Maritime Administration

1993 Annual Report

May 1994

U.S. Department of Transportation
Federico Peña
Secretary

Maritime Administration
A. J. Herberger
Maritime Administrator

Headquarters
400 Seventh St., S.W.
Washington, DC 20590

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U.S. Department
of Transportation
**Maritime
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

INTRODUCTION

The Annual Report of the Maritime Administration (MARAD) for the fiscal year (FY) which ended on September 30, 1993, is submitted to Congress in accordance with Section 208 of the Merchant Marine Act of 1936, as amended. It incorporates reports on acquisition of obsolete vessels in exchange for vessel trade-in credit, war risk insurance activities, scrapping or removal of obsolete vessels owned by the United States, and U.S-flag carriage of Government-sponsored cargoes.

Secretary of Transportation Federico Peña initiated an extensive review of Federal maritime promotional programs and presented policy alternatives to the National Economic Council (NEC). In addition, the NEC independently reviewed a number of proposals specifically aimed at assisting U.S. shipyards to compete effectively in the international market.

Significant progress was achieved on shipbuilding policy. A new program proposal, outlined in the report titled "Strengthening America's Shipyards: A Plan for Competing in the International Market," was submitted to Congress on October 1, 1994. The proposed program featured a series of innovative measures involving loan guarantees for construction of ships for export, increased emphasis on research for more effective employment of shipbuilding capacity, elimination of unnecessary regulations which inhibit cost competitive ship construction and operation, and continued government efforts to eliminate foreign government subsidies to their shipbuilding industries.

Measures to revitalize the U.S. merchant fleet were still under active consideration at the end of FY 1993.

Vice President Gore's National Performance Review included three recommendations concerning maritime policy. They were to support reemployment rights for merchant mariners called to serve during a war or national emergency, establish a commission to review the future of the U.S. maritime industry, and initiate the payment of tuition at the U.S. Merchant Marine Academy to cover a portion of operating expenses.

To meet the demand for Ready Reserve Force (RRF) readiness defined by the Department of Defense in the Mobility Requirements Study, MARAD enhanced its outporting program, which provides lay berths for RRF ships near the expected loading ports in FY 1993.

Additionally, MARAD implemented a program that allows high priority RRF ships to be partially crewed with maintenance personnel while in inactive status.

The Agency also participated in international negotiations to increase U.S.-flag carriers opportunities in foreign markets. A new 18-month equal-access maritime agreement, which recommits Brazil and the United States to liberalizing maritime services in the bilateral trade and to removing barriers which inhibit U.S. liner companies from operating efficiently and effectively, was signed.

The United States and Ukraine also signed a bilateral maritime agreement in Washington, DC. The agreement updates the 1990 U.S.-USSR Maritime Agreement. A key feature of the new agreement, which was the culmination of bilateral negotiations by the Maritime Administrator for the United States, is its provision for improved vessel access to each country's ports.

Commercial shipyards continued to be awarded all of the Navy's new construction contracts. At the end of FY 1993, there was one commercial oceangoing vessel larger than 1,000 gross tons on order in the United States.

A. J. Herberger
Maritime Administrator

Chapter 1

Shipbuilding and Ship Conversion

Shipyard Activity

Commercial shipyards continued to be awarded all of the Navy's new construction contracts. Ten new vessels of 1,000 light displacement tons (LDT) and larger were ordered and 17 new Navy vessels were delivered by privately owned U.S. shipyards during this reporting period. The workload in U.S. shipyards continued to be dominated by U.S. Navy ship construction projects in FY 1993.

As of September 30, 1993, 70 Navy vessels of 1,000 LDT and over, were under construction, being converted, or on order in nine privately owned U.S. shipyards. Forty-three have delivery dates extending through 1995.

A significant portion of the Navy's ship construction and conversion program is devoted to "T" ships. The "T" designates Government-owned, civilian-manned ships assigned to the Navy's Military Sealift Command (MSC).

As of September 30, 1993, 10 T-ships were on order or under construction in four privately owned U.S. shipyards. In addition, there were five T-ships undergoing conversion. Four T-ships were completed and orders for two new and five converted T-ships were placed in FY 1993.

The T-ship procurement program includes maritime prepositioning ships, fast sealift ships, fleet oilers, auxiliary crane ships, ocean surveillance ships, survey ships, and hospital ships. Vessels in this program are noncombat, mission-oriented, and designed to perform a specific primary service such as underway refueling or offloading other ships which do not possess self-unloading capability.

There were no new orders for commercial ocean-going vessels larger than 1,000 gross tons during FY 1993, although there was an order for a large Paddlewheel Boat from Delta Queen Steamboat Co., in New Orleans, LA. This vessel will be the largest overnight passenger vessel built in the United States since the 1950s.

Currently, there is only one commercial oceangoing vessel larger than 1,000 gross tons on order in the United States. This order was placed with McDermott International of Morgan City, LA in FY 1992. This vessel is a 160 meter, 16,617 gross tons (24,000 deadweight tons) sulphur carrier to be operated in the U.S. domestic trade. The vessel will be operated by Freeport-McMoran Resource Partners and is scheduled for delivery in July 1994.

Worldwide ship deliveries are shown in Table 3.

Auxiliary Crane Ship (T-ACS) Program

The Auxiliary Crane Ships Program permits off-loading of military cargo from containerships lacking cargo gear at anchor, offshore, or in damaged or undeveloped ports. Existing commercial containerships are converted to crane ships by installing large, heavy-duty, marine deck cranes to self-unload their cargo and, more importantly, cargo from gearless containerships positioned alongside. The crane ships provide an important adjunct to our national strategic sealift capability by supporting sealift operations on a worldwide basis.

By a Memorandum of Understanding (MOU) between the Department of the Navy and the Maritime Administration (MARAD), dated September 13, 1982, MARAD manages the reactivation and conversion of these vessels. The program has produced excellent results to date with T-ACS 1 through 9 having been redelivered to MARAD. The first T-ACS 10 contract was terminated for the convenience of the Government, due to a lack of funds. Additional funding was obtained through the Dire Emergency Supplemental Appropriation Act which resulted in an intergovernmental agreement between MARAD and the Charleston, SC, Naval Shipyard for the completion of T-ACS 10. The work began in May 1992.

The status of redeliveries of the T-ACS 1 through T-ACS 9, as well as the planned redelivery of T-ACS 10, are shown in Table 1.

MARAD currently maintains T-ACS 1 through 9 in the Ready Reserve Force (RRF) in either a 5-or-10 day activation status depending upon specific readiness assignment. The vessels are located in several east, gulf, and west coast ports to facilitate rapid activations. Several of the T-ACS vessels have small retention crews to provide a cadre of civilian merchant mariners with the expertise to troubleshoot and maintain the vessels' crane systems.

Offshore Petroleum Discharge System Program

The Offshore Petroleum Discharge System (OPDS) Conversion Program is part of a project utilizing modified tankers to pump fuel to Marine Corps and Army beach units from an offshore mooring. The system is designed to deploy up to 4 miles of conduit from ship to shore and begin delivering petroleum products within 48 hours. Other tankers can come alongside the OPDS, tie up, and transfer their cargo to shore. These operations are accomplished by civilian tanker personnel, with assistance from Navy tugs and diving units.

At the Navy's request, MARAD designed and contracted for the conversion of OPDS vessels. The OPDS Program began in 1984 with the conversion of the SS POTOMAC to OPDS-1, followed by conversion of the SS AMERICAN OSPREY to OPDS-2. The third, the SS CHESAPEAKE, was redelivered in July 1991. Upon completion, these ships joined MARAD's RRF. The fourth vessel conversion contract for the SS PETERSBURG was awarded to Houston Ship Repair, Houston, TX, in June 1992. Redelivery is scheduled for February 1994. The fifth OPDS conversion contract, the SS MOUNT WASHINGTON, was awarded to Marine Hydraulics, Inc., in July 1993. The ship is scheduled for redelivery in November 1994. (See Chart 1.)

Shipyard Improvements

The U.S. ship construction and ship repair industry invested more than $160 million in FY 1993 to upgrade and expand facilities. Much of this investment went to improve efficiency and competitiveness and included building basins, floating drydocks, cranes, automated equipment, and highly mechanized production systems. The emphasis has been on introducing modular techniques--fabrication of larger subassemblies and pre-outfitting of ship components. These investments will help to improve the efficiency and competitiveness of the U.S. shipbuilding and repair industry in the years ahead.

Information received by MARAD indicates that U.S. shipyards plan to spend approximately $143 million for improvements in FY 1994. The industry's capital investments since 1970 have totaled $5.2 billion.

Title XI Guarantees

Title XI of the Merchant Marine Act, 1936, as amended, established the Federal Ship Financing Guarantee Program. As originally enacted, Title XI authorized the Federal Government to insure private-sector loans or mortgages made to finance or refinance the construction or reconstruction of American-flag vessels.

Title XI was amended in 1972 to provide direct Government guarantees of the underlying debt obligations, with the Government holding a mortgage on the equipment financed.

The U.S. Government insures or guarantees full payment to the lender of the unpaid principal and interest of the mortgage obligation in the event of default by the vessel owner.

As of September 30, 1993, Title XI guarantees in force aggregated approximately $1.8 billion, covering 1,949 vessels and 123 individual shipowners.

Congressional authority for the Title XI program had a cap of $12 billion, with $9.5 billion allocated to MARAD, $1.65 billion reserved for ocean thermal energy conversion vessels and facilities, and $850 million authorized to guarantee the financing of fishing vessels by the National Oceanic and Atmospheric Administration.

The insurance premiums and guarantee fees paid by users go into the Federal Ship Financing Fund, a revolving fund which is used for payment of all expenses of the program, including defaults. During this reporting period, there were two defaults totalling $2.7 million and 26 voluntary payoffs on Title XI guaranteed contracts. No borrowing from the U.S. Treasury was necessary to cover the two defaults.

Funds from the Ship Financing Fund were adequate to cover these expenses.

A total of eight Title XI applications were approved during FY 1993. Six of the approvals involve the refinancing of outstanding debt and the remaining two approvals were for Sulphur Carriers, Inc., and Canal Barge, Inc. Sulphur Carriers, Inc.'s, approval was for the construction of a 24,000 dwt. molten sulphur carrier for a Title XI guarantee of 75 percent of the construction cost, or $43,688,000. Canal Barge, Inc.'s approval was for construction of four double hull tank barges for a total Title XI guarantee amount of 75 percent of the construction cost, or $3,987,000. At year's end, there were six applications pending.

Beginning in FY 1993, and in accordance with the Federal Credit Reform Act of 1990, beginning in FY 1993, MARAD may only approve new Title XI guarantees to the extent appropriations have been obtained to cover the estimated subsidy cost of the new project to the Government, as well as administrative expenses of the entire program.

The FY 1993 Appropriations Act provided $48 million to cover the subsidy costs for the Title XI approvals and $4 million for administrative expenses. On July 2, 1993, the President signed the Supplemental Appropriations Act of 1993 which authorized the previously appropriated $48 million to remain available until it is expended. In FY 1993, the subsidy cost of the Title XI approvals granted to Sulphur Carriers, Inc., and Canal Barge Inc., totaled $803,000.

The Federal Ship Financing Fund had a net income of $24.8 million. The balance of cash and Treasury investments of the Fund on September 30, 1993, was $807 million. The Fund has been self-supporting for the past 3 fiscal years.

Capital Construction Fund

The Capital Construction Fund (CCF) Program was established under the Merchant Marine Act of 1970. It assists operators in accumulating capital to build, acquire, and reconstruct vessels through the deferral of Federal income taxes on certain deposits, as defined in Section 607 of the Merchant Marine Act, of 1936, as amended.

The CCF program enables operators to build vessels for the U.S. foreign trade, Great Lakes, noncontiguous domestic trade (e.g., between the west coast and Hawaii), and the fisheries of the United States. It aids in the construction, reconstruction, or acquisition of a wide variety of vessels, including containerships, tankers, bulk carriers, tugs, barges, supply vessels, ferries, and passenger vessels.

During calendar year 1992, $235 million was deposited into these accounts. Since the program was initiated in 1971, fund holders have deposited $5.7 billion in CCF accounts and withdrawn $4.5 billion for the modernization and expansion of the U.S. merchant marine. As of December 31, 1992, a total of 108 companies (shown in Table 4) were parties to CCF agreements.

Construction Reserve Fund

Like the CCF, the Construction Reserve Fund (CRF) encourages upgrading of the American-flag fleet. This program allows eligible parties to defer taxation of capital gains on the sale or other disposition of a vessel if net proceeds are placed in CRF and reinvested in a new vessel within 3 years.

The CRF is used predominately by owners of vessels operated in coastwise trades, the inland waterways, and other trades not eligible for the CCF Program. Its benefits are not so broad as those of CCF.

The number of companies with CRF balances increased from four to six during FY 1993. (See Table 5). The total monies on deposit increased from $2.4 million to $3.6 million.

Table 1: AUXILIARY CRANE SHIP PROGRAM STATUS, September 30, 1993

Vessels	Shipyard	Redelivery[1]
T-ACS 1 KEYSTONE STATE	Bay Shipbuilding	05/07/84
T-ACS 2 GEM STATE	Continental Maritime	10/31/85
T-ACS 3 GRAND CANYON STATE	Dillingham	10/27/86
T-ACS 4 GOPHER STATE	NORSHIPCO	10/27/87
T-ACS 5 FLICKERTAIL STATE	NORSHIPCO	02/08/88
T-ACS 6 CORNHUSKER STATE	NORSHIPCO	04/12/88
T-ACS 7 DIAMOND STATE	Tampa Shipyards	02/22/89
T-ACS 8 EQUALITY STATE	Tampa Shipyards	05/23/89
T-ACS 9 GREEN MOUNTAIN STATE	NORSHIPCO	09/24/90
T-ACS 10 BEAVER STATE[2]	Charleston Naval Shipyard	(12/22/93)

[1] Date in parenthesis indicates planned date, others are actual dates.

[2] T-ACS 10 was terminated while at NORSHIPCO and is being completed by Charleston Naval Shipyard.

Table 2: FEDERAL SHIP FINANCING GUARANTEE (TITLE XI) PROGRAM SUMMARY
Principal Liability (Statutory Limit $9.5 Billion) - September 30, 1993

	Contracts in Force	
	Outstanding	
	Vessels Covered	Amount (Millions)
Coastal	139	$ 126,355,075
Bulk	69	1,350,067,239
Drill Rig	1	3,106,000
Drill Supply	20	14,533,590
Inland	1,404	135,322,299
Liner	510[1]	56,571,000
Other	18	110,695,059
TOTALS[2]	1,949	$1,796,650,262

[1]Includes 288 LASH barges.
[2]Includes cruise vessels, dredging vessels, crane barges, pipe-laying barges.

Chart 1: OFFSHORE PETROLEUM DISCHARGE SYSTEM PROGRAM SCHEDULE

NAME	SHIPYARD	REDELIVERY[1]
OPDS-1 SS POTOMAC	Alabama SB & DD	03/03/86
OPDS-2 SS AMERICAN OSPREY	Alabama SB & DD	08/08/88
OPDS-3 SS CHESAPEAKE	Houston Ship Repair	07/15/91
OPDS-4 SS PETERSBURG	Houston Ship Repair	(02/23/94)
OPDS-5 SS MOUNT WASHINGTON	Marine Hydraulics, Inc.	(11/94)

[1] Dates in parenthesis indicate planned dates, others are actual dates.

Table 3: WORLDWIDE SHIP DELIVERIES – CALENDAR YEAR 1992 (TONNAGE IN THOUSANDS)

Country of Construction	Total All Types No.	Total All Types Deadweight Tons	Combination Pass. & Cargo No.	Combination Pass. & Cargo Deadweight Tons	Freighters No.	Freighters Deadweight Tons	Bulk Carriers No.	Bulk Carriers Deadweight Tons	Tankers No.	Tankers Deadweight Tons
Total	**471**	**20,455**	**8**	**29**	**200**	**2,508**	**73**	**4,787**	**190**	**13,131**
United States	–	–	–	–	–	–	–	–	–	–
Antigua & Barbuda	9	94	–	–	9	94	–	–	–	–
Bahamas	18	886	2	7	8	87	2	119	6	673
Belgium	1	2	–	–	–	–	–	–	1	2
Bermuda	1	13	–	–	1	13	–	–	–	–
Brazil	3	86	–	–	3	86	–	–	–	–
Bulgaria	1	22	–	–	–	–	1	22	–	–
China	10	146	–	–	6	38	3	102	1	6
Cyprus	15	745	–	–	8	106	1	44	6	595
Denmark (Dis)	13	152	–	–	8	90	–	–	5	62
Finland	4	245	1	2	1	5	–	–	2	238
France	2	44	–	–	–	–	–	–	2	44
Germany Fed. Rep.	15	259	–	–	11	239	–	–	4	20
Hong Kong	6	189	–	–	1	24	5	165	–	–
India	4	358	–	–	–	–	–	–	4	358
Indonesia	2	9	–	–	1	3	–	–	1	6
Iran	1	4	–	–	1	4	–	–	–	–
Ireland	1	5	–	–	1	5	–	–	–	–
Isle of Man	2	18	–	–	–	–	–	–	2	18
Israel	2	94	–	–	2	94	–	–	–	–
Italy	13	446	2	6	3	31	2	283	6	126
Japan	52	1,298	–	–	19	107	10	285	23	906
Kerguelen (Fr Antar)	2	170	–	–	–	–	1	165	1	5
Korea (South)	5	24	–	–	2	12	–	–	3	12
Kuwait	3	855	–	–	–	–	–	–	3	855
Liberia	66	5,946	–	–	9	199	13	917	44	4,830
Libya	1	4	–	–	–	–	–	–	1	4
Lithuania	1	4	–	–	1	4	–	–	–	–
Luxembourg	4	32	–	–	4	32	–	–	–	–
Malaysia	6	188	–	–	1	62	3	117	2	9
Malta	4	38	–	–	3	12	1	26	–	–
Marshall Islands	1	26	–	–	–	–	1	26	–	–
Myanmar	1	9	–	–	–	–	–	–	1	9
Netherlands	16	146	–	–	15	138	–	–	1	8
Norway	1	47	–	–	–	–	1	47	–	–
Norway (NIS)	24	1,170	1	9	7	163	3	417	13	581

Table 3 (continued): WORLDWIDE SHIP DELIVERIES – CALENDAR YEAR 1992 (TONNAGE IN THOUSANDS)

Country of Construction	Total All Types No.	Total All Types Deadweight Tons	Combination Pass. & Cargo No.	Combination Pass. & Cargo Deadweight Tons	Freighters No.	Freighters Deadweight Tons	Bulk Carriers No.	Bulk Carriers Deadweight Tons	Tankers No.	Tankers Deadweight Tons
Panama	109	4,626	2	5	50	471	16	1,230	41	2,920
Papua New Guinea	1	3	–	–	–	–	1	3	–	–
Philippines	3	94	–	–	1	10	2	84	–	–
Poland	3	98	–	–	2	24	1	74	–	–
Romania	1	10	–	–	–	–	–	–	1	10
Russia	5	20	–	–	5	20	–	–	–	–
Saint Vincent	2	225	–	–	–	–	2	225	–	–
Singapore	16	976	–	–	4	102	3	422	9	452
Sweden	1	16	–	–	–	–	–	–	1	16
Switzerland	1	6	–	–	–	–	–	–	1	6
Taiwan	9	496	–	–	6	147	–	–	3	349
Turkey	3	18	–	–	3	18	–	–	–	–
United Kingdom	3	67	–	–	2	61	–	–	1	6
Vanuatu	2	19	–	–	–	–	1	14	1	5
Vietnam	1	4	–	–	1	4	–	–	–	–
All Others	1	3	–	–	1	3	–	–	–	–

Table 4: CAPITAL CONSTRUCTION FUND HOLDERS -- December 31, 1992

AFFCO, Inc.
Afram Lines (USA) Co., Ltd.
Alaska Riverways, Inc.
Alpha Marine Services, Inc.
Amak Towing Co., Inc.
A.M.C. Boats, Inc.
American President Lines, Ltd.
American Shipping, Inc.
Anderson Tug & Barge Co.
Andover Company, L.P.
Aquarius Marine Co.
Atlantic Richfield Co.
Atlas Marine Company
Bankers Trust New York Corp.
Bethlehem Steel Corp.
Bigone Vessel Fueling Company of Chicago
Binkley Co., The
Blue Lines, Inc.
Brice, Inc.
C & C Boat Rentals, Inc.
C & E Boat Rentals Inc.
Campbell Towing Co.
Cement Transit Co.
Citimarlease (Burmah I), Inc.
Citimarlease (Burmah LNG Carrier), Inc.
Citimarlease (Burmah Liquegas), Inc.
Citimarlease (Fulton), Inc.
Citimarlease (Whitney), Inc.
Clipper Navigation, Inc.
Cowan Towing & Salvage Co.
Crewboats Inc.
Cross Marine, Inc.
Crowley Maritime Corp.
Danos & Curole Marine Contractors, Inc.
Durocher Dock & Dredge
Edison Chouest Offshore, Inc.
Edward E. Gillen Co.
Eserman Offshore Service, Inc.
Exxon Shipping Corp.
Falcon Alpha Shipping, Inc.
Falcon Capital, Inc.
Farrell Lines, Inc.
First Island Co.
Foss Maritime Co.
Fred Devine Diving & Salvage, Inc.
G&B Marine Transportation, Inc.
GATX Corp.
General Electric Credit and Leasing Corp.
General Electric Credit Corp. of Delaware
General Electric Credit Corp. of Georgia
Gilco Supply Boats, Inc.
Great Lakes Towing Co.
Hannah Brothers
Hannah Marine Corp.
Hawaiian Electric Indus.
Hone Heke Corporation, DBA Expeditions
Hvide Shipping, Inc.
Iberia Crewboats & Marine Service, Inc.
Inland Steel Co.
Inter Cities Navigation (Texas) Corp.
International Shipholding Corp.
Interstate Towing (Texas) Co.
John E. Graham & Sons
Kenai Fjord Tours, Inc.
Kinsman Lines, Inc.
L&L Marine Services, Inc.
Leppaluoto Offshore Marine, Inc.
Lykes Bros. Steamship Co.
Madeline Island Ferry Line, Inc.
Marine Investment Company of Delaware (Sun Co.)
Matson Navigation Company, Inc.
Middle Rock, Inc.
Miller Boat Line, Inc.
Milwaukee Bulk Terminals, Inc.
Montco Offshore, Inc.
National Steel and Shipbuilding Co.
Neuman Boat Line, Inc.
Nicor, Inc.
North American Boat Rentals, Inc.
Northland Services, Inc.
Ocean Shipholdings, Inc.
Oceanic Research Services, Inc.
O.L. Schmidt Barge Lines, Inc.
Oglebay Norton Co.
OMI Corp.
Overseas Shipholding Group, Inc.
Pacific Hawaiian Line, Inc.
Rainbow Tours
Ritchie Transportation Co.
Sacramento Tugboat Company
Sause Bros. Inc.
Seabulk Tankers, Ltd.
Sea-Land Corp.
Sea-Mar Operators, Inc.
Sheplers, Inc.
Silver Bay Loggings Inc.
Stan Stephens Charters, Inc.
St. Bernard Boat Rental Inc.
State Boat Corporation
Steel Style Marine
Tobias, Inc.
Totem Resources Corp.
Union Oil Co. of California
Waveland Marine Service, Inc.
West Travel, Inc.
Western Pioneer, Inc.
Windjammer Cruises, Inc.
Y & S Marine, Inc.

Table 5: CONSTRUCTION RESERVE FUND HOLDERS - SEPTEMBER 30, 1993

Bud's Boat Rental, Inc.
Central Gulf Steamship Corp.
Ingram Industries, Inc.
Mobil Oil Corp.
Pacific Hawaiian Line, Inc.
Serodino, Inc.

Chapter 2

Ship Operations

U.S.-Flag Fleet Profile

The U.S.-flag, privately owned, deepdraft merchant fleet (including the Great Lakes fleet shown in Table 14) totaled 425 vessels with an aggregate carrying capacity of about 18.2 million deadweight tons (dwt.) on September 30, 1993.

The oceangoing segment of the privately owned fleet comprised 371 vessels of 17.9 million dwt., of which 348 ships of 16.1 million dwt. were active. The latter included 28 breakbulk cargo ships, 129 intermodal vessels (containerships, barge-carrying vessels and roll-on\roll-off vanships known as RO/ROs), 1 combination passenger-cargo ship, 169 tankers (including liquefied natural gas carriers), and 21 bulk carriers. (See Table 6.) The remaining 23 vessels were inactive and laid up.

Employment of the U.S.-flag oceangoing merchant fleet (including Government-owned ships) in fiscal year (FY) 1993 is shown in Table 7.

The privately owned, American-flag merchant fleet ranked 9th in the world on a dwt. basis and 19th in the total number of ships on January 1, 1993. (See Table 8.)

Preliminary data for commercial cargoes carried by ships of all flags in the U.S. oceanborne foreign trade totaled 851.3 million tons in calendar year 1992. U.S.-flag foreign trade tonnage decreased from 33.8 million tons in 1991 to 33.7 million tons in 1992 and the U.S.-flag share of total tonnage decreased from 4.1 percent in 1991 to 4 percent in 1992.

Commercial cargoes transported in U.S. oceanborne foreign trade from calendar year 1983 through calendar year 1992 are shown in Table 9. The table shows the total trade by tonnage and value, and the portion carried by U.S.-flag vessels.

Operating-Differential Subsidy

U.S.-flag vessels which operate in essential foreign trade are eligible for operating-differential subsidy (ODS) which is administered by the Maritime Administration (MARAD). ODS is designed to offset certain lower ship operating costs of foreign-flag competitors. Net subsidy outlays during FY 1993 amounted to $215.5 million. There were no subsidized voyages terminated in the Great Lakes trade during fiscal year 1993.

ODS accruals and outlays from January 1, 1937, through September 30, 1993, are summarized in Table 10. Accruals and outlays by shipping lines for the same period are shown in Table 11. ODS contracts in force are shown in Table 12.

Section 614 Activities

Section 614 of the Merchant Marine Act of 1936, as amended, permits a company receiving ODS funds to elect to suspend its ODS agreement for all or a portion of its vessels, subject to certain conditions. Suspension of the ODS agreement includes suspending all attendant statutory and contractual restrictions in the ODS agreement, except those pertaining to operation in the domestic trade.

No vessels operated under suspended ODS agreements in FY 1993.

Subsidy Rates

The Subsidy Index System was established by the Merchant Marine Act of 1970. It provides for payment of seafaring wage subsidies in per diem amounts. The rate of change in the index is computed annually by the Bureau of Labor Statistics and is used as the measure of change in seafaring employment costs. ODS rates also are calculated for maintenance and repairs, hull and machinery insurance, and protection and indemnity insurance for both premiums and deductibles.

MARAD has substantially completed the 1993 subsidy rates applicable to liner and bulk vessel operations.

Passenger/Cruise Service

During FY 1993, U.S.-flag oceangoing passenger service was provided by the cruise ships INDEPENDENCE and CONSTITUTION, each having a 798-passenger capacity. The vessels were operated by American Hawaii Cruises, Inc., in the Hawaiian interisland trade. They were built in 1950 and 1951 and refurbished in 1991.

In addition, two operators provided local coastwise cruises on U.S.-flag vessels with a capacity for fewer than 200 passengers. American Canadian Caribbean Line served the New England coast, Hudson River, Erie Canal, St. Lawrence Seaway, and Saguenay River. Clipper Cruise Line served the U.S. Atlantic coast and Pacific (Alaskan) coast. During the 1993 winter season, these lines offered cruises to the Bahamas and/or Caribbean Islands.

On the inland waterways, two traditionally styled steamboats, the 267-passenger DELTA QUEEN and the 635-passenger MISSISSIPPI QUEEN, operated by Delta Queen Steamboat Co., continued to provide a variety of cruises on the Mississippi and Ohio Rivers.

Corporate/Service Changes

On August 16, 1992, the Maritime Subsidy Board granted an approval under section 608 of the Merchant Marine Act, 1936, as amended, and Article II-16 of the Lykes Bros. Steamship Co., Inc., (Lykes) operating-differential subsidy agreement (ODSA), Contract MA/MSB-451, to the transfer of all rights, titles, and interests under that contract and reversionary rights in ODSA Contract MA/MSB-451(a) to Louisiana Vessel Management, Inc. (LVM), and subsequent sale of LVM to Blue Phoenix Enterprises, Inc.

The Secretary of Transportation reversed MARAD's decision on December 14, 1992, citing concerns about the potential lack of independence of the owners of Blue Phoenix, due to attorney-client relationships with Lykes and its affiliates. Accordingly, Lykes, on February 26, 1993, submitted a new request to MARAD for permission to transfer its ODSA to LVM. Blue Phoenix assigned its interest in the LVM stock purchase agreement to a new corporation, KEMSS Maritime Ltd., which intended to acquire LVM directly. Subsequently, however, Lykes formally withdrew its application.

Section 804 Activities

Section 804 of the Merchant Marine Act, 1936, as amended, prohibits any contractor receiving ODS, or any holding company, subsidiary, affiliate, or associate of such contractor, directly or indirectly, to own, charter, act as agent or broker for, or operate any foreign-flag vessel which competes with an essential U.S.-flag service, without prior approval of the Secretary of Transportation. The prohibition also applies to any officers, directors, agents, or executives of such organizations. During FY 1993, MARAD approved several waivers for American President Lines, Ltd. (APL):

- To change the relay port descriptor "a foreign port" to "a foreign port or ports" in the Manila-Thailand feeder authority (November 9, 1992).
- To include service to the Gulf of Oman and Oman in all the alternative authorities of the Karachi feeder (January 27, 1993).
- To allow APL to participate in a Master Slot Charter Agreement with Compagnie Maritime d'Affretement (CMA) in the west coast India feeder service area with an additional vessel authorized to be provided initially by CMA (February 12, 1993).
- To modify conditions of three existing waivers--Manila-Thailand feeder, People's Republic of China feeder, and eight feeders in APL's extension service area in the range Indonesia to Red Sea--to delete the prohibition against carrying military cargo on the foreign-flag vessels (March 30, 1993).
- To increase the authorized number of vessels from one to two in the Indonesia feeder and to allow APL's continued participation in a Master Slot Charter Agreement with Orient Overseas Container Line Inc. as revised to provide for

three Indonesia feeder loops, in lieu of two previously authorized, in the geographic scope of services covered by the slot charter agreement (September 2, 1993).

- To increase the authorized number of vessels from one to three in the Red Sea feeder (September 30, 1993).

During the year, MARAD approved six waivers for Lykes for single voyages to carry excess cargo between U.S. Gulf of Mexico and Atlantic ports and Mediterranean ports (3 eastbound, 3 westbound voyages) on a foreign-flag ship, which cargo normally is carried on a U.S.-flag Lykes vessel which became overbooked between October 22, 1992 and March 26, 1993.

Schoolship Replacements

MARAD provides training vessels to five seacoast academies for use in at-sea training and as shoreside laboratories. The California, Maine, and Texas academies are concerned with replacing their aging schoolships. Preparation of design packages is underway for converting three replacement candidates--the CHAUVENET, a recently decommissioned Navy Survey vessel; the HARKNESS, a sistership to the CHAUVENET; and the H.H. HESS. Funds have been allocated for the conversion of the HARKNESS; the solicitation package was ready at year's end to be sent to prospective bidders. Funds for the conversion of the CHAUVENET are being considered by the Congress.

Foreign Transfers

MARAD approved the transfer of 43 ships of 1,000 gross tons and over to foreign ownership and/or registry in FY 1993, under Section 9 of the Shipping Act, 1916, as amended. Twelve privately owned vessels and 33 government-owned vessels were sold for scrapping abroad.

Also in FY 1993, permission was granted for one vessel of less than 1,000 gross tons to be registered in Russia and 14 U.S.-owned ships of over 1,000 gross tons were approved for charter to aliens.

Public Law 100-710 authorizes the Secretary of Transportation to prescribe criteria for approving citizen and noncitizen trustees for mortgages held for the benefit of noncitizens who cannot qualify as preferred mortgagees. It also expands the categories of approved mortgagees, citizens or noncitizens, and of preferred mortgages on documented vessels, and allows any noncitizen to hold a preferred mortgage on vessels documented as fishing, fish processing, fish tender, or pleasure vessels.

During FY 1993, the Agency approved the retention of eight banks on the Roster of Approved Trustees and Mortgagees. Four new banks were approved as trustees and one new bank as mortgagee.

During the reporting period, there were six foreign transfer violations reported involving privately owned ships, five of which were mitigated or settled.

MARAD's approval of the transfer of vessels of 3,000 gross tons and over to foreign ownership or registry, or both (whether for operation or scrapping), are subject to the terms and conditions of the Agency's Foreign Transfer Policy (46 CFR Part 221). There are currently 141 vessels subject to these terms and conditions, which accompany titles to the ships and remain in effect for the period of their remaining economic lives. During FY 1993, 33 approvals were granted for the transfer of ownership and/or registry of vessels subject to such terms and conditions. MARAD also modified one contract to reflect the revised conditions implemented by the Final Rule at 46 CFR Part 221 published on June 3, 1992.

User charges for processing applications for foreign transfers and similar actions totaled $42,935 in the reporting period. This total includes fees filed pursuant to MARAD contracts reflecting prior domestic and foreign sales.

Activities under Section 9 of the Shipping Act, 1916, as amended, are summarized in Table 13.

Table 6: U.S. OCEANGOING MERCHANT MARINE—September 30, 1993[1]

	Privately Owned		MARAD-Owned		Total	
	Number Ships	Deadweight Tons (000)	Number Ships	Deadweight Tons (000)	Number Ships	Deadweight Tons (000)
Active Fleet:						
Passenger/Pass. Cargo	1	7	5	42	6	49
General Cargo	28	489	4	50	32	539
Intermodal	129	3,864	4	51	133	3,915
Bulk Carriers (Inc. TB)	21	949	0	0	21	949
Tankers (Inc. TKB & LNG)	169	10,824	1	17	170	10,841
Total Active Fleet	**348**	**16,133**	**14**	**160**	**362**	**16,293**
Inactive Fleet:						
Passenger/Pass. Cargo	2	20	5	47	7	67
General Cargo	3	50	131	1,778	134	1,828
Intermodal	1	19	38	925	39	944
Bulk Carriers (Incl. TB)	1	17	0	0	1	17
Tankers (Incl. TKB & LNG)	16	1,628	27	881	43	2,509
Total Inactive Fleet	**23**	**1,734**	**201[2]**	**3,631**	**224**	**5,365**
Total Active and Inactive:						
Passenger/Pass. Cargo	3	27	10	89	13	116
General Cargo	31	539	135	1,828	166	2,367
Intermodal	130	3,883	42	976	172	4,859
Bulk Carriers (Incl. TB)	22	966	0	0	22	966
Tankers (Incl. TKB & LNG)	185	12,452	28	898	213	13,350
Total American Flag	**371**	**17,867**	**215**	**3,791**	**586**	**21,658**

[1] Vessels of 1,000 gross tons and over, excluding privately owned tugs, barges, etc.
[2] Includes 61 NDRF and 96 RRF vessels.
NOTE: Tonnage figures may not add due to rounding.

Table 7: EMPLOYMENT OF U.S.-FLAG OCEANGOING MERCHANT FLEET--September 30, 1993[1]

Status and Area of Employment	Total		Vessel Type (tonnage in thousands)									
			Passenger/ Pass. & Cargo		General Cargo		Intermodal		Bulk Carriers [2]		Tankers [3]	
	No.	Deadweight Tons	No.	Deadweight Tons	No.	Deadweight Tons	No.	Deadweight Tons	No.	Deadweight Tons	No.	Deadweight Tons
Grand Total	**586**	**21,658**	**13**	**116**	**166**	**2,367**	**172**	**4,859**	**22**	**966**	**213**	**13,350**
Active Vessels	**362**	**16,293**	**6**	**49**	**32**	**539**	**133**	**3,915**	**21**	**949**	**170**	**10,841**
Privately-Owned	**348**	**16,133**	**1**	**7**	**28**	**489**	**129**	**3,864**	**21**	**949**	**169**	**10,824**
U.S. Foreign Trade	**132**	**4,947**	**-**	**-**	**18**	**282**	**69**	**2,345**	**16**	**805**	**29**	**1,515**
Foreign-to-Foreign	**33**	**2,365**	**-**	**-**	**-**	**-**	**16**	**459**	**1**	**37**	**16**	**1,869**
Domestic Trade	**134**	**7,566**	**1**	**7**	**3**	**60**	**18**	**373**	**4**	**107**	**108**	**7,019**
Coastal	71	2,609	-	-	1	6	1	14	3	83	66	2,506
Noncontiguous	63	4,957	1	7	2	54	17	359	1	24	42	4,513
M.S.C. Charter	**49**	**1,255**	**-**	**-**	**7**	**147**	**26**	**687**	**-**	**-**	**16**	**421**
Government-Owned	**14**	**160**	**5**	**42**	**4**	**50**	**4**	**51**	**-**	**-**	**1**	**17**
Ready Reserve Force (RRF)	3	37	1	9	2	28	-	-	-	-	-	-
Special Programs [4]	-	-	-	-	-	-	-	-	-	-	-	-
Other Reserve	7	68	3	22	1	11	3	35	-	-	-	-
Other Custody	1	16	-	-	-	-	1	16	-	-	-	-
Nonretention	3	39	1	11	1	11	-	-	-	-	1	17
Inactive Vessels	**224**	**5,365**	**7**	**67**	**134**	**1,828**	**39**	**944**	**1**	**17**	**43**	**2,509**
Privately Owned	**23**	**1,734**	**2**	**20**	**3**	**50**	**1**	**19**	**1**	**17**	**16**	**1,628**
Temporarily Inactive	3	265	1	7	-	-	-	-	-	-	2	258
Laid up	18	1,401	1	13	3	50	1	19	1	17	12	1,302
Laid up (MARAD Custody)	2	68	-	-	-	-	-	-	-	-	2	68
Government-Owned (MARAD Custody)[5]	**201**	**3,631**	**5**	**47**	**131**	**1,778**	**38**	**925**	**-**	**-**	**27**	**881**
National Defense Reserve Fleet	**147**	**2,957**	**1**	**10**	**85**	**1,264**	**38**	**925**	**-**	**-**	**23**	**758**
Ready Reserve Force (RRF)	93	1,838	-	-	57	807	23	627	-	-	13	404
Other Reserve	54	1,119	1	10	28	457	15	298	-	-	10	354
Nonretention [6]	53	636	4	37	46	514	-	-	-	-	3	85
Special Program	-	-	-	-	-	-	-	-	-	-	-	-
Other Government-Owned	**1**	**38**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**38**	**-**	**-**

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

[2] Includes Tug Barges.

[3] Includes Tanker Barges and LNG vessels.

[4] Vessels unavailable for activation due to special status.

[5] Excludes vessels under active Government-owned.

[6] Vessels not actively maintained.

Table 8: MAJOR MERCHANT FLEETS OF THE WORLD--JANUARY 1, 1993

Country	No. of Ships[1]	Rank by No. of Ships	Rank by Deadweight Tons	Deadweight Tonnage
Liberia	1,568	2	97,173	1
Panama	3,171	1	79,414	2
Greece	904	7	46,101	3
Cyprus	1,251	4	35,630	4
Norway (NIS)	737	10	35,371	5
Japan	913	6	32,562	6
Bahamas	818	8	32,173	7
China	1,231	5	19,388	8
U.S. (Private)	384	19	18,774	9
Malta	752	9	17,971	10
Singapore	493	14	15,377	11
Philippines	534	13	13,420	12
Russia	1,363	3	13,370	13
Hong Kong	200	30	11,981	14
Korea (South)	422	17	10,238	15
All Others[2]	9,012		177,648	
Total	**23,753**		**656,591**	

[1] Oceangoing merchant ships of 1,000 gross tons and over.
[2] Includes 219 United States Government–owned ships of 3,708,000 dwt.

Table 9: U.S. OCEANBORNE FOREIGN TRADE/COMMERCIAL CARGO CARRIED [1]

Tonnage (Millions)

Calendar Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992*
Total Tons	630.4	676.8	640.9	674.8	718.7	786.0	836.3	853.9	832.8	851.3
U.S.-Flag Tons	36.7	29.4	27.3	28.5	28.8	30.7	36.4	34.6	33.8	33.7
U.S. Percent of Total	5.8	4.3	4.3	4.2	4.0	3.9	4.4	4.1	4.1	4.0
Liner Total Tons	56.8	63.5	66.7	71.8	79.4	83.3	91.6	96.4	102.7	104.8
Liner U.S.-Flag Tons	14.0	13.8	14.0	14.3	11.9	14.0	17.5	16.8	17.2	17.0
Liner U.S. Percent	24.6	21.7	21.0	19.9	14.9	16.9	19.1	17.4	16.8	16.2
Nonliner Total Tons	317.7	346.3	327.5	309.0	327.1	361.1	366.6	378.4	379.3	363.2
Nonliner U.S.-Flag Tons	4.8	5.1	5.1	4.9	6.3	6.2	6.2	7.0	7.8	6.3
Nonliner U.S. Percent	1.5	1.5	1.5	1.6	1.9	1.7	1.7	1.9	2.1	1.7
Tanker Total Tons	256.0	266.9	246.7	294.0	312.2	341.6	378.1	379.1	350.8	383.3
Tanker U.S.-Flag Tons	17.9	10.5	8.2	9.3	10.6	10.5	12.7	10.8	8.8	10.4
Tanker U.S. Percent	7.0	3.9	3.3	3.2	3.4	3.1	3.4	2.8	2.5	2.7

Value ($ Billions)

Total Value	267.4	302.7	311.0	320.5	359.4	397.7	437.0	451.5	458.3	485.9
U.S.-Flag Value	43.0	44.6	46.4	49.0	44.8	57.7	71.3	69.8	70.7	73.5
U.S. Percent of Total	16.1	14.7	14.9	15.3	12.5	14.5	16.3	15.5	15.4	15.1
Liner Total Value	139.6	164.0	181.2	199.9	221.9	253.4	279.7	299.5	322.5	344.7
Liner U.S.-Flag Value	37.9	41.2	43.4	46.5	41.7	53.1	65.0	64.5	66.5	69.2
Liner U.S. Percent	27.2	25.1	24.0	23.3	18.8	21.0	23.3	21.5	20.7	20.1
Nonliner Total Value	69.8	78.6	77.2	83.2	92.1	98.9	100.7	88.0	81.6	85.8
Nonliner U.S.-Flag Value	1.2	1.1	1.4	1.3	1.6	3.2	4.4	3.6	2.8	2.8
Nonliner U.S. Percent	1.7	1.5	1.8	1.6	1.8	3.2	4.3	4.1	3.5	3.3
Tanker Total Value	58.0	60.1	52.6	37.4	45.4	45.4	56.6	64.0	54.2	55.4
Tanker U.S.-Flag Value	4.0	2.2	1.6	1.2	1.5	1.4	1.9	1.7	1.3	1.5
Tanker U.S. Percent	6.8	3.7	3.1	3.2	3.2	3.1	3.3	2.6	2.4	2.7

[1] Table includes Government-sponsored cargo; excludes U.S./Canada translakes cargoes and certain Department of Defense cargoes.

* Preliminary data.

Table 10: ODS ACCRUALS AND OUTLAYS--JANUARY 1, 1937, TO SEPTEMBER 30, 1993

Calendar Year of Operation	Accruals			Outlays		
	Subsidies	Recapture	Subsidy Accrual	Paid in FY 1993	Total Amount of Net Accrued Paid	Net Accrual Liability
1937-1955	$682,457,954	$157,632,946	$524,825,008	$-0-	$524,825,008	$-0-
1956-1960	751,430,098	63,755,409	687,674,689	-0-	687,674,689	-0-
1961	170,884,261	2,042,748	168,841,513	-0-	168,841,513	-0-
1962	179,396,797	4,929,404	174,467,393	-0-	174,467,393	-0-
1963	189,119,876	(1,415,917)	190,535,793	-0-	190,535,793	-0-
1964	220,334,818	674,506	219,660,312	-0-	219,660,312	-0-
1965	183,913,236	1,014,005	182,899,231	-0-	182,899,231	-0-
1966	202,734,069	3,229,471	199,504,598	-0-	199,504,598	-0-
1967	220,579,702	5,162,831	215,416,871	-0-	215,416,871	-0-
1968	222,862,970	3,673,790	219,189,180	-0-	219,189,180	-0-
1969	230,256,091	2,217,144	228,038,947	-0-	228,038,947	-0-
1970	232,541,169	(1,908,643)	234,449,812	-0-	234,449,812	-0-
1971	202,440,101	(2,821,259)	205,261,360	-0-	205,261,360	-0-
1972	190,732,158	-0-	190,732,158	-0-	190,732,158	-0-
1973	219,475,963	-0-	219,475,963	-0-	219,475,963	-0-
1974	219,297,428	-0-	219,297,428	-0-	219,297,428	-0-
1975	260,676,152	-0-	260,676,152	-0-	260,676,152	-0-
1976	275,267,465	-0-	275,267,465	-0-	275,267,465	-0-
1977	294,779,691	-0-	294,779,691	-0-	294,779,691	-0-
1978	285,075,424	-0-	285,075,424	-0-	285,075,424	-0-
1979	279,347,897	-0-	279,347,897	-0-	279,347,897	-0-
1980	386,309,467	-0-	386,309,467	-0-	386,309,467	-0-
1981	352,060,560	-0-	352,060,560	-0-	352,060,560	-0-
1982	366,654,502	-0-	366,654,502	-0-	366,654,502	-0-
1983	278,716,168	-0-	278,716,168	-0-	278,716,168	-0-
1984	342,756,506	-0-	342,756,506	-0-	342,756,628	-0-
1985	367,368,710	-0-	367,368,710	-0-	367,368,710	-0-
1986	318,295,019	-0-	318,295,019	-0-	318,295,019	-0-
1987	183,188,408	-0-	183,188,408	-0-	183,188,408	-0-
1988	219,079,931	-0-	219,079,931	237,494	219,079,931	-0-
1989	222,072,040	-0-	222,072,040	1,039,760	221,422,957	649,083
1990	230,513,455	-0-	230,513,455	2,166,510	230,513,455	-0-
1991	229,748,205	-0-	229,748,205	1,333,421	214,230,866	15,517,339
1992	218,637,768	-0-	218,637,768	22,735,021	210,105,743	8,534,025
1993	220,506,116	-0-	220,506,116	187,994,616	187,994,616	32,511,500
Total Regular ODS	$9,649,389,004	$238,186,435	$9,411,202,569	$215,506,822	$9,353,990,248	$57,211,947
Soviet Grain Program [1]	$147,132,626	$-0-	$147,132,626	$-0-	$147,132,626	-0-
Total ODS	**$9,796,521,630**	**$238,186,435**	**$9,558,335,195**	**$215,506,822**	**$9,501,123,248**	**$57,211,947**

[1] No longer operative.

Table 11: ODS ACCRUALS AND OUTLAYS BY SHIPPING LINES--JANUARY 1, 1937, TO SEPTEMBER 30, 1993

LINES	Accruals			Outlays	
	ODS	Recapture	Net Accrual	ODS Paid	Net Accrued Liability
Aeron Marine Shipping	$26,079,663	$0	$26,079,663	$26,079,663	$0
American Banner Lines [1]	2,626,512	0	2,626,512	2,626,512	0
American Diamond Lines [1]	185,802	28,492	157,310	157,310	0
American Export Lines [2]	693,821,868	10,700,587	683,121,281	683,121,281	0
American Mail Lines [3]	158,340,739	7,424,902	150,915,837	150,915,837	0
American Maritime Transport Inc.	16,259,217	0	16,259,217	10,813,074	5,446,143
American President Lines Inc. [3]	1,567,686,022	17,676,493	1,550,009,529	1,543,864,498	6,145,031
American Shipping Co.	21,220,420	0	21,220,420	21,220,420	0
American Steamship Co.	76,462	0	76,462	76,462	0
Aquarius Marine Co.	51,539,316	0	51,539,316	49,219,971	2,319,345
Aries Marine Shipping, Inc.	25,291,415	0	25,291,415	25,291,415	0
Asco-Falcon II	626,993	0	626,993	587,268	39,725
Atlantic & Caribbean S/N [1]	63,209	45,496	17,713	17,713	0
Atlas Marine Co.	52,084,456	52,038,960	52,038,960	50,521,979	1,516,981
Baltimore Steamship [1]	416,269	0	416,269	416,269	0
Bloomfield Steamship [1]	15,588,085	2,613,688	12,974,397	12,974,397	0
Brookville	3,627,802	0	3,627,802	2,068,285	1,559,517
Chestnut Shipping Co.	76,328,435	0	76,328,435	70,817,115	5,511,320
Delta Steamship Lines, Inc.	575,053,817	8,185,313	566,868,504	566,868,504	0
Ecological Shipping Co.	4,968,943	0	4,968,943	4,968,943	0
Equity Carriers, Inc.	1,555,610	0	1,555,610	1,497,110	58,500
Farrell Lines Inc.	692,117,728	1,855,375	690,261,871	688,355,098	1,906,773
First American Bulk Carriers Corp.	15,169,117	0	15,469,117	14,467,777	701,340
Gulf & South American Steamship	34,471,780	5,226,214	29,245,566	29,245,566	0
Lykes Bros. Steamship Co., Inc.	2,028,360,728	52,050,598	1,976,352,625	1,953,917,951	22,434,672
Margate Shipping Co.	131,858,312	0	131,858,312	130,624,430	1,538,822
Moore-McCormack Bulk Transport	115,215,355	0	115,215,355	113,037,414	3,177,941
Moore-McCormack Lines [8]	734,212,876	17,762,445	716,450,431	716,450,431	0
N.Y. & Cuba Mail Steamship	8,090,108	1,207,331	6,882,777	6,882,777	0
Ocean Carriers	45,259,825	0	45,259,825	45,259,825	0
Ocean Chemical Carriers, Inc.	2,297,870	0	2,297,870	1,536,165	761,705
Ocean Chemical Transport	2,312,090	0	2,312,090	2,016,294	285,796
Oceanic Steamship [5]	113,947,681	1,171,756	112,775,925	112,775,925	0
Pacific Argentina Brazil Line [1]	7,963,9362	270,701	7,693,235	7,693,235	0
Pacific Far East Line [6]	283,693,959	23,479,204	260,214,755	260,214,755	0
Pacific Shipping Inc.	18,840,400	0	18,840,400	18,840,400	0
Prudential Lines [4]	641,647,708	24,223,564	617,424,144	617,424,144	0
Prudential Steamship [1]	26,352,954	1,680,796	24,672,158	24,672,158	0
Sea Shipping	25,819,800	2,429,102	23,390,698	23,390,698	0
Seabulk Transmarine I & II, Inc.	37,092,376	0	37,092,376	35,845,320	1,247,056
South Atlantic Steamship [1]	96,374	84,692	11,682	11,682	0
States Steamship Lines	231,997,100	5,110,997	226,886,103	226,886,103	0
United States Lines, Inc. [7]	750,518,013	54,958,689	695,559,324	695,559,324	0
Waterman Steamship Corp.	379,920,869	0	379,920,869	379,079,244	841,625
Worth Oil Transport Co.	17,428,314	0	17,428,314	17,428,314	0
Vulcan Carriers, Carriers	5,993,502	0	5,993,502	3,221,408	2,772,094
Total Regular ODS	$9,649,389,004	$238,186,435	$9,411,202,569	$ 9,353,990,622	$57,211,947
Soviet Grain Programs [9]	$147,132,626		$147,132,626	$147,132,626	$0
Total ODS	**$9,796,521,630**	**$238,186,435**	**$9,558,335,195**	**$9,501,123,248**	**$57,211,947**

[1] No longer subsidizied or combined with other subsidized lines.
[2] AEL was acquired by Farrell LInes, March 29, 1978.
[3] APL merged its operations with AML's October 10, 1973.
[4] Changed from Prudential-Grace Lines, Inc., August 1, 1974.
[5] Purchased by Lykes Bros. Steamship Co., Inc.
[6] Went into receivership August 2, 1978.
[7] Ceased to be a subsidized line in November 1970 but returned as a subsidized carrier in January 1981.
[8] Purchased by United States Lines, Inc. October 1983.
[9] No longer operative.

Table 12 : ODS CONTRACTS IN FORCE--SEPTEMBER 30, 1993

A. Liner Trades

Operator and Contract No.	Contract Duration	Number Subsidized Ships	Service (Trade Route/Area)	Annual Sailings Minimum	Annual Sailings Maximum
American President Lines, Ltd. MA/MSB-417	1-01-78 to 12-31-97	20	Transpacific Service - TR 2* United States/Far East	126	188
			California Transpacific Extension [1, 2]	18	28
			Washington-Oregon Transpacific Extension [3]	6	80
Farrell Lines Incorporated MA/MSB-352	1-01-76 to 12-31-95	0	U.S. Atlantic/West Africa (TR 14-1) [4]	20	38
Farrell Lines Incorporated MA/MSB-482	1-01-81 to 12-31-97	4	U.S. Atlantic/Mediterranean Service (TRs 10, 13)	44	66
First American Bulk Carrier Corporation MA/MSB-451(a)**	8/29/90 to 12/31/98	2	U.S. Gulf/U.K. Continent (TR 21)	-	20
Lykes Bros. Steamship Co., Inc. MA/MSB-451	1-01-79 to 12-31-97	21	U.S. Gulf/U.K. Continent (TR 21)	24	40
			U.S. Gulf & S. Atlantic/ Mediterranean (TR 13) [5, 10]	42	48
			U.S. Gulf/Far East (TR 22) [5, 7, 8, 10, 13]	36	60 Overall maximum
			U.S. Gulf/South & East Africa (TR 15-B) [5, 7, 9, 10, 13]	18	24 not to exceed 330
			U.S. Atlantic & Gulf/West Coast South America (TR 31/2) [11]	24	48
			Great Lakes/Mediterranean-India (Trade Area 4) [5, 10]	3	10
			U.S. Pacific/Far East, North (TR 29) [12]	20	80
			U.S. Pacific/Far East, South (TR 17/29) [12]	20	
Northstar Shipping, Inc. MA/MSB-421	1-01-78 to 12-31-97	0	U.S. North Atlantic/Mediterranean (TR 10) [14]	24	36
United States Lines, Inc. [15] MA/MSB-483					
Addendum No. 4 to amended and restated MA/MSB-483	7-08-83 to 12-31-95	0	U.S. Atlantic & Gulf/Australia, New Zealand (TR 16)	16	21

* The designation TR 2 is as defined in the eight Essential Trade Routes promulgated May 7, 1987. All other trade route designations in this Table 12 are as defined prior to May 7, 1987 (30 Essential Trade Routes plus 5 Essential Trade Areas), in the Operators' service descriptions in 20-year operating subsidy contracts.

**The Maritime Subsidy Board approved the transfer from Lykes to First American Bulk Carriers Corp. of ODS rights to 20 annual sailings on Trade Route 21 (U.S. Gulf/North Europe) and the obligation to replace two vessels. As part of the action, the MSB approved the time charter by Lykes of two C6-M-F146a ships owned by FABC, for 36 months with subsequent charter extensions of 36 months (through December 31, 1998).

Table 12 (Continued)

Operator and Contract No.	Contract Duration	Number Subsidized Ships	Service (Trade Route/Area)	Annual Sailings	
				Minimum	Maximum
United States Lines (S.A.) Inc.[15] MA/MSB-338 (formerly Moore-McCormack Lines, Incorporated)	1-01-75 to 12-31-94	0	U.S. Atlantic/East Coast South America (TR 1)	40	70
		0	U.S. Atlantic/South & East Africa (TR 15-A)	22	36
MA/MSB-353 (formerly Delta Steamship Lines, Inc.)	1-01-76 to 12-31-95	0	U.S. Gulf/East Coast South America (TR 20)	26	53
MA/MSB-425 (formerly Delta Steamship Lines, Inc.)	6-17-78 to 12-31-97	0	U.S. Atlantic/Caribbean (TR 4)	22	33
Waterman Steamship Corporation MA/MSB-450	11-21-78 to 12-31-96	4	U.S. Atlantic-Gulf/India, Persian Gulf & Red Sea, Indonesia, Malaysia, Singapore, Brunei (TRs 18, 17)	8	-
Total Liner Trades		**51**			

[1] Service to/from U.S. Atlantic ports is on a privilege basis with a maximum of 28 sailings.

[2] Includes required service to Indonesia, Malaysia (except Sarawak and Sabah), and Singapore. Numbers of required sailings are a portion of the required sailings on TR 2.

[3] Includes required service to Indonesia, Malaysia, and Singapore. Numbers of required sailings are a portion of the required sailings on TR 2.

[4] Farrell is also permitted to make 12 sailings annually from the U.S. Gulf to West Africa.

[5] Lykes is permitted to make 24 sailings annually between U.S. North Atlantic and Mediterranean ports on a privilege basis in conjunction with required service on TR 13, 15B, 22, and TA 4. Lykes is permitted to make 48 sailings annually between U.S. Pacific and Mediterranean ports on a privilege basis in conjunction with required service on TR 13.

[6] Lykes is permitted to make 24 sailings annually between U.S. Atlantic and South and East Africa on a privilege basis in conjunction with required service on TR 15B.

[7] Lykes has the option to perform additional sailings on TRs 22 and 15B over maximum sailings if the minimum sailings are made on all other services: on TR 22, nine additional sailings; on TR 15B, five additional sailings. The overall maximum must not exceed 330 annual sailings.

[8] Subject to stipulation that a minimum of 12 and a maximum of 30 sailings per annum shall include ports in Indonesia and Malaysia (including Singapore).

[9] Lykes is also permitted to make 12 sailings annually from the U.S. Gulf to West Africa on a privilege basis in conjunction with required service on TR 15B.

[10] Lykes is permitted to make 16 sailings annually between U.S. Atlantic and Gulf ports and Southwest Asian ports (Suez to Burma) in conjunction with required service on TR 13, TR 15B, TR 22 and TA 4.

[11] Caribbean Subservice--a maximum of 24 sailings per annum may provide limited TR 19 service exclusively between U.S. Gulf ports and ports on the Atlantic coast of the Republic of Panama, the former Panama Canal Zone, and the north coast of Colombia.

[12] Lykes stopped service on TR 29 and TR 17/29 in July 1986.

[13] Lykes may make privilege calls from the U.S. Atlantic to the Far East in conjunction with required service on TR 22.

[14] ODS Contract was transferred to Northstar Shipping, Inc. on January 9, 1990, from Prudential Lines, Inc.

[15] USL/USL(S.A.), in bankruptcy, provides no service under the subsidy contract; contracts have been authorized by MSB to be assigned to Midlantic National Bank as Trustee.

Table 12 (Continued)

B. Bulk Trades:

Operator and Contract No.	ODS Agreements: Contract Effective Date	ODS Agreements: Contract Termination Date	Number of Subsidized Ships 9/30/93	Service	Annual Sailings: Minimum No. of Days
American Maritime Transport, Inc. MA/MSB-166	10-10-74	10-09-94	1	Worldwide Bulk Trade	335
Aquarius Marine Co. MA/MSB-309	10-15-75	10-14-95	2 [1]	Worldwide Bulk Trade	335
Atlas Marine Co. MA/MSB-274	12-30-76	12-29-96	1	Worldwide Bulk Trade	335
Brookville Shipping, Inc. MA/MSB-166(a)	10-10-74	10-09-94	5 [2]	Worldwide Bulk Trade	335
Brookville Shipping, Inc. MA/MSB-272	4-14-76	4-13-96	1	Worldwide Bulk Trade	335
Chestnut Shipping Co. MA/MSB-299	12-01-76	11-30-96	5 [3]	Worldwide Bulk Trade	335
Equity Carriers Inc. MA/MSB-439	5-24-81	5-23-2001	0	Worldwide Bulk Trade	335
Margate Shipping Co. MA/MSB-134	12-28-73	12-27-93	3	Worldwide Bulk Trade	335
Mormac Marine Transport, Inc. MA/MSB-295	12-10-75	12-09-95	3	Worldwide Bulk Trade	335
Ocean Chemical Carriers, Inc. MA/MSB-442	9-19-81	9-18-2001	1	Worldwide Bulk Trade	335
Ocean Chemical Transport, Inc. MA/MSB-440	3-26-81	3-25-2001	1	Worldwide Bulk Trade	335
Vulcan Carriers, Ltd. MA/MSB-167	4-03-76	4-02-96	6 [4]	Worldwide Bulk Trade	335
Total Bulk Trades			**29**		

[1] Tanker CHARLESTON is eligible to share ODS under Aquarius' and Atlas' two ODS contracts not to exceed two ship years of subsidy annually.

[2] Four 63,700 DWT dry bulk vessels (LIBERTY SEA, LIBERTY SPIRIT, LIBERTY STAR, and LIBERTY SUN) are eligible to share ODS under Brookville's two ODS contracts, not to exceed two ship years of subsidy annually.

[3] Three vessels (CHILBAR, ENERGY INDEPENDENCE, and FREDERICKSBURG) are eligible to share ODS under Chestnut and Margate's two ODS contracts, not to exceed five ship years of subsidy annually.

[4] Vessels have been sold, company in bankruptcy.

Table 13: FOREIGN TRANSFERS AND OTHER SECTION 9 APPROVALS--FY 1993[1]

A. Program Summary	Number	Gross Tons
U.S. PRIVATELY-OWNED VESSELS		
Transfer to Foreign Ownership and/or Registry		
Vessels of 1,000 Gross Tons and Over	55	767,401
Vessels Under 1,000 Gross Tons	1	845
Total	**56**	**768,246**
Charters to Aliens & Modifications	14	
Violations		
Reported	6	
Mitigated or Settled	5	
Rescissions (Sales to Aliens)	3	
Mortgages to Aliens	4	
Denials	7	
U.S. GOVERNMENT-OWNED VESSELS	**33**	**155,788**

[1]Approvals granted by MARAD pursuant to Section 9, Shipping Act of 1916, as amended.

Table 13: (Continued)

B. FOREIGN TRANSFER APPROVALS--Vessels of 1,000 Gross Tons and Over

	Pursuant to Section 9 (U.S.-Owned and U.S. Documented)	
	No. of Vessels	Gross Tons
Tankers	11	549,788
Cargo/Containership	6	72,652
Passenger	1	38,216
Miscellaneous	37	106,745
Total	**55**	**767,401**

Recapitulation by Nationality	Number	Gross Tons
Argentinian	7	10,631
Canadian	2	3,796
Cayman Islands	1	1,394
Dominican Republican	1	1,569
Egyptian	1	17,614
Fijian	1	1,167
Greek	3	351,855
Liberian	1	4,089
Mexican	1	3,846
Norwegian	1	3,337
Panamanian	8	89,802
St. Vincent & the Grenadines	2	26,970
Vanuatuan	1	1,573
Venezuelan	13	15,134
Total	**43**	**532,777**
Sale to Alien for Scrapping	12	234,624
GRAND TOTAL	**55**	**767,401**
U.S. Government-Owned	33	155,788

Chapter 3

Domestic Operations

The segment of the American merchant marine which operates on the Great Lakes, the inland waterways, and in the coastwise, intercoastal, and domestic offshore trades carries a combined total of over 1 billion short tons of cargo each year.

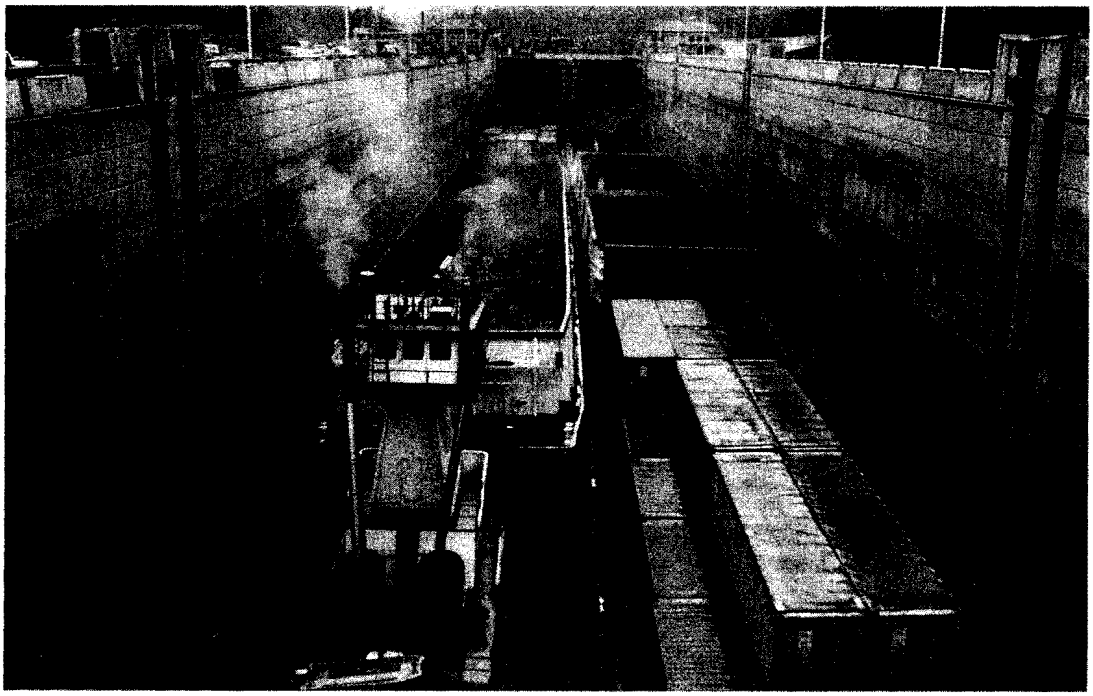
Great Lakes

The U.S.-flag Great Lakes bulk fleet consisted of 77 self-propelled vessels of 1,000 gross registered tons and over, 50 of which were active and 7 were temporarily inactive on September 30, 1993. (See Table 14.) This represents nearly full utilization of the vessels capable of competitive operation in the region's bulk trades. Because of their comparatively small size, lack of self-unloading equipment, and other economic factors, the 12 long-term inactive lay-up ships are uneconomical to operate.

The primary dry bulk cargoes, iron ore, coal, and limestone, shipped from U.S. ports during the 1993 shipping season through September totaled 74.7 million short tons. Vessel use remained about average throughout the year. Total cargo carried in 1993 was about one percent above the previous year.

Inland Waterways

Persistent rainfall over the central part of America raised rivers to unprecedented levels making 1993 the year of the Great Flood. As a result, the Upper Mississippi River System was closed approximately 2 months. All commercial river traffic was suspended on the Upper Mississippi, Missouri, Illinois, and Kaskaskia Rivers on June 28 and reopened on August 23. Water levels dropped below flood stage in St. Louis, MO in early October for the first time since late June.



The Bonneville Lock and Dam opened for commercial traffic on March 30, 1993.

At the height of the flood, 2,000 out of a total fleet of 25,000 dry and tank barges were stranded--because of lock closures on the Upper Mississippi. Additionally, 5,000 barges were affected adversely throughout the entire waterway system. The economic impact of the flood for the barge industry was estimated at between $3 and $4 million per day.

The Federal tax on fuel used by towboats--and other modes--increased by 4.3 cents per gallon on October 1, 1993. It will increase to 23.4 cents a gallon on January 1, 1994, and will rise to 24.4 cents a gallon on January 1, 1995.

Lock and dam projects on the Ohio River and its tributaries were completed in 1993, along with the new Bonneville Lock and Dam on the Columbia River. However, fuel tax receipts -- which are used to partially fund new construction and rehabilitation -- fell below expectations while the U.S. Army Corps of Engineers' expenditures and project costs escalated.

Although the shallow-draft industry has remained fairly stable over the past few years in terms of the amount of equipment, it continues to experience difficulties as a result of company consolidations. Industry consolidation is expected to continue, but at a much slower pace.

According to the latest Corps of Engineers' statistics, inland waterway tonnage, composed of internal traffic, declined approximately 3.5 percent, from 622.6 million tons in 1990 to 600.2 million tons in 1991. Internal traffic excludes local movements within ports.

The number of active dry cargo barges declined slightly (less than 2 percent), from just over 21,000 in 1991 to just under 20,000 in 1992. New dry cargo barges constructed in 1992 totaled 676, more than any other year since 1981.

Of the 2,500 barges in the active tank fleet, approximately one-third are of single-skin construction that operate primarily in the petroleum trade along the U.S. Gulf. Although there were 79 new tank barges built, the most since 1981, the total tank fleet declined almost 4 percent due to attrition.

Trade between the United States and Mexico has increased from $36 billion in 1988 to a projected $100 billion for 1992. As a result, Mexican officials have begun engineering and cost studies for extending the Gulf Intracoastal Waterway from Brownsville, TX, to the Port of Tampico. Concurrently, MARAD is funding a study examining international waterborne transportation using the Great Lakes, the Mississippi River System, the Gulf Intracoastal Waterway, and the Gulf of Mexico. Entitled "The Maritime System of the Americas," the project involves studying various approaches to carrying increased amounts of commerce moving in the Western Hemisphere.

Some of the other significant MARAD accomplishments in FY 1993 included: a demonstration project in partnership with the Columbia/Snake River Marketing Group as part of MARAD's Shallow Draft Initiative; a research project being conducted by Memphis State University to develop an inland waterway marketing database; representation on the Missouri River Basin Association that is reconciling the Corps of Engineers review and update of the Missouri River Master Manual; and publication of a promotional brochure on the environmental advantages of inland barge transportation.

Domestic Tanker Movements

U.S.-flag tankers averaged 67 voyages each month from Valdez, AK in FY 1993. An average of 1.70 million barrels per day of crude were transported from Valdez in calendar year 1992. Of these shipments, 79 percent went to the U.S. west coast, 9 percent to Panama for transshipment to the U.S. east coast, 6 percent to the Virgin Islands, and 6 percent to Alaska and Hawaii. The tanker and barge movements of petroleum from the gulf coast to the east coast has increased by over 8 percent, averaging about .5 million barrels per day.

Offshore Drilling

Seventy percent of the production in the U.S. Gulf of Mexico is natural gas. In the winter of 1992 gas prices fell to about $1 per million cubic feet ($/mcf). Prices recovered, however, as a result of Hurricane Andrew, which caused the temporary shutdown of about 15 percent of the Gulf's offshore gas production. At year's end, gas prices were firm at about $2.3/mcf.

In the last 25 years, the oil industry reorganized its exploration and development activities to minimize fixed costs. A pyramidal structure evolved: major assets are now rented, not owned, and the major oil companies permit independent service companies to bid on each aspect of development projects, such as seismic survey, exploratory drilling and logistics support. Additionally, mobile rigs now are typically chartered and equipment used in wells, such as drill pipe, are rented. This structure permits rapid changes in the size of oil company exploration budgets, but support/supplier companies (and their lenders) have experienced feast or famine business cycles.

A significant increase in the level of gas production in the U.S. Gulf seems unlikely. The depletion rates of existing wells suggest that many will be exhausted within 3 years, and in the near future many of the currently operating offshore rigs in the Gulf of Mexico will have to be replaced. The normal life expectancy of an offshore rig is 20–25 years. Currently, there are 232 rigs in service that were built prior to 1980. Replacement costs for a new fourth generation, medium water depth semisubmersible is estimated at more than $200 million. These factors suggest that there will be few new entrants into the market in the next several years and utilization rates for existing rigs should gradually improve.

Offshore Service Vessels

The offshore industry is a model of unfettered competition at work. The rate paid for tug/supply boats and other support craft is almost totally dependent on the number of working rigs. As a rule of thumb, each working rig means work for 1.5 to 2 support/supply vessels. Most jobs for these support vessels are put out to bid by the oil companies on a "day rate" basis. Because there is little to differentiate one supply boat from another, the "day rate" a boat can command is a direct function of the "rig count" (the number of rigs working).

There have been wide swings in the level of offshore drilling activity. As of September 30, 1993, a total of 124 rigs were under contract in the U.S. Gulf of Mexico. While this is only about 80 percent of the previous 10-year average, a year earlier only 80 rigs were working in the Gulf. By contrast, in 1990 there were 131 rigs (111 jack-ups and 20 semisubmersibles) working in the same waters.

The utilization rate for offshore supply vessels has improved after conversion and shifting into specialized services such as spill response. During the last several years there has been virtually no new vessel building for this market.

Table 14: U.S.-FLAG GREAT LAKES BULK FLEET [1]--SEPTEMBER 30, 1993

	Vessels	Gross Registered Tons	Estimated Deadweight Tons
Total	**77**	**1,102,518**	**2,111,686**
Bulk Carriers	**69**	**1,071,490**	**2,097,466**
Active	50	828,041	1,630,181
Temporarily Inactive	7	141,392	285,750
Laid Up Inactive (More than 12 months)	12	102,057	181,535
Tankers	**2**	**9,758**	**14,220**
Active	2	9,758	14,220
Temporarily Inactive	0	0	
Others [2]	**6**	**21,270**	**-**
Active	1	4,244	-
Temporarily Inactive	0	0	-
Laid Up Inactive (More than 12 months)	5	17,026	-

[1] Self-propelled vessels of 1,000 gross registered tons and over.
[2] Includes railroad car ferries and auto ferries.

Chapter 4

Market Promotion

The Maritime Administration (MARAD) engages in a variety of marketing programs designed to increase U.S.-flag participation in the Nation's oceanborne foreign commerce. The programs focus on improving communications between U.S.-flag carriers and shippers and providing assistance on marine transportation to firms active in international trade.

Marketing Program

MARAD's marketing program assists carriers through market leads and personal contacts with shippers to encourage them to give preference to U.S.-flag vessels for their ocean transportation needs. The Market Lead System refers to market intelligence collected from both private and Government sources which MARAD, in turn, makes available to U.S.-flag vessel operators. Over 12,000 market leads were distributed to the U.S. carriers during FY 1993.

MARAD has offices strategically located throughout the country which consult with the transportation policymakers of import and export firms. During this reporting period, a new marketing office was opened in San Francisco and additional personnel were assigned to five other locations, which enabled MARAD to expand its marketing coverage.

In FY 1993, the trade specialists assigned to MARAD's offices consulted with 1,900 firms to encourage the adoption of a company policy to utilize U.S.-flag vessels. Voluntary reports from carriers and shippers indicate that over $42 million in additional ocean freight revenues for U.S.-flag vessels resulted from these policy consultations. Over the last 10 years, in excess of $197 million in additional revenue for U.S.-flag carriers has been generated by this program. In addition, to improve the quality of information provided to U.S. carriers and to enhance the effectiveness of MARAD's meetings with shippers, a computerized database was created to provide quick access to vital shipper information obtained from America's importers and exporters.

During FY 1993, MARAD actively participated in 380 seminars, forums, workshops, and other meetings dealing with international trade and transportation. MARAD has further expanded the visibility of its marketing mission for support of the U.S. merchant marine by taking an active role in Government and private export promotion programs. For example, MARAD has interacted with such export trade promotional organizations as the US-ASEAN (Association of South East Asian Nations) Council and JETRO (Japan External Trade Organization).

In addition, MARAD has provided U.S.-flag carrier promotional materials nationwide to multicity export workshops and seminars sponsored by the U.S. Department of Commerce. Attended by shippers, carriers, freight forwarders, and other maritime interests, these meetings have provided an opportunity for the exchange of information and views on transportation economics and practices. The meetings also enabled the Agency to brief several thousand executives of firms involved in foreign trade on the national policy benefits which result from shipper utilization of U.S.-flag services.

MARAD also provides business leads to America's exporters and in FY 1993 started a shipper help line. The Agency further assists exporters by maintaining information on the U.S.-flag services in the Department of Commerce's National Trade Data Bank and "Flash Fax" system.

MARAD's formal shipper award program recognizes importers and exporters who are patronizing U.S.-flag carriers with a substantial share of their international cargoes. During FY 1993, MARAD presented 130 shippers with U.S. Merchant Marine Certificates of Appreciation.

Under the 2-year-old executive contact program, a select group of shippers are contacted by senior MARAD executives in an effort to improve their use of American carriers. During FY 1993, increased

emphasis was placed on high volume, high value importers and exporters, and it has been extremely successful.

During FY 1993, MARAD informed exporters to Kuwait of the Kuwaiti Government's policy change which allows U.S. carriers to compete for Government-impelled cargoes. Similarly, U.S. suppliers to Israel were informed of the 5-year, $10 billion loan guarantee program for Israel and provided information on available U.S.-flag service.

Bilateral Cargo Monitoring

To assure a fair transportation environment for U.S.-flag vessels, MARAD monitors cargo movements between the United States and its trading partners. Various trades were examined on an *ad hoc basis*. Many were monitored closely as the result of changing trade conditions, unilateral actions by trading nations, or the existence of bilateral trade agreements.

Because of a bilateral agreement between the United States and the Peoples Republic of China (PRC), liner cargo moving between these two countries was closely monitored during the year. In calendar year 1992, the liner trade between the two countries totaled 7.9 million long tons valued at $25.5 billion. Although there was a minor increase in tonnage over the 1991 totals, there was a significant increase in the value of the commodities shipped, going up by $5.8 billion (29.48 percent). U.S-flag vessels lifted 10 percent of the overall liner trade by weight and 20 percent by value. This represents a 21-percent decline in the U.S.-flag share by weight and a 23 percent decline in U.S.-flag share by value. PRC-flag vessels lifted 25 percent by weight and 13 percent by value.

Chapter 5

National Cargo and Compliance

MARAD is responsible for monitoring the administration of and compliance with the cargo preference laws and regulations by Federal agencies as they relate to individual programs which generate oceanborne cargoes.

The purpose of the program is to ensure that compliance is achieved, encourage Federal agencies to maximize the use of U.S.-flag vessels, monitor bilateral and similar agreements, and identify discriminatory or potentially discriminatory trade practices against U.S.-flag vessels.

Preference Cargo

Monitoring compliance with United States cargo preference laws is essential in encouraging Federal agencies to maximize the use of U.S.-flag vessels. MARAD is required to report annually to Congress on compliance with the three major cargo preference laws:

o The **Cargo Preference Act of 1954** (P.L. 83-664), as amended, requires that at least 50 percent of the gross tonnage of all Government-generated cargo be transported on privately owned, U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates. In 1985, the Merchant Marine Act of 1936 was amended to require that the percentage of certain agricultural cargoes required to be carried moving on U.S.-flag vessels increase from 50 to 75 percent.

o The **Cargo Preference Act of 1904** requires all items procured for or owned by U.S. military departments or defense agencies be carried exclusively (100 percent) on U.S.-flag vessels available at fair and reasonable rates.

These cargoes are generated primarily by Department of Defense (DOD) contracts with domestic and foreign contractors and vendors. Cargo preference applies not only to the end product but also to component parts. (MARAD's oversight responsibilities under the Merchant Marine Act of 1970 (P.L. 91-469) encompass all DOD ocean transportation requirements to ensure that at least 50 percent of the 100 percent requirement is met by privately owned, U.S.-flag commercial vessels, as stipulated by P.L. 83-664.)

o **Public Resolution 17 of the 73rd Congress** requires that all cargoes generated by the Export-Import Bank (Eximbank) be shipped on U.S.-flag vessels, unless a waiver is granted.

MARAD monitors the shipping activities of Federal agencies, independent entities, and Government corporations. (See Table 15.) Statistics are maintained on a CY basis or on a 12-month program period, with the exception of Eximbank statistics which are maintained over the life of a loan or guarantee.

Civilian Agencies

Strategic Petroleum Reserve

In 1977, the U.S. Government announced its intention to store 750 million barrels of crude oil in salt domes along the U.S. gulf coast as a Strategic Petroleum Reserve (SPR). At the end of CY 1992, approximately 575 million barrels had been stored at five SPR sites.

The Cargo Preference Act of 1954 requires the Department of Energy (DOE) to transport at least 50 percent of the oil in U.S.-flag tankers. In 1977, MARAD and DOE agreed that to ascertain compliance, long ton/miles (LTM) more accurately reflect the broad geographical distances in transporting the oil than by tonnage alone.

In CY 1992, DOE reactivated procurement activities following its August 1990 suspension of oil purchases because of unstable conditions in the Persian Gulf. During 1992, U.S.-flag tankers carried SPR cargo amounting to 1.362 billion long ton/miles (55.28 percent) with revenues of $4.39 million.

Israeli Cash Transfer

Under the Israeli Cash Transfer Program, a "side letter" was in effect from 1980 through 1989. The Government of Israel declined to execute a side letter with the Agency for International Development (AID) beginning October 1, 1990. In December 1991, Israel issued a new side letter to AID to transport 50 percent of grain shipments to Israel from the United States in FY 1992 on U.S.-flag vessels. Under the renewed side letter, U.S.-flag vessels transported 800,000 metric tons and earned revenues of some $26.4 million. A new side letter agreement was issued for FY 1993.

Export-Import Bank

In the Eximbank program, total ocean freight revenues decreased from $35.1 million in CY 1991 to $32.4 million in CY 1992. During CY 1992, U.S.-flag operators earned $25.4 million, representing 79 percent of the total ocean freight revenues. The slight decline in the Eximbank program resulted from the winding down of old projects and the delay between the start-up and shipping under Eximbank's new large projects.

Ocean Freight Differential

The Food Security Act of 1985 (P.L. 99-198) increased the required percentage for U.S.-flag carriage from 50 to 75 percent of gross tonnage of certain agricultural programs (P.L. 83-480, Food for Progress, and Section 416 programs).

The U.S. Department of Agriculture's Commodity Credit Corporation (CCC) is responsible for funding the ocean freight differential (OFD) costs for 50 percent of the gross tonnage of agricultural commodities moving during the Cargo Preference Year (CPY), which is April 1 through March 31. The Department of Transportation is responsible for financing any increased ocean freight charges resulting from the application of the increased U.S.-flag share. MARAD reimburses USDA for its share of the OFD costs above 50 percent of the gross tonnage up to but not exceeding the additional 25 percent.

OFD cost is defined as the difference between the cost of shipping cargo on a U.S.-flag vessel as compared to shipping the same cargo on a foreign-flag vessel.

During the CPY which started on April 1, 1992, MARAD's share of the OFD, based on its review of all invoices submitted by CCC by September 30, 1993, totalled $61,915,229. This figure is not definitive because final invoices were not received from CCC by the end of this reporting period.

The average OFD costs for all of the agricultural preference programs for the CPY 1992/1993 was $37.85 per metric ton.

If, in any fiscal year, the total obligations incurred by USDA and CCC of ocean freight and OFD on exports of agricultural commodities and products under certain agricultural programs exceeds 20 percent of the value of the commodities exported under these programs, plus the ocean freight and OFD, the 1985 Act requires MARAD to reimburse CCC the amount of such excess. USDA and MARAD are reviewing CPY 1992/1993 data to determine whether total ocean freight costs exceeded the 20 percent measure.

The 1985 Act amendments also provide that for FY 1986 and each fiscal year thereafter, the minimum tonnage to be exported under P.L. 83-480 and Section 416 programs shall be the average of the tonnage exported during the base period. The base period for any fiscal year is defined as the five fiscal years, high and low years discarded, beginning with the sixth fiscal year preceding such fiscal year and ending with the second fiscal year preceding such fiscal year.

Based on preliminary program tonnage figures provided by USDA, the total tonnage for the P.L. 83-480 and Section 416 programs during FY 1993 was 8,745,282 metric tons, exceeding the minimum tonnage requirement by 1,040,762 metric tons.

Other DOD Programs

The Defense Security Assistance Agency (DSAA) is the sponsoring DOD agency for the Foreign Military Financing (FMF)/ Military Assistance Program (MAP) Merger and related programs authorized within the scope of the Foreign Assistance Act of 1961 (FAA), as

amended. The movement of excess defense articles within these programs is consistent with the continued drawdown of U.S. forces, especially from northern Europe, and the closure of U.S. military bases worldwide.

The statistics reflected in Table 15 for the FMF/MAP Merger and related FAA programs represent combined tonnage and revenue data for those ocean shipments arranged by the foreign recipients, freight forwarders and also those that were authorized to move within the Defense Transportation System (DTS) and which were processed by the Military Traffic Management Command (MTMC) and the Military Sealift Command (MSC).

U.S.-flag participation is well above that required by the governing cargo preference law (P.L. 83-664) and reflects MARAD's efforts to maximize the use of U.S.-flag vessels. Continuing its support of the U.S.merchant marine and U.S.-flag vessels, DSAA extended its 100 percent U.S.-flag shipping policy for the FMF/MAP Merger programs to the related FAA program transfers. DSAA also grants general waivers to its policy thereby allowing the recipient national-flag vessels to participate in the ocean carriage of cargo within each program.

Military Cargoes

MARAD's Division of Military Cargoes initiates and recommends regulations and procedures for Department of Defense (DOD) agencies to follow in the administration of cargo preference. Program efforts concentrate on meetings and discussions with DOD contractors, suppliers, freight forwarders, and shipping companies to focus attention on the U.S.-flag carriage requirements.

The Military Transportation Act of 1904 (10 USC 2631) is the primary law that applies to DOD. The 1904 Act requires that items procured for, or owned by the military departments or defense agencies, must be carried exclusively (100 percent) on U.S.-flag vessels, if available at reasonable rates. The preponderance of DOD cargoes move under the control of the MSC and the MTMC. However, a significant amount of DOD cargo moves in the commercial sector. Cargo preference applies not only to the end item but also to its component parts and supplies. A brief description of the activity in each DOD branch follows.

Defense Logistics Agencies

The Defense Logistics Agencies (DLA) awarded fewer commercial ocean requirements in CY 1992. The decline in contracts requiring commercial ocean transportation was based on the increase in DLA shipments moving in the DTS. The reduction in defense spending over the next few years is expected to result in a decline in DLA figures.

Some U.S.-flag carriers have Cooperative Working Agreements (CWAs) with foreign-flag carriers. As a result of CWAs, cargo was loaded on U.S.-flag vessels but the revenue went to a foreign carrier. Additionally, some exemptions from using U.S.-flag vessels were granted by MSC.

Army/Corps of Engineers

As a result of an improved reporting system and automated monitoring procedures, the Army program tonnage revenue increased in fiscal year 1993. However, there was a decrease in revenue reported by the Army Corps of Engineers during the year which might have resulted from bills-of-lading submissions from the Korean and Panamanian contracting offices.

Air Force

The Air Force program was in compliance with cargo preference laws during this reporting period. The foreign-flag shipments that did occur resulted from violation of a CWA between a U.S.-flag carrier and its foreign partner. The contractor booked the cargo with a U.S.-flag carrier who placed the cargo on a foreign CWA partner vessel. The U.S. carrier was notified and corrective action taken. Overall reductions in defense spending also resulted in a decrease in total metric tons shipped.

Navy/Marine Corps

In comparison with the previous year, the tonnage and revenues of Navy and Marine Corps cargo decreased. This was largely due to shipments for Operations Desert Shield and Desert Storm in calendar year 1991.

As a result of MARAD-initiated contacts with contracting officers and shipyard personnel, better cargo preference procedures were introduced to subcontractors in fiscal year 1993. These procedures resulted in improved compliance by major shipyards.

CWA partnerships between U.S.- and foreign-flag carriers, have resulted in some compliance problems because cargo is loaded on U.S.-flag vessels, but booked with the foreign-flag partner receiving the revenues. U.S. carriers are attempting to correct this problem.

Waivers were granted by MSC for some contracts when no U.S.-flag service was available (Australia, Bermuda, and Antigua, for example).

Troop Support Cargoes

Cargoes handled in the DTS by MTMC and MSC are being provided in a separate section of Table 15. The preponderance of military-sponsored cargo is shipped under contracts and agreements MSC has negotiated with U.S.-flag carriers. The data provided were submitted by MSC, with no independent MARAD verification. Precise revenue figures were not available. Since MSC uses long tons and measurement tons in lieu of metric tons, data shown are estimates.

Agricultural Cargoes

The statutory sources of agricultural cargo preference programs are Titles I, II, and III of P.L. 83-480; Section 416 of the Agricultural Act of 1949; and Food for Progress. These programs have a 75-percent U.S.-flag shipping requirement.

o **Title I** provides for U.S. Government financing of sales of U.S. agricultural commodities to developing countries on concessional credit terms.

o **Title II** is a donation program administered by AID which generates approximately 3 million metric tons of packaged, processed, and bulk commodities for least developed countries.

o The **Title III, Food for Development Program** was established by the Food, Agriculture, Conservation, and Trade Act of 1990 (1990 Farm Bill). Under this bilateral grant program, agricultural commodities are donated to least developed countries. The implementation of the 1990 Farm Bill was effective February 25, 1991. Shipments under the Title III program began during Cargo Preference Year 1991/1992.

o **Section 416** is a donation program which generates approximately 1.2 million metric tons of bulk grain and other surplus agricultural commodities annually for least developed countries.

o **Food for Progress** provides assistance on agricultural commodities to developing countries on a grant basis in exchange for development policy reforms.

Table 15: GOVERNMENT-SPONSORED CARGOES—CALENDAR YEAR 1992
(Note: These numbers do not include domestic shipments)

PUBLIC LAW 664 CARGOES:

Agency for International Development (AID):

Program	U.S.-Flag Revenue ($1,000)	Total Metric Tons	U.S.-Flag Metric Tons	Percentage U.S.-Flag Tonnage
Loans and Grants				
Liner	13,190	69,952	54,534	77.9
Bulker	1,384	53,232	10,054	18.9
Tanker	0	13,711	0	0.0
TOTAL	14,574	136,895	64,588	47.2[1]
P.L. 83-480 - Title II[2]				
Liner	107,667	1,065,761	768.318	72.1[3]
Bulker	77,220	911,309	717,071	78.7
Tanker	18,984	245,302	245,302	100.0
TOTAL	203,871	2,222,372	1,730,691	77.9[4]
P.L. 83-480 - Title III[2]				
Liner	1,319	11,011	11,011	100.0
Bulker	54,695	1,231,800	867,765	70.4[5]
Tanker	14,085	271,530	244,282	90.0[6]
TOTAL	70,099	1,514,341	1,123,058	74.2[7,8]
Population Division	878	981	957	97.0

Department of Agriculture:

P.L. 83-480 - Title I[2]				
Liner	3,872	30,768	30,768	100.0
Bulker	76,993	1,742,307	1,214,262	69.7
Tanker	19,046	337,716	317,807	94.1
TOTAL	99,911	2,110,791	1,562,837	74.0[9]
Section 416[2]				
Liner	32,132	254,344	138,065	54.3[10]
Bulker	82,097	1,104,365	794,080	71.9[11]
Tanker	23,390	344,585	316,278	91.8[12]
TOTAL	137,619	1,703,294	1,248,423	73.3[7,16]
Food for Progress[2]				
Liner	26,229	84,027	76,383	90.9[13]
Bulker	15,216	354,264	278,157	78.5[14]
Tanker	4,341	86,822	57,000	65.7[15]
TOTAL	45,786	525,113	411,540	78.4[7]

Table 15 : GOVERNMENT-SPONSORED CARGOES--CALENDAR YEAR 1992 (CONTINUED)
(Note: These numbers do not include domestic shipments)

Department of Energy:				
Savannah River Project	49	247	247	100.0
Strategic Petroleum Reserve	4,399	888,347	345,990	55.3[17]
Department of Health and Human Services	47	67	55	82.0
Department of Justice				
Drug Enforcement Administration	12	19	11	57.9
Department of Interior				
Bureau of Reclamation	30	16	16	100.0
Department of Treasury				
Bureau of Engraving	5	36	36	100.0
National Aeronautics and Space Administration	206	695	316	45.5[18]
National Science Foundation	2,359	31,405	31,331	99.8
General Services Administration	98	151	97	64.2
Department of Transportation				
Federal Transit Administration	2,930	6,003	3,720	62.0[19]
Federal Railroad Administration	159	322	322	100.0
U.S. Coast Guard	106	1,439	755	52.5
U.S. Information Agency	679	1,072	742	69.2
Voice of America	268	2,134	1,128	52.9
Department of State:				
Foreign Building Office	6,781	17,342	10,376	59.0
Other Agencies	6,535	7,460	5,988	80.0
Tennessee Valley Authority	4	36	36	100.0
Other Agencies	164	266	102	38.3[18]

PUBLIC RESOLUTION 17 CARGOES:

	Total Metric Tons	U.S.-Flag Metric Tons	Total Freight Revenue	U.S.-Flag Freight Revenue	Percentage U.S.-Flag
Eximbank	88,713	66,155	32,394,303	25,435,207	79.0[20]

Table 15: GOVERNMENT-SPONSORED CARGOES--CALENDAR YEAR 1992 (CONTINUED)
(Note: These numbers do not include domestic shipments)

CARGO PREFERENCE ACT OF 1904 CARGOES:

	Total Metric Tons	Metric Tons Dry Cargo	Metric Tons Petroleum	Percentage
Department of Defense Troop Support Cargoes:[21]				
Military Sealift Command (MSC)				
U.S.-flag privately-owned vessels	1,417,622	1,417,622	0	23.0
U.S. Government-owned vessels	193,623	163,488	30,135	3.1
MSC chartered vessels	4,104,313	408,183	3,696,130	66.5
Foreign-Flag vessels	457,627	175,251	282,376	7.4
Total carriage of MSC Troop Support Cargo	6,173,185	2,164,544	4,008,641	100.0

Department of Defense Commercial Contractor Cargoes:	U.S.-Flag Revenue ($1,000)	Total Metric Tons	U.S.-Flag Metric Tons	Percentage U.S.-Flag Tonnage
Army Materiel Command	4,819	70,012	66,081	94.3
Air Force	875	1,448	1,434	99.0
Corps of Engineers	1,706	5,038	4,829	95.8
Defense Logistics Agency	757	4,312	4,304	99.8
Navy	4,690	17,082	16,297	95.4
Total U.S.-Flag carriage Department of Defense Commercial Contractor Cargoes	12,847	97,892	92,945	94.9

Defense Security Assistance Agency (DSAA):

Foreign Military Financing and MAP Merger Programs	22,230	56,298	41,942	74.0
Southern Region Amendment Section 516, FAA and Section 519, FAA	4,986	7,432	7,217	97.0

1. The U.S.-flag percentage figure reflects an overall noncompliance position. However, MARAD determined that U.S.-flag bulkers were not available for 16,500 metric tons nor tankers for 6,855 metric tons. Based on this determination the bulkers still do not meet the statutory requirement; however, the program overall did reach the required 50 percent.

2. The Food Security Act of 1985 (P.L. 99-198) impacted on the P.L. 480 Title I,II,III, the Section 416, and the Food for Progress programs by changing the reporting period from a calendar year to a 12-month period commencing April 1, 1986, through March 31, 1987, and by increasing the U.S.-flag share from 50 to 75 percent over a three year period. The required U.S.-flag share for the current reporting period, April 1, 1992 to March 31, 1993, is 75 percent.

3. Liner vessels failed to achieve the 75 percent U.S.-flag requirement; however, the requirement was exceeded on an overall program basis.

4. Cargo preference is monitored on a global basis by vessel type for the Title II program.

5. Bulker vessels failed to achieve the 75 percent requirement. All preference cargoes shipped by bulkers to Ethiopia, Ghana and Mali were carried by foreign flag vessels. The following countries also did not meet the requirement: Bangladesh 51 percent, Peru 67.6 percent and Zambia 60.1 percent.

6. Two of the six participating countries which utilized tankers failed to meet the 75 percent requirement. Uganda did not receive any preference cargo on U.S.- Flag tankers (due to no U.S.-flag offers) while India had 55 percent participation.

7. Cargo preference is monitored on a country and vessel type basis.

8. Title III came in just under the 75 percent requirement; however, after accounting for to the non-availability of certain U.S.-flag tonnage, the program met the cargo preference requirement.

9. The Title I program is monitored on an individual Purchase Authorization (PA) basis. While the overall program met the 75 percent requirement, after accounting for to the non-availability of certain U.S.-flag tonnage, the following counties failed to meet the minimum requirement: Cote D'Ivoire (IV-5002 71 percent), Latvia (LG-5001 74 percent), Moldova (MD-5001 0 percent) and Suriname (NS- 5003 54 percent). There were no U.S.-flag vessels or insufficient tonnage available to meet the 75 percent requirement for: El Salvador (ES-5003 71 percent), Sri Lanka (CE-5003 56 percent), Congo (CF-5003 0 percent), Jamaica (JM-5010 0 percent), Lithuania (LH-5001 0 percent, LH-5002 60 percent). The following countries also failed to meet the minimum requirement, but made up the tonnage in other PAs: Lithuania (BO-5001 0 percent, BO-5002 39 percent), Congo (CF-5002 56 percent), Jamaica (JM-5012 68 percent), Suriname (NS-5002 72 percent), Sierra Leone (SL-5001 66 percent) and Zimbabwe (ZI-5001 70 percent, ZI-5002 57 percent).

10. Eight of the nineteen participating countries did not achieve the 75 percent requirement: Albania 52 percent, Malawi 34 percent and Russia 46 percent (Russia due to insufficient U.S.-flag offers) while Armenia, Mali and Madagascar, Mongolia and Zambia (Madagascar and Mongolia due to no U.S.-flag offers) did not receive any preference cargo on U.S.-flag liners.

11. The following counties did not met the 75 percent requirement for bulk vessels: Jordan 70 percent, Kenya 55 percent, Madagascar 0 percent, Malawi 51 percent, Mozambique 70 percent, Namibia 0 percent and Swaziland 0 percent (Namibia and Swaziland due to insufficient U.S.-flag tonnage).

12. Due to no U.S.-flag offers, tanker preference cargo shipped to Mozambique was transported on foreign flag vessels.

13. Nicaragua did not receive any preference liner cargoes on U.S.-flag vessels.

14. All preference cargoes shipped to Armenia via bulkers went foreign flag.

15. All preference cargoes shipped to Albania, Nicaragua and Panama via tankers went foreign flag.

16. Section 416 came in under the 75 percent requirement; however, after accounting for to the non-availability of certain U.S.-flag tonnage, the program met the cargo preference requirement.

17. MARAD accounts for the SPR program on the basis of long ton miles (LTM). In CY 1992 this program provided a total of 2.464 billion LTM of which U.S.-flag carriers derived 1.362 billion LTM or 55.28 percent.

18. Imbalance due to non availability of U.S.-flag service.

19. These programs' tonnages are reflected in metric tons for uniformity only. Cargo preference compliance for those programs involving high cube/low density cargo, is achieved on a gross revenue ton basis. Percentages reflected on a weight tonnage basis for such programs do not necessarily represent the exact extent of the programs' compliance with the statute.

20. Compliance is based on freight revenue only. U.S.-flag participation on a tonnage basis was 70 percent.

21. Data provided by the Military Sealift Command and does not include Foreign Military Sales or domestic shipments.

Chapter 6

Port and Intermodal Development

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projects that benefit State and regional transportation planners and public port authorities. The Agency also evaluated and assisted in selecting contractors to produce two intermodal training courses that are to be included in the curriculum of the National Highway Institute (NHI). These tools and courses emphasize the important intermodal role of ports to the governmental planning organizations charged with evaluating and funding transportation projects which can improve road and rail access to marine terminals.

Port Access

MARAD continued to oversee the completion of the multiagency, Departmental research study of land transportation access impediments at coastal and inland river ports in the United States. In FY 1993, the Transportation Research Board published its report *Landside Access to U. S. Ports.*

MARAD also published three complementary reports which discussed the interagency working group port visits. These reports were published under the same title, but subtitled:

- o North and South Atlantic Regions,
- o Great Lakes, Inland Waterway and Gulf Regions, and
- o North and South Pacific Regions.

MARAD urged ports to prepare proposals to their Metropolitan Planning Organizations and State Departments of Transportation for port access routes to be included in the National Highway System (NHS) required by the ISTEA. The Agency coordinated with the Federal Highway Administration (FHWA) on ports and routes to be included in the plan.

Port and Channel Dredging and Dredged Material Disposal

Responding to comments by President Clinton and Secretary of Transportation Federico Peña, MARAD initiated creation of an interagency working group to

review the current dredging and disposal process and recommend improvements. With MARAD as lead agency, the interagency working group consists of representatives from the United States Army Corps of Engineers, the Environmental Protection Agency, the Fish and Wildlife Service, the Office of Ocean and Coastal Resource Management, and the National Marine Fisheries Service. The group was scheduled to begin its work in FY 94.

Other MARAD dredging efforts include:

- Coordinating with the American Association of Port Authorities (AAPA) a short-term dredging survey of 22 ports to determine the scope of dredging and disposal problems in the Nation.

- Participating with the New York Dredged Materials Forum and working groups sponsored by the United States Army Corps of Engineers, United States Environmental Protection Agency, and the States of New York and New Jersey to develop of short-term and long-term solutions for disposal of contaminated sediment in the Port of New York-New Jersey.

Automated Tools for Improved Planning and Operations

During the fiscal year, MARAD continued its efforts to develop automated tools to assist in improving port planning and operation capabilities and estimating advances in productivity and contributions to the local and national economies. It:

- Continued evaluating the use of geographic information systems (GIS) in terms of their potential application to intermodal planning and operations. The Agency also is participating in a multiagency effort to develop a GIS network for the inland waterways.

  A completed network will be available in the second quarter of FY 1994. Additionally, the Agency is investigating the potential of utilizing video simulation technologies for port planning purposes in an ongoing project. This type of technology can model marine terminal, ship, rail, and truck operations using multimedia imagery and simulation techniques.

- Revised the Port Industry Segment of MARAD's Regional Economic Impact Model. The Agency also completed revisions of the United States - flag merchant marine and the United States shipbuilding and inland barge industries segments, and is revising the port user segment.

The Agency also released estimates of the potential economic losses incurred on the inland waterways as a result of the Midwest floods in the summer of 1993.

Technical Assistance

MARAD continued to provide technical assistance to the port and intermodal industry through two major programs. Several projects were dedicated to strengthening the role of United States ports and intermodal transportation companies in economic development and national defense. This involved the development of various analytical reports, methodologies, and data systems for improving planning, productivity, and the general efficiency of port management and marine terminal operations. These technical projects were cost-shared by MARAD and appropriate State or local port authorities and private sector organizations.

In addition, MARAD supported several local port dredging projects and dredged material disposal plans. In letters to the United States Army Corps of Engineers, the Agency stressed the importance of adequate water depths in navigation channels and berthing areas to national trade competitiveness and intermodal transportation efficiency. It also pointed out the scientific research that supports the facts that over 95 percent of dredged material is harmless and that the small amounts of contaminated marine sediments can be safely disposed in the oceans using special care techniques.

Port and Intermodal Planning Programs

MARAD's port and intermodal planning activities included ISTEA and landside access outreach presentations with other Department of Transportation agencies, and with private associations. Port planning information systems and port financial and economic

analyses were emphasized. Development of generic methodologies for easy use by any port and region continued to be emphasized.

Projects under these programs which were completed, ongoing, or initiated in FY 1993 are listed in the following sections.

Projects Completed	Description
Landside Port Access:	
Interagency ISTEA Conference	MARAD and other DOT agencies cosponsored and cost-shared the National Conference on ISTEA and Intermodal Planning: Concept, Practice, and Vision, conducted by the Transportation Research Board (TRB) of the National Research Council (NRC).
Landside Access to United States Ports: TRB Final Report	MARAD guided the TRB study panel's investigation into the severity of inadequate land transportation links to ports. A final report *Landside Access to United States Ports* was published in January 1993.
United States DOT Interagency Reports	MARAD published three reports on the visits to 16 ports throughout the United States which supplement the TRB document. Under the generic title *Landside Access to United States Ports,* these reports have been published by MARAD in three separate volumes: o North and South Atlantic Regions o Great Lakes, Inland Waterways, and Gulf Regions o North and South Pacific Regions
Land Transportation to Ports and Marine Terminals	MARAD, in cooperation with FHWA, completed a brochure titled "Land Transportation to Ports and Marine Terminals: Opportunities and Challenges for Ports Under the Intermodal Surface Transportation Efficiency Act of 1991".
National Highway System (NHS)	Provided technical assistance to the FHWA in identifying port areas that should be included in the NHS. MARAD support focused on examining criteria for the initial NHS determinations.
Intermodal Planning Grants	Reviewed and commented on 34 State and local proposals for State Intermodal Planning Grants. Six State entities were approved and received a total of $3 million to plan intermodal systems.

Intermodal Management Systems and Long Range Plans	Prepared comments on initial draft and final rules for the six management systems related to ISTEA and the long range plans for States and Metropolitan Planning Organizations.
ISTEA Training Courses	Prepared comments on two ISTEA training course proposals concerning Intermodal Access to Public Facilities and Intermodal Management Systems for Managers and Technical Staff, funded and operated by the National Highway Institute, FHWA.
Presidential Review on Oceans	Provided Agency input for the Presidential Review Directive on Oceans, Freshwater, and Fisheries, for the National Security Council. This foreign policy reflected the United States environmental policy on oceans. MARAD highlighted the importance of seapower, ports, and dredging.
Dredge Material Decontamination	Participated on the NRC Marine Board's evaluation of technology to decontaminate sediments in dredged material at United States ports.
Coastal Conference	Prepared comments highlighting the importance of ports to the coastal zone for the World Coastal Conference on Sea Level Rise and Coastal Zone Management. The National Oceanic and Atmospheric Administration was the lead Federal Agency.
Clean Water Act Reauthorization	Prepared comments emphasizing the need for dredging United States ports for the Clean Water Act Reauthorization for 1993.
Port Expenditure Survey	Prepared and published the *United States Port Development Expenditure Report.* It summarized the public port industry's capital expenditures for 1991 and the proposed expenditures for 1993 through 1998. It also analyzed funding sources used to finance these expenditures.
Port Facilities Inventory	Completed the design, development, and testing of a microcomputer-based port facilities inventory database which replaced the current mainframe version. It provides greater user control, faster response, and lower maintenance costs.
South Atlantic Container Study	Completed a cosponsored study with the U. S. Army Corps of Engineers on the *Future Market for Containership Traffic in the South Atlantic Region of the United States.* It examined the long range market for container traffic in the South Atlantic region. The results are expected to assist both agencies and the industry in planning for future infrastructure requirements.

Economic Impact of Port Industry	Completed study which determined the impacts by the port industry on employment, income, and sales and its contribution to Gross Domestic Product.
Port Governance Study	Completed an examination with the National Academy of Sciences' Marine Board of the current governance structures of the United States port industry and their impact on port management, planning, development, and performance.

Ongoing Projects	Description
Landside Port Access	
Interagency Agreements	Continued implementation of key provisions of memoranda of understanding signed by MARAD and other DOT operating administrations which address growing land transportation bottlenecks affecting the flow of cargo and people to and from the Nation's ports.
Intermodal Outreach Program	Continued outreach efforts to assist ports in coordinating planning and funding of projects which qualify under provisions of ISTEA, through local, regional, and State planning agencies.
Inland Waterway Geographic Information System (GIS) Network	Participated in the National GIS Waterway Design Committee which is developing a GIS network of the United States inland waterway system. A final network is scheduled for completion early in FY 1994.
Port Facilities Database	Continued maintaining, operating, and updating MARAD's port facility inventory for ocean and inland river ports.
Foreign Trade Data	Maintained active participation in the Bureau of Census' Foreign Trade Data Users Group, which seeks to improve the quality of data collected and published on international trade transactions.
Public Port Financing	In cooperation with the AAPA Finance Committee, completed surveys necessary to update the MARAD report *Public Port Financing in the United States,* which is expected to be released in FY 1994.
Regional Input-Output Model	MARAD's Regional Input-Output Model provides the economic impact of the ports and shipping industries. Currently, MARAD is updating the ports segment by providing the economic impact of port users (importers and exporters).

Federal Geographic Data	Participated in the Federal Geographic Data Committee's Ground Transportation Subcommittee, which is promoting the development of an intermodal ground transportation network and database.

Initiated	Description
Landside Port Access	
Intermodal Freight Video	In cooperation with other DOT modes and industry representatives, MARAD began developing an intermodal freight video to emphasize the role that access between ports and surface transportation systems play in the intermodal freight transportation system, and to encourage increased funding of port access projects.
ISTEA and Intermodal Freight Transportation Brochures	MARAD is developing two brochures. The first concentrates on opportunities for ISTEA monies aiding rail projects. The second will focus on intermodal freight transportation.
Interagency Conference	Began plans for the cosponsored, cost-shared, second national intermodal conference with DOT agencies. It is scheduled to be conducted by the NRC in 1994.
Port Expenditure Survey	Began preparation of the *United States Port Development Expenditure Report* on the industry's 1992 capital expenditures for new construction, modernization, and rehabilitation, and projections for 1993-1997.

Port and Intermodal Operations Programs

These programs help to improve productivity in the operation of facilities, equipment, and waterways. They also provide for emergency operating conditions at ports in time of crisis or war.

Projects within these programs which were completed, ongoing, or initiated in FY 1993 are described below.

Completed Projects	Description
Inventory of American Intermodal Equipment	Automated the *Inventory of American Intermodal Equipment* and published the 1991 edition. Data from carriers and leasing companies for the 1992 edition were also collected.

United States Stevedoring and Marine Terminal Industry	In cooperation with the National Association of Stevedores, published a revised and expanded edition of the MARAD report, *The United States Stevedoring and Marine Terminal Industry.*
Maritime System of the Americas	Completed the Phase I study of the commercial waterbridge linking Canada, the United States , and Mexico, which comprises the Maritime System of the Americas. It examined the prospects of all water freight systems on the waterways and rivers which link the central portions of Canada and the United States to Mexico, Central America, the Caribbean countries, and the northern rim of South America. Since this area encompasses the Great Lakes, the Mississippi River, and its navigable tributaries, the Gulf Intracoastal Waterway, the Gulf of Mexico, and the Caribbean Sea, this phase considers vessels or vessel systems capable of safe navigation on inland and ocean waters. In addition to examining innovative vessel technologies and costs, it considers the nature of the market and the potential competition. The analysis of the ocean/river system affirmed that a substantial competitive hinterland exists both in the United States and in Mexico.
Border Crossing Study	Completed review of the waterborne aspects of the Section 6015 Border Crossing Study mandated by ISTEA, which required a review of border crossings with Canada and Mexico via all modes.

Ongoing	**Description**
Maritime System of the Americas	Initiated Phases II and III of the Maritime System of the Americas program. Phase II will investigate conditions defining market share for services of short-sea vessels with transhipment at coastal ports for the trade between Canada, the United States, Mexico, and nearby countries. Phase III will focus on intermodal operations of deepdraft oceangoing vessels, with consideration of other options as alternatives.

Initiated	**Description**
Marine/Rail Terminal Interface	Began and cosponsored with the Federal Railroad Administration a Small Business Innovation Research Project, *Efficient Marine/Rail Intermodal Interface. It* addresses the port land and capital efficiency by assessing the technical feasibility of exchanging containers directly between ocean and rail modes with a minimum inventory at the marine terminal.

Chapter 7

Technology Assessment

The Maritime Administration's (MARAD) Technology Assessment program evaluates activities related to the development and use of water transportation technology and systems for commercial, economic, and national security purposes.

The Agency evaluates current maritime developments and future trends involving such interrelated areas as trade, markets, intermodal transportation, emerging technologies, economic developments, fuels and materials, and national defense requirements.

Technical and program studies, research and development contracts, interagency transfers, and cooperative agreements awarded in FY 1993 are listed in Appendix III.

Cargo Handling Technology

The Cargo Handling Program assesses advanced materials handling, automation, data processing, and communications technologies to reduce cargo handling and documentation costs of intermodal shipments between water and rail or motor carrier transportation modes.

During FY 1993, MARAD continued to support industry research and development through the Cargo Handling Cooperative Program (CHCP). All American companies are eligible and have been invited to participate. Three U.S.-flag carriers, American President Lines, Ltd., Matson Terminals, Inc., and Crowley Maritime Corp. (Crowley), carried out joint projects to increase cargo-handling productivity through new technology.

In projects designed to automate materials handling equipment in marine terminals, an investigation into the use of Differential Global Positioning System (DGPS) technology for a container position identification system was completed in FY 1993. This technology gives the exact location of container-handling equipment, tracks its movement, and provides constant feedback on the location of containers. A proposal to develop this capability is currently being reviewed.

Additionally, a project was initiated to explore technologies to support increased efficiency by automating terminal data collection and documentation operations. Hand-held terminal work continued with initiation of a new application at Crowley's terminal in Jacksonville, FL. This application will automate the collection of shipside cargo verification data. Seal checkers and hatch checkers will be equipped with pen-based computers combined with radio frequency modems to provide real-time updates to the Crowley databases.

Human Factors Research

The Human Factors Research Program examines effective manning, fatigue, boredom, training, and other human factors which affect shipboard operations. The program addresses human error causes of marine transportation accidents and focuses on design and operating improvements to reduce or eliminate those problems.

Work initiated in FY 1992 continued at the Volpe National Transportation Systems Center (VNTSC) to follow and assist an operator with the development of a computer model to help analyze and allocate shipboard manning resources as part of the planning process for start-up operations of a new shipping service. The process will be documented through initial ship trials and operations.

Work began in FY 1991 at VNTSC to assess the feasibility and applicability of using a fitness-for-duty test dealing with fatigue, drugs, and alcohol onboard ship continued during the reporting period. A new type of test focusing on marine-related cognitive abilities was developed. Exploration of onboard utility of the new test along with comparison with other existing approaches is planned.

MARAD, in conjunction with the U.S. Coast Guard (USCG), continued a study with the Marine Board of the National Academy of Science to establish current practices in the application of shiphandling simulation to maritime training and licensing. This project is intended to produce specific programs that will establish marine

simulation as an accepted and practical component of maritime professional development, certification, and licensing regimes.

MARAD assisted with developing the 27th Annual Workshop on Human Factors in Transportation scheduled for January 1994. A day-long series of workshops will address human factors issues in marine and other modes of transportation.

Marine Environmental Protection

The Marine Environmental Protection Program supports studies and issues reports to assist the maritime industry in effectively protecting the marine environment. MARAD was involved in a number of significant developments in FY 1993.

o MARAD was an active participant on the Interagency Coordinating Committee on Oil Pollution Research. Chaired by the USCG, it was established by Title VII of the Oil Pollution Act of 1990, P.L. 101-380 (OPA 1990) to coordinate Federal research encompassing innovative oil pollution technology and evaluation, oil pollution effects research, marine simulation research and environmental testing, demonstration projects, and a regional research program.

o MARAD prepared and distributed quarterly issues of the "Report on Port and Shipping Safety and Environmental Protection." The reports summarized activities at the national and international levels concerning safety and environmental protection matters.

o MARAD and other Federal agencies continued their sponsorship of a study by the Marine Board of the National Research Council on U.S. Implementation of MARPOL 73/78 Annex V (Garbage). This interagency study is scheduled for completion during CY 1994. Participating agencies are the USCG, Environmental Protection Agency (EPA), U.S. Navy, National Oceanic and Atmospheric Administration (NOAA), and MARAD. The Marine Board also initiated an interagency-supported study on Contaminated Marine Sediments in CY 1993. Participating agencies include the Army Corps of Engineers, U.S. Navy, EPA, NOAA, and MARAD.

o MARAD supported the OPA Training Study at the Massachusetts Maritime Academy. Its goal is completion of a model training curriculum in oil spill prevention, response, and cleanup. This study was congressionally mandated in Section 4117 of OPA 1990.

o MARAD and USCG continued a multiyear research project at the USCG Research and Development Center on the Reduction of Air Pollution from Marine Engines. This research will evaluate the safety, economics, and technical feasibility of applying he major means of reducing air pollution from engines aboard ship. The primary purpose is to support the development of safe, cost-effective, and performance-effective national and international emission control standards and strategies.

Maritime Operational Safety

The Maritime Operational Safety Program encompasses advanced ship design and operations features, vessel navigation and communication systems, operational procedures, maintenance, and other initiatives. It is intended to enhance safety while enabling vessels to operate more efficiently and meet Federal safety standards.

A study was completed in FY 1993 to assess the technical and operational feasibility of a worldwide vessel locating and tracking system. It included a technology assessment of navigation, communications, and display technologies, and a user assessment to determine the degree of need among commercial and Government users. A final report was delivered in FY 1993.

Developmental work continues on the modular approach to analyzing ship controllability. The cooperative effort with the USCG has progressed through the testing of bare hull ship models and a summary report is being prepared. The model analysis will be useful as a design tool and will facilitate simulation of maneuvering for shiphandling training or research. Work continued through the Society of Naval Architects and Marine Engineers on standardizing the exchange of hydrodynamic coefficients for modular mathematical models. A progress report was presented at the MARSIM'93 conference sponsored by the International Marine Simulation Forum.

Maritime Technology Policy

Through the Maritime Technology Policy Program, MARAD participates in the basic activities of the Marine Board of the National Academy of Science and the Transportation Research Board (TRB) of the National Research Council (NRC). It also utilizes the technical advisory role of the NRC on policy issues of national significance to both industry and Government concerning the water transportation community.

Specific Marine Board research activities of particular interest to MARAD during FY 1993 were the U.S. implementation of MARPOL 73/78 Annex V (Garbage), advances in navigation and piloting, assessment of shiphandling simulation training, management of contaminated marine sediments, and development of nautical charts and information.

Military Sealift Technology

Development of more efficient and effective transportation services for the carriage of military cargoes by commercial vessels is the focus of the Military Sealift Technology Program. During FY 1993, MARAD continued to work with the Naval Sea Systems Command to develop and execute a Technology Development Program for the Midterm Fast Sealift Ship scheduled to be built after 1998. Final reports covering the areas of commercial ship concepts, cargo handling technologies, advanced manning techniques, and fleet management options were completed.

National Maritime Enhancement Institutes

Under P.L. 101-115, as amended, Congress authorized MARAD to designate National Maritime Enhancement Institutes at U.S. universities or university consortia capable of providing leadership in the solution of maritime problems. The institutes are structured to provide interdisciplinary and intermodal teams to address transportation problems of national importance.

The four institutes are the University of California at Berkeley, Louisiana State University, Massachusetts Institute of Technology, and Memphis State University.

During FY 1993, four projects were initiated. Louisiana State University entered a cooperative agreement contract to investigate the conditions defining market shares for services of oceangoing vessels with intermodal transhipments at coastal ports for the trade between the United States, Canada and Mexico. Another project, to be conducted by Memphis State University, will examine the planning and access issues that are related to the waterfront redevelopment process.

The University of California will develop guidelines for a computerized ship structural integrity information system. This system will permit gathering, archiving, analyzing, and evaluating structural inspection data. The final project, also being conducted by the University of California, will address the sensitivity, accuracy, and cost of various marine structural inspections methods in use. The Massachusetts Institute of Technology worked on the assessment of ship manning cost structures as an essential part of an overall maritime policy. A draft report was being reviewed at year's end. Additionally, a project begun in FY 1992 at Memphis State University to develop an inland waterways database was nearing completion at year's end. A draft final report is expected early in FY 1994.

Ship Operations Technology

The Ship Operations Technology Program focuses on the application of innovative technology to ensure productive deployment and utilization of ships and equipment to maximize shipper service and carrier competitiveness.

Development of the Shipboard Piloting Expert System and testing aboard the SEA-RIVER BENECIA of this knowledge-based system continued during FY 1993. The system has been well received by ship's officers and the Southwest Alaska Pilots' Association. A final report and evaluation of the system are expected in FY 1994.

Recent developments in the Global Positioning System (GPS) satellite navigation system have led to new capabilities in marine navigation. The development by the USCG of a Differential GPS (DGPS) capability can provide more precise navigation accuracies than GPS (approximately 3-10 meters in harbor and harbor approach areas). The DGPS

corrections to the standard GPS signal are to be transmitted over existing USCG radio beacons. These DGPS receivers should become a standard navigation system for future merchant ships operating in U.S. coastal waters. The USCG hopes to have DGPS operational around the contiguous United States by 1996.

In FY 1993, a joint partnership program between the Government and the ship operating industry to perform research in ship operations technology was established. The objective of this program, called the Ship Operations Cooperative Program, is improvement of efficiency, productivity, safety, and environmental responsiveness of U.S. ship operations. During FY 1993, a cooperative agreement was signed between three commercial shipping companies (ARCO Marine, Energy Transportation Corporation, and Sea-Land Service) NOAA and MARAD. Four projects were initiated in July 1993 in the areas of human resource management and shipboard equipment reliability.

Ship Structures Research

MARAD participates in the activities of the Ship Structure Committee, an international interagency group and research sponsor dedicated to the improvement of marine structures. Originally established in 1946, the Committee advises the Government on improving the structural design, material, and construction methods for ships. One of the Committee's major thrusts is the development and introduction of probability and reliability methods into ship design to optimize safety and economy over full-life cycles.

During the reporting period, the Committee initiated projects on the grounding protection of double hull tankers, marine structural inspection and maintenance, determining the strength of pitted structure, and improved welding procedures.

Small Business Innovation Research

MARAD participates in the DOT's Small Business Innovation Research Program. The program supports small business concerns and is administered by the Volpe National Transportation Systems Center.

During FY 1993, MARAD sought industry proposals to improve ship and terminal productivity. One contract was awarded to develop a method for fatigue design of ship structure. The method has already been applied to the Trans-Alaska Pipeline System trade tankers with good results.

Work continued on the ship-maneuvering simulation software begun during FY 1992. A prototype system was developed for evaluation. The IBM PC-based simulation software promises to be a useful tool for training as well as a controller providing accurate predictions of ship maneuvering performance and the ability of doing "what if" type evaluations of options during normal operations of the ship.

Work also continued on the development of a neural network-based autopilot for improved ship control. The project is assessing the feasibility of replicating human shiphandling functions with an artificial intelligence neural network controller having the ability to automatically learn course-keeping and track-keeping functions for a particular vessel. The project will be completed in FY 1994.

Waterway Navigation Technology

The Waterway Navigation Technology Program applies advanced simulation methodologies to better understand the interaction of vessel maneuvering capabilities and channel configuration in harbors, rivers, and canals. MARAD owns the Computer-Aided Operations Research Facility, a full bridge ship research simulator located at the U.S. Merchant Marine Academy in New York. This facility is currently operated on a privatized basis by MarineSafety International. During FY 1993, MARAD and the USCG initiated two projects. The first supports a USCG program to improve the effectiveness of the decision-making process following major spills. It is looking at various alternatives to improve the training of the on-scene coordinator. The second project will upgrade the display of pollution response information for individual and team use at spill response command posts.

Chapter 8

Maritime Labor and Training

The Maritime Administration (MARAD) supports the training of merchant marine officers and supplemental training related to safety in U.S. waterborne commerce. MARAD also monitors maritime industry labor practices and policies in conjunction with national and international organizations, and promotes healthy labor relations.

U.S. Merchant Marine Academy

MARAD operates the U.S. Merchant Marine Academy at Kings Point, NY, which educates young men and women to become officers in the American merchant marine.

Graduates receive Bachelor of Science degrees and U.S. Coast Guard (USCG) licenses as deck or engineering officers, or both. U.S. citizen graduates are obligated to apply for, and accept if offered, reserve commissions as officers in an armed service of the United States.

The Class of 1993 comprised 89 third mates, 113 third assistant engineers, and 1 graduate who completed the dual deck/engine license program. For the first time, 25 of the 89 third mate licensees earned endorsements as Qualified Members of the Engine Department (QMED) through the Academy's new ship's officer program. In addition to required nautical science and maritime business courses, these graduates completed selected engineering courses which increased their knowledge of today's technologically advanced ships, where both navigation and power are controlled from the bridge. Ten women were among the graduates. Secretary of Transportation Federico Peña delivered the commencement address.

Within 90 days after commencement, approximately 95 percent of the 203 graduates had already found employment in the maritime industry--aboard ship or ashore--or were serving on active military duty in the U.S. military services.

Secretary of Transportation Federico Peña congratulates 1993 Kings Point graduates.

Average enrollment at the Academy during the year was 951.

At the beginning of the 1993-94 academic year, the regiment of midshipmen included 94 women, 19 of whom were scheduled to graduate in June 1994.

Members of Congress nominated 1,749 constituents for the Class of 1997 and a total of 283 appointments were made in FY 1993. All midshipmen are under mandatory service obligation contracts to serve 5 years in the U.S. merchant marine or in maritime-related employment, maintain a Reserve Commission for 8 years, and renew or upgrade their 5-year USCG licenses at least once after graduation.

The Academy is accredited by the Middle States Association of Colleges and Schools. The Marine Engineering Systems curriculum is accredited by the Accreditation Board of Engineering and Technology.

In addition to classroom study, Academy midshipmen are assigned to U.S.-flag merchant ships for two 6-month periods for practical shipboard experience.

The Academy strives to keep its educational program current and responsive to the needs of America's maritime industry.

Rear Admiral Paul L. Krinsky, Superintendent of the U.S. Merchant Marine Academy, retired in FY 1993. He was replaced by Rear Admiral Thomas T. Matteson, USCG, former superintendent of the USCG academy.

State Academies

MARAD provides financial assistance to six State maritime academies which train merchant marine officers under the Maritime Education and Training Act of 1980. The six academies are: California Maritime Academy, Vallejo, CA; Great Lakes Maritime Academy, Traverse City, MI; Maine Maritime Academy, Castine, ME; Massachusetts Maritime Academy, Buzzards Bay, MA; State University of New York Maritime College, Fort Schuyler, NY; and, Texas Maritime Program, Galveston, TX.

State maritime academy cadets who participated in the Student Incentive Payment Program during this academic year received a maximum of $3,000 to offset school costs. Participating cadets are obligated to remain employed in the maritime industry for 3 years, to accept a reserve commission in the Navy or one of the other armed forces, and to renew or upgrade their USCG merchant marine license at least once after graduation.

MARAD provides training vessels to five seacoast academies for use in at-sea training and as shoreside laboratories. Three of the schools--California, Maine, and Texas--are in the process of replacing their aging schoolships. Plans were underway for the CHAUVENET, a recently decommissioned Navy survey vessel, to replace the Texas Maritime Academy's TEXAS CLIPPER, at year's end. Conversion of the HARKNESS, a sistership to the CHAUVENET, was scheduled to begin. It is to replace the Maine Maritime Academy's STATE OF MAINE. Additionally, the H.H. HESS has been designated to replace the California Maritime Academy's training ship GOLDEN BEAR.

In FY 1993, Congress appropriated $1.2 million to purchase simulators for the State maritime academies. An additional $1.1 million was made available by MARAD from the sale of scrap vessels, and each school has selected simulators.

RADM Peter Cressy, USN (Ret.) resigned as President of the Massachusetts Maritime Academy in FY 1993. In the interim, RADM Christine L. Griffin, USMS, was serving as Acting President.

Supplemental Training

MARAD provides supplemental training for seafarers in maritime fire fighting, diesel engineering, and defense readiness. In FY 1993, 1,643 maritime personnel were trained in ship and barge firefighting. Participants included U.S. citizen seafarers and others concerned with maritime fire safety, such as USCG personnel and port city professional firefighters.

MARAD-sponsored basic and advanced firefighting training is offered at its fire school at Swanton, OH; the U.S. Navy-Military Sealift Command/MARAD fire training facility in Earle, NJ; and the U.S. Navy fire training installation at Treasure Island, San Francisco, CA.

In support of firefighting readiness in port cities, shipboard firefighting training is offered to municipal firemen from waterfront communities. Fifty-nine firefighters participated in this special 2-day training at the Toledo Marine Fire Training Center.

The Agency's Continuing Education Marine Diesel Program conducted at Kings Point, NY, provided industry personnel with special workshops on the operation and maintenance of diesel power plants. Thirty-three students completed studies during the reporting period.

This was the second year of MARAD's National Sealift Training Program for Masters and Chief Mates at the U.S. Merchant Marine Academy. This program was developed to improve U.S.-flag strategic sealift support capability and reduce vulnerability to piracy and hostage threats. The course combines the Master Mariners Readiness Course with course modules in Defense Communications and Maritime Security. In FY 1993, 43 senior deck officers completed this program. The program will be offered six times per year.

Labor Data

In fiscal year 1993, average monthly U.S. seafaring employment in all sectors (private, Government contract, and Great Lakes) decreased to 12,266, down 15.1 percent from the FY 1992 average of 14,446. (See Table 16.) The total work force in selected U.S. commercial shipyards decreased 10.4 percent from 90,890 in FY 1992 to 81,460 in FY 1993. Average longshore employment decreased from 25,220 to 24,745.

Merchant Marine Awards

The Merchant Marine Decorations and Medals Act, Public Law 100-324, authorizes the Secretary of Transportation to grant medals and decorations for outstanding and meritorious service or participation in national defense action. MARAD continued processing thousands of requests under this successful program. The Agency has delegated authority from the Secretary of Transportation to review applications and authorize merchant marine awards and decorations to eligible mariners who served in World War II, Korea, Vietnam, and Operations Desert Shield and Desert Storm. As of December 1992 the Merchant Seamen Awards System had recognized over 239,000 merchant mariners for their service. This system is being automated to improve overall efficiency.

Implementing amendments to MARAD regulations at 46 CFR Part 350, Seamen's Service Awards, are being drafted as a final rule.

Labor

A cooperative atmosphere continued to exist between maritime labor and management in FY 1993, with heightened interest in the importance of technology in the work environment. Electronic databases, telecommunications networks and computer aids available on personal computers are bringing changes to the traditional shipboard working environment.

Maritime labor is well aware of the global competition that shapes efficient intermodal transportation systems. The modern maritime workforce must be trained to load and unload cargo through ocean, dock, rail, and truck handling facilities as a necessary component of efficient door-to-door service on one bill-of-lading.

Longshore

On the west coast, the International Longshoremen's and Warehouseman's Union (ILWU) and the Pacific Maritime Association (PMA) signed a new 3-year master contract. The agreement remained essentially the same as the previous contract with a change in the way workers are reimbursed for travel time. Additionally, the agreement stipulates that management and the union will meet and negotiate a separate agreement covering job jurisdiction and technology issues. PMA wants antiquated dispatch halls and work rules changed while the ILWU seeks to represent a larger labor force. New electronic tools in the work place include an on-line computer aided labor relations database, electronic database of contract interpretations and arbitrator decisions, and a network of personal computers accepting orders from employers and electronically transferring information to the appropriate dispatch hall. A West Coast Labor Relations Committee will continue to review these issues.

For the first time, individual terminal operators will be able to negotiate with the ILWU for their facilities. The PMA also wants a review of by-laws, policies and practices as they relate to new questions raised about member company obligations to union benefit programs and the role of membership services. Reduced cargo tonnage resulted in increased assessment rates to fund collectively bargained fringe benefits for 1993 and 1994.

On the east coast, the International Longshoremen's Association (ILA) extended its master contract with east and gulf employers for 2 years. Wages will be frozen for container work and the ILA gave up a $1 per hour wage increase so that the money could be put into a fringe benefit fund. Local agreements with the New York Shipping Association (NYSA),the Boston Shipping Association, the Southeast Florida Employers Port Association and the Council of North Atlantic Shipping Association will also be extended for 2 years. Local agreements cover work rules and benefit issues specific to different ports. The West Gulf Maritime Association is still negotiating its agreement for the Port of Houston.

The ILA and the NYSA announced a substance abuse program for testing and enforcement for employees at the Port of New York/New Jersey who are involved in an accident. Dockworkers performing safety-sensitive jobs, such as crane operators and other cargo handlers, also will be asked to submit to random testing. Similar programs went into effect in Philadelphia, PA; South Jersey, NJ; Wilmington, DE; and Norfolk, VA. Another jointly sponsored program focuses on training drivers of yard tractors who move containers and trailers around terminals and to and from railheads. Previously, all training of dockworkers was handled by individual employers.

Seafaring

The Seafarers International Union (SIU) signed a 3-year contract with the American Maritime Association which includes an 11-percent wage increase, expanded pension and medical benefits, and more flexible shipboard work rules. The contract covers deck, engine, and steward seafarers in the Atlantic, Gulf, Great Lakes and inland waterways SIU districts. Current manning levels remain intact.

Litigation

The National Labor Relations Board (NLRB) obtained a temporary restraining order and injunction from the U.S. District Court in Los Angeles, CA barring the ILWU from interfering with PMA members doing business with the Southern Pacific Intermodal Container Transfers Facility in the ports of Los Angeles and Long Beach, CA.

Legislation

Proposed legislation to extend Federal labor laws to foreign-flag merchant and cruise ships was not passed. The proposed legislation would apply the National Labor Relations Act and the Fair Labor Standards Act to foreign labor.

At the end of the reporting period, House bill H.R. 1109 was awaiting action in the U.S. Senate. If enacted, it would confer reemployment rights on civilian seafarers who volunteer for service aboard U.S.-flag ships in an emergency.

The NLRB has scheduled oral arguments to determine whether the Board has statutory jurisdiction with respect to threats, made in Japan by Japanese unions to neutral persons, that citrus would not be unloaded in Japan if these neutral persons continued to do business with non-union, U.S. stevedoring companies in Florida.

Table 16: MARITIME WORK FORCE AVERAGE MONTHLY EMPLOYMENT

	Average Monthly Employment in Fiscal Year	
	1993	1992
Seafaring Shipboard Jobs:	**12,266**	**14,446**
Shipyards:[1]	**81,460**	**90,890**
Production Workers	55,279	61,620
Management and Clerical	26,181	29,270
Longshore:	24,745	25,220

[1]Commercial yards in the Active Shipbuilding Base, constructing new ships and/or seeking new construction orders.

Chapter 9

National Security

Traditionally, the Maritime Administration (MARAD) has been responsible for assuring that merchant shipping is available in times of war or national emergency, while the Department of Defense (DOD) quantifies mobilization requirements for sealift. MARAD also administers the National Defense Reserve Fleet (NDRF), as well as programs to meet the DOD requirements.

Inactive, Government-owned, vessels are maintained in the NDRF and in the Ready Reserve Force (RRF) component of the NDRF. The RRF was created to maintain a surge shipping and resupply capability available on short notice to support deployment of a multidivision force.

MARAD also conducts national security planning and operations in other general areas, including national emergency communications, war risk insurance, and port emergency operations. This chapter discusses MARAD's activities in meeting its national security responsibilities during fiscal year (FY) 1993.

Sealift Policy

Currently, the DOD primarily relies on Government-owned ships to meet sealift requirements during the surge phase of national emergency operations. The 1992 Mobility Requirements Study (MRS) contained several proposals to enhance the utility of Government-owned ships for sealift purposes. These included acquisition (through new construction and conversion) of additional sealift capacity equal to 20 large, medium-speed, roll-on/roll-off (RO/RO) ships; expansion by FY 1999 of the RRF from 96 ships to 140 ships; and measures to increase RRF readiness. Considerable progress was made in each of these areas in FY 1993, as discussed later in this chapter.

The U.S. commercial fleet also stands ready to participate in all phases of sealift operations. While ships with unique characteristics may be especially valuable during the surge phase, the commercial fleet is expected to make a greater contribution to the sustainment phase of operations.

Reserve Fleet

NDRF ships are an inactive reserve which can be activated to help meet United States shipping requirements during national emergencies. They are available for both military and nonmilitary emergencies, including commercial shipping crises. Inactive merchant ships and naval auxiliaries are maintained in three Reserve Fleet sites by MARAD personnel. Retention vessels are under preservation, which normally includes dehumidification of interior spaces and cathodic (anticorrosion) protection of the hull.

As of September 30, 1993, the total number of vessels in MARAD custody was 302. (See Tables 17 and 18.) One-hundred and thirteen were located at Ft. Eustis, VA; 53 at Beaumont, TX; 66 at Suisun Bay, CA; and 70 at other locations, including lay berths under contract in major U.S. port cities.

Of the 302 ships, 75 are maintained on a cost reimbursable basis by DOD. They are not in the NDRF program and are held for other Government agencies or MARAD's Title XI program. Many of these, however, will eventually be assigned to the NDRF to be scrapped or maintained in the NDRF. These ships are maintained in various degrees of preservation depending on the requirements of the sponsor.

In FY 1993, 33 ships were sold for scrap and 26 NDRF nonretention ships were subsequently removed from fleet sites. At the end of this reporting period, 160 ships were being kept as NDRF retention assets, maintained under preservation, and available for activation.

Ready Reserve Force

The RRF, a specific component of the retention NDRF, was established in 1976 by a Memorandum of Agreement between the DOD and MARAD. At the end of the reporting, period there were 96 ships in the RRF. The planned goal is to expand to 140 vessels by 1999. These ships are kept in a higher state of readiness to enable them to be activated in 4, 5, 10, or 20 days to meet surge military sealift requirements in the event of war, as was experienced in Operations Desert Shield and Desert Storm. Some higher priority vessels, which are maintained in a status which permits 4-day activation, are designated to begin loading cargo the second day, while being activated.

To meet the RRF readiness demands of the DOD, emphasis has been placed on the Outporting Program, which provides contracted lay berths for RRF ships near the expected loading ports for defense cargoes. At year's end, 51 RRF vessels were assigned to outport locations, with 20 on the east coast, 12 on the gulf coast, 16 on the west coast, and 3 in Japan.

MARAD purchased 12 additional RO/RO ships in FY 1993. After conversion and drydocking, these ships will be permanently assigned to the RRF, increasing the total number of RRF ships to 108.

Logistics

The improvement of logistics support for RRF vessels continued in FY 1993. Twenty-seven RRF vessels received logistic overhauls and more than 6,700 items were purchased to meet existing spare part deficiencies. The computer-based RRF Equipment Configuration and Spare Parts Management Information System is operational and provides users access through a worldwide network.

Sealift Enhancement Feature Program

Modular Cargo Delivery System (MCDS) upgrades were completed on six RRF ships in FY 1993. MCDS systems, installed forward and aft, permit the RRF ship to send tensioned highlines to a Navy ship and transfer cargo while both ships are underway.

Installation of the six MCDS cost approximately $27 million, with module costs of an additional $26 million, for a total cost of about $8.8 million per ship. MARAD, using funding provided by the Naval Sea Systems Command, provided project management for these modifications.

Defense downsizing has reduced the projected requirements for RRF vessels outfitted with cargo delivery systems from 30 to 17. With the completion of the six upgrades, there are now 10 RRF ships capable of receiving tensioned highlines and 7 capable of sending tensioned highlines; 9 are also fitted with helicopter platforms.

Operations Desert Shield and Desert Storm substantiated the value of the program for modification of RRF ships to conduct underway replenishment operations with Navy vessels.

RRF Retention and Maintenance Crews

As a result of analyses of crew availability and vessel readiness for Operation Desert Storm, a recommendation that high priority RRF ships be partially crewed with maintenance personnel while in inactive status was implemented in FY 1993.

Two types of crews were employed during this first year of the program. A retention crew consists of two licensed marine engineers, who are responsible for overseeing all maintenance and repair of the vessel while in layup. They also conduct routine preventative maintenance on a year-round basis. The retention crew also are core members of the operating crew during activations and exercises.

The second type of crew is a Reduced Operating Status (ROS) crew, which lives aboard and maintains the vessel in 4-day activation readiness. The 10-member ROS crew comprise licensed and unlicensed personnel from all departments, who conduct ongoing preventative maintenance year round, as well as provide the nucleus of the operating crew. The ROS crew concept was implemented on 12 ships during the reporting period.

Coast Guard MOU Inspections and Trials

The revised Memorandum of Understanding (MOU) on inspections and trials was signed on March 25, 1992, and subsequently implemented by MARAD and the U.S. Coast Guard (USCG). A series of regional briefings by a MARAD/USCG headquarters team was held. They introduced and familiarized both USCG Inspection staffs and MARAD regional surveyors with the revised requirements.

A continuing educational effort was initiated by a USCG/MARAD liaison team in FY 1993. Presentations on the RRF and the MOU were made to USCG Inspectors attending the Chiefs of the Inspection Department training course at the USCG Training Center in Yorktown, VA.

Ten-Year Drydocking

Under the MOUs between MARAD and the USCG, and MARAD and the American Bureau of Shipping (ABS), selected RRF vessels can extend their required drydocking surveys from the previously established 5-year interval to a maximum of 10 years. Vessels are selected based on projected life expectancy, ship type (e.g. tankers do not qualify), and capability of meeting requirements for a midterm underwater inspection.

The length of time between drydock inspections under the new program varies, depending on operational time, as was the case with the previous MOUs. Currently, all "10-year" ships are considered experimental with respect to budgeting for drydocking. Since there has not been sufficient time to track all vessel histories, MARAD cannot determine qualification for the 10-year timeframe until the vessels have been subjected to their interim (5-year) underwater hull surveys.

Aviation Logistics Support Ship Program

MARAD accepted custody of the Aviation Logistic Support Ship Program in 1986, in response to a request from the Chief of Naval Operations, Strategic Sealift Division. The SS WRIGHT (T-AVB 3) and SS CURTISS (T-AVB 4) are maintained in a high state of readiness by contract ship managers employing 10-man ROS crews, to support DOD rapid deployment requirements and to augment Afloat Prepositioning Forces. These ships provide dedicated sealift for movement of Marine Corps aviation technicians, spare parts, and equipment from the United States to any international area of Marine Corps choice, and the worldwide operational areas.

The CURTISS completed deactivation in August 1992 and is lay berthed at Port Hueneme, CA. Independent longshoremen and warehousemen are periodically trained in the use of the ship's cargo handling equipment. During this reporting period, major repairs were completed on the WRIGHT. After successful sea trials, it participated in an abbreviated Marine Corps loading exercise. At year's end, the ship had been returned to layberth in Baltimore, MD.

General Agency Agreement

In FY 1992, MARAD revised and implemented its General Agency Agreement (GAA). The GAA is a contractual document for the acquisition of supplies and services that becomes active once ships are assigned. At the end of the reporting period, 22 vessels were operating under the revised GAA, with 9 scheduled for transfer to ship management as part of the implementation of the new ship manager contract. Twelve of the 22 vessels are RO/RO vessels purchased during FY 1993 for upgrade to the RRF.

Ship Manager Contracts

Fourteen ship operating companies were awarded contracts to provide maintenance and operational services for 90 RRF vessels and the 2 aviation logistics support ships on June 30, 1993. Contracts are for periods of 2-1/2 or 5 years. At the end of the reporting period, MARAD was issuing Notices to Proceed with conversion from prior Ship Manager and/or General Agent contracts. The Agency intends to award Ship Manager contracts for approximately half of the RRF vessels every 2-1/2 years.

RRF Operations

During FY 1993, MARAD at the request of the MSC, activated the Auxiliary Crane Ship (T-ACS) GOPHER STATE for OPERATION RESTORE HOPE.

The GOPHER STATE transported military cargo to Mogadishu, Somalia to support the United Nations (U.N.) relief effort. Following a military exercise the RO/RO CAPE HENRY was redeployed to move retrograde cargo (trucks and rolling stock) from Somalia. Additionally, the Offshore Petroleum Discharge System (OPDS) vessels AMERICAN OSPREY and POTOMAC were utilized to support military forces in Somalia with petroleum products. At year's end, the AMERICAN OSPREY, which came under hostile fire during this operation, had returned to Diego Garcia as part of the Afloat Prepositioning Force (APF); POTOMAC remains in service for the U. N. peacekeeping effort in Somalia.

RRF vessels participated in a number of military exercises during FY 1993. The RO/RO METEOR in FUERTES CAMINOS in Honduras (December 92); the RO/RO CAPE HENRY in TEAM SPIRIT in Korea (December 92–April 93); the TA/FB WRIGHT in a USMC MINILOAD Exercise at Morehead City, NC (April 93); and the RO/RO CAPE INTREPID COBRA GOLD (March–July 93). Additionally, a Joint Chiefs of Staff exercise, OCEAN VENTURE 93, involved three RRF vessels. The exercise was held off the North Carolina coast in June–July 1993 and emphasized moving equipment from offshore to the beach area. Three ships representing different discharge methods were used: the Lighter Aboard Ship (LASH) CAPE FAREWELL; the heavylift SeaBee CAPE MOHICAN; and the T-ACS crane ship EQUALITY STATE. There were two MSC No-Notice test activations during September 1993. A total of 5 RRF vessels were activated/transitioned: three RO/ROs, the CAPE ISABEL, CAPE INSCRIPTION, and COMET; the Auxiliary Crane ship GRAND CANYON STATE; and the breakbulk ship CAPE BRETON. All vessels successfully met the activation/transition agenda.

The U.S. Army has directly provided funding to MARAD to convert eight RRF vessels for interim duty overseas for 3 years as part of the APF. All of the vessels will load military cargo (trucks and other rolling stock) in Europe. Following cargo loadout, each ship will eventually proceed to the designated APF anchorage sites at either Diego Garcia, Thailand, or Guam. The eight RRF ships are CAPE DOUGLAS, CAPE DECISION, CAPE HENRY, CAPE HORN, CAPE HUDSON, GOPHER STATE, CAPE WASHINGTON, and CAPE WRATH. All but the GOPHER STATE are RO/RO vessels.

Emergency Operations

MARAD Advisories provide information on Government policy, danger and safety issues pertaining to vessel operations, and other timely maritime matters. MARAD issued Advisories to the U.S. maritime industry in FY 1993 on such topics as U.N. trade sanctions against Iraq; risk of attacks in the vicinity of Hong Kong and the northern China Sea; two Naval Control of Shipping exercises; instructions for communication with the U.S. Navy; and training opportunities in the National Sealift Training Program at Kings Point, NY. Special Warnings to Mariners were coordinated with the Department of State during FY 1993 regarding situations in the Western Sahara, Lebanon, Nicaragua, and Liberia.

MARAD, as the National Shipping Authority, participated in the Naval Control of Shipping exercises "ASSURED SUPPLY 93," "UNFAILING REACH 93," and "BELL BUOY 93." The Agency continued to sponsor the National Sealift Training Program bimonthly at the U.S. Merchant Marine Academy. More than 60 actively sailing Masters or Chief Mates attended. This program comprises an integrated set of courses in defense communications, maritime security, and sealift readiness training drawing on lessons learned from Operations EARNEST WILL, Desert Shield and Desert Storm.

Merchant mariners continued to be victims of piracy and robbery internationally. Various international maritime organizations cited piracy and attacks on merchant shipping continuing in the South China Sea and its littoral including ports and contiguous waters of Indonesia, Vietnam, Hong Kong, and the Philippines; the Singapore and Malacca Straits; West Africa; and South and Central America, particularly Brazil. MARAD continues to alert mariners to the potential problem and to offer advice on effective counter-measures to deter a piracy boarding. Additionally, MARAD reestablished the Federal Ad Hoc Working Group on Maritime Security Awareness, an interagency working group to provide an outreach program to the commercial industry to coordinate the responsibilities of Federal agencies including maritime terrorism, piracy, alien smuggling, as well as drug smuggling, stowaways, and bombs, particularly as they pertain to searches aboard ship.

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As of September 30, 1993, the War Risk Revolving Fund (Fund) asset total was approximately $22,527,000. There were no new binders issued during FY 1993 and no binder fees paid. The Fund earned $1,425,000 in investment income. Program expenses for FY 1993 totalled $57,925.

As of September 30, 1993, 1,951 vessels and barges had been issued binders, providing eligibility for hull and machinery and for protection and indemnity war risk insurances. Three hundred ninety-seven of these vessels also had second seaman's war risk insurance available under binder. No binders related to MARAD's standby war risk cargo insurance and builder's risk insurance programs have been issued. All binders are effective for 30 days following an automatic termination of commercial insurance.

MARAD continued to act as the claim agent for Government-owned vessels in FY 1993. Consequent to Operations Desert Shield and Desert Storm, as of September 30, 1993, there were approximately 250 personal injury claims settled, approximately 60 personal injury administrative claims outstanding, and approximately 250 were in litigation. Total settlement value of all claims is estimated to be approximately $13 million.

MARAD assures that contract requirements are met on all insurance placed in commercial markets by mortgagors of vessels on which the Government guarantees, insures, or holds mortgages; by charterers of Government-owned vessels; and by subsidized operators. Table 19 shows marine and war risk insurance approved in FY 1993.

Chart 2: Piracy and Attacks on Merchant Shipping in FY 1993

Region	Number of Reported Incidents
China Sea littoral including Indonesia, Vietnam, Hong Kong, and the Philippines	59
African Ivory Coast & Horn of Africa	5
Straits of Malacca & Singapore	4
Brazil	3
Other Regions	6

Source: U.S. Defense Mapping Agency, Navigational Information Network, Anti-Shipping Activities Message Data Base.

Table 17: NATIONAL DEFENSE RESERVE FLEET--SEPTEMBER 30, 1993

Home Port	NDRF Retention[1]	NDRF Non-Retention[2]	Reimbursable Custody[3]	Totals
James River, VA	38	28	47	113
Beaumont, TX	36	9	8	53
Suisun Bay, CA	18	28	20	66
Other Locations	68	2	0	70
Totals:	160	67	75	302

[1] Vessels maintained under the fleet preservation program for emergency activations, including the RRF.
[2] Vessels pending disposal under Section 510(i) provisions or donation pursuant to statute.
[3] Title XI vessels in default, Navy, and other Government-owned vessels in MARAD reimbursable custody.

Table 18: NATIONAL DEFENSE RESERVE FLEET, 1945--1993

Fiscal Year	Ships	Fiscal Year	Ships
1945	5	1972	673
1946	1421	1973	541
1947	1204	1974	487
1948	1675	1975	419
1949	1934	1976	348
1950	2277	1977	333
1951	1767	1978	306
1952	1853	1979	317
1953	1932	1980	303
1954	2067	1981	317
1955	2068	1982	303
1956	2061	1983	304
1957	1889	1984	386
1958	2074	1985	300
1959	2060	1986	299
1960	2000	1987	326
1961	1923	1988	320
1962	1862	1989	312
1963	1819	1990	329
1964	1739	1991	316
1965	1594	1992	306
1966	1327	1993	302[1]
1967	1152		
1968	1062		
1969	1017		
1970	1027		
1971	860		

[1]Total for FY 1993 includes 75 vessels not owned by MARAD but its custody.

Table 19: MARINE AND WAR RISK INSURANCE APPROVED IN FY 1993

Kind of Insurance	Total Amount	Percentage	
		American	Foreign
Marine Hull & Machinery	$3,536,697,837	49	51
Marine Protection and Indemnity [1]			
War Risk Hull and Machinery	$2,644,568,385	42	58
War Risk Protection & Indemnity	$2,644,568,385	42	58

[1] Protection and Indemnity insurance coverage is obtained principally from assessable mutual associations managed in the British market and is unlimited, thereby making it impossible to arrive at the total amount or percentage figures for American and foreign participation.

General Agreement on Tariffs and Trade (GATT)

In FY 1993, negotiations continued on the Uruguay Round of GATT negotiations for an agreement on trade services. MARAD representatives provided expertise and guidance to U.S. negotiators in Geneva which supported the United States' position of substantively excluding the sector from coverage under a new agreement. Negotiations were still in progress at year's end.

Other Activities

MARAD participated in the annual meeting of the Transport Canada-U.S. Department of Transportation Emergency Planning Committee for Civil Transportationin April of 1993 in Washington, DC. The Agency also participated in a "Seaway Day" symposium held in Ottawa, Canada in May 1993. MARAD also was a member of the U.S. delegation to the International Maritime Organization's 24th session of the Subcommittee on Standards of Training and Watchkeeping in March 1993. This session focused on identifying elements of the Convention which need to be modified and amended.

In cooperation with the Departments of Defense and State, MARAD monitored procedures previously developed to facilitate the inspection of cargoes by the Multinational Interdiction Force enforcing United Nations sanctions against Iraq in the Strait of Tiran.

Additionally, MARAD participated in meetings and training sessions of various subsidiary groups of the North Atlantic Treaty Organization (NATO). The Maritime Administrator serves as Washington Chairman of the Planning Board for Ocean Shipping (PBOS).

MARAD also participated in selected activities of NATO's Senior Civil Emergency Planning Committee including the 1993 Crisis Management Exercise, as well as the PBOS-sponsored 1993 Shipping Crisis Management Training Session.

In May 1993, MARAD joined the Agency for International Development (AID) in an on-site assessment of Russian ports handling humanitarian cargo. In September 1993, the Agency participated in a mission with the Department of Transportation's (DOT), Office of International Transportation and Trade in conjunction with AID and GKI, the Russian agency for privatization. The team selected the Russian port of Murmansk for an in-depth privatization study.

MARAD sponsored a mission to the Commonwealth of Independent States in September 1993 to determine what mutually beneficial improvements could be made in handling cargo by local ports, particularly with regard to humanitarian cargo.

In response to a congressional legislative requirement, MARAD produced a 54-page Report on *Foreign Shipbuilding Subsidies* in July 1993. A wide array of Government support programs are discussed, including home-credit arrangements, vessel export credits, government ownership of shipyards, tax benefits, and government research and development programs. The report was based on survey material from the Department of State obtained for another MARAD *Maritime Subsidies* report scheduled for publication early in FY 1994.

Chapter 11

Administration

The administrative actions taken in support of the mission and programs of the Maritime Administration (MARAD) in fiscal year 1993 are summarized below.

Maritime Policy

An extensive review of Federal maritime promotional programs was initiated early in 1993. Secretary of Transportation Federico Peña met with representatives from all sectors of the U.S. maritime industry -- carriers, shippers, maritime labor, and shipbuilders -- to discuss their concerns and exchange ideas on maritime policy. Subsequently, a set of maritime policy alternatives was presented to the National Economic Council (NEC). In addition, the NEC independently reviewed a number of proposals specifically aimed at assisting U.S. shipyards to compete effectively in the international market.

Significant progress was achieved on shipbuilding policy. By the end of FY 1993, a new program proposal, outlined in the report *Strengthening America's Shipyards: A Plan for Competing in the International Market*, was ready for submission to Congress. The proposed program featured a series of innovative measures involving loan guarantees for construction of ships for export, increased emphasis on research for more effective employment of shipbuilding capacity, elimination of unnecessary regulations which inhibit cost competitive ship construction and operation, and continued government efforts to eliminate foreign government subsidies to their shipbuilding industries.

Measures to revitalize the U.S. merchant fleet were still under active consideration at the end of FY 1993.

The National Performance Review conducted in FY 1993, under the guidance of the Vice President, resulted in the far-reaching report *From Red Tape to Results: Creating a Government that Works Better and Costs Less*. It included three recommendations concerning maritime policy, specifically proposing to:

- Support reemployment rights for merchant mariners called to serve during a war or national emergency.
- Establish a commission to review the future of the U.S. maritime industry.
- Reduce spending for the U.S. Merchant Marine Academy and authorize charging midshipmen for tuition to cover a portion of operating costs.

Maritime Subsidy Board

The Maritime Subsidy Board (MSB) has delegated authority by the Secretary of Transportation, to award, amend, and terminate contracts subsidizing the construction and operation of U.S.-flag vessels in the foreign commerce of the United States. To perform its functions, the MSB holds public hearings, conducts fact-finding investigations, and compiles and analyzes trade statistics and cost data. MSB decisions, opinions, orders, rulings, and reports are final unless the Secretary of Transportation undertakes a review.

The MSB is composed of the Maritime Administrator, who acts as Chairman of the Board, the Deputy Maritime Administrator, and the Agency's Chief Counsel. The Secretary of MARAD and the MSB acts as an alternate member in the absence of any one of the three permanent Board members.

The MSB conducted regular meetings during the fiscal year and a number of notices were published in the *Federal Register* relating to required statutory hearings and development and adoption of rules and regulations required by the Merchant Marine Act, 1936, as amended.

During FY 1993, the Maritime Administrator and the MSB took a number of administrative actions to help strengthen the U.S. merchant marine. Of significance was the approval of several extensions of waivers of Section 804(a) of the Merchant Marine Act, 1936, held

by American President Lines, Ltd. (APL), extending the waivers to the end of the current operating-differential subsidy (ODS) agreement of the company. These extensions will permit APL to operate certain foreign-flag feeder vessels in its line haul services to Singapore, Manila, Thailand, Indonesia and Red Sea ports. The approvals lend stability to the maintenance of U.S. flag service by APL during the period of a possible transition to unsubsidized operations.

Similarly, the MSB extended for 2 years the subsidizable lives of four Lykes Bros. Steamship Corp., vessels to help stabilize company operations as it begins the transition to possible unsubsidized operations.

In addition, the Administrator/MSB waived the conservative dividend policy set forth in the ODS contracts of both Lykes and APL to strengthen these companies during a transitional period by limiting Agency intrusion with capital management. Both companies agreed to promptly liquidate remaining Title XI loan guarantee obligations in consideration of the waivers being granted.

Additionally, the Secretary of MARAD, as Freedom of Information Officer, received and processed approximately 292 Freedom of Information Act requests.

Legal Services, Legislation, Regulations, and Litigation

MARAD's Chief Counsel supports headquarters, regional offices, and the U.S. Merchant Marine Academy on all legal matters. The services include drafting legislative and rulemaking documents; reviewing all aspects of procurement; preparing informal advisories to staff, and formal memoranda; conducting hearings in various programs; and participating in court litigation and alternative dispute resolution.

With the continuing decline in shipbuilding and ship repair work, competition remains intense. One reflection of this is the significant level of administrative disputes and appeals in Agency acquisition programs. MARAD has adopted a positive approach to the modern techniques utilizing alternative means of dispute resolution. Several very complex cases have been closed successfully through the use of such procedures.

A number of contract law issues were addressed this year. Statutory provisions on the assignments of Federal procurement contracts and payments thereunder were examined, including use of joint bank accounts to transfer Federal contract payments between corporate affiliates. In one instance, improved procedures resulted from analysis of the application ofthe Prompt Payment Act to MARAD Ship Manager Contracts.

The Federal Government and owners of deep-draft marine terminal facilities continue to face increasing difficulty in obtaining approval of essential harbor and berthing area dredging in a timely and cost-effective way that is consistent with current environmental quality controls. At the Secretary of Transportation's direction, MARAD established a Federal Interagency Working Group on the Dredging Process in FY 1993. The Group is composed of MARAD, the Environmental Protection Agency, the Department of Army's Corps of Engineers, the Department of Commerce's National Marine Fisheries Service and Office of Ocean and Coastal Resource Management, and the Department of the Interior's Fish and Wildlife Service. Representatives from the White House's Office of Environmental Policy and the U.S. Coast Guard's Office of Navigation Safety are liaisons to the Group.

The objective is to review the current process for authorizing dredging, for designating dredged material disposal sites, and for determining appropriate mitigation measures.

The Group is not intended to interfere with individual agency missions and legal mandates, but rather, to take a fresh look in a coordinated approach at dredging issues and consider innovative changes. Case studies of several ports' permitting and authorization experiences will be used to identify problems in the dredging process. The Group will address both near-term and long-term solutions to these problems and submit a report to the Secretary of Transportation.

MARAD issued a final rule in FY 1993 formalizing existing policy and procedures for appointing general agents and administering General Agency Agreements. The regulations now include pertinent information consistent with a revised Service Agreement and

Application for Appointment as General Agent and with a Ship Manager Contract MARAD had adopted.

Necessary legal support also was provided in the area of preference cargoes reserved for U.S.-flag vessels under current programs. Additionally, MARAD provided legal support involving aid programs to the independent states of the former Soviet Union, including the $700 million package for Russia and for Department of Defense base closures in Europe.

MARAD continued to handle merchant marine claims resulting from its Ready Reserve Force (RRF) participation in Operations Desert Shield, Desert Storm, and Desert Sortie. In FY 1993, *Wright v. U.S.* was successfully closed. This case held that a merchant mariner's complaint could not be amended to include an injury otherwise barred by the statute of limitations. Several decisions upheld the claims procedures found in MARAD regulations at 46 CFR Part 327. About 230 merchant mariners injury cases were active at year's end. Future cases are anticipated.

No litigation directly challenged MARAD's programs during 1993, but two significant victories occurred in cases challenging administrative practices. The U.S. Court of Appeals for the Federal Circuit sustained are reduction-in-force taken by the Agency (*Kalash v. Department of Transportation, Fed. Cir. No. 93-3274),* and the U.S. District Court for the District of Columbia upheld Agency determinations to release information made under the Freedom of Information Act (*Lykes Bros. Steamship Co., Inc., v. Peña, et al.,* C.A. No. 92-2780).

Only two new loan guarantees under Title XI of the Merchant Marine Act of 1936 were approved during the reporting year: Sulphur Carriers, Inc., and Canal Barge Lines, Inc. MARAD authorized six refinancings to reduce interest on guaranteed bonds. It also closed on four refinancings involving American Commercial Lines, Inc., Armstrong Steamship Company, Crowley Marine Services, Inc., and Crowley American Transport, Inc. As a result, the exposure of the Ship Financing Fund was reduced by $10,432,798. Additionally, MARAD authorized seven restructurings to reflect lower interest rates on guaranteed bonds involving Bean Dredging Corp., Bell Steamship Co., Bulkfleet Marine I, Inc., Bulkfleet Marine II, Inc., Cove Liberty Corp., Interlake Leasing II, Inc., Universal American Barge Co., and Victoria Steamship Co. As a result, the Fund's exposure was further reduced.

Hornbeck Offshore, Ltd. 1978 and Hornbeck Offshore, Ltd. 1979 defaulted on guaranteed bonds totaling $2,732,888.86 in FY 1993. To recover part of its payment of guarantees on Title XI debt. MARAD initiated nine foreclosure proceedings and participated in 16 other commercial litigation cases. Total recoveries into the Fund totaled $32,400,000 in FY 1993.

No major legislation was enacted during the reporting period.

Information Resources Management

During FY 1992, MARAD reviewed its Information Technology (IT) and Local Area Network (LAN) to determine ways to meet MARAD's evolving technological needs. As a result of the review, improvements in three key areas were implemented during FY 1993 and substantial progress in several information resources management improvements resulted. They are:

- A Technology Resource Center was established. This center provides a staffed User Help Desk to handle general user questions and/or requests. It also expanded MARAD's walk-in services and provides document scanning, color printing, CD-ROM data access, and microsoft windows with related products.

- A Micro/LAN User Group also was established. It is comprised of representatives from MARAD's organizations and provides service-related feedback. Monthly meetings are held to examine quality of service, status of projects, and plans. It also provides a forum for users to exchange information and receive vendor briefings and demonstrations of new technology.

- A Government Credit Card program was initiated. This program permits direct purchase of microcomputer replacement parts, spare parts, and software acquisitions and has significantly enhanced timeliness of IRM repairs and other service deliveries.

Stabilization of PC/LAN Infrastructure

During FY 1993, MARAD upgraded the hardware in a significant number of its workstations and installed over 100 additional workstations on its network. Half of the Agency network file servers were also updated.

Phase I of the planned upgrade of MARAD's network cabling to fiber optic and 10BASEDT was implemented. This is expected to stabilize network connections and expedite data transfer across the network.

Electronic Mail and Communications Gateways

During FY 1993, MARAD implemented E-Mail services and expanded its E-Mail connectivity to include OST, other DOT administrations, Congress, other Federal agencies, and, where appropriate, the maritime industry. This included expanded gateway, the capability to send and receive electronic mail nationally, MARAD network/PC based FAX service bulletin, board service between headquarters and MARAD field offices, and BBS for public access.

Personnel

MARAD's employment totaled 1,128 at the end of FY 1993. The Agency's percentage of female and minority employees, as well as their representation in supervisory positions, remained relatively stable during the period, as did the percentage of handicapped employees.

Three upward mobility positions were established in FY 1993 and two employees were promoted to target positions under previously established upward mobility positions.

Eight cross-training positions were advertised under the MARAD Career Enhancement Program. In addition, 11 special training announcements were issued. Two employees were selected for the 1993/1994 MARAD Scholarship Program and two others continued their participation in the Program. Two Agency employees were selected to participate in a developmental program at the Naval War College and one was selected for the DOT Fellows Program.

Four MARAD employees received Silver Medals and 14 received Bronze Medals. Five MARAD employees were awarded the MARAD EEO Award in recognition of their contributions to MARAD's Equal Employment Opportunity Program.

Safety Program

In FY 1993, MARAD continued to update its Occupational Safety and Health Program to provide its employees with safe and healthy work environments.

The safety and occupational health specialist assigned to each National Defense Reserve Fleet (NDRF) site conducts monthly occupational safety and health inspections, and identifiable hazards are promptly abated. Fleet employees are continuously instructed in safe work practices and fleet safety policies and regulations.

Each NDRF site continues to upgrade their volunteer Emergency Medical Technicians (EMT) with annual training which ensures State certification and provides the EMT's with current medical first-aid procedures and techniques which allows the EMT to provide first-rate, immediate first-aid to site employees.

With continuous participation and commitment by the employees to safety methods and procedures, MARAD continued its safety and health incentive program to lower the lost-time accident rates at the NDRF sites. The Beaumont, TX, NDRF received the Maritime Administrator's Safety Trophy for having the lowest lost-time injury/illness rate.

MARAD continued its Action Plan for the prevention of asbestos exposure to its employees. MARAD prohibits or stringently limits personnel exposure to airborne asbestos and use of asbestos in any MARAD program.

The Agency's ongoing asbestos survey and monitoring program determines, evaluates, and documents ambient concentrations of asbestos fibers in the NDRF workplace. The Action Plan is geared to eliminate asbestos material from MARAD programs. It encompasses the repair or replacement of such materials already installed, modified work procedures, and employee training.

MARAD's Medical Surveillance Program of the Asbestos Action Plan continues to provide preplacement, periodic, and follow-up medical examinations, as needed, to designated MARAD employees exposed or potentially exposed to hazardous substances or conditions in the workplace. This includes employees assigned to MARAD's Headquarters, NDRF sites, Regional offices, and the U.S. Merchant Marine Academy.

MARAD also provides the NDRF sites and the U.S. Merchant Marine Academy with periodic industrial hygienist support to conduct surveys of the facilities, target all safety and health hazards, and conduct occupational safety and health training courses.

Installations and Logistics

Real Property

On September 30, 1993, MARAD's real property included NDRF sites at Suisun Bay, CA; Beaumont, TX; and James River, VA; and the U.S. Merchant Marine Academy at Kings Point, NY.

Facilities for training maritime firefighters were operated at Freehold, NJ, and Treasure Island, CA, under MARAD agreements with the U.S. Navy, and in New Orleans, LA, at facilities operated by Delgado College. MARAD operates the Toledo, OH, marine fire-training facility. Regional Headquarters offices were maintained in New York, NY; Norfolk, VA; New Orleans, LA; Des Plaines, IL; and San Francisco, CA. Regional Maritime Development Offices were maintained in Long Beach, CA; Seattle, WA; Houston, TX; Portland, OR, Atlanta, GA and at the five Regional Headquarters. In addition to those located at Regional headquarters offices, Ship Management staffs were maintained in New York, NY; Cleveland, OH; Portland, OR; and Port Arthur, TX.

MarineSafety International of New York, NY, continued to manage and operate MARAD's Computer-Aided Operations Research Facility at Kings Point, NY, under a cooperative agreement.

Audits

In FY 1993, the Department of Transportation's Office of Inspector General submitted final principal internal audit or survey reports to MARAD. They were:

- Audit of Ship Manager Contracts
- MARAD Annual Financial Statement Audits, Fiscal Year 1992
- Survey Report on Deactivation of RRF Vessels Activated for Operations Desert Shield and Desert Storm
- Food Service Operations-U.S. Merchant Marine Academy
- Title XI Loan Guarantee Program in MARAD

Accounting

MARAD's accounts are maintained on an accrual basis in conformity with generally accepted principles and standards, and related requirements prescribed by the Comptroller General. The net cost of MARAD's FY 1993 operations totaled $1,081.5 million. This included $277.6 million in operating and ocean freight differential subsidies; administrative expenses of $68.9 million, $5.5 million for financial assistance to State Maritime Academies, and $436.3 million for maintenance and preservation of reserve fleet programs. MARAD received $293.2 million in other operating expenses net of income. Financial statements of MARAD appear as Exhibits 1 and 2.

Environmental Issues

MARAD's Environmental Coordinating Committee (ECC) has made great strides in compliance at Agency facilities. The ECC was formed to better manage environmental programs and resources. It includes representatives from MARAD Headquarters, the Reserve Fleets, the U.S. Merchant Marine Academy, and the Fire Training Center in Toledo, OH. The ECC meets twice a year to review ongoing environmental programs and pollution prevention techniques, primarily to assure compliance with new environmental legislation and requirements and to properly maintain

facilities and ships in the Reserve Fleet and its component, the RRF.

One of MARAD's major focuses over the last year was conducting internal environmental audits at the Reserve Fleets using a DOT Environmental Audit Checklist developed using the EPA Audit Checklist for Federal Facilities. These audits have helped MARAD comply with new legislation and requirements and continually instill environmental awareness. They are scheduled for completion by December 1993. Awareness training will be provided next fiscal year to assure that key environmental program personnel are on target with their programs.

The ECC already has taken a comprehensive look at implementing the requirements of past and recent legislation such as the National Environmental Policy Act of 1969, Marine Protection, Research, and Sanctuaries Act of 1972, Safe Drinking Water Act of 1974, Clean Water Act of 1977, Toxic Substance Control Act of 1976, Resource Conservation and Recovery Act of 1976, Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Clean Air Act Amendment of 1990, Oil Pollution Act of 1990, and Executive Orders for Solid Waste Recycling of 1991, Federal Facility Compliance of 1992, and Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements of 1993.

Ozone Depleting Substances Substitution (ODS)

MARAD retrofitted two of its vessels with Dupont's freon replacement 134a, replacing freon R-12 inaccordance with Title VI of the Clean Air Act Amendments of 1990 (CAAA). The technical acceptability was being reviewed and analyzed at year's end.

Vessel Air Emissions Monitoring

MARAD has provided funding to the USCG in a joint research effort to monitor vessel air emissions (NOx and SOx), in accordance with the CAAA (Title II).

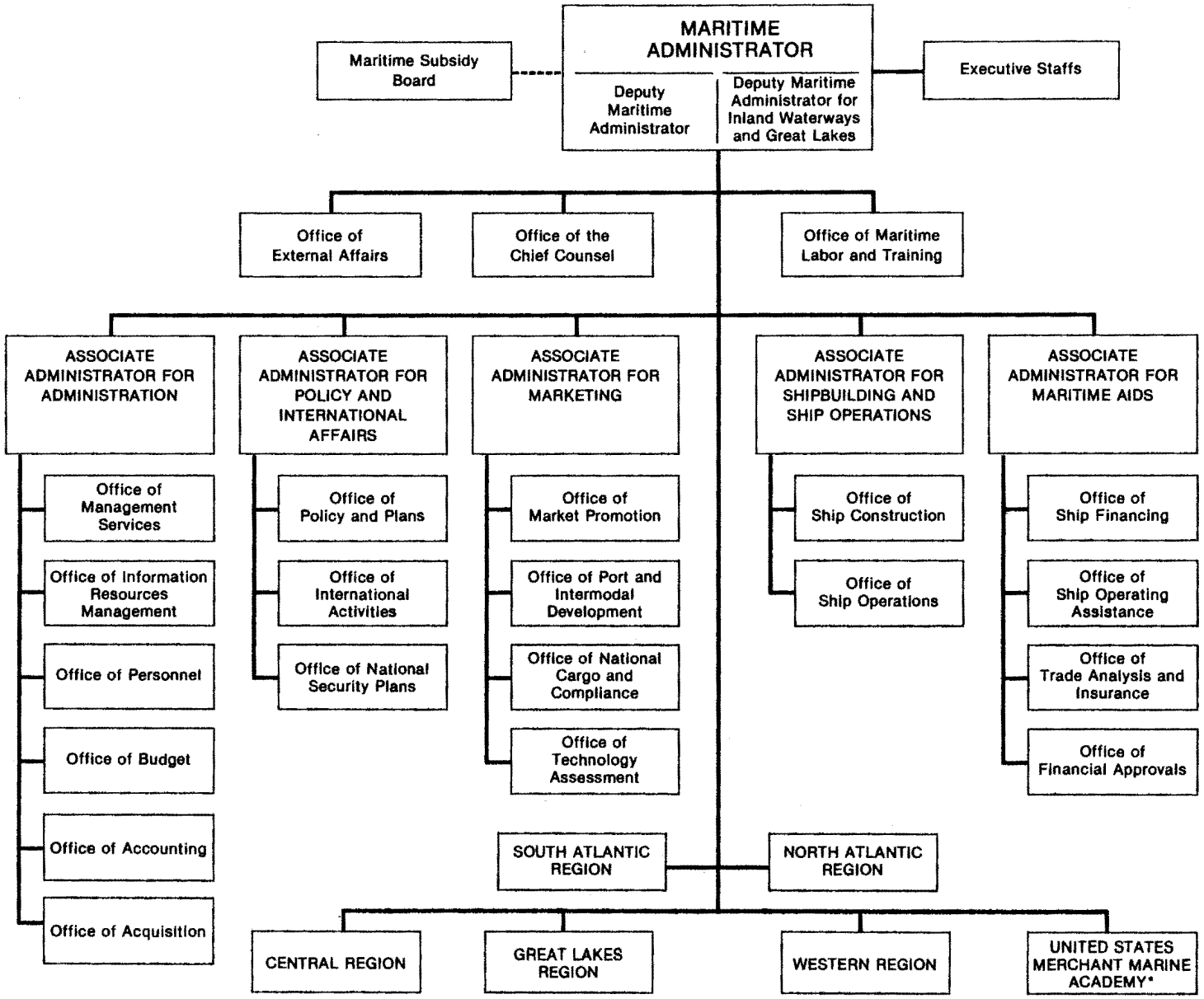
Differential Global Positioning System Technologies

MARAD continued working with DOT to develop a Differential Global Positioning System (DGPS) to prevent major shipping collisions. A DGPS system can potentially reduce the number of marine casualties in adverse conditions. It also will result in safer navigation and consequently reduce the number of pollution casualties.

Reauthorization of the Clean Water Act

MARAD continues to seek solutions and techniques for pollution prevention nationally and internationally and continues to be a part of saving our vital resources.

MARITIME ADMINISTRATION

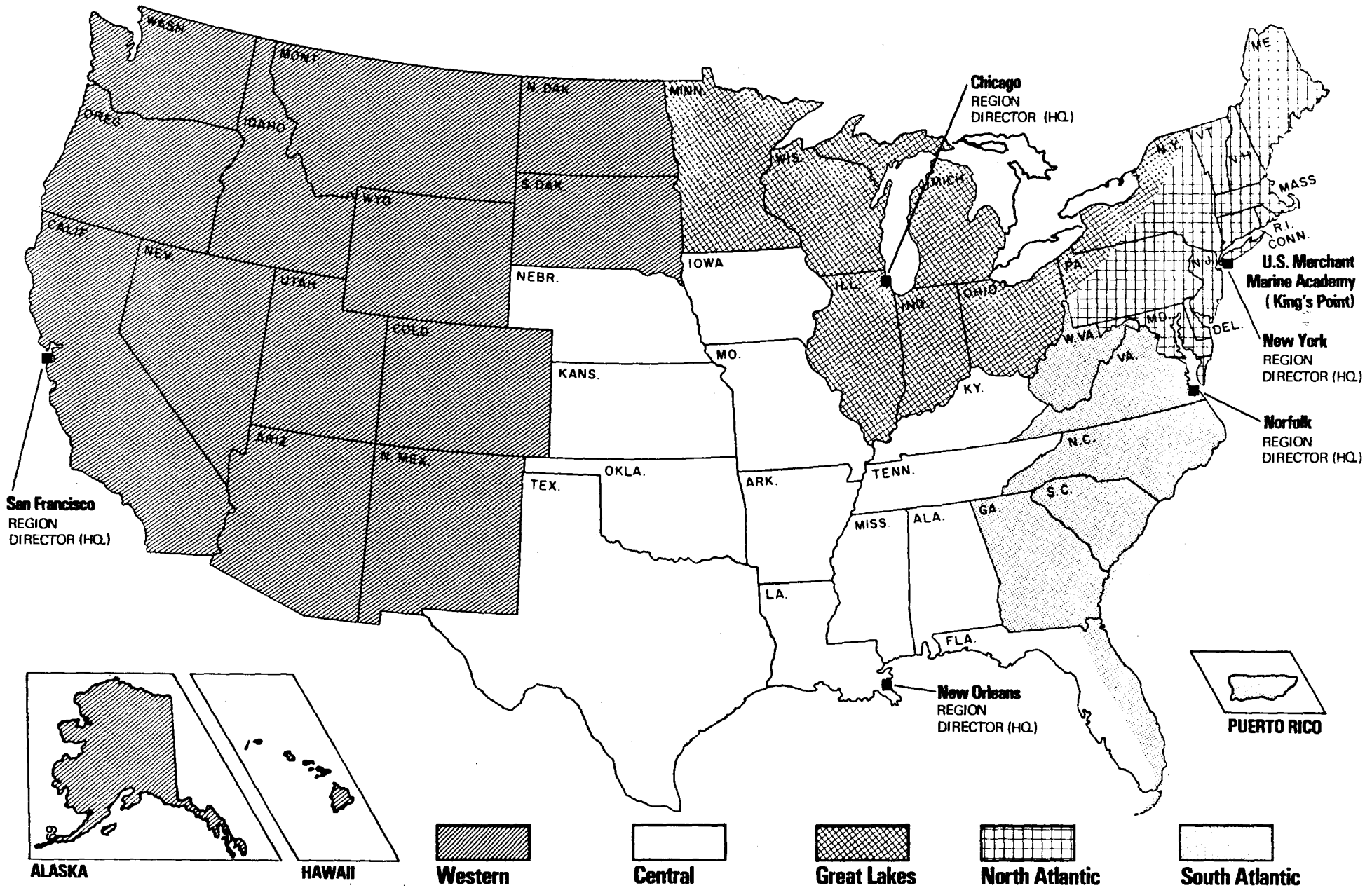


* Kings Point, N.Y.

MARAD,Reg—(2-19-92)—chart-2

U.S. Department of Transportation
Maritime Administration

MARITIME ADMINISTRATION FIELD ORGANIZATION



U.S. DEPARTMENT OF TRANSPORTATION--Maritime Administration

Exhibit 1. Statement of Financial Condition
September 30, 1993, and September 30, 1992

ASSETS	September 30 1993	1992
Selected Current Assets		
Funded Balances with Treasury:		
Budget Funds	$ 405,635,094	$ 399,035,084
Deposit Funds	568,153	566,000
	406,203,247	399,601,084
Federal Security Holdings	823,707,875	741,061,690
Accounts Receivable:		
Government Agencies	243,997,621	90,055,848
The Public	9,309,549	440,085
	253,307,170	90,495,933
Advances To:		
Government Agencies		
The Public	90,807	51,127
	90,807	51,127
Total Selected Current Assets	**$ 1,380,573,102**	**$1,231,209,834**
Loans Receivable:		
Repayment in Dollars	501,282,431	529,102,031
Allowances (-)	(417,635,462)	(400,102,031)
	83,646,462	128,999,999
Real Property and Equipment:		
Land	7,749,000	7,749,000
Structures and Facilities	98,964,711	204,176,225
Equipment and Vessels	592,807,821	305,039,376
Leasehold Improvements	167,495	199,429
Allowances (-)	(3,965,505)	(32,650,995)
	695,897,898	484,513,035
Other Assets:		
Materials and Supplies	3,837,359	27,541,706
	27,541,706	22,337,733
Total Assets	**$2,266,690,818**	**$1,872,254,574**

The notes to Financial Statements are an integral part of this statement.

U.S. DEPARTMENT OF TRANSPORTATION--Maritime Administration

Exhibit 1. Statement of Financial Condition
September 30, 1993, and September 30, 1992

LIABILITIES	September 30 1993	September 30 1992
Selected Current Liabilities (Note 2)		
Accounts Payable (Including Funded Accrued Liabilities):		
Government Agencies	$ 4,031	$ 693,308
The Public	108,739,289	77,870,425
	108,743,320	78,563,733
Unfunded Liabilities:		
Accrued Annual Leave	4,967,359	5,900,414
Accrued Payroll and Benefits	1,346,580	0
Total Selected Current Liabilities	**113,642,409**	**85,030,677**
Deposit Fund Liabilities	568,153	566,530
Debt issued under borrowing Authority:		
Borrowing from Treasury	0	0
Other Liabilities:		
Vessel Trade-in Allowance and Other Accrued Liabilities	0	0
Total Liabilities	**$ 115,625,412**	**$ 85,030,677**
Government Equity		
Unexpended Budget Authority:		
Unobligated	1,027,459,412	1,015,969,800
Undelivered Orders	1,547,730,494	1,788,810,087
	2,575,189,906	2,804,779,887
Unfinanced Budget Authority (-)		
Unfilled Customer Orders	(160,589,962)	(408,467,593)
Contract Authority	(1,040,851,000)	(1,291,120,000)
	(1,669,587,593)	(2,045,368,855)
Invested Capital	777,316,462	652,031,583
Total Government Equity	**$2,048,329,406**	**$1,877,598,574**
Total Liabilities and Government Equity	**$2,266,690,818**	**$1,872,254,574**

The notes to Financial Statements are an integral part of this statement.

U.S. DEPARTMENT OF TRANSPORTATION--Maritime Administration

Exhibit 2. Statement of Operations

	Years Ended September 30	
	1993	**1992**
OPERATIONS OF THE MARITIME ADMINISTRATION		
Net Costs of Operating Activities		
Reserve Fleet Programs:		
Maintenance and Preservation	$ 436,319,800	$ 116,051,286
Direct Subsidies and National Defense Costs:		
Operating-Differential	215,506,822	218,937,768
Ocean Freight Differential	62,125,000	50,929,000
	277,631,822	269,866,768
Administrative	68,875,000	73,389,000
Financial Assistance to State Marine Schools	5,547,000	5,962,000
	74,422,000	79,351,000
Other Operating Income Net of Expenses	8,486,197	(21,867,277)
Net Cost of Maritime Administration	$ 796,859,819	$ 443,401,777
OPERATIONS OF REVOLVING FUNDS (-Income):		
Vessel Operations Revolving Fund	258,242,935	15,512,617
War Risk Revolving Fund	(1,319,940)	(962,323)
Federal Ship Financing Fund	(24,886,003)	26,948,007
Special Studies	0	(44,500)
Gifts and Bequests	(116,440)	(1,486)
	$284,656,661	41,452,315
Net Cost of Combined Operations	**$1,081,516,480**	**$ 484,854,092**

The notes to Financial Statements are an integral part of this statement.

U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION

Notes to Financial Statements
September 30, 1992 and September 30, 1993.

1. The preceding financial statements include the assets, liabilities, income, and expenses of the Maritime Administration; the Vessel Operations Revolving Fund, the War-Risk Insurance Revolving Fund, and the Federal Ship Financing Fund.

2. The Maritime Administration was contingently liable under agreements guaranteeing obligations or insuring mortgages and construction loans payable to holders or lenders totaling $1,796,650,261 on September 30, 1993. Commitments to guarantee additional obligations on September 30, 1993 and $47,675,000.

3. MARAD held no cash or securities on September 30, 1993 in escrow in connection with the guarantee of obligations to the insurance of loans and mortgages which were financed by the sale of bonds in the securities market. There were no conditional liabilities for pre-launching War-Risk Builder's Insurance on September 30, 1993.

4. On September 30, 1993, the U.S. Government held $90,000 in securities which had been accepted from vessel owners, charterers subsidized operators, and other contractors as collateral for their performance under contracts.

5. The Federal Ship Financing Fund, a revolving fund, is currently self-supporting. As of
September 30, 1993; the fund had investments (U.S. Treasury Securities) of $801.7 million. During Fy 1993, the fund incurred and paid out $2.7 million in mortgage loan defaults, no borrowing from U.S. Treasury was necessary to cover these defaults.

6. The Maritime Administration wrote off loans receivable of $17.5 million for the Title XI Program during FY 1993.

7. The Maritime Administration adjusted its liabilities to $1,040,851,000 as of September 30, 1993, recognizing the estimated total of contractual liability outstanding on the current Operating Differential Subsidy contracts.

8. The $3,837,359 allowances reported for Real Property and Equipment is for property held by the Federal Ship Financing Fund.

Appendix I: MARITIME SUBSIDY OUTLAYS--1936-1993

Fiscal Year	CDS	Reconstruction CDS	Total CDS	ODS	Total ODS & CDS
1936-1955	$248,320,942*	$ 3,286,888	$ 251,607,830	$ 341,109,987	$ 592,717,817
1956-1960	129,806,005	34,881,409	164,687,414	644,115,146	808,802,560
1961	100,145,654	1,215,432	101,361,086	150,142,575	251,503,661
1962	134,552,647	4,160,591	138,713,238	181,918,756	320,631,994
1963	89,235,895	4,181,314	93,417,209	220,676,685	314,093,894
1964	76,608,323	1,665,087	78,273,410	203,036,844	281,310,254
1965	86,096,872	38,138	86,135,010	213,334,409	299,469,419
1966	69,446,510	2,571,566	72,018,076	186,628,357	258,646,433
1967	80,155,452	932,114	81,087,566	175,631,860	256,719,426
1968	95,989,586	96,707	96,086,293	200,129,670	296,215,963
1969	93,952,849	57,329	94,010,178	194,702,569	288,712,747
1970	73,528,904	21,723,343	95,252,247	205,731,711	300,983,958
1971	107,637,353	27,450,968	135,088,321	268,021,097	403,109,418
1972	111,950,403	29,748,076	141,698,479	235,666,830	377,365,310
1973	168,183,937	17,384,604	185,568,541	226,710,926	412,279,467
1974	185,060,501	13,844,951	198,905,452	257,919,080	456,824,532
1975	237,895,092	1,900,571	239,795,663	243,152,340	482,948,003
1976**	233,826,424	9,886,024	243,712,448	386,433,994	630,146,442
1977	203,479,571	15,052,072	218,531,643	343,875,521	562,407,164
1978	148,690,842	7,318,705	156,009,547	303,193,575	459,203,122
1979	198,518,437	2,258,492	200,776,929	300,521,683	501,298,612
1980	262,727,122	2,352,744	265,079,866	341,368,236	606,448,102
1981	196,446,214	11,666,978	208,113,192	334,853,670	542,966,862
1982	140,774,519	43,710,698	184,485,217	400,689,713	585,174,930
1983	76,991,138	7,519,881	84,511,019	368,194,331	452,705,350
1984	13,694,523	-0-	13,694,523	384,259,674	397,954,197
1985	4,692,013	-0-	4,692,013	351,730,642	356,422,655
1986	-416,673	-0-	-416,673	287,760,640	287,343,867
1987	420,700	-0-	420,700	227,426,103	227,846,803
1988	1,236,379	-0-	1,236,679	230,188,400	231,425,079
1989	-0-	-0-	-0-	212,294,812	212,294,812
1990	-0-	-0-	-0-	230,971,797	230,971,797
1991	-0-	-0-	-0-	217,574,038	217,574,038
1992	-0-	-0-	-0-	215,650,854	215,650,854
1993	-0-	-0-	-0-	215,506,822	215 506,822
Total	**$3,569,648,434**	**$264,904,682**	**$3,834,553,116**	**$9,501,123,248**	**$13,120,169,542**

* Includes $131.5 million CDS adjustments covering the World War II period, $105.8 million equivalent to CDS allowances which were made in connection with the Mariner Ship Construction Program, and $10.8 million for CDS in fiscal years 1954 to 1955.

** Includes totals for FY 1976 and the Transition Quarter ending September 30, 1976.

Appendix II: Combined Financial Statements of Companies With Operating-Differential Subsidy Contracts
Statement A - Balance Sheet for Years Ending in 1992 and 1991

	1992	1991
ASSET	(stated in thousands)	
Current Assets:		
Cash	$102,806	$93,152
Marketable Securities	69,672	78,919
Notes Receivable	0	726
Accounts Receivable	382,493	347,799
Allowance for Doubtful Receivables	(3,736)	(3,684)
Other Current Assets	110,733	107,834
Total Current Assets	$661,968	$624,746
Non-Current Assets:		
Restricted Funds	$2,345	$13,774
Investments	1,764	213
Property and Equipment (net of depreciation)	1,074,798	1,176,125
Other Assets	86,812	130,104
Deferred Charges	28,530	17,525
Goodwill and Other Intangible Assets	36,290	39,340
Total Non-Current Assets	$1,230,539	$1,377,081
TOTAL ASSETS	$1,892,507	$2,001,827
LIABILITIES & OWNERS' EQUITY		
Current Liabilities:		
Notes Payable	$157,924	$75,643
Accounts Payable	97,605	122,181
Accrued Liabilities	352,151	348,618
Other Current Liabilities	3,551	37,198
Advance Payments/Deposits	4,549	2,410
Total Current Liabilities	$615,780	$586,050
Non-Current Liabilities:		
Long Term Debt	$370,686	$579,866
Other Liabilities	98,399	122,128
Deferred Credits	146,488	126,318
Total Non-Current Liabilities	$615,573	$828,312
Total Liabilities	$1,231,353	$1,414,362
Owners' Equity:		
Invested Capital	$186,572	$186,340
Treasury Stock	(2,443)	(2,441)
Retained Earnings	477,025	403,566
Total Owners' Equity	$661,154	$587,465
TOTAL LIABILITIES AND OWNERS' EQUITY	$1,892,507	$2,001,827

Appendix II: (continued)

Statement A - Income Statement for Fiscal Years Ending in 1992 and 1991

	1992	1991
	(stated in thousands)	
Shipping Revenue	$2,555,102	$2,580,072
Other Shipping Operations Revenue	224,023	143,042
Total Revenue from Shipping Operations	$2,779,125	$2,723,114
Shipping Expense	$698,833	$841,720
Operating-Differential Subsidy	(206,519)	(195,571)
Shipping Port Call Expense	115,245	93,759
Cargo Handling Expense	1,466,798	1,259,781
Inactive Vessel Expense	7,938	33,874
Other Shipping Operations Expense	57,909	16,879
Total Expense of Shipping Operations	$2,140,204	$2,050,442
Gross Income from Shipping Operations	$638,921	$672,672
Other Revenue	32,752	26,919
Other Expense	20,226	18,786
General and Administrative Expense	364,723	367,109
Depreciation and Amortization Expense	122,817	123,895
Interest Expense	44,451	61,504
Net Income Before Income Taxes	$119,456	$128,297
Provision for Income Taxes	40,589	39,849
Net Income After Income Taxes	$78,867	$88,448
Effect of Change in Accounting Policy	(21,658)	0
Income or Loss from Extraordinary Items	19,135	(901)
NET INCOME	$76,344	$87,547

(This data is from the Financial Report Form MA-172 filed by 14 subsidized companies in 1992 and 17 subsidized companies in 1991.)

APPENDIX III: RESEARCH AND DEVELOPMENT PROGRAM--FY 1993

Project	Task	Recipient	Agreement Number	Amount
Cargo Handling Technology:				
Cargo Handling Cooperative Program	Carry out research, development, test, and evaluation of new technologies, systems, and methods directed at increasing the cargo handling productivity of U.S.-flag carriers.	American President Lines, Ltd. Matson Terminals Inc. Crowley Maritime Corp.	MA-CA-10014	$200,000*
Maritime Technology Policy:				
Marine Board	Continue sponsorship of the Marine Board of the National Academy of Sciences during FY 93 and perform selected research (MARPOL Annex V, navigation and piloting, shiphhandling simulation training, and contaminated marine sediments).	Dept. of Interior Washington, DC	MA-3-A07	$200,000*
Transportation Research Board (TRB)	To provide for sponsorship of the annual technical program of the TRB.	National Research Council	DTMA91-93-G-00001	$ 50,000*
Marine Environmental Protection:				
Water Pollution	Develop a model training curriculum on oil spill prevention response and clean-up.	Massachusetts Maritime Academy	MA-CA-200085	$ 42,000
Air Pollution	Reduce air pollution from marine engines.	U.S. Coast Guard	MA-3-A25	$ 20,851*
National Maritime Enhancement Institutes:				
Ship Structural Integrity Information System	Develop guidelines for a standard for structural integrity information gathering, archiving and analysis.	University of California at Berkeley	DTMA91-93-G-00041	$ 44,928**
Inspection of Marine Structures	Assess sensitivity, accuracy and cost of structural inspection systems in use.	University of California at Berkeley	DTMA91-93-G-00040	$ 50,000**
The Maritime System of the Americas and Intermodal Operation of Ocean Going Vessels	Investigate conditions defining market shares of services of ocean-going vessels with intermodal transshipment at coastal ports for trade between U.S., Canada, and Mexico.	Louisiana State University	DTMA91-93-G-00042	$ 93,678*
Resolution of Land Use and Port Access Conflicts at Inland Waterway Ports	Examine port and planning issues related to the redevelopment process.	Memphis State University	DTMA91-93-G-00043	$ 51,321*

*Cost Shared
**Cost Reimbursable from U.S. Coast Guard

APPENDIX III: RESEARCH AND DEVELOPMENT PROGRAM--FY 1993 (cont.)

Project	Task	Recipient	Agreement Number	Amount
Ship Operations Technology:				
Development of a Ship Operations Cooperative Program	Provide support to MARAD in the establishment of a joint industry/government cooperative program in ship operations technology.	PRC Inc.	DTMA91-92-C-200038	$ 25,649
Ship Operations Cooperative Program	Perform research on new methods, and procedures directed at improving the efficiency, productivity, safety, and environmental responsiveness of U.S. ship operations.	ARCO Marine Energy Transportation Corp. Sea-Land Service National Oceanic and Atmospheric Administration	DTMA91-93-G-00012	$ 150,000*
Ship Structures Research:				
Ship Structure Committee	MARAD's share to participate in the Ship Structures Committee FY 93 Program.	U.S. Coast Guard Washington, DC	MA-2-A35	$ 75,000*
Small Business Innovation Research:				
Small Business Innovation Research Program	MARAD's support of the FY 93 Small Business Innovation Research Program.	Volpe National Transportation Systems Center, Cambridge, MA	MA-2-A34	$ 50,000
Waterway Navigation Technology:				
Regional Response Team Decision Making Training	U.S. Coast Guard R&D Center project to improve the effectiveness of the decision making process following major spills.	Marine Safety International Kings Point, NY	DTMA91-88-C-80024 Task #6	$100,000**
Conceptual Design of a U.S. Coast Guard Pollution Response Command Post Display System	U.S. Coast Guard R&D Center project to upgrade the display of pollution response information at its spill response command posts.	Marine Safety International Kings Point, NY	DTMA91-88-C-80024 Task #8	$ 79,091**

*Cost Shared
**Cost Reimbursable from U.S. Coast Guard

APPENDIX III: RESEARCH AND DEVELOPMENT PROGRAM--FY 1993 (cont.)

Project	Task	Recipient	Agreement Number	Amount
Port and Intermodal:				
Landside Access to U.S. Ports	Continue efforts to assess impediments and potential strategies for improving landside access to U.S. ports.	Transportation Research Board, Washington, DC		$101,585
GIS	Develop geographic information systems to improve port operations.	Volpe National Transportation System Center, Cambridge, MD		$ 25,000
Marine Board	Develop improved techniques for port governance.	Marine Board Washilngton, DC		$ 50,000
Input/Output	Develop analyses of the input/output effects of port operations.	Mercer Management Consulting Lexington, MA		$ 49,900

*Cost Shared
**Cost Reimbursable from U.S. Coast Guard

Appendix IV: STUDIES AND REPORTS RELEASED IN FY 1993

The following major studies or reports were released by MARAD during FY 1993.

MARAD '92 (The Annual Report of the Maritime Administration for FY 1992), May 1993, 85 pp. [MARAD]

Maritime Labor-Management Affiliations Guide, 32 pp. [MARAD] April 1993

Maritime Subsidies, September 1993, 177 pp. [MARAD]

Report on Foreign Shipbuilding Subsidies, July 1993, 54pp. [MARAD]

Report on Survey of U.S. Shipbuilding and Repair Facilities, December 1992, 102 pp. [MARAD]

Review of United States Liner Trades, September 1993, 118 pp. [MARAD]

Service Guide '93--Ship Your Cargo on U.S.-Flag Ships, 8 pp. [MARAD]

Vessel Inventory Report, as of July 1, 1992, 56 pp. [MARAD]

Note: Reports prepared or issued by the MARAD in previous years are listed in **MARAD PUBLICATIONS** and are available upon request from headquarters and field offices.

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