20	180	256	15	298	548
Military Types	—	—	—	—	—	—	—	—	—	—	—	—
Laid-up (Privately-Owned)	27	311	349	7	130	63	13	91	143	7	90	143
National Defense Reserve Fleet [1]	898	6,544	8,045	156	1,325	958	712	4,981	6,726	30	238	361
Merchant Types	588	4,165	5,999	1	9	9	578	4,065	5,846	9	92	145
Military Types	310	2,379	2,046	155	1,316	949	134	916	881	21	146	216

[1] Includes 440 ships to be sold for scrap; 228 Naval Auxiliaries, and excludes 14 ships sold but remaining in custody of reserve fleet pending delivery, and 104 non-merchant type ships which were in the National Defense Reserve Fleet:

NOTE: 1. Tonnage figures are not 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 II

MERCHANT FLEETS OF THE WORLD
OCEANGOING STEAM AND MOTOR SHIPS OF 1,000 GROSS TONS AND OVER AS OF JUNE 30, 1970

(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.)

(Tonnage in Thousands)

Country of Registry	Total			Combination Passenger and Cargo			Combination Passenger and Cargo Refrigerated			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	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons	Number	Gross Tons	Dead-weight Tons
TOTAL—ALL COUNTRIES	19,611	201,878	309,626	881	7,022	4,157	37	532	329	10,887	62,417	86,579	856	4,380	4,677	2,806	43,742	71,232	4,144	83,785	142,652
United States [1]	1,780	16,918	23,280	173	1,580	1,110	4	45	37	1,230	9,981	13,298	29	152	167	43	508	833	301	4,652	7,835
Privately-owned	852	10,152	14,955	16	239	142	4	45	37	520	4,958	6,493	3	17	18	41	494	811	268	4,399	7,454
Government-owned	928	6,766	8,325	157	1,341	968	—	—	—	710	5,023	6,805	26	135	149	2	14	22	33	253	381
Reserve Fleet	898	6,544	8,045	156	1,325	958	—	—	—	690	4,875	6,598	20	92	106	2	14	22	30	238	361
Other [2]	30	222	280	1	16	10	—	—	—	20	148	207	6	43	43	—	—	—	3	15	20
The British Commonwealth of Nations																					
United Kingdom	1,786	23,194	35,308	61	866	482	15	279	166	840	5,619	7,515	144	1,312	1,541	295	3,991	6,283	431	11,127	19,321
Australia	97	769	1,085	4	14	9	—	—	—	40	176	205	—	—	—	40	431	651	13	148	220
British Colonies	119	1,282	1,979	5	22	17	—	—	—	69	409	589	1	1	1	27	396	628	17	454	744
Canada	66	289	341	18	47	21	—	—	—	19	63	76	2	2	2	8	76	107	19	101	135
Cyprus	178	1,106	1,600	7	48	52	—	—	—	142	824	1,198	1	3	4	15	90	130	13	141	216
Ghana	16	118	153	—	—	—	—	—	—	16	118	153	—	—	—	—	—	—	—	—	—
India	246	2,378	3,653	11	63	61	—	—	—	185	1,266	1,820	1	9	13	36	740	1,249	13	300	510
Jamaica	2	12	9	—	—	—	—	—	—	—	—	—	2	12	9	—	—	—	—	—	—
Kenya	4	11	16	—	—	—	—	—	—	2	8	12	—	—	—	1	2	2	1	1	2
Malaysia	8	18	20	4	6	4	—	—	—	2	6	8	—	—	—	—	—	—	2	6	8
Malta	3	8	13	—	—	—	—	—	—	3	8	13	—	—	—	—	—	—	—	—	—
New Zealand	48	139	174	—	—	—	2	8	6	34	103	135	5	12	15	6	13	15	1	3	3
Nigeria	13	83	123	—	—	—	—	—	—	13	83	123	—	—	—	—	—	—	—	—	—
Pakistan	65	509	679	7	73	61	—	—	—	55	414	587	—	—	—	3	22	31	—	—	—
Singapore	74	364	465	13	70	69	—	—	—	50	228	299	1	3	3	2	11	16	8	52	78
Tanzania	2	14	22	—	—	—	—	—	—	2	14	22	—	—	—	—	—	—	—	—	—
Tonga	1	2	3	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—	—	—	—
Trinidad-Tobago	4	9	7	2	6	3	—	—	—	1	1	2	—	—	—	—	—	—	1	2	2
Uganda	1	6	9	—	—	—	—	—	—	1	6	9	—	—	—	—	—	—	—	—	—
Zambia	1	6	9	—	—	—	—	—	—	1	6	9	—	—	—	—	—	—	—	—	—

*Albania	9	41	58	—	—	—	—	—	—	6	32	46	—	—	—	3	9	12	—	—	—
Algeria	7	28	37	—	—	—	—	—	—	5	22	29	—	—	—	1	1	2	1	5	6
Argentina	144	1,086	1,484	11	67	47	2	25	19	59	347	483	11	34	33	8	102	156	53	511	746
Austria	1	9	13	—	—	—	—	—	—	1	9	13	—	—	—	—	—	—	—	—	—
Belgium	72	954	1,445	1	11	9	—	—	—	36	291	393	7	37	36	14	310	518	14	305	489
Brazil	215	1,438	2,097	7	42	20	—	—	—	128	516	746	5	20	20	26	293	463	49	567	848
*Bulgaria	96	619	890	2	20	7	—	—	—	51	227	334	2	12	10	26	197	286	15	163	253
Burma	9	49	65	2	4	3	—	—	—	7	45	62	—	—	—	—	—	—	—	—	—
Chile	47	274	374	4	11	6	—	—	—	28	143	188	1	1	1	9	53	77	5	66	102
China (Taiwan)	148	1,028	1,464	3	15	16	1	18	12	111	673	945	12	43	45	10	131	212	11	148	234
*China (Communist)	209	974	1,303	20	67	41	2	17	10	146	717	1,010	1	1	2	19	64	83	21	108	157
Colombia	31	169	219	—	—	—	—	—	—	29	157	201	—	—	—	1	2	2	1	10	16
Congolese Republic	3	28	34	1	10	9	—	—	—	2	18	25	—	—	—	—	—	—	—	—	—
*Cuba	51	298	400	—	—	—	—	—	—	41	266	369	7	26	24	1	1	1	2	5	6
*Czechoslovakia	9	82	119	—	—	—	—	—	—	7	41	56	—	—	—	2	41	63	—	—	—
Denmark	290	2,903	4,601	11	32	20	1	3	1	175	994	1,365	22	86	105	25	448	730	56	1,340	2,380
Dominican Republic	3	6	9	—	—	—	—	—	—	2	5	7	1	1	2	—	—	—	—	—	—
Ecuador	7	39	46	—	—	—	—	—	—	4	25	31	2	13	13	—	—	—	1	1	2
Ethiopia	7	43	64	—	—	—	—	—	—	4	19	26	—	—	—	1	1	2	2	23	36
Finland	206	1,307	2,004	5	14	5	—	—	—	137	474	673	4	4	6	15	127	201	45	688	1,119
France	462	6,063	8,982	21	283	132	1	10	2	197	1,196	1,560	41	207	187	62	830	1,233	140	3,537	5,868
Germany (West)	936	6,941	10,313	7	119	28	1	2	1	721	3,554	5,045	69	305	361	86	1,597	2,559	52	1,364	2,319
*Germany (East)	132	965	1,286	4	39	24	—	—	—	99	560	733	6	25	15	14	165	227	9	176	287
Greece	1,137	10,645	16,500	50	368	183	—	—	—	723	4,112	6,032	18	65	67	146	2,221	3,601	200	3,879	6,617
Guatemala	2	4	6	—	—	—	—	—	—	2	4	6	—	—	—	—	—	—	—	—	—
Guinea	1	11	15	—	—	—	—	—	—	—	—	—	—	—	—	1	11	15	—	—	—
Honduras	12	50	50	—	—	—	—	—	—	2	4	7	9	44	41	—	—	—	1	2	2
*Hungary	19	30	36	—	—	—	—	—	—	19	30	36	—	—	—	—	—	—	—	—	—
Iceland	20	40	55	1	4	2	—	—	—	10	17	27	5	11	15	2	3	4	2	5	7
Indonesia	150	508	612	29	117	82	—	—	—	96	288	386	—	—	—	8	34	45	17	69	99
Iran	9	97	136	—	—	—	—	—	—	7	57	73	—	—	—	—	—	—	2	40	63
Iraq	2	12	17	—	—	—	—	—	—	2	12	17	—	—	—	—	—	—	—	—	—
Ireland	13	137	204	—	—	—	—	—	—	8	55	77	—	—	—	5	82	127	—	—	—
Israel	86	737	1,041	2	10	3	—	—	—	57	286	386	14	97	105	13	344	547	—	—	—
Italy	619	6,680	9,483	68	768	279	1	14	8	219	1,064	1,565	24	111	97	119	2,026	3,221	188	2,697	4,313
Ivory Coast	4	26	34	—	—	—	—	—	—	3	22	31	1	4	3	—	—	—	—	—	—
Japan	1,996	22,324	35,327	28	106	74	—	—	—	1,155	6,309	9,148	62	225	269	395	7,165	11,440	356	8,519	14,396
Korea (South)	102	768	1,228	2	11	13	—	—	—	67	291	428	1	1	2	16	177	283	16	288	502
*Korea (North) [3]	7	25	32	—	—	—	—	—	—	5	21	27	2	4	5	—	—	—	—	—	—
Kuwait	27	572	986	—	—	—	—	—	—	21	148	199	—	—	—	—	—	—	6	424	787
Lebanon	58	191	288	1	5	4	—	—	—	49	170	259	3	5	9	5	11	16	—	—	—
Liberia	1,754	32,406	56,668	22	226	150	2	41	30	451	3,044	4,541	18	91	89	543	9,904	17,613	718	19,100	34,245
Malagasy	11	38	53	—	—	—	—	—	—	10	37	51	—	—	—	—	—	—	1	1	2
Maldives	9	17	23	—	—	—	—	—	—	8	15	21	—	—	—	1	2	2	—	—	—
Mexico	40	340	520	—	—	—	—	—	—	12	44	66	1	4	4	3	39	60	24	253	390
Monaco	5	36	53	—	—	—	—	—	—	1	2	2	—	—	—	—	—	—	4	34	51
Morocco	11	37	51	—	—	—	—	—	—	8	30	44	3	7	7	—	—	—	—	—	—
Nauru	2	14	18	1	10	12	—	—	—	1	4	6	—	—	—	—	—	—	—	—	—
Netherlands	454	4,697	6,817	17	238	152	—	—	—	282	1,852	2,442	29	90	95	34	519	791	92	1,998	3,337
Nicaragua	6	19	31	—	—	—	—	—	—	6	19	31	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

APPENDIX II — Continued

Country of Registry	Total			Combination Passenger and Cargo			Combination Passenger and Cargo Refrigerated			Freighters			Freighters Refrigerated			Bulk Carriers			Tankers (Including Whaling Tankers)		
	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons	Number	Gross Tons	Deadweight Tons
Norway	1,164	18,326	29,941	27	149	55	1	3	1	425	2,348	3,274	25	106	111	331	6,768	10,891	355	8,952	15,609
Panama	615	5,615	8,907	23	215	124	—	—	—	350	1,507	2,261	10	30	28	58	486	779	174	3,377	5,715
Peru	32	234	323	2	15	19	—	—	—	21	145	204	2	10	7	2	22	28	5	42	65
Philippines	167	881	1,270	16	35	34	1	4	3	114	582	810	5	17	18	10	103	167	21	140	238
Poland	217	1,371	1,891	2	16	7	—	—	—	164	1,009	1,391	10	27	30	36	256	369	5	63	94
Portugal	92	688	866	22	224	141	—	—	—	48	198	303	1	1	1	1	5	6	20	260	415
*Rumania	46	325	479	1	7	2	—	—	—	32	107	151	—	—	—	9	142	216	4	69	110
Saudi Arabia	13	39	49	3	15	14	—	—	—	8	22	33	1	1	1	1	1	1	—	—	—
Senegal	2	4	5	—	—	—	—	—	—	1	2	2	—	—	—	—	—	—	1	2	3
Somalia	67	375	551	4	21	23	—	—	—	55	252	366	—	—	—	—	—	—	8	102	162
South Africa	53	394	482	—	—	—	2	60	32	42	254	334	6	43	62	2	24	36	1	13	18
Spain	401	2,622	3,867	37	225	147	—	—	—	207	699	1,014	24	54	63	27	223	353	106	1,421	2,290
Sudar	6	24	30	1	2	2	—	—	—	4	18	23	1	4	5	—	—	—	—	—	—
Sweden	379	4,617	7,050	4	62	13	—	—	—	181	1,124	1,443	34	237	243	81	1,535	2,450	79	1,659	2,901
Switzerland	26	202	285	—	—	—	—	—	—	20	140	197	2	3	3	4	59	85	—	—	—
Thailand	14	51	77	—	—	—	—	—	—	7	35	55	—	—	—	—	—	—	7	16	22
Trucial States	1	4	8	—	—	—	—	—	—	1	4	8	—	—	—	—	—	—	—	—	—
Tunisia	8	17	22	—	—	—	—	—	—	8	17	22	—	—	—	—	—	—	—	—	—
Turkey	83	524	693	16	77	34	—	—	—	52	260	373	—	—	—	2	23	32	13	164	254
United Arab Republic	41	190	246	9	46	43	—	—	—	22	69	86	—	—	—	—	—	—	10	75	117
Uruguay	17	130	198	1	8	10	—	—	—	11	51	74	—	—	—	—	—	—	5	71	114
*U.S.S.R. [3]	1,766	10,418	13,272	73	426	192	1	3	1	1,023	5,072	6,588	165	758	671	132	605	806	372	3,554	5,014
Venezuela	38	328	480	—	—	—	—	—	—	20	68	101	—	—	—	2	5	7	16	255	372
Vietnam (South)	5	14	22	—	—	—	—	—	—	5	14	22	—	—	—	—	—	—	—	—	—
Yugoslavia	194	1,445	2,073	15	87	87	—	—	—	140	817	1,120	3	9	11	18	295	469	18	237	386

[1] Excludes 129 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.
[3] Includes the following U.S. Government-owned ships transferred to U.S.S.R. under lend-lease agreements, 48 of which are still under that registry; and 2 under North Korean registry.

U.S.S.R. (Lend-lease)	50	289	422	—	—	—	—	—	—	49	282	411	—	—	—	—	—	—	1	7	11

* Source Material limited.

APPENDIX III

Ship Deliveries for Fiscal Year 1970

Oceangoing Steam and Motor Ships of 1,000 Gross Tons and Over by Ship Type, Country in Which Built and for Whom Built
(Excludes ships operating exclusively on the Great Lakes and inland waterways and special types such as tugs, ferries, cable ships, etc.)

(Tonnage in Thousands)

Registry For Which Built	Total		Country in which built: Japan		Germany (West)		Sweden		France		United Kingdom		Norway		Denmark		Spain		Italy		Nether-lands		United States		All Others	
	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.
Summary—All Types																										
TOTAL	906	30,683	373	14,901	88	2,731	30	2,611	25	1,593	59	1,409	27	994	17	879	38	871	21	813	21	764	16	664	191	2,453
United States	16	664	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	664	—	—
United Kingdom	76	5,393	15	2,358	7	1,088	2	250	1	171	36	941	2	25	—	—	—	—	—	—	9	483	—	—	4	77
Denmark	11	510	—	—	1	2	—	—	—	—	—	—	—	—	9	300	—	—	—	—	1	208	—	—	—	—
France	21	1,345	—	—	—	—	—	—	17	1,312	2	18	—	—	—	—	—	—	—	—	1	2	—	—	1	13
Germany (West)	79	967	1	18	59	699	—	—	1	18	—	—	5	67	—	—	3	119	—	—	2	5	—	—	8	41
Italy	18	782	—	—	1	11	—	—	—	—	—	—	—	—	—	—	—	—	17	771	—	—	—	—	—	—
Japan	206	4,281	206	4,281	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liberia	86	6,059	66	4,459	3	75	6	820	1	7	5	232	—	—	1	250	2	170	—	—	—	—	—	—	2	46
Norway	53	2,580	6	497	6	226	7	737	3	40	7	81	19	901	1	51	—	—	—	—	1	3	—	—	3	44
Sweden	19	797	—	—	2	8	10	657	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	6	131
U.S.S.R.*	92	942	—	—	—	—	2	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90	922
All Others	229	6,363	79	3,288	9	622	3	127	2	45	9	137	—	—	6	278	33	582	4	42	7	63	—	—	77	1,179
Freighters																										
TOTAL	660	12,052	282	6,345	75	1,094	11	355	13	170	44	943	16	335	9	170	26	251	11	376	16	86	8	140	149	1,787
United States	8	140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	140	—	—
United Kingdom	46	982	5	245	2	11	1	22	—	—	29	637	2	25	—	—	—	—	—	—	6	16	—	—	1	26
Denmark	5	73	—	—	1	2	—	—	—	—	—	—	—	4	—	71	—	—	—	—	—	—	—	—	—	—
France	13	156	—	—	—	—	—	—	10	126	1	15	—	—	—	—	—	—	—	—	1	2	—	—	1	13
Germany (West)	74	859	1	18	56	691	—	—	1	18	—	—	4	64	—	—	2	22	—	—	2	5	—	—	8	41
Italy	8	345	—	—	1	11	—	—	—	—	—	—	—	—	—	—	—	—	7	334	—	—	—	—	—	—
Japan	159	2,466	159	2,466	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liberia	60	2,225	50	1,998	3	75	—	—	1	7	4	98	—	—	—	—	1	19	—	—	—	—	—	—	1	28
Norway	33	1,383	6	497	6	226	4	256	—	—	3	63	10	246	1	51	—	—	—	—	—	—	—	—	3	44
Sweden	8	145	—	—	1	6	2	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	113
U.S.S.R.*	62	560	—	—	—	—	2	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	540
All Others	184	2,718	61	1,121	5	72	2	31	1	19	7	130	—	—	4	48	23	210	4	42	7	63	—	—	70	982

APPENDIX III — Continued

Registry For Which Built	Total		Country in which built: Japan		Germany (West)		Sweden		France		United Kingdom		Norway		Denmark		Spain		Italy		Nether-lands		United States		All Others	
	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.
Tankers																										
TOTAL	244	18,626	89	8,551	13	1,637	19	2,256	12	1,423	15	466	11	659	8	709	12	620	10	437	5	678	8	524	42	666
United States	8	524	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	524	—	—
United Kingdom	30	4,411	10	2,113	5	1,077	1	228	1	171	7	304	—	—	—	—	—	—	—	—	3	467	—	—	3	51
Denmark	6	437	—	—	—	—	—	—	—	—	—	—	—	—	5	229	—	—	—	—	1	208	—	—	—	—
France	8	1,189	—	—	—	—	—	—	7	1,186	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Germany (West)	5	108	—	—	3	8	—	—	—	—	—	—	1	3	—	—	1	97	—	—	—	—	—	—	—	—
Italy	10	437	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	437	—	—	—	—	—	—
Japan	45	1,810	45	1,810	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liberia	26	3,834	16	2,461	—	—	6	820	—	—	1	134	—	—	1	250	1	151	—	—	—	—	—	—	1	18
Norway	20	1,197	—	—	—	—	3	481	3	40	4	18	9	655	—	—	—	—	—	—	1	3	—	—	—	—
Sweden	11	562	—	—	1	2	8	631	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	1	18
U.S.S.R.*	30	382	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	382
All Others	45	3,645	18	2,167	4	550	1	96	1	26	2	7	—	—	2	230	10	372	—	—	—	—	—	—	7	197
Combination Passenger and Cargo Ships																										
TOTAL	2	5	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United States	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
France	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Germany (West)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan	2	5	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liberia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sweden	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
U.S.S.R.*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Source material limited.

[1] The U.S.S.R., with 39 ships of 436,000 dwt. tons, ranked 13th as a shipbuilder on a deadweight tonnage basis. In addition to the countries listed above, it was preceded by Yugoslavia with 21 ships of 633,000 dwt. tons.

APPENDIX IV

Approvals for Transfers Foreign

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 1000 Gross Tons and Over by Type, Number, Size, and Age for Period July 1, 1969—June 30, 1970

	Pursuant to Sections 9 and 37 (U.S. owned, 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									
(a) Tankers	18	156,782	27.7	5	75,806	23.8	23	232,588	26.8
(b) Cargo	115	852,618	26.0	3	28,141	26.0	118	880,759	26.0
(c) Cargo/Passenger	3	45,932	29.0	—	—	—	3	45,932	29.0
(d) Miscellaneous	4	13,985	18.7	19	44,016	9.0	23	58,001	11.1
TOTAL	140	1,069,317	26.0	27	147,963	14.4	167	1,217,280	24.4
U. S. Government Owned Cargo (For Scrapping)	31	231,286	26.4	6	39,996	27.3	37	271,282	26.6
By Nationality (U.S. Privately owned for operation)									
Bermudian	3	22,821	—	—	—	—	3	22,821	—
British	4	21,651	—	1	1,500	—	5	23,151	—
Canadian	1	8,207	—	—	—	—	1	8,207	—
Ecuadorian	1	1,233	—	—	—	—	1	1,233	—
Greek	1	18,655	—	1	31,642	—	2	50,297	—
Liberian	4	30,580	—	3	18,378	—	7	48,958	—
Netherlands	9	51,471	—	—	—	—	9	51,471	—
Panamanian	21	157,232	—	9	30,245	—	30	187,477	—
Philippine	2	6,304	—	—	—	—	2	6,304	—
TOTAL	46	318,154	—	14	81,765	—	60	399,919	—
Sale Alien	94	751,163	—	13	66,198	—	107	817,361	—
GRAND TOTAL	140	1,069,317	—	27	147,963	—	167	1,217,280	—

APPENDIX V

Ship Construction on June 30, 1970

Ships Under Construction	Number of Ships	Type	Shipyard	Gross Tonnage	Estimated Completion Date	Estimated Construction Cost [1]	Maritime Admin. Including NDF Allowance	Owner	Estimated Cost to Owner
Title V, Merchant Marine Act, 1936, as Amended	5	C8-S-81b	Avondale Shipyards, Inc.	132,000	11-30-72	$109,800,000	$54,800,000	Prudential-Grace Lines, Inc.	$55,000,000
"	6	C8-S-81b	"	158,400	2-13-73	131,700,000	65,700,000	Pacific Far East Line, Inc.	66,000,000
"	4	C6-S-85a	Litton Systems, Inc. (Ingalls)	74,800	12- 3-71	86,500,000	45,500,000	Farrell Lines, Inc.	41,000,000
"	4	C6-S-85b	"	74,800	11- 1-72	86,400,000	42,500,000	American President Lines, Ltd.	43,900,000
"	3	C8-S-82a	General Dynamics Corp.	55,260	7-10-72	103,900,000	57,300,000	Lykes Bros. Steamship Co., Inc.	46,600,000
"	2	C7-S-68e	Sun SB & DD Co.	35,400	12-15-70	36,000,000	16,100,000	United States Lines, Inc.	19,900,000
"	2	C7-S-88a	Bethlehem Steel Corp.	48,000	12-30-72	51,700,000	24,100,000	The Oceanic Steamship Co.	27,600,000
"[2]	2	C6-S-1w	Alabama DD & SB Co.	28,000	10-16-70	16,600,000	8,300,000	United States Lines, Inc.	8,300,000
"[2]	2	C6-S-1w	Bethlehem Steel Corp.	28,000	9-30-70	17,000,000	8,500,000	"	8,500,000
"[2]	1	C6-S-1w	Norfolk SB & DD Co.	14,000	10- 1-70	8,500,000	4,250,000	"	4,250,000
"[2]	3	C6-S-1w	Todd Shipyards Corp.	42,000	10-16-70	26,000,000	13,000,000	"	13,000,000
"[2]	9	C5-S-37e	"	105,300	6-23-72	31,500,000	14,300,000	Lykes Bros. Steamship Co., Inc.	17,200,000
Total	43			795,960		$705,600,000	$354,350,000		$351,250,000

[1] Including estimated cost of changes.
[2] Reconstruction.

APPENDIX VI

Operating-Differential Subsidies

Expenditures for the Fiscal Year 1970 and Total Subsidies Payable and Expenditures for the Period January 1, 1937 to June 30, 1970

	Accruals			Expenditures		
Calendar Year	Subsidies	Recapture	Net Payable	In Fiscal Year 1970	Cumulative through Fiscal Year 1970	Estimated Balance Payable
1937–46	$ 48,725,478	$ 32,695,537	$ 16,029,941	$ —	$ 16,029,941	$ —
1947	13,438,553	10,066,979	3,371,574	—	3,371,574	—
1948	28,077,303	13,794,768	14,282,535	—	14,282,535	—
1949	44,213,377	14,553,310	29,660,067	—	29,660,067	—
1950	57,874,056	9,265,433	48,608,623	—	48,608,623	—
1951	71,968,636	25,805,608	46,163,028	—	46,163,028	—
1952	89,361,880	26,108,608	63,253,272	—	63,253,272	—
1953	106,296,046	13,271,864	93,024,182	(72,889)	93,024,182	—
1954	107,357,156	1,069,909	106,287,247	(128,732)	106,287,247	—
1955	115,145,469	11,000,930	104,144,539	(2,585)	104,144,539	—
1956	128,189,900	25,483,596	102,706,304	(82,958)	102,706,304	—
1957	148,309,951	25,541,138	122,768,813	51,071	122,768,813	—
1958	147,008,266	6,336,805	140,671,461	—	140,671,461	—
1959	160,026,827	1,217,639	158,809,188	388,701	158,809,188	—
1960	167,899,688	5,185,336	162,714,352	874,593	162,674,039	40,313
1961	170,895,979	1,989,719	168,906,260	3,210,409	168,834,516	71,744
1962	179,441,040	4,568,695	174,872,345	(216,280)	170,207,276	4,665,069
1963	189,450,304	(1,296,293)	190,746,597	2,239,240	184,254,240	6,492,357
1964	205,606,693	1,387,539	204,219,154	2,200,945	195,809,289	8,409,865
1965	181,455,273	1,840,065	179,615,208	(18,150)	174,273,997	5,341,211
1966	200,445,633	4,712,732	195,732,901	1,584,705	186,477,751	9,255,150
1967	217,913,725	5,127,669	212,786,056	1,009,399	198,580,400	14,205,656
1968	217,952,562	3,941,125	214,011,437	6,157,919	196,812,981	17,198,456
1969	206,478,401	1,457,728	205,020,673	140,577,551	181,494,536	23,526,137
1970	98,570,864	(397,838)	98,968,702	47,958,772	47,958,772	51,009,930
TOTAL	$3,302,103,060	$244,728,601	$3,057,374,459	$205,731,711	$2,917,158,571	$140,215,888

APPENDIX VI — Continued

Operating-Differential Subsidies

Total Subsidy Accruals, Recapture Payments, and Balances Payable, by Lines for Period January 1, 1937 to June 30, 1970

Lines	Accruals			Net Subsidies Paid	Estimated Balance Payable
	Subsidies	Recapture	Net Payable		
Amer. Banner Line [1]	$ 2,626,512	$ —	$ 2,626,512	$ 2,626,512	$ —
Amer. Diamond Lines [1]	185,802	28,492	157,310	157,310	—
Amer. Export Isbrandtsen Lines	473,093,424	10,700,587	462,392,837	434,950,870	27,441,967
Amer. Mail Line	101,739,578	8,636,229	93,103,349	87,511,683	5,591,666
Amer. President Lines	412,312,290	17,676,493	394,635,797	369,601,807	25,033,990
Atlantic & Carib. S/N Co. [1]	63,209	45,496	17,713	17,713	—
Baltimore Mail S/S Co. [1]	416,269	—	416,269	416,269	—
Bloomfield S/S Co. [1]	15,583,151	2,613,688	12,969,463	12,898,850	70,613
Delta S/S Lines	119,091,174	8,185,313	110,905,861	107,711,610	3,194,251
Farrell Lines	145,461,335	1,855,375	143,605,960	134,331,870	9,274,090
Prudential-Grace Lines, Inc.	309,052,085	24,223,564	284,828,521	265,336,010	19,492,511
Gulf & So. Amer. S/S Co.	27,834,261	5,479,223	22,355,038	21,359,886	995,152
Lykes Bros. S/S Co.	357,289,915	52,050,599	305,239,316	286,274,841	18,964,475
Moore-McCormack Lines	380,290,107	17,762,445	362,527,662	356,637,706	5,889,956
N.Y. & Cuba Mail S/S Co.[1]	8,090,107	1,207,331	6,882,776	6,882,776	—
Oceanic S/S Co.	98,977,569	1,171,756	97,805,813	92,911,185	4,894,628
Pacific Argen. Brazil Line [1]	7,963,939	270,701	7,693,238	7,693,238	—
Pacific Far East Line	102,949,671	25,876,157	77,073,514	72,278,046	4,795,468
Prudential-Steamship / Company 2	25,843,587	2,018,529	23,825,058	22,793,893	1,031,165
Seas Shipping Co.[1]	25,819,800	2,429,102	23,390,698	23,390,698	—
South Atlantic S/S Co.[1]	96,374	84,692	11,682	11,682	—
States S/S Co.	109,602,736	7,454,140	102,148,596	94,701,949	7,446,647
U.S. Lines	577,720,165	54,958,689	522,761,476	516,662,167	6,099,309
TOTAL	$3,302,103,060	$244,728,601	$3,057,374,459	$2,917,158,571	$140,215,888

[1] No longer subsidized, or combined with other subsidized lines.
[2] Ceased to be a subsidized line 12/19/69.

APPENDIX VII

National Defense Reserve Fleet

(End of Fiscal Year)

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

The number of retention ships decreased from 623 to 482 during the year

APPENDIX VIII

Construction Reserve Funds— June 30, 1970

Operator	Cash	Securities	Total
Central Gulf Steamship Corporation	$ —	$ 861	$ 861
Commodity Chartering Corporation	122,500	577,500	700,000
Hudson Waterways Corporation	70,000	630,000	700,000
Pacific Far East Line, Inc.	2,059	378,000	380,059
Tank Barge 8, Inc.	3,767	570,000	573,767
Total June 30, 1970	$198,326	$2,156,361	$2,354,687
Total June 30, 1969	147,449	1,818,812	1,966,261
Net increase	$ 50,877	$ 337,549	$ 388,426

APPENDIX IX

Subsidized and Selected Unsubsidized Operators [1]

Combined Condensed Balance Sheets, December 31, 1969. See Notes.

(Stated in thousand dollars)

ASSETS	Subsidized	Unsubsidized Tanker	Unsubsidized Cargo
Current Assets:			
Cash	$ 26,089	$ 27,948	$ 23,609
Marketable securities	26,524	2,294	10,925
Accounts receivable	213,919	11,524	164,038
Other	37,813	4,587	18,106
Total current assets	304,345	46,353	216,678
Special funds and deposits	245,678 [2]	19,720	7,707
Investments	78,269	7,183	97,817
Deferred ODS receivable (see contra)	41,939 [3]	—	—
Property and equipment—less depreciation			
Vessels	941,790	203,767	133,388
Other	130,796	747	260,865
Other assets	54,257	2,342	78,863
Total assets	$1,797,074	$208,112	$795,318
LIABILITIES AND NET WORTH			
Liabilities:			
Current Liabilities:			
Accounts payable and accruals	171,658	14,961	233,954
Current long-term debt	6,758	13,695	39,784
Other	21,968	1,607	14,226
Total	200,384	30,263	287,964
Voyages in progress—net	36,455	2,216	18,841
Long-term debt	510,443 [2]	164,122	195,678
Recapturable ODS (see contra)	41,939 [3]	—	—
Operating reserves	40,683	1,335	17,995
Other liabilities	39,874	20,881	23,759
Total liabilities	869,778	218,817	544,237
New Worth:			
Capital stock	124,341	24,192	53,986
Surplus:			
Capital	371,225	29,066	31,230
Earned	431,730	8,037	165,865
Total surplus	802,955 [4]	37,103	197,095
Total net worth	927,296	61,295	251,081
Total liabilities and net worth	$1,797,074	$280,112	$795,318

APPENDIX IX — Continued

Subsidized and Selected Unsubsidized Operators [1]

Combined Condensed Income and Surplus Accounts, December 31, 1969. See Notes.

(Stated in thousand dollars)

		Unsubsidized	
	Subsidized	Tanker	Cargo
Shipping Operations:			
Revenue:			
Terminated voyages	$ 869,597	$ 81,118	$656,422
Other shipping operations	16,532	—	25,233
Total revenue	886,129	81,118	681,655
Expense:			
Terminated voyages expense:			
Wages, payroll taxes, welfare contributions	306,206	18,254	105,555
Subsistence	21,055	1,021	5,780
Maintenance and repairs	44,626	3,528	24,518
Insurance (Hull and P and I)	58,880	5,601	20,139
Total	430,767	28,404	155,992
Less: Operating-differential subsidy (ODS)	210,797	—	—
Total	219,970	28,404	155,992
Other vessel expense	70,373	10,549	144,291
Voyage expense	389,618	8,315	222,321
Total terminated voyages expense	679,961	47,268	522,604
Other shipping operations expense:			
Overhead	108,575	2,385	74,014
Depreciation on shipping property	47,600	13,129	31,583
Total expense	836,136	62,782	628,201
Gross profit (loss) from shipping operations	49,993	18,336	53,454
Interest and other income	18,469	2,680	18,937
Interest and other deductions	(31,363)	(9,324)	(18,929)
Net Profit (loss) from shipping operations	37,099	11,692	53,462
Non-Shipping operations—net profit (loss)	163	(1)	(41)
Ordinary income (loss) before Federal income taxes	37,262	11,691	53,421
Provision for Federal income taxes	7,748	6,184	14,785
Ordinary income after taxes	29,514	5,507	38,636
Extraordinary and prior period items:			
Extraordinary items (net)	26,302	—	15,462
Prior period items (net)	2,591	415	(22,814)
Federal income taxes thereon	(591)	1	39
Total	28,302	416	(7,313)

APPENDIX IX — Continued

Subsidized and Selected Unsubsidized Operators [1]

Combined Condensed Income and Surplus Accounts, December 31, 1969. See Notes.

(Stated in thousand dollars)

		Unsubsidized	
	Subsidized	Tanker	Cargo
Net income (loss)	57,816	5,923	31,323
Add: Surplus (capital and earned) beginning of year	758,796	36,183	180,127
Total surplus available	816,612	42,106	211,450
Surplus changes:			
Cash dividends	(13,657)	(1,900)	(1,629)
Other (net)	—	(3,103)[5]	(12,726)[5]
Total	(13,657)	(5,003)	(14,355)
Surplus (capital and earned) end of year	$ 802,955[4]	$ 37,103	$197,095

[1] The data were obtained from Forms MA-172 filed (1) by 14 subsidized operators for the calendar year 1969, and (2) by 18 tanker and 16 cargo unsubsidized operating companies for fiscal years ending during the fiscal year July 1, 1969 through June 30, 1970, covering 290 subsidized vessels, and 26 unsubsidized tankers and 115 unsubsidized cargo vessels.

[2] Long-term debt includes $22,650,272 of mortgage indebtedness due within 1 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 $23,052,638 applies to completed but unsettled subsidy recapture periods, and $18,886,392 applies to current incomplete subsidy recapture periods. The corresponding amounts at December 31, 1968 were $22,895,337 and $17-004,279.

[4] Retained earnings (including amounts capitalized) of the 14 subsidized operators on which Federal income taxes have been deferred, amounted to $633,701,830 as of December 31, 1969, and $614,416,830 as of December 31, 1968, an increase of $19,285,000.

[5] Other surplus changes: The net debits for unsubsidized operators result from sales of assets, depreciation adjustments, change in fiscal year reporting, paid-in capital surplus and income tax adjustments.

APPENDIX X

U.S. Subsidized Shipping Operators: ODS Contracts

Operator	Operating-Differential Subsidy Agreement		Number of Subsidized Ships 6/30/70	Service on Essential U.S. Foreign Trade Routes	
	Contract No.	Contract Termination Date		Trade Route	Annual Sailings Min./Max.
American Export Isbrandtsen Lines, Inc.	FMB-87	12/31/79	33 [1]	U.S. North Atlantic/Mediterranean (T.R. 10), Passenger	24/31
				U.S. North Atlantic/Mediterranean (T.R. 10), Passenger	10/13
				U.S. Atlantic/Mediterranean (T.R. 10), Freight	76/102
				Great Lakes/Western Europe (T.R. 32)	6/9
				Great Lakes/Mediterranean (T.R. 34)	9/13
				U.S. North Atlantic/Western Europe (T.R. 5-7-8-9)	6/10
				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	12/31/78	10	U.S. Pacific/Far East (T.R. 29-17-28)	40/60
American President Lines, Ltd.	FMB-50	12/31/76	24	California/Far East (T.R. 29), Passenger-Freight	23/27
				California/Far East (T.R. 29), Freight	32/54
				Round-the-World (Westbound)	42/36
				Atlantic Straits (T.R. 17) (Atlantic-Calif./Far East-Indonesia and return)	42/28
Delta Steamship Lines, Inc.	FMB-63	12/31/77	12	U.S. Gulf/East Coast South America (T.R. 20)	43 } overall max. not to exceed 79
				U.S. Gulf/West Africa (T.R. 14)	24 }
Farrell Lines Incorporated	FMB-64	12/31/77	14	U.S. Atlantic/West Africa (T.R. 14)	26 } overall max. not to exceed 89
				U.S. Atlantic/South and East Africa (T.R. 15A)	24 }
				U.S. Atlantic and Gulf/Australasia (T.R. 16)	16 }
Gulf & South American SS. Co., Inc.	FMB-75	12/31/78	5	U.S. Gulf/West Coast South America (T.R. 31)	30/36
Lykes Bros. Steamship Co., Inc.	FMB-59	12/31/77	55	Gulf/Mediterranean (T.R. 13)	42/48
				Gulf/South & East Africa (T.R. 15B)	18/24
				Gulf/Caribbean (T.R. 19)	20/30
				Gulf/U.K.-Continent (T.R. 21)	90/110
				Gulf/Far East (T.R. 22)	48/60

APPENDIX X—Continued

Operator	Operating-Differential Subsidy Agreement		Number of Subsidized Ships 6/30/70	Service on Essential U.S. Foreign Trade Routes	
	Contract No.	Contract Termination Date		Trade Route	Annual Sailings Min./Max.
Moore—McCormack Lines, Incorporated	FMB-48 (Rev.)	12/31/77	27	U.S. Atlantic/East Coast South America (T.R. 1), Combination	19/23
				(including: U.S. Atlantic/Scandinavia (T.R. 6)	(1/4)
				U.S. North Atlantic/E. Coast S. America & S.&E. Africa	(1/2)
				U.S. Atlantic/East Coast South America (T.R. 1), Freight	84/96
				U.S. Atlantic/Scandinavia-Belgium, Germany, France, Netherlands (T.R. 6 and 5-7-8-9), Freight	54/66
				U.S. Atlantic/South & East Africa (T.R. 15A), Freight	24/30
The Oceanic Steamship Company	FMB-44	12/17/72	4	U.S. Pacific/Australasia (T.R. 27), Freight	10/13
				U.S. Pacific/Australasia (T.R. 27), Combination	12/16
Pacific Far East Line, Inc.	FMB-81	12/31/78	10	California/Far East (T.R. 29), Freight	48/63
Prudential-Grace Lines, Inc. (Merger 12-18-69)	FMB-49	12/31/77	26	U.S. North Atlantic/Mediterranean (T.R. 10)	28/35
				U.S. Atlantic/West Coast South America (T.R. 2)	96/106 (Comb. & Freight)
				U.S. Atlantic/Caribbean (T.R. 4)	72/103 (Total) (48/53 Pass. Comb.) (24/50 Freight)
				U.S. Pacific/East Coast South America (T.R. 23, 24, 25)	44/60
				U.S. Pacific/Carib. & W. Coast Central America & Mexico (T.R. 23, 25)	
States Steamship Company	FMB-62	12/31/77	13	Washington-Oregon/Far East (T.R. 29)	10/16
				Washington-Oregon-California/Far East (T.R. 29)	20/30
				California/Far East (T.R. 29)	22/28
United States Lines, Inc.	MA/MSB-94	8/16/70	14	U.S. Atlantic/Far East (T.R. 12)	max. not to exceed 27 for contract period
TOTAL	13		247		1,240/1,630

[1] Three AEIL ships being operated on a nonsubsidized basis on T.R. 5-7-8-9.

APPENDIX XI

Capital and Special Reserve Funds

Cash, Approved Interest Bearing Securities and Common Stocks Under Approved Common Stock Trusts on Deposit in the Statutory Capital and Special Reserve Funds of Subsidized Operators as of June 30, 1970

Operator	Capital Reserve Fund			Special Reserve Fund			Combined Total	Common Stocks Included in Total (1)
	Cash	Securities	Total	Cash	Securities	Total		
American Export Isbrandtsen Lines, Inc.	$ 143,450	$9,125,000	$9,268,450	$ 102,039	$8,871,426	$8,973,465	$18,241,915	$ 503,499(S)
American Mail Line Ltd.	1,226	756,656	757,882	60,761	4,219,837	4,280,598	5,038,480	645,497(S)
American President Lines, Ltd.	804,366	3,168,959	3,973,325	452,219	1,985,244	2,437,463	6,410,788	625,787(S)
Delta Steamship Lines, Inc.	4,564	1,871,760	1,876,324	30,598	2,201,719	2,232,317	4,108,641	— 0 —
Farrell Lines Incorporated	174,620	384,858	559,478	40,902	98,274	139,176	698,654	— 0 —
Gulf & South American Steamship Co., Inc.	48,453	4,370,921	4,419,374	61,016	2,276,108	2,337,124	6,756,498	1,018,589(S) 3,350,208(C)
Lykes Bros. Steamship Co., Inc.	434,545	12,915,370	13,349,915	277,361	15,100,349	15,377,710	28,727,625	6,868,955(S)
Moore-McCormack Lines, Incorporated	32,403	360,070	392,473	970	4,249,501	4,250,471	4,642,944	— 0 —
Oceanic Steamship Company, The	289,487	7,301,091	7,590,578	7,697	1,253,969	1,261,666	8,852,244	1,946,600(C)
Pacific Far East Line, Inc.	2,331	— 0 —	2,331	1,042	2,140,251	2,141,293	2,143,624	453,789(S)
Prudential-Grace Lines, Inc.	91,755	994,820	1,086,575	8,998	— 0 —	8,998	1,095,573	1,000(S)
States Steamship Company	30,617	2,490,000	2,520,617	5,321	2,710,000	2,715,321	5,235,938	— 0 —
United States Lines, Inc.[2]	52,371	512,500	564,871	384,798	2,258,750	2,643,548	3,208,419	— 0 —
June 30, 1970	2,110,188	44,252,005	46,362,193	1,433,722	47,365,428	48,799,150	95,161,343	15,413,924
June 30, 1969	7,115,048	68,133,606	75,248,654	1,165,788	59,535,925	60,701,713	135,950,367	9,535,232
Increase (Decrease)	(5,004,860)	(23,881,601)	(28,886,461)	267,934	(12,170,497)	(11,902,563)	(40,789,024)	5,878,692
(1) Common Stock Trusts Market Value Reported by Trustees:								
June 30, 1970	—	—	4,439,551	—	—	8,037,080	—	12,476,631
June 30, 1969	—	—	1,256,524	—	—	9,907,279	—	11,163,803
Increase (Decrease)	—	—	3,183,027	—	—	(1,870,199)	—	1,312,828

Note: Accrued mandatory deposits, at June 30, 1970 are not included in the above; at December 31, 1969 the accrued deposits amounted to $92,537,112 comprised of $86,398,174 applicable to the Capital Reserve Fund (depreciation and other required deposits) and $6,138,938 applicable to the Special Reserve Fund (excess profits net of over deposits).

(2) Operating-differential Subsidy Agreement expired by its terms December 31, 1969.

C—Capital Reserve Fund S—Special Reserve Fund

APPENDIX XII

Maritime Legislation

Bill No.	Subject	91st Congress MA Action	Status 6/30/70
H.R. 4152	A bill to authorize appropriations for certain Maritime programs of the Department of Commerce	Marad testified favorably before House Committee on Merchant Marine &Fisheries and Senate Committee on Merchant Marine	Became P. L. 91-85 October 10, 1969
H.R. 265	A bill to amend section 502 of the Merchant Marine Act, 1936, relating to construction-differential subsidies	Marad testified favorably before Committee on Merchant Marine & Fisheries	Became P.L. 91-40 July 8, 1969
H.R. 4813	A bill to extend the provisions of the U.S. Fishing Fleet Improvement Act, as amended, and for other purposes	Marad offered amendment before House Subcommittee on Fisheries and Wildlife Conservation	Became P. L. 91-279 June 12, 1970
H.R. 12605	To amend section 613 of the Merchant Marine Act, 1936, as amended (with respect to cruises)	Marad testified favorably before Senate Subcommittee on Merchant Marine and House Subcommittee on Merchant Marine	Enacted as P.L. 91-250 May 14, 1970
S. 2498	To amend section 613 of the Merchant Marine Act, 1936, as amended (with respect to cruises)	Marad testified favorably before Senate Subcommittee on Merchant Marine	Companion bill enacted as P. L. 91-250
H.R. 210	To eliminate requirements for disclosure of construction details on passenger vessels meeting prescribed safety standards	Marad testified favorably before House Subcommittee on Merchant Marine	Became P. L. 91-154 December 24, 1969
H.R. 8328	To amend the Maritime Academy Act of 1958, to require repayment of amounts paid for the training of Merchant Marine officers.	Marad testified unfavorably before House Special Subcommittee on Education and Training	No action
H.R. 8785	To amend the Maritime Academy Act of 1958, to increase the amount of assistance to such academies and to provide a minimum subsistence payable per student	Marad testified unfavorably before House Special Subcommittee on Education and Training	No action
H.R. 10068	To amend the Act of April 29, 1941, to authorize the waiving of payment bonds in connection with certain contracts entered into by Secretary of Commerce	Marad testified favorably before House Subcommittee No. 2 of the Judiciary Committee	Passed House March 3, 1970
H.R. 14257	To amend section 11(a) of the Merchant Ship Sales Act of 1946 to require the use by the United States of privately owned United States-flag vessels, when available to carry cargo.	Marad testified, taking no position, before House Subcommittee on Merchant Marine	No action

APPENDIX XII—Continued

Bill No.	Subject	91st Congress MA Action	Status 6/30/70
H.R. 15945	To authorize appropriations for certain Maritime programs of the Department of Commerce	Marad testified favorably before House Committee on Merchant Marine and Fisheries and Senate Subcommittee on Merchant Marine	Enacted as P.L. 91-247 May 13, 1970
S. 3489	A bill to authorize appropriations for certain maritime programs of the Department of Commerce	Marad testified favorably before Senate Subcommittee on Merchant Marine	Companion bill as P.L. 91-247
H.R. 17399	Proposed second supplemental appropriations for fiscal year 1970	Marad testified favorably before Senate Committee on Appropriations	Passed House May 7, 1970 Passed Senate June 22, 1970
H.R. 17575	A bill making appropriations for the Departments of State, Justice, Commerce, and Judiciary, and related agencies for the fiscal year ending June 30, 1971	Marad testified favorably before House Subcommittee on Commerce Appropriations	Passed House May 14, 1970
H.R. 15549	Seamen's Service Act	Marad testified favorably before House Subcommittee on Merchant Marine	No action
H.R. 15424	To amend the Merchant Marine Act, 1936, (new maritime program)	Marad testified favorably before House Subcommittee on Merchant Marine	Passed House May 21, 1970 Senate Commerce Committee ordered reported June 30, 1970
S. 3287	To amend the Merchant Marine Act, 1936, (new maritime program)	Marad testified favorably before Senate Committee on Commerce	No action

EXHIBIT 1

Financial Statements

Department of Commerce—Maritime Administration

Balance Sheet—June 30, 1970 and June 30, 1969
(Note 1)

Assets	June 30 1970	June 30 1969
CASH AND FUND BALANCES (note 2)	$ 360,816,324	$ 445,137,174
ADVANCES:		
U.S. Government agencies	7,677	121,765
Others	431,221	2,088,171
	438,898	2.209,936
NOTES AND ACCOUNTS RECEIVABLE:		
U.S. Government agencies	668,639	6,334,214
Domestic firms and individuals	6,570,538	5,486,154
Foreign governments and nationals	45,938	45,938
	7,285,115	11,866,306
Less allowance for losses	175,167	215,283
	7,109,948	11,651,023
ACCRUED INTEREST RECEIVABLE (note 3)	724,818	590,129
MATERIAL AND SUPPLIES (at cost or estimated cost)	712,979	988,962
INVESTMENTS—U.S. TREASURY SECURITIES	18,618,422	11,324,089
LOANS RECEIVABLE:		
Ship mortgage loans:		
Domestic firms and individuals	72,733,194	81,348,769
Foreign governments and nationals	540,265	810,397
	73,273,459	82,159,166
Less allowance for losses	9,173,949	9,173,949
	64,099,510	72,985,217
VESSELS UNDER CONSTRUCTION	65,287,244	64,222,966
FIXED ASSETS USED IN OPERATIONS (at cost, estimated cost or assigned amounts)		
Facilities and equipment	35,037,990	33,691,111
Less accumulated depreciation	20,161,597	15,845,625
	14,876,393	17,845,486
Land and improvements	6,951,729	6,948,507
Construction in progress	1,769,267	1,648,476
	23,597,389	26,442,469

EXHIBIT 1—Continued

Assets	June 30 1970	June 30 1969
ASSETS HELD PRIMARILY FOR MOBILIZATION PURPOSES (at cost, estimated cost or assigned amounts):		
Vessels	$2,284,251,949	$2,313,930,796
Less accumulated depreciation	2,205,124,026	2,223,221,630
	79,127,923	90,709,166
Facilities and equipment	30,860,319	31,098,622
Less accumulated depreciation	13,683,948	12,838,205
	17,176,371	18,260,417
Land and improvements	3,531,023	3,531,023
	20,707,394	21,791,440
Stand-by inventories	10,625,060	13,413,612
	110,460,377	125,914,218
OTHER ASSETS:		
Vessels held primarily for scrapping	381,218,624	500,491,335
Less allowance for losses	368,225,292	483,621,582
	12,993,332	16,869,753
Deferred charges:		
Unamortized construction-differential subsidies	887,862,142	836,321,037
Other deferred charges and miscellaneous items	2,113,550	9,077,522
	889,975,692	845,398,559
Less allowance for losses	713,498	713,498
	889,262,194	844,685,061
	$1,554,121,435	$1,623,020,997

Liabilities	June 30 1970	June 30 1969
ACCOUNTS PAYABLE AND OTHER LIABILITIES (note 4)		
U.S. Government agencies:		
Liability for vessels under construction	$ 65,287,244	$ 64,222,966
Advances and contributions	9,196,593	7,398,431
Accounts payable and accrued liabilities	479,283	680,091
	74,963,120	72,301,488

EXHIBIT 1—Continued

Liabilities	June 30 1970	June 30 1969
Other:		
Accrued operating-differential subsidies (note 5)	$ 141,219,418	$ 154,245,437
Less estimated recapturable subsidies	1,003,530	2,215,300
	140,215,888	152,030,137
Amounts due shipbuilders for construction of vessels	20,391,548	11,303,292
Accrued annual leave	2,652,628	2,222,132
Accounts payable and accrued liabilities	8,659,862	30,418,844
Deposits by contractors and others	2,041,641	1,978,451
Withholding for purchase of savings bonds and payments of State and local taxes	286,278	230,854
Unearned insurance premiums (note 6)	1,954,383	1,887,711
Other deferred credits	1,923,084	1,688,508
	178,125,312	201,759,929
	253,088,432	274,061,417
EQUITY OF THE UNITED STATES GOVERNMENT (exhibit 2)		
Maritime Regular	1,254,238,113	1,307,792,272
Vessel Operations Revolving Fund	16,930,601	16,965,943
Federal Ship Mortgage Insurance Revolving Fund	25,129,664	19,851,614
War Risk Insurance Revolving Fund	4,734,625	4,349,751
	1,301,033,003	1,348,959,580
	$1,554,121,435	$1,623,020,997

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

EXHIBIT 2

Department of Commerce—Maritime Administration

Statement of Equity of the United States Government for the Years Ended June 30, 1970 and 1969 (Note 1)

	Year Ended June 30	
	1970	1969
BALANCE, BEGINNING OF FISCAL YEAR	$1,348,959,580	$1,277,361,559
ADDITIONS:		
Funds appropriated by the Congress	251,772,287	356,213,000
Vessels transferred from other Government agencies (net)	9,673,652	24,464,080
Property other than vessels transferred from others (net)	282,452	146,175
Contributions received for Chapel at United States Merchant Marine Academy, Kings Point, N.Y.	—	56,866
	1,610,587,971	1,658,241,680
DEDUCTIONS:		
Net cost of combined operations (exhibit 3)	289,457,687	288,312,894
Payments into General Fund of U.S. Treasury	19,919,532	20,538,878
Unobligated balance of appropriations transferred to U.S. Treasury	177,749	430,328
	309,554,968	309,282,100
BALANCE, CLOSE OF FISCAL YEAR (exhibit 1)	$1,301,033,003	$1,348,959,580

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

EXHIBIT 3

Department of Commerce—Maritime Administration

Statement of Operations for Years Ended June 30, 1970 and 1969 (Note 1)

	Year Ended June 30	
	1970	1969
OPERATIONS OF MARITIME ADMINISTRATION:		
Net costs of operating activities (note 6)		
Reserve fleet program:		
Depreciation of reserve fleet vessels	$ 21,390,252	$ 11,418,059
Maintenance and preservation	4,174,449	4,790,327
Estimated loss from scrapping of obsolete vessels	—	—
	25,564,701	16,208,386
Maritime training program	6,171,866	5,225,354
Maintenance of reserve shipyards	248,755	309,375
Operation of warehouses	198,511	181,630
	32,183,833	21,924,745
Direct subsidies and costs attributable to national defense:		
Estimated operating-differential subsidies (note 5)	193,917,463	193,940,739
Construction-differential subsidies	43,174,447	37,221,396
Cost of national defense features	1,470,405	1,507,243
	238,562,315	232,669,378
Administrative expense	15,145,232	10,913,493
Research and development (note 6)	6,497,980	11,090,092
Uncapitalized expense incidental to ship construction	14,313	2,603,748
Financial assistance to State marine schools	2,037,929	2,118,583
	23,695,454	26,725,916
Other costs (–income):		
Loss (–gain) on vessels sold	–1,427,208	2,603,154
Depreciation on facilities and equipment not allocated to current programs	282,372	531,124
Increase (–decrease) in allowance for uncollectible accounts and notes receivable	–28,808	–187,924
Adjustments applicable to prior years	–4,542	–33,112
Loss on sale of surplus material and scrap	1,538,713	254,531
Loss (–gain) on sale of fixed assets other than vessels	44,788	10,562,804
Inventory and property adjustments	170,553	–1,894,634
Interest earned	–1,919,616	–2,170,176
Miscellaneous (net)	2,000,477	–394,912
	656,729	9,270,855
Net cost of Maritime Administration operations	295,098,331	290,590,894
OPERATIONS OF REVOLVING FUNDS (–net income or loss):		
Vessel Operations Revolving Fund	22,280	329,179
War Risk Insurance Revolving Fund	–384,874	–290,657
Federal Ship Mortgage Insurance Revolving Fund	–5,278,050	–2,316,522
NET COST OF COMBINED OPERATIONS (exhibits 2 and 4)	$289,457,687	$288,312,894

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

EXHIBIT 4

Department of Commerce—Maritime Administration

Statement of Sources and Application of Funds for the Year Ended June 30, 1970 (Note 1)

SOURCES:		
Funds appropriated by the Congress		$251,772,287
Collections on mortgage loans receivable		8,885,707
Proceeds from sale of vessels		9,983,566
Proceeds from sale of non-current assets other than vessels		−1,210,179
Total funds provided		269,431,381
APPLICATION:		
Net cost of combined operations (exhibit 2)	$289,457,687	
Items considered in net cost of combined operations:		
Provision for depreciation	−22,625,828	
Amortization of construction-differential subsidies	−45,213,761	
Gain or (−loss) on disposal of non-current assets:		
Vessels	1,427,477	
Other	−1,583,770	
Property and other adjustments	−152,951	221,308,854
Unamortized construction-differential subsidy		96,833,881
Payments into the General Fund of U.S. Treasury		19,919,532
Increase in investments—U.S. Treasury Securities		7,294,333
Unobligated balance returned to U.S. Treasury		177,749
Total funds applied		345,534,349
Increase in working capital		$ 76,102,968

Summary of Changes in Working Capital, Year Ended June 30, 1970

	June 30		
	1970	1969	Increase (−Decrease)
Assets:			
Cash	$360,816,324	$445,134,795	$−84,318,471
Advances	438,898	2,209,936	−1,771,038
Notes and accounts receivable	7,109,948	11,651,023	−4,541,075
Accrued interest receivable	724,818	590,129	134,689
Materials and supplies	712,979	988,962	−275,983
Other deferred charges and miscellaneous items (net)	1,400,052	8,768,406	−7,368,354
Total	$371,203,019	$469,343,251	$−98,140,232
Liabilities:			
Accounts payable and other liabilities	187,801,187	209,838,451	22,037,264
Working capital	$183,401,832	$259,504,800	$−76,102,968

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

Notes to Financial Statements—June 30, 1970 and 1969

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 Mortgage Insurance 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:

	1970	1969
Fund Balances with U.S. Treasury:		
Operating funds	$348,159,395	$431,631,055
Trust and deposit funds	2,327,919	2,209,305
Allocations from other agencies	9,515,131	7,628,941
Cash in banks, on hand, and in transit	813,879	3,667,873
	$360,816,324	$445,137,174

3. Accrued interest receivable:

	1970	1969
On ship mortgage loans:		
Domestic firms and individuals	$ 686,749	$ 552,061
Foreign governments and nationals	—	—
On other loans and investments	38,069	38,068
	$ 724,818	$ 590,129

4. The Maritime Administration was contingently liable under agreements insuring mortgages, construction loans and accrued interest payable to lending institutions totaling $630,463,807 at June 30, 1970, and $542,315,289 at June 30, 1969. Commitments to insure additional loans and/or mortgages amounted to $288,954,196 at June 30, 1970, and $209,239,850 at June 30, 1969. U.S. Government securities and cash of $40,832,414 at June 30, 1970, and $29,425,051 at June 30, 1969, 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 million at June 30, 1970, and $11 million at June 30, 1969. The Maritime Administration was also contingently liable for undetermined amounts in connection with settlements to be made under 64 claims against the Administration aggregating $24,793,904 at June 30, 1970, and 84 claims aggregating $27,631,345 at June 30, 1969. 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, 1970, and 1969 the U.S. Treasury held in safekeeping for the Maritime Administration $660,000 and $775,000, 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 $45,283,514 and $47,467,724 at June 30, 1970, June 30, 1969, 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			
	1970		1969	
	Depreciation	Revenue and Reimbursements	Depreciation	Revenue and Reimbursements
Maintenance and preservation of reserve fleet vessels	$178,308	$2,154,398	$ 182,824	$ 590,623
Maritime training program	322,808	261,469	296,912	184,029
Maintenance of reserve shipyards	252,216	3,458	310,616	14,014
Operation of warehouses	27,048	158,664	14,588	159,251
Administrative expense	72,104	5,580,909	68,384	7,163,938
Research and development	100,720	—	99,452	—
Federal Ship Mortgage Insurance Revolving Fund	—	—	121,786	—
Total	$953,204	$8,158,898	$1,094,562	$8,111,855

7. Accounts payable and other liabilities shown on exhibit 4 exclude $65,287,245 at June 30, 1970, and $64,222,966 at June 30, 1969, which were offset against related costs for vessels under construction.

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Cover

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