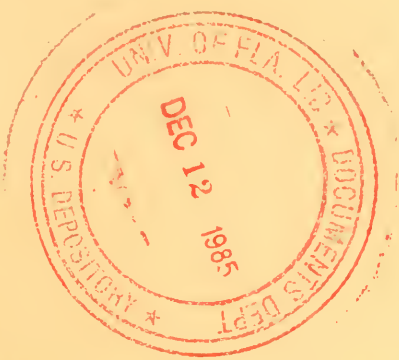


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PANAMA CANAL COMMISSION

# ANNUAL REPORT



FISCAL YEAR ENDED SEPTEMBER 30, 1984



# PANAMA CANAL COMMISSION

Balboa, Republic of Panama  
OFFICE OF THE ADMINISTRATOR

## FROM THE ADMINISTRATOR

It is a pleasure to submit the annual report of the Panama Canal Commission, for fiscal year 1984, our fifth year of successful operation under the Panama Canal Treaty, and the year in which the Canal organization celebrated the seventieth anniversary of the opening of the Canal.


The recession in maritime trade and the loss of Alaska North Slope (ANS) oil traffic combined to make fiscal year 1984 one in which all major elements of Canal traffic declined. Nevertheless, the Commission continued to recover all costs from revenues in 1984, and ended the year with a small positive balance. This was due to effective cost-reduction efforts as well as to the full-year effect of a modest toll rate increase in March 1983.

Looking to a future in which Canal traffic is expected to increase, and taking advantage of current low traffic levels, management continued a capital program including improvements difficult to accomplish at higher levels of traffic such as channel dredging in the narrow Gaillard Cut where the Canal passes through the continental divide. This year the Commission also completed work on a new Tug/Miter Gate Repair Facility and a new Marine Traffic Control closed circuit television (CCTV) vessel surveillance system. The latter will permit monitoring activity at critical locations along the length of the Canal and result in a safer operating environment for

Canal users. Canal equipment continued to be maintained at a high level or replaced with technologically improved equipment as necessary.

Attention to the equally important human side of the enterprise, the key to the future of the Canal, is shown by the considerable resources which were dedicated to training. Emphasis on training, in order to effectively increase participation by Panamanians at all levels of the Commission, continued to receive priority attention. Panamanian citizens now comprise approximately 78 percent of the work force and are increasingly involved at all management levels.

Please be assured that we at the Commission will continue to meet the challenges of the future in carrying out our mission of providing cost-effective, safe and efficient transit service to the maritime industry.



D. P. McAULIFFE  
*Administrator.*

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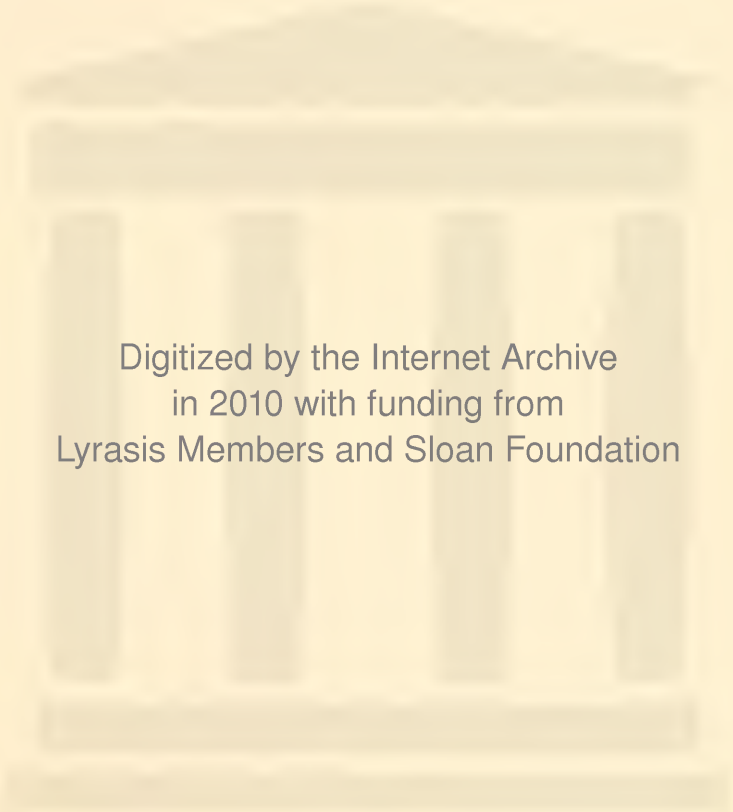
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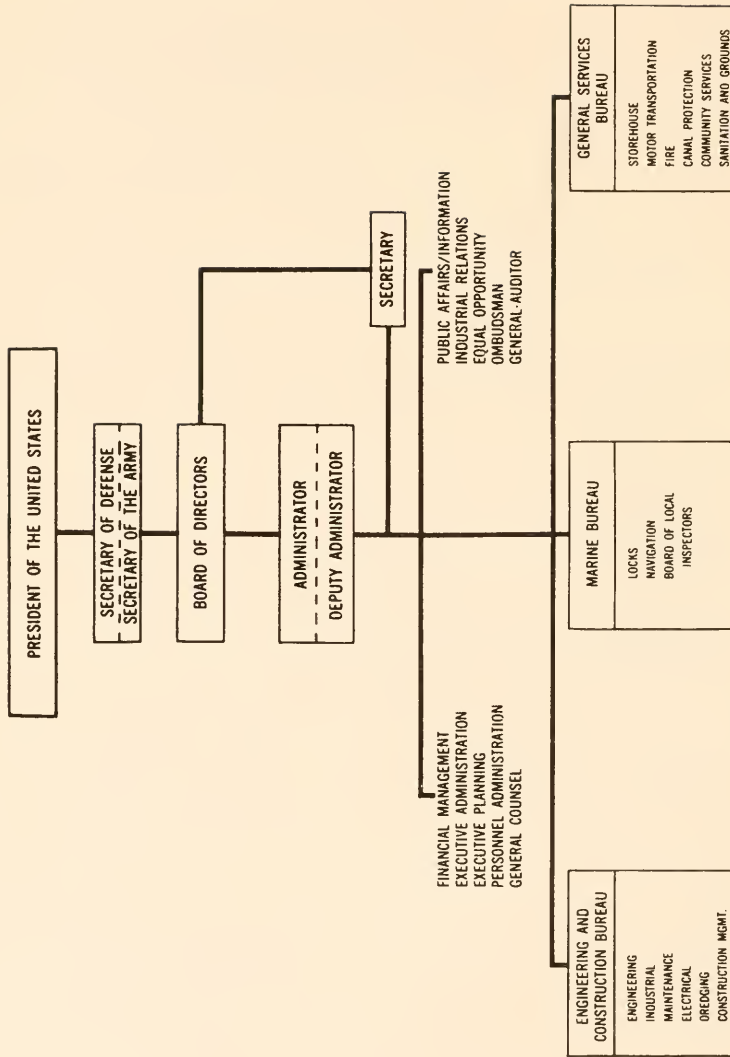
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PANAMA CANAL COMMISSION



September 1984



## **INTRODUCTION**

### **ORGANIZATION**

The Panama Canal Commission is an agency of the Executive Branch of the United States Government, provided for by the Panama Canal Treaty of 1977, and established by the Panama Canal Act of 1979 (93 Stat. 452; 22 U.S.C. 3601 et seq), enacted September 27, 1979. The authority of the President of the United States with respect to the Commission is exercised through the Secretary of Defense and the Secretary of the Army. The Commission is supervised by a nine-member Board. Five members are nationals of the United States and four are Panamanians. Board members who are U.S. nationals are appointed by the President with the advice and consent of the Senate.

The Commission was established to carry out the responsibilities of the United States with respect to the Panama Canal under the Panama Canal Treaty of 1977. In fulfilling these obligations, the Commission manages, operates, and maintains the Canal, its complementary works, installations, and equipment, and provides for the orderly transit of vessels through the Canal. The Commission will perform these functions until the treaty terminates on December 31, 1999, when the Republic of Panama will assume full responsibility for the Canal.

The Commission is expected to recover through tolls and other revenues all costs of operating and maintaining the Canal, including interest, depreciation, capital for plant replacement, expansion and improvements, and payments to the Republic of Panama for public services and annuities, in accordance with paragraph 5 of Article III and paragraphs 4(a) and (b) of Article XIII, respectively, of the Panama Canal Treaty of 1977. Revenues from tolls and all other sources are deposited in the U.S. Treasury in an account known as the Panama Canal Commission Fund. Appropriations for operating expenses and capital improvements are enacted annually by the Congress and are limited to the sum of the estimated receipts for the year, plus any unexpended balances in the Panama Canal Commission Fund.

### **THE CANAL**

The Panama Canal is a lock-type canal approximately 51 miles long from deep water to deep water. The minimum width of the navigable channel is 500 feet. Navigable channel depth varies according to the amount of water available in Canal storage areas. The normal range of permissible transit draft is from 38 feet to 39 feet 6 inches tropical fresh water.

Vessels transiting the Canal are raised in three steps to the level of Gatun Lake, the principal source of Canal water, then lowered to sea level again in three steps. The three sets of Canal locks are paired so as to permit simultaneous lockage of two vessels in the same direction or in opposite directions.

Since August 15, 1914, the official date of its opening, the Panama Canal has served world trade virtually without interruption. Through this fiscal year, a total of 638,033 vessels of all types have transited with 534,569 or 83.8 percent of the total being of the oceangoing commercial class.

### TOLLS RATES

Panama Canal tolls rates were increased approximately 9.8 percent on March 12, 1983. Tolls rates are: (a) On merchant vessels, Army and Navy transports, tankers, hospital ships, supply ships, and yachts, when carrying passengers or cargo: \$1.83 per net vessel ton of 100 cubic feet of actual earning capacity. Such tonnage is determined in accordance with the "Rules of Measurement of Vessels for the Panama Canal;" (b) on such vessels in ballast, without passengers or cargo: \$1.46 per net vessel ton; and (c) on other floating craft: \$1.02 per ton of displacement.

By treaty, the United States continues to provide to Colombia free transit through the Canal of its troops, materials of war, and ships of war.

**BOARD OF DIRECTORS**  
**Ending Fiscal Year 1984**

Honorable WILLIAM R. GIANELLI,  
*Chairman, Board of Directors*  
*Panama Canal Commission*  
*2000 L Street, N.W., Suite 550*  
*Washington, D.C. 20036*

Honorable ANDREW E. GIBSON  
*Short Hills, New Jersey*

Honorable OYDEN ORTEGA  
*Minister of Foreign Relations*  
*Panama, Republic of Panama*

Honorable LUIS A. ANDERSON  
*Secretary General*  
*Interamerican Regional Labor*  
*Organization*  
*Postal Box 7039*  
*Mexico, D.F. 0600*

His Excellency CARLOS OZORES  
*Vice President*  
*Panama, Republic of Panama*

Honorable JOHN A. BUSHNELL  
*Deputy Chief of Mission*  
*U.S. Embassy*  
*Buenos Aires, Argentina*

Honorable WILLIAM SIDELL  
*Poway, California*

Honorable FERNANDO CARDOZE  
*Panama, Republic of Panama*

Honorable WILLIAM W. WATKIN, Jr.  
*Beaufort, South Carolina*

**Executive Committee**

Honorable WILLIAM R. GIANELLI,  
*Chairman*  
Honorable FERNANDO CARDOZE  
Honorable OYDEN ORTEGA  
Honorable WILLIAM SIDELL  
Honorable WILLIAM W. WATKIN, Jr.

**Cut Widening Feasibility Committee**

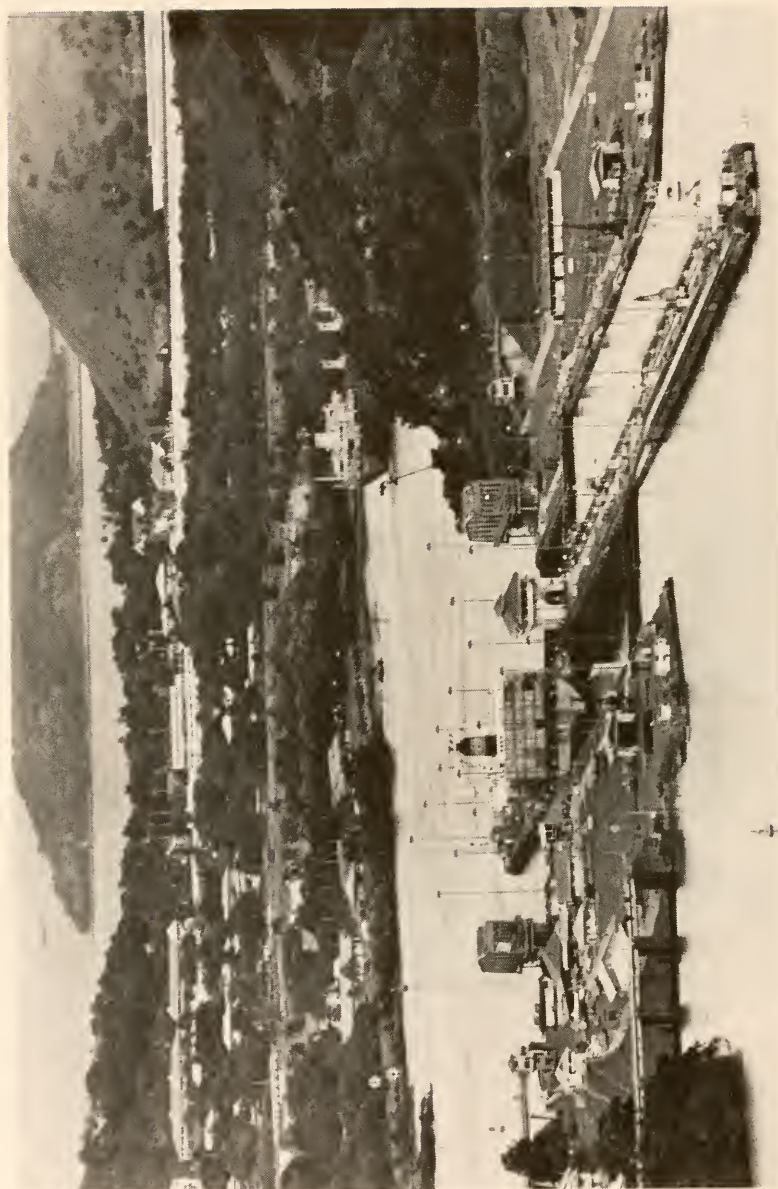
Honorable FERNANDO CARDOZE,  
*Chairman*  
Honorable ANDREW GIBSON  
Honorable OYDEN ORTEGA  
Honorable WILLIAM W. WATKIN, Jr.

**OFFICIALS IN THE REPUBLIC OF PANAMA**

*Administrator* ..... Honorable D. P. MCAULIFFE  
*Deputy Administrator* ..... Honorable FERNANDO MANFREDO, Jr.

**OFFICIALS IN WASHINGTON, D.C.**

*Secretary* ..... MICHAEL RHODE, Jr.



**LARGE SOUTHBOUND VESSELS AT MIRAFLORES LOCKS**  
—a view which includes Miraflores Swing Bridge, Balboa and the Pacific Anchorage.

# *Chapter I*

## **CANAL TRAFFIC**

### **TRAFFIC**

All major elements of Canal traffic declined during fiscal year 1984 from the already depressed levels registered in the prior year. Tolls revenue, however, increased due to the full-year impact of the toll rate increase implemented March 12, 1983. The full-year effect of the loss of the Alaska North Slope (ANS) oil and the continued recession in maritime trade through the first half of the year were the major factors in the traffic drop experienced during the year.

Oceangoing transits in fiscal year 1984 decreased 3.9 percent to 11,384 or 31.1 vessels daily from 11,846 or 32.5 daily the prior year. Vessels owned or operated by the U.S. Government and free Colombian and Panamanian Government vessels made 154 transits during the year compared with 139 transits in fiscal year 1983.

Growth in ship size was not evident during fiscal year 1984, as a result of a decline in transits by large tankers and PANAMAX size vessels carrying grains and coal. Transits by vessels having beams of 80 feet and over accounted for 5,496 or 48.3 percent of total oceangoing transits compared with 5,869 or 49.5 percent of total oceangoing transits in the prior year. In fiscal year 1984, vessels having beams of 100 feet and over declined 8.5 percent to 2,170 or 19.1 percent of total oceangoing transits from 2,371 or 20 percent of total oceangoing transits in fiscal year 1983. Average size of oceangoing commercial transits, in terms of Panama Canal net tonnage, also declined slightly. Oceangoing commercial vessels averaged 14,461 Panama Canal net tons in fiscal year 1984 compared with 14,485 in 1983.

Total Panama Canal net tonnage dropped 4.0 percent to 163.8 million in fiscal year 1984 from 170.7 million tons in the prior year. Despite the decline in Panama Canal net tonnage, tolls revenue rose 0.5 percent to \$289.2 million from the \$287.8 million of the prior year.

A two-year summary of the principal elements of Canal traffic and tolls revenue is shown in the following table:

## COMPARATIVE HIGHLIGHTS OF OPERATIONS

	Fiscal year	
	1984	1983
Oceangoing transits:		
Commercial .....	11,230	11,707
U.S. Government .....	137	125
Free .....	17	14
Total .....	<u>11,384</u>	<u>11,846</u>
Daily average .....	31.1	32.5
Small transits:		
Commercial .....	802	810
U.S. Government .....	241	242
Free .....	96	56
Total .....	<u>1,139</u>	<u>1,108</u>
Total cargo:		
Commercial .....	140,471,470	145,591,428
U.S. Government .....	329,607	354,878
Free .....	59	2,512
Total .....	<u>140,801,136</u>	<u>145,948,818</u>
Total Panama Canal net tons and reconstructed displacement tonnage .....	163,833,038	170,655,341
Transit revenue:		
Commercial tolls .....	\$286,754,765	\$286,057,692
U.S. Government tolls .....	2,400,270	1,733,331
Tolls revenue .....	<u>\$289,155,035</u>	<u>\$287,791,023</u>
Harbor pilotage, tug, launch, and other services .....	58,931,942	55,381,005
Total transit revenue .....	<u>\$348,086,977</u>	<u>\$343,172,028</u>

## COMMODITIES AND TRADE ROUTES

Oceangoing commercial cargo totaled 140.5 million long tons during fiscal 1984, with twelve key commodity groups accounting for 86.2 percent of that total. The groups, shown on page 11, have maintained relatively stable levels of importance to Canal traffic in recent years. In 1983, the proportion observed for these commodity groups was 88.4 percent.

Despite the decline in crude oil movements, petroleum and products ranked as the principal commodity group in fiscal year 1984, accounting for 21.8 percent of total oceangoing commercial cargo. Shipments of petroleum and products totaled 30.7 million long tons, down by 9.4 percent from 33.9 million long tons the prior year. Crude oil, which totaled 14.2 million tons, dropped from the 18.7 million long tons in fiscal year 1983 as a result of the full-year effect of the loss of the ANS trade. This decline was partially offset by the movement of petroleum products increasing to 16.5 million tons from 15.2 million tons in 1983.



The second major commodity group in fiscal year 1984 was grain, accounting for 20.0 percent of commercial cargo. Grain shipments totaled 28.1 million long tons, showing a substantial 23 percent decline from the 36.5 million tons registered in fiscal year 1983. Almost the entire drop in this commodity group was due to a sharp decline in the corn movement which offset a marked improvement in the wheat trade. Corn shipments were down by 56.1 percent to 9.5 million tons from the record 21.6 million tons reached the prior year. The decline resulted from a diversion of U.S. corn exports to West Coast ports, a drought which severely reduced U.S. corn production, and increased competition from Canada, Australia, and Argentina—in part, as a result of the strength of the U.S. dollar. The diversion of corn exports to West Coast ports can be attributed to a number of factors such as lower ocean rates from the West Coast during the period, railroad contract haulage rates and the effect of the drought last year in sections of the Midwest. The improvement shown by the wheat movement, which increased by 60.7 percent to 9 million long tons from 5.6 million tons the prior year, was largely due to a resumption of U.S. exports to China. U.S. exports to China via the Canal increased from 1.9 million tons to 4.2 million tons in 1984. Rice, barley, and miscellaneous grains showed increases during the year while the remaining products in the group—soybeans, sorghum and oats—reflected lower tonnages. Grain shipments from the U.S. to the Far East constituted 74.0 percent of the total movement, with Japan, China, and Taiwan being the principal destinations.

Coke and coal, the third commodity group in Canal traffic, continued depressed in 1984, dropping from the 10.7 million tons registered last year to 10 million tons. The group accounted for 7.1 percent of total oceangoing commercial cargo. The weak coal trade reflected a number of factors, including low steel production levels in Japan, a declining U.S. market share in Japanese imports, and an increase in the proportion of U.S. coal exports bypassing the Canal. Coal shipments to Japan totaled 5.5 million tons, or 55 percent of the trade, and shipments to Taiwan and South Korea accounted for 2.3 million tons, or 23 percent of the coal and coke commodity group. The coal bypass movement via the Cape of Good Hope this year was 45 percent of the total U.S. East Coast coal shipped to the Far East, compared with 40 percent in fiscal year 1983.

With the exception of canned and refrigerated foods, which declined by 2.9 percent to 3.3 million tons, all other major commodity groups experienced gains during the year. One notable improvement was the increase shown by manufactures of iron and steel which had been registering annual declines during the last few years. This commodity group totaled 7.3 million long tons, increasing by 40.4 percent over the prior year. Nitrates, phosphates, and potash increased by 5.3 percent to 9.9 million tons; ores and metals rose by 8.8 percent to 8.7 million tons; lumber and products was up by 8.5 percent to 6.4 million tons; miscellaneous agricultural products increased by 3.7 percent to 5.6 million tons; chemicals and petroleum chemicals rose by 4.0 percent to 5.2 million tons;

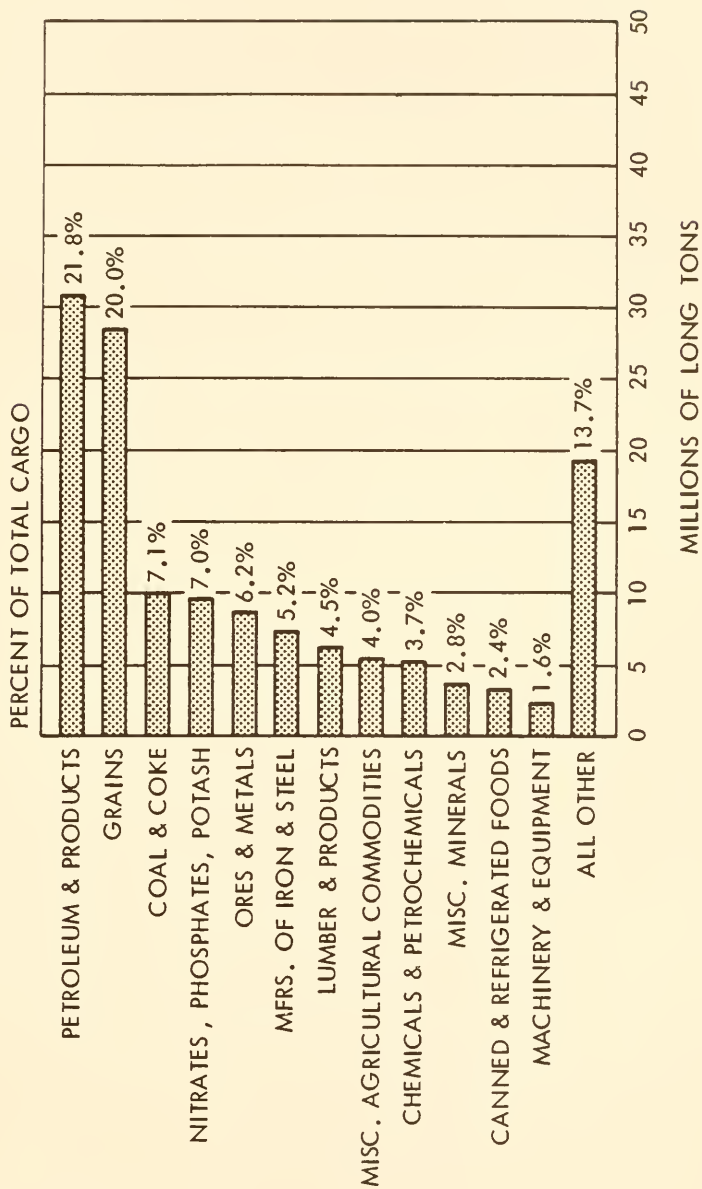
miscellaneous minerals increased by 18.2 percent to 3.9 million tons; and machinery and equipment rose by 10.0 percent to 2.2 million tons.

Trade between the East Coast of the United States and Asia continued to dominate Canal traffic, with nearly 39.3 percent of the total commercial cargo moving over this route. The total cargo tonnage plying the U.S. East Coast-Asia route declined again this year, however, from 60.3 million long tons to 55.2 million tons, a drop of 8.5 percent.

The following chart and table show the principal commodity groups moving in oceangoing commercial vessels in 1984 and a comparison of the major trade routes in fiscal years 1984 and 1983.



PRINCIPAL COMMODITY GROUPS  
TRANSITING THE CANAL  
OCEANGOING COMMERCIAL CARGO FY 1984



## Major Trade Routes in Canal Traffic

Trade Route	Fiscal year [In thousands of tons]						Percent increase or (decrease)		
	1984			1983			Panama		
	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons
East Coast United States-Asia .....	62,802	55,229	66,467	60,322	(5.5)	(8.5)	(5.5)	(8.5)	(5.5)
East Coast United States-West Coast South America .....	17,039	13,379	17,401	12,866	(2.1)	4.0	(2.1)	4.0	(2.1)
Europe-West Coast United States/Canada .....	14,339	14,288	13,345	12,425	7.4	15.0	7.4	15.0	7.4
East Coast United States-West Coast Central America <sup>1</sup> .....	2,754	2,303	8,336	7,518	(67.0)	(69.4)	(67.0)	(69.4)	(67.0)
Europe-West Coast South America .....	7,350	4,704	8,014	5,247	(8.3)	(10.4)	(8.3)	(10.4)	(8.3)
U.S. Intercoastal (including Alaska and Hawaii) .....	5,320	4,464	5,633	4,764	(5.6)	(6.3)	(5.6)	(6.3)	(5.6)
East Coast Canada-Asia .....	5,002	4,281	5,510	4,239	(9.2)	(1.0)	(9.2)	(1.0)	(9.2)
East Coast United States/Canada-Oceania .....	4,218	4,864	4,472	3,824	(5.7)	27.2	(5.7)	27.2	(5.7)
West Indies-West Coast South America .....	4,944	4,119	3,613	3,178	36.8	29.6	36.8	29.6	36.8
Central American Intercoastal .....	4,442	4,120	3,590	3,260	23.7	26.4	23.7	26.4	23.7
South American Intercoastal .....	2,657	3,061	3,328	3,590	(20.2)	(14.7)	(20.2)	(14.7)	(20.2)
Europe-Oceania .....	3,109	2,343	3,252	2,086	(4.4)	12.3	(4.4)	12.3	(4.4)
Subtotal .....	133,976	117,155	142,961	123,319	(6.3)	(5.0)	(6.3)	(5.0)	(6.3)
All other routes .....	28,359	23,316	26,543	22,272	6.8	4.7	6.8	4.7	6.8
Total .....	162,335	140,471	169,504	145,591	(4.2)	(3.5)	(4.2)	(3.5)	(4.2)

<sup>1</sup> In Canal trade route statistics, North Slope oil originating in Alaska is shown as transshipped cargo from Puerto Armuelles, Panama, if the vessel's voyage originated there.





A STERN VIEW OF THE "BARBER TAMPA" ON ITS MAIDEN TRANSIT  
—a new Roll-on Roll-off Supercarrier whose imposing ramp permits two-lane traffic.

# Chapter II

## CANAL OPERATIONS

Canal operations are comprised of Transit Operations and Maintenance and Related Canal Projects. The various functions are divided among a number of operating bureaus within the Canal agency.

### TRANSIT OPERATIONS

Daily average transits by oceangoing vessels decreased from the 32.5 per day during fiscal year 1983 to 31.1 per day during fiscal year 1984. Average time in Canal waters increased from 20.1 hours in fiscal year 1983 to 23.3 hours in fiscal year 1984.

<i>Fiscal year</i>	<i>Vessels of 600-foot length and over</i>	<i>Percent of total oceangoing transits</i>	<i>Vessels of 80-foot beam and over</i>	<i>Percent of total oceangoing transits</i>
1984 .....	3,865	33.9	5,496	48.3
1983 .....	4,157	35.1	5,869	49.5
1982 .....	5,534	39.1	7,226	51.1
1981 .....	4,855	34.7	6,364	45.5
1980 .....	4,598	33.8	6,089	44.7
1979 .....	4,089	31.3	5,503	42.1

The number of vessels transiting at more than 36-foot drafts remained about the same during FY 1984 with 1,716 such vessels transiting the Canal. The maximum allowable draft remained at 39 feet 6 inches during the entire fiscal year.

Total jobs performed by Commission tugs decreased from 35,454 in fiscal year 1983 to 33,796 in fiscal year 1984.

	<i>Fiscal year</i>	
	<i>1984</i>	<i>1983</i>
Oceangoing transits.....	11,384	11,846
Tug jobs:		
Balboa .....	23,242	24,044
Cristobal .....	10,554	11,410
Tug operating hours.....	55,675	57,249



**THE MADDEN DAM AND HYDROELECTRIC PLANT**  
—recently rewound and updated generators provide greater power output at intermediate and lower lake levels. Madden Lake reached a record level and is shown spilling water.



## MAINTENANCE AND RELATED CANAL PROJECTS

During FY 1984, Canal dredging activities were dedicated primarily to intensified efforts on the channel-deepening project. At the beginning of fiscal year 1984, approximately one third of the Canal channel required deepening to about 37 feet above sea level. During the year, the Dredges *Mindi* and *R. M. Christensen* excavated nearly 3 million cubic yards of earth and rock, leaving only ten percent of the channel-deepening project uncompleted. This project is expected to be completed early in CY 1985. In other dredging-related maintenance work, the overhaul of the dipper dredge *Cascadas* was completed at the Industrial Division's Mount Hope facility.

In conjunction with the \$4 million Pedro Miguel Locks overhaul, Miter Gates 62, 63, 64, and 65 were overhauled between November 1983 and March 1984 for the first time in twenty years. Work performed by Commission forces included renewal of miter and quoin bearing plates, pintle and jaw bushings, bottom seals, strut arms and anchor castings. Much of the work performed in the west chamber phase was similar to that done earlier in the East Chamber, including lateral culvert clean out and construction of a modified sill. Other overhaul and major maintenance work included overhaul of Caisson No. 1 and continuing work on the rehabilitation of locks locomotive tow track systems. During the fiscal year, with the installation of wingwall-knuckle pneumatic tire fenders and conversion of the Machinery Transformer Room at Gatun from 240 to 480 volts, these projects were completed at all locks.

Extensions to each side of the Locomotive Component Repair Facility at Pedro Miguel Locks were added by private contractor forces. When fully equipped and staffed, this facility's capacity to overhaul towing locomotive traction units and windlasses will be significantly increased. Six locomotives were overhauled during fiscal year 1984, and ten to twelve units are expected to be overhauled during fiscal year 1985.

A new design replacement runner (waterside prime mover), was installed in the number 1 unit at the Madden Dam Power Plant. The older units regularly suffered from cavitation damage as a consequence of operation with a greater-than-designed hydraulic head. The new design will reduce recurring repair costs and also provide greater power output, at intermediate and lower lake levels, from the recently rewound and uprated generators. Replacement of the runners in the remaining two units is expected to be completed in fiscal year 1985. At Gatun Dam, all fourteen spillway gates were overhauled in place.

The contract to provide a modern Supervisory Control and Data Acquisition System (SCADA) for electrical power dispatching is progressing. Factory acceptance tests are scheduled for completion in January 1985 and installation of equipment will begin in March 1985. Other

maintenance work, necessitated by the Mamei curve widening project, included the erection of new towers for navigational aids, range targets and lights.

Contract work on the construction of the new Tug/Miter Gate Facility at the Commission's Industrial Division in Mount Hope is complete except for correction of deficiencies. The Commission took possession prior to final acceptance of work under contract in order to be ready for the Gatun Locks overhaul which was scheduled to begin during October 1984.

Contract work on the Vessel Tie-Up Station was more than a year behind schedule when, in May of 1984, the contract was terminated and the Surety Company elected to complete the work. An experienced marine works contractor was engaged to complete the project and it is now progressing satisfactorily. The project is approximately 80 percent complete and should be finished by March 1985. The project to provide Commission Marine Traffic Controllers with a closed circuit television (CCTV) system for improved vessel surveillance along critical sections of the Canal has been completed and contractor work accepted.

Considerable miscellaneous maintenance work was accomplished as a part of treaty-mandated housing actions resulting from the relocation of transfer-of-function (TOF) Armed Forces civilian personnel and the movement of Commission personnel to core housing areas. Work on houses being transferred to the Republic of Panama on September 30, 1984, was completed on schedule and included units in Santa Cruz, Gamboa, Diablo and the Gavilan area of Balboa. The maintenance work on these housing units was limited to ensuring minimum standards of safety, serviceability, and sanitation.



# Chapter III

## SUPPORTING OPERATIONS

Supporting operations of the Panama Canal Commission provided essential support services to the operation and maintenance of the waterway and the Agency's facilities, as well as to other U.S. agencies on the Isthmus and to employees and their dependents. These operations included logistical services, employee services, sanitation and grounds management, transportation facilities, public utilities, fire protection, Canal protection, health and safety, and library services.

### LOGISTICAL SERVICES

The Storehouse Division provided centralized procurement, inventory management, warehousing, distribution, contract administration, supply and property disposal support to Canal operations. A total of \$70 million in goods and services were procured during fiscal year 1984, including \$30.3 million from sources in Panama. Major contracting activities included approximately \$16.7 million in Bunker "C" fuel for thermoelectric power generation, \$7.8 million for light diesel fuel, \$3.4 million on a spud carriage system for the suction dredge *Mindi*, \$3.1 million for two split-hull dump barges, \$2.5 million for a harbor towboat, and \$1.0 million for premium gasoline.

Approximately \$22.4 million in Commission inventory items were issued, and \$19.3 million was obligated for new inventory purchases during the year. A total inventory of 39,364 line items with an average landed cost value of \$27,514,000 was on hand at year end. This represented a drawdown of over \$6.0 million from the previous year's level, representing high issues over purchases and an aggressive excess stock program implemented during the year.

The Excess Disposal Branch's activities included transfers to other U.S. Government agencies of equipment having an original acquisition value of approximately \$862,000, while property sold to the Government of Panama at fair market value amounted to approximately \$134,000.

The Commission continues to participate under the Military Sealift Command's contract out of the Gulf port of New Orleans, LA. Approximately 12,700 measurement tons of containerized and breakbulk cargo were shipped to the Port of Balboa under the contract. An additional 2,826 measurement tons of general cargo and vehicles were shipped under a commercial contract with an ocean freight transport service from the port of New Orleans to Las Minas, Panama, without experiencing any major problems.

### COMMUNITY SERVICES

During fiscal year 1984, the Community Services Division managed employee housing, Commission-owned buildings, library services, and recreation facilities for the agency. Housing expenditures were concentrated on programs for enhancing quarters security, quarters energy conservation and preventive maintenance of aging quarters.

The Commission continued its multiyear housing management plan to concentrate its diminishing housing requirements in selected core housing areas. Implementation of the plan is enabling the Commission to utilize housing and related maintenance resources in the most cost-effective manner, while at the same time to preserve optimum housing accommodations for its eligible employees and to meet its responsibilities under the Panama Canal Treaty. A significant milestone was passed with the cessation of the five-year period, wherein certain civilian employees of the U.S. Armed Forces were entitled by the treaty to reside in Commission housing. In preparation for this event, over 700 housing relocations were mandated during the year, including some 400 transfer-of-function employees of the U.S. Armed Forces. At year's end, the use of 680 housing units (498 on the Pacific Side and 182 on the Atlantic Side) was transferred to the Republic of Panama.

The Library Services Branch is responsible for providing mission-support information and research to all units of the Commission and maintaining a special collection of library and three-dimensional materials relating to the history of the Panama Canal. On April 2, 1984, the Commission library was converted from a public library to a technical library, offering limited reference and research service to researchers and scholars and official service to the Commission.

### SANITATION AND GROUNDS MANAGEMENT

Surveillance and control of biting insects and vermin capable of transmitting disease were continued in the Canal area sanitation program with emphasis on non-chemical control methods, such as drainage maintenance, in lieu of dispersement of chemical insecticides which stress the environment. Some 220 miles of surface water-drainage ditches were maintained to eliminate mosquito breeding around employee housing and work areas. While the 1,290 acres of Canal dredge spoil lagoons offer potentially ideal breeding conditions, preventive actions were successful in curbing mosquito infestations.

About 3,000 acres of improved grounds were maintained in and around Commission townsites, Commission buildings, and work areas. Vegetation control for the maintenance of aids to navigation, survey markers, utility lines, Canal bank stability drainage systems, and the various dams on Gatun Lake was continued by Commission forces. Grass cutting along utility line right of way was accomplished by contract forces.

Efforts to control and eliminate migrating swarms of Africanized honeybees continued. Commission and U.S. military bee control teams handled 741 cases in fiscal year 1984, as compared to 670 cases the previous year. Twelve transiting vessels required boarding by Commission bee control teams to destroy Africanized bee swarms in fiscal year 1984, while seven ships requested bee control service during fiscal year 1983. These control efforts are important in preventing the accidental ship transport of Africanized bees to noninfested world ports. Several incidents of severe stinging attacks have been reported from Panama during the past fiscal year; however, none have occurred within populated areas where Commission bee control efforts have been directed.

The Commission's sanitary landfill refuse disposal facilities handled 75,000 tons of refuse. Modest improvements begun last year were completed at the landfills, including employee rest rooms, telephone service, and entrance security fence.

## **TRANSPORTATION FACILITIES**

The Motor Transportation Division operated and maintained a consolidated motor pool of 802 vehicles designed to meet the vehicular transportation requirements of the Commission. The vehicle fleet in fiscal year 1984 included 547 trucks of various types, 199 passenger-carrying vehicles, and 56 special-purpose vehicles. Vehicle mileage decreased slightly from 7,501,000 miles in fiscal year 1983 to 7,170,000 miles in fiscal year 1984. Fully equipped shops, including a tire retreading plant and heavy duty repair shops, provide facilities for overhauls, maintenance and repairs to the Motor Transportation Division fleet and equipment of other Commission units. In addition, some services were contracted out where they were available in required quantity and quality in Panama. The vehicle inspection facilities located within the Motor Transportation Division areas were used by the Government of Panama to conduct inspections of privately-owned vehicles and by the Motor Transportation Division to perform Commission vehicle inspections.

## **PUBLIC UTILITIES AND ENERGY**

Panama Canal Commission facilities include electric power generation and distribution systems, communication systems, water purification and distribution systems, and a central chilled water air conditioning system for certain public buildings on the Pacific side.

Total Canal area energy demand during fiscal year 1984 was 533 gigawatt hours, a 5.9 percent decrease from the 567 gigawatt hours used last year. The peak hourly demand of 84 megawatts reached on February 27, 1984, was 7.7 percent below the peak of 91 megawatts in the prior year. Agency-directed energy consumption in fiscal year 1984 for electrical power and fuel, calculated together in Btu's, was reduced a total of 25.6 percent in relation to the fiscal year 1975 baseline established by the Federal Energy Management Program. Electrical power consumption by the Commission, of 68.8 gigawatt hours, was 7.4 percent below the usage levels recorded for comparable operations in fiscal year 1975; fuel consumption, excluding fuel for power generation, of 4.6 million gallons, was 40.4 percent below the corresponding 1975 fiscal year baselines.

The water treatment and distribution systems operated by the Commission provide potable water for the Canal area and areas of the Republic of Panama. The Pacific side system serves the Canal area, Panama City, and suburban areas; and the separate Atlantic side system serves the Canal area, the city of Colon, and suburban areas. During fiscal year 1984, the two systems supplied 3,062 million cubic feet of potable water to consumers, a decrease of about 0.5 percent from the previous year. However, Panama City and suburbs consumption increased about 1.0 percent to an average of 34.2 million gallons per day.

### **FIRE PROTECTION**

The Panama Canal Commission Fire Division, in coordination with the Panama Fire Corps, is responsible for fire protection, fire fighting, and rescue operations in Canal operating areas, defense sites, civilian and military areas of coordination, and shipboard fire fighting on all vessels in Canal Area waters.

During fiscal year 1984, there were 563 fires (excluding ships), causing a loss of \$384,952 as compared to 971 fires during fiscal year 1983 which resulted in a loss of \$233,262. Although there were 17 fires aboard ships with losses amounting to \$243,112 during this fiscal year compared to 14 ship fires and losses of \$17,670 the year before, this increase in ship fires does not constitute a threat to the Canal. The Commission continued to upgrade its fire fighting capability, and during fiscal year 1984 we initiated a 3-year program to upgrade our fire fighting facilities at the locks. A variety of hazardous material type emergencies totaled 26.

### **CANAL PROTECTION**

The Canal Protection Division provides a minimum essential level of physical security for important installations and facilities of the Panama Canal Commission through the prevention and detection of theft, pilferage, and sabotage; and the prevention of unauthorized use of Government property, equipment and facilities. Division personnel are also responsible for the Commission physical environmental protection function. Physical security improvements planned the previous year were begun. Approximately one third of the funds have been spent and the remainder of the work is expected to be accomplished during fiscal year 1985.

## HEALTH AND SAFETY

The Occupational Health Division and the Safety Division are components of the Office of Personnel Administration. The Personnel Director is the Designated Agency Safety and Health Official.

During fiscal year 1984, the Commission experienced 675 performance of duty accidents in which the employees required medical attention beyond first aid, as compared to 761 such accidents in fiscal year 1983. That experience equates to an incident rate of 7.7 per 200,000 man-hours worked in fiscal year 1984 versus an incident rate of 9.5 in fiscal year 1983. Despite intensified safety awareness training and increased emphasis on the safety role and responsibilities of managers and supervisors, there were ten job-related fatalities recorded in fiscal year 1984. Eight of the ten fatalities occurred in two separate accidents at the end of the fiscal year.

An agency level Occupational Health and Safety Committee, comprised of five labor and five management representatives, was established in fiscal year 1984. This committee, which has been certified by the Department of Labor, serves to consult and advise on the operations of the Commission's occupational safety and health program and to monitor its performance.





# Chapter IV

## ADMINISTRATION AND STAFF

### PERSONNEL FORCE EMPLOYED AND RATES OF PAY

At the end of fiscal year 1984, the total Isthmian force of the Commission was 8,090 compared to 8,344 employees in fiscal year 1983. Of the total in 1984, 7,475 were permanent and 615 temporary. In addition, there was a U.S. Coast Guard officer assigned to the Commission on the Isthmus. Fourteen persons, all U.S. citizens, were employed by the Commission in New Orleans and Washington, D.C.

Approximately 78 percent of the total Isthmian force was comprised of Panamanians; 3 percent of third country nationals; and the remaining 19 percent of U.S. citizens. Rates of pay were based on a U.S. Wage Base for positions normally filled by recruitment from the United States, on a Canal Area Wage Base for occupational categories normally filled by recruitment on the Isthmus prior to the treaty effective date of October 1, 1979, and on a New Wage System for employees hired locally on or after that date. Effective January 1984, the first step of a plan to phase out the New Wage System eliminated one fifth of the difference between the New Wage System and pretreaty wage schedules. Subsequent steps, in October 1984 and 1985, will eliminate the remaining difference. The following table shows the Commission civilian permanent Isthmian work force by citizenship and wage base.

<i>Fiscal Year 1984</i>	<i>U.S.</i>	<i>Non-U.S.</i>	<i>Total</i>
Canal Area Wage Base .....	92	3,079	3,171
U.S. Wage Base .....	1,324	1,956	3,280
New Wage Base .....	68	956	1,024
Total .....	<u>1,484</u>	<u>5,991</u>	<u>7,475</u>

The total Commission payroll was \$178.3 million in fiscal year 1984 compared to \$170.4 million in fiscal year 1983. Of the total Commission fiscal year 1984 payroll, \$109.5 million was paid to non-U.S. citizen employees and \$68.8 million to U.S. citizen employees.

### EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

Between the fiscal years 1983 and 1984, there was a significant decrease in the number of EEO complaints formally filed with the agency. A breakdown of formal EEO complaints filed on the basis of citizenship groupings between the two fiscal years follows:

	Fiscal year	
	1984	1983
United States .....	4	4
Non-United States .....	4	10
Total .....	8	14

The decline in the number of formal EEO complaints filed reflects that employees are beginning to utilize the negotiated grievance procedure (NGP) for filing their complaints under collective bargaining agreements. While the Office of Equal Opportunity is not directly involved in the NGP process, pursuant to the Administrator's decision, the Office of EO does make inquiries for management into all grievances which include an EEO issue. In addition to the eight cases investigated in FY 1984, two such in-depth inquiries were also conducted by the office.

Panamanians continued to increase as a percentage of the total permanent work force as follows:

	Fiscal year 1984		Fiscal year 1983	
United States .....	1,499	(20.0%)	1,646	(21.0%)
Panama .....	5,790	(77.3%)	5,966	(76.0%)
Third Country Nationals.....	201	(2.7%)	230	(3.0%)

There was little variation in the total permanent work force composition on the basis of sex:

	Fiscal year 1984		Fiscal year 1983	
Female .....	774	(10.3%)	791	(10.1%)
Male .....	6,716	(89.7%)	7,051	(89.9%)

Employment statistics for fiscal year 1984 reflect continued compliance with treaty mandates. During the five-year period since October 1, 1979, the Commission's total permanent work force decreased by six percent, while Panamanians on the rolls in permanent positions increased by approximately five percent as of September 30, 1984.

### PUBLIC AFFAIRS

During fiscal year 1984, the Office of Public Affairs provided media coverage of a number of significant events at the Panama Canal. The commemoration of the seventieth (70th) anniversary of the Canal was accompanied by presentations of mementos and resulted in improved customer relations. Also noteworthy were: participation in marketing activities, including international maritime expositions; coordination of the visits of many distinguished visitors and guests to the Canal; and providing assistance to news media representatives from all



over the world during the events surrounding the election of a new Panamanian President and the end of the five-year treaty transition period.

The Graphic Branch provided support to the foregoing activities, as well as producing three new films, among which was a new pilot training film entitled "Filling and Spilling."

During the year, the Guide Service handled a total of 251,888 visitors at Miraflores and Gatun Locks and conducted 818 tours of the locks facilities. Among those visitors were United Nations Secretary General, Javier Perez de Cuellar, and numerous representatives of the international press, television and the motion picture industry.

### **OMBUDSMAN**

The Office of the Ombudsman, established by the Implementing Legislation for the Panama Canal Treaty of 1977, continued to respond to employee and dependent complaints, grievances, and requests for information. Generally, client traffic required the Ombudsman to investigate administrative problems, inefficiencies, omissions, and policy conflicts caused within the Panama Canal Commission and other U.S. Government agencies on the Isthmus as a result of the treaty. However, the widest latitude possible was applied to problems affecting employee morale and quality of life.

During fiscal year 1984, over 2,670 requests for information and/or assistance were recorded by the Ombudsman. As in the previous year, the majority of the Ombudsman's work concerned Commission employees and those employees who were transferred with their functions from the Panama Canal Company/ Canal Zone Government to the Department of Defense. Regardless of the everchanging variety and scope of complaints and questions raised, the root cause remained the same, i.e., treaty stress and strain in the work place and in personal life.

### **INDUSTRIAL RELATIONS**

After several months of negotiation, the fifth and last original contract to be negotiated for a bargaining unit under the Federal Service Labor-Management Relations Statute (Title VII of the Civil Service Reform Act of 1978) was initialled by the Commission and the Maritime/Metal Trades Council for the 166-member professional employee unit. The contract became effective on April 11, 1984. Implementation of this contract extended the number of Commission employees covered by collective bargaining agreements to 7,913, or 97.6 percent of the work force.

Also, the first contract to be negotiated under Title VII in the Commission, the Panama Canal Pilot Unit contract which became effective on January 2, 1981, was renegotiated during the period February 8 through April 9, 1984. The tentative agreement reached on April 9 failed to be ratified by a majority vote of the union membership. After a further attempt

at mediation failed, the Federal Service Impasses Panel ordered one of its members to resolve the dispute by use of mediation-arbitration. The impasse procedure is scheduled to take place during the first few weeks of fiscal year 1985.

# *Chapter V*

## **FINANCIAL REPORT**

### **FINANCIAL STATEMENTS**

#### **FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 1984**

The financial statements of the Panama Canal Commission, appearing as Tables 1 through 6, with accompanying notes, present the financial position of the Commission at September 30, 1984, and the results of its operations for the fiscal year then ended.

The accounts and statements of the Panama Canal Commission have been examined by the Office of General Auditor of the Commission and are subject to examination by the United States General Accounting Office. Detailed audit reports of the United States General Accounting Office are directed to the Congress and are presented as Congressional documents.

Summary information concerning operating results and capital expenditures follows:

#### **RESULTS OF OPERATIONS**

Net revenue from operations amounted to \$6.8 million. Pursuant to the provisions of paragraph 4(c) of Article XIII of the Panama Canal Treaty of 1977 subject to the limitations set forth in chapter 3, subchapter V, section 1341(b)(2) of the Panama Canal Act of 1979 (Public Law No. 96-70), the net revenue was reduced by the fiscal year 1983 unrecovered costs of \$4.1 million, leaving a balance of \$2.7 million payable to the Government of Panama.

#### **CAPITAL EXPENDITURES**

Accrued capital expenditures for fiscal year 1984 amounted to \$22.5 million. The principal expenditures were \$4.6 million for construction of tug/lock miter gate repair facilities, \$1.4 million for improvements to electrical power and communication systems, \$1.1 million for construction of the Tie-up Station, \$1.3 million for navigation improvements, \$1.1 million for replacement of launches and launch engines, \$1.0 million for replacement of turntables (locks), and \$1.0 million for replacement of tugboats.

Table 1.—Balance Sheet

Assets	1984	1983
<b>PROPERTY, PLANT AND EQUIPMENT:</b>		
At cost (Note 1c) .....	\$888,551,801	\$869,818,221
Less accumulated depreciation and valuation allowances (Notes 1e, 2 and 3) .....	<u>420,152,474</u>	<u>402,676,579</u>
	468,399,327	467,141,642
<b>CURRENT ASSETS:</b>		
Cash and fund balances (Notes 4 and 5):		
Deposit funds and undeposited receipts:		
Postal fund .....	151,542	158,657
Trust fund .....	521,421	1,132,860
Cash receipts for deposit into U.S. Treasury ..	<u>917,191</u>	<u>282,793</u>
	1,590,154	1,574,310
Unexpended appropriated funds:		
Operating funds .....	46,185,064	45,222,217
Capital funds .....	28,986,025	28,517,883
Emergency fund .....	<u>10,000,000</u>	<u>10,000,000</u>
	85,171,089	83,740,100
	<u>86,761,243</u>	<u>85,314,410</u>
Accounts receivable .....	13,844,708	11,043,545
Other receivables (Note 7) .....	<u>826,867</u>	<u>826,867</u>
	14,671,575	11,870,412
Inventories, less allowance for obsolete and excess stock of \$400,000 and \$750,154, respectively (Notes 1g and 6d) .....	<u>40,718,200</u>	<u>42,010,283</u>
Other current assets .....	<u>262,627</u>	<u>354,383</u>
	142,413,645	139,549,488
<b>OTHER ASSETS:</b>		
Deferred charges:		
Cost of early retirement benefits (Note 1h) .....	293,400,000	312,960,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h) .....	9,596,000	10,776,000
Other .....	<u>408,213</u>	<u>612,319</u>
	303,404,213	324,348,319
Unrecovered costs due from subsequent revenues (Notes 1b and 8) .....	<u>.....</u>	<u>4,132,804</u>
	303,404,213	328,481,123
<b>TOTAL ASSETS .....</b>	<u><u>\$914,217,185</u></u>	<u><u>\$935,172,253</u></u>

The accompanying notes are an integral part of this statement.

September 30, 1983 and 1983

## Liabilities

1984

1983

## INVESTMENT OF THE UNITED STATES GOVERNMENT:

## Invested capital:

Interest-bearing (10.208% and 9.885%, respectively) (Note 9) .....	\$84,014,932	\$108,905,590
Non-interest-bearing .....	277,910,116	268,748,245
	<u>361,925,048</u>	<u>377,653,835</u>

## Current budgetary accounts (Note 4):

Obligated operating funds .....	46,185,064	45,222,217
Obligated capital funds .....	19,792,831	18,031,685
Unobligated capital funds .....	9,193,194	10,486,198
Unobligated emergency fund .....	10,000,000	10,000,000
	<u>85,171,089</u>	<u>83,740,100</u>
	<u>447,096,137</u>	<u>461,393,935</u>

## CURRENT LIABILITIES:

## Accounts payable:

U.S. Government agencies .....	4,861,685	3,914,323
Government of Panama .....	6,630,604	6,205,923
Other .....	8,067,022	4,708,282
	<u>19,559,311</u>	<u>14,828,528</u>

## Accrued liabilities:

Employees' leave .....	39,643,978	38,075,806
Salaries and wages .....	4,513,849	6,124,362
Cost of early retirement benefits (Note 1h) .....	19,560,000	19,560,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h) .....	1,234,000	1,364,000
Employees' repatriation .....	1,270,000	1,457,000
Ship accident claims (Notes 7 and 10) .....	8,569,562	9,818,560
Net revenue payable to Government of Panama (Note 11) .....	2,704,695	.....
Other .....	5,010,926	2,432,361
	<u>82,507,010</u>	<u>78,832,089</u>

## Other current liabilities:

Unfunded ship accident claims (Notes 7 and 10) ..	19,782,519	17,890,038
Advances for capital-unexpended (Notes 1d and 12)	14,078,394	13,231,035
Other .....	483,062	1,114,088
	<u>34,343,975</u>	<u>32,235,161</u>

136,410,296      125,895,778

## DEFERRED CREDIT:

Advances for capital being amortized (Notes 1d, 6a and 12) .....	17,501,785	14,437,009
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## LONG-TERM LIABILITIES AND RESERVES:

Cost of early retirement benefits (Note 1h) .....	273,840,000	293,400,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h) .....	8,362,000	9,412,000
Employees' repatriation .....	10,728,400	10,200,000
Lock overhauls (Note 1i) .....	5,395,232	7,607,574
Casualty losses (Notes 1j and 13) .....	12,383,335	12,825,957
Floating equipment repair (Note 6c) .....	2,500,000	.....
	<u>313,208,967</u>	<u>333,445,531</u>

TOTAL LIABILITIES .....

\$914,217,185      \$935,172,253

The accompanying notes are an integral part of this statement.



**Table 2.—Statement of Operations and Non-Interest-Bearing Investment  
Fiscal Years Ended September 30, 1984 and 1983**

	<i>1984</i>	<i>1983</i>
<b>OPERATING REVENUES:</b>		
Tolls (Note 1b).....	\$289,155,035	\$287,791,023
Advances for capital (Note 1d) .....	<u>.....</u>	<u>(4,078,000)</u>
Net tolls revenue .....	<u>289,155,035</u>	<u>283,713,023</u>
Other .....	120,114,444	111,417,549
Advances for capital (Note 12) .....	<u>(4,853,615)</u>	<u>(1,173,549)</u>
Net other revenue .....	<u>115,260,829</u>	<u>110,244,000</u>
Total operating revenue .....	<u>404,415,864</u>	<u>393,957,023</u>
<b>OPERATING EXPENSES:</b>		
Payments to the Government of Panama (Note 11):		
Public services .....	10,000,000	10,000,000
Fixed annuity .....	10,000,000	10,000,000
Tonnage .....	<u>49,143,817</u>	<u>51,190,136</u>
	69,143,817	71,190,136
Maintenance of channels and harbors .....	39,633,790	35,970,930
Navigation service and control .....	71,396,827	72,452,357
Locks operation .....	46,516,500	45,641,090
General repair, storehouse, engineering and maintenance services .....	10,538,895	9,625,198
Transportation and utilities .....	35,607,259	42,104,531
Housing operations .....	7,009,386	8,871,031
General and administrative .....	70,460,073	69,126,899
Interest on interest-bearing investment (Note 9) .....	9,796,269	9,943,192
Other .....	<u>37,475,549</u>	<u>33,164,463</u>
Total operating expenses .....	<u>397,578,365</u>	<u>398,089,827</u>
NET OPERATING REVENUE (LOSS) (Notes 1b, 8 and 11) ...	6,837,499	(4,132,804)
<b>INVESTED CAPITAL—NON-INTEREST-BEARING:</b>		
Unrecovered costs (recovered) deferred (Notes 1b and 8) .....	(4,132,804)	4,132,804
Net revenue payable to Government of Panama (Note 11) .....	(2,704,695)	.....
Investment at beginning of fiscal year .....	268,748,245	258,511,310
Miscellaneous receipts deposited into the U.S. Treasury .....	282,793	576,536
Due U.S. Treasury for undeposited receipts .....	(917,191)	(282,793)
Interest on interest-bearing investment (Note 9) .....	<u>9,796,269</u>	<u>9,943,192</u>
INVESTED CAPITAL—NON-INTEREST-BEARING AT END OF FISCAL YEAR .....	<u>\$277,910,116</u>	<u>\$268,748,245</u>

The accompanying notes are an integral part of this statement.

**Table 3A.—Statement of Changes in the Investment of the United States Government  
Fiscal Year Ended September 30, 1984**

	Invested Capital		Emergency Fund	Operating Funds	Capital Funds	Total
	Interest-Bearing	Non-Interest-Bearing				
INVESTMENT AT OCTOBER 1, 1983.....	\$108,905,590	\$268,748,245	\$10,000,000	\$45,222,217	\$28,517,883	\$461,393,935
Appropriation by the Congress for fiscal year 1984.....	.....	.....	.....	391,912,000	21,813,000	413,725,000
	108,905,590	268,748,245	10,000,000	437,134,217	50,330,883	875,118,935
<b>INCREASES IN INVESTMENT:</b>						
Prior year receipts deposited into the U.S. Treasury.....	.....	282,793	.....	.....	.....	282,793
Expenditures from capital appropriations.....	21,344,858	.....	.....	.....	(21,344,858)	.....
Expenditures from operating appropriations.....	360,006,716	.....	.....	(360,006,716)	.....	.....
Interest on investment.....	.....	9,796,269	.....	.....	.....	9,796,269
Net revenue (Notes 1b and 8).....	.....	2,704,695	.....	.....	.....	2,704,695
	381,351,574	12,783,757	.....	(360,006,716)	(21,344,858)	12,783,757
<b>DECREASES IN INVESTMENT:</b>						
Funds to be covered into the U.S. Treasury.....	.....	.....	.....	30,942,437	.....	30,942,437
Receipts deposited into the U.S. Treasury.....	405,954,027	.....	.....	.....	.....	405,954,027
Due U.S. Treasury for undeposited receipts.....	.....	917,191	.....	.....	.....	917,191
Property transferred to the Government of Panama.....	116,358	.....	.....	.....	.....	116,358
Property transferred to other U.S. Government agencies.....	171,847	.....	.....	.....	.....	171,847
Net revenue contingently payable to Government of Panama (Notes 1b and 8).....	.....	2,704,695	.....	.....	.....	2,704,695
	406,242,232	3,621,886	.....	30,942,437	.....	440,806,555
INVESTMENT AT SEPTEMBER 30, 1984.....	\$84,014,932	\$277,910,116	\$10,000,000	\$46,185,064	\$28,986,025	\$447,096,137
	(Note 9)					

The accompanying notes are an integral part of this statement.



**Table 3B.—Statement of Changes in the Investment of the United States Government  
Fiscal Year Ended September 30, 1983**

	Invested Capital		Emergency Fund	Operating Funds	Capital Funds	Total
	Interest- Bearing	Non-Interest- Bearing				
INVESTMENT AT OCTOBER 1, 1982.....	\$89,763,345	\$258,511,310	\$10,000,000	\$74,440,013	\$21,424,115	\$454,138,783
Appropriation by the Congress for fiscal year 1983.....	89,763,345	258,511,310	10,000,000	479,818,647	50,448,115	888,541,417
INCREASES IN INVESTMENT:						
Prior year receipts deposited into the U.S. Treasury.....		576,536				576,536
Expenditures from capital appropriations.....	21,930,232				(21,930,232)	
Expenditures from operating appropriations.....	395,875,547			(395,875,547)		
Funds covered into U.S. Treasury.....	(28,200,421)					(28,200,421)
Repayment to the U.S. Treasury of FY 1980 appropriation lapsed.....	28,200,421			(28,200,421)		
Interest on interest-bearing investment.....		9,943,192				9,943,192
Property transferred from other U.S. Government agencies.....	3,356					3,356
Unrecovered costs deferred (Notes 1b and 8).....		4,132,804				4,132,804
	<u>417,809,135</u>	<u>14,652,532</u>		<u>(424,075,968)</u>	<u>(21,930,232)</u>	<u>(13,544,533)</u>
DECREASES IN INVESTMENT:						
Funds to be covered into the U.S. Treasury.....						10,520,462
Receipts deposited into the U.S. Treasury.....	398,461,068			10,520,462		398,461,068
Due U.S. Treasury for undeposited receipts.....		282,793				282,793
Property transferred to the Government of Panama.....	141,303					141,303
Property transferred to other U.S. Government agencies.....	64,519					64,519
Net loss (Notes 1b, 8 and 11).....		4,132,804				4,132,804
	<u>398,666,890</u>	<u>4,415,597</u>		<u>10,520,462</u>		<u>413,602,949</u>
INVESTMENT AT SEPTEMBER 30, 1983.....	<u>\$108,905,590</u>	<u>\$268,748,245</u>	<u>\$10,000,000</u>	<u>\$45,222,217</u>	<u>\$28,517,883</u>	<u>\$461,393,935</u>

(Note 9)

The accompanying notes are an integral part of this statement.

**Table 4.—Statement of Changes in Financial Position  
Fiscal Years Ended September 30, 1984 and 1983**

SOURCE OF FUNDS:	1984	1983
From Operations:		
Revenue .....	\$404,415,864	\$393,957,023
Less operating expenses:		
Interest on interest-bearing investment .....	9,796,269	9,943,192
Payments to the Government of Panama (Note 11).....	69,143,817	71,190,136
Other expenses .....	318,638,279	316,956,499
Total operating expenses .....	<u>397,578,365</u>	<u>398,089,827</u>
Net operating revenue (loss) (Notes 1b, 8 and 11)	6,837,499	(4,132,804)
Unrecovered costs for fiscal year 1983 (recovered) deferred (Notes 1b and 8) .....	(4,132,804)	.....
Net revenue payable to Government of Panama (Notes 1b, 8 and 11) .....	(2,704,695)	.....
Unrecovered costs for fiscal year 1983 deferred (Notes 1b, 8 and 11) .....	.....	4,132,804
Add transactions not requiring outlay of funds:		
Depreciation (Note 1e) .....	19,586,529	18,514,996
Provision for lock overhauls (Note 1i).....	5,071,000	4,354,000
Provision for casualty losses (Note 1j).....	7,400,000	3,117,088
Provision for floating equipment repair (Note 6c).....	2,500,000	.....
Other .....	5,665,966	1,970,819
	<u>40,223,495</u>	<u>27,956,903</u>
Change in investment of the U.S. Government:		
Interest on interest-bearing investment .....	9,796,269	9,943,192
Receipts deposited into U.S. Treasury .....	(405,954,027)	(398,461,068)
Disbursements from appropriated funds .....	381,351,575	446,006,200
Repayment to the U.S. Treasury of the fiscal year 1980 appropriation lapsed.....	.....	(28,200,421)
Net property transfers.....	(288,206)	(202,466)
Other .....	(634,399)	293,744
	<u>(15,728,788)</u>	<u>29,379,181</u>
Amortization of advances for capital.....	941,478	919,711
Advances for capital being amortized (Notes 1d, 6a and 12).....	3,064,777	2,480,771
Total source of funds .....	<u>28,500,962</u>	<u>60,736,566</u>
APPLICATION OF FUNDS:		
Lock overhauls expenditures .....	7,283,342	5,040,623
Casualty losses .....	7,842,622	4,214,134
Accrued capital expenditures .....	22,456,349	21,704,598
Total application of funds .....	<u>37,582,313</u>	<u>30,959,355</u>
INCREASE (DECREASE) IN WORKING CAPITAL .....	<u>\$ (9,081,351)</u>	<u>\$29,777,211</u>
ANALYSIS OF CHANGES IN WORKING CAPITAL:		
Increase (decrease) in current assets:		
Cash.....	\$ 15,843	\$ (185,931)
Receivables .....	2,801,163	1,055,670
Inventories .....	(1,292,084)	7,429,667
Other .....	(91,755)	150,646
	<u>1,433,167</u>	<u>8,450,052</u>
Decrease (increase) in current liabilities:		
Accounts payable .....	(4,730,783)	21,268,127
Accrued liabilities .....	(3,674,921)	(555,681)
Other .....	(2,108,814)	614,713
	<u>(10,514,518)</u>	<u>21,327,159</u>
INCREASE (DECREASE) IN WORKING CAPITAL .....	<u>\$ (9,081,351)</u>	<u>\$ 29,777,211</u>

The accompanying notes are an integral part of this statement.



**Table 5.—Statement of Status of Appropriations  
Fiscal Years Ended September 30, 1984 and 1983**

	<i>1984</i>	<i>1983</i>
SOURCE OF APPROPRIATIONS:		
Operating funds:		
Current year operating appropriation . . . . .	\$391,912,000	\$405,378,634
Obligated operating funds brought forward:		
Fiscal year 1980 . . . . .	2,543,398	23,684,912
Fiscal year 1981 . . . . .	3,424,423	5,623,556
Fiscal year 1982 . . . . .	4,717,168	45,131,545
Fiscal year 1983 . . . . .	<u>34,537,228</u>	<u>.....</u>
	<u>45,222,217</u>	<u>74,440,013</u>
	<u>437,134,217</u>	<u>479,818,647</u>
Capital funds:		
Current year capital appropriation (no year) . . . . .	<u>21,813,000</u>	<u>29,024,000</u>
Obligated capital funds brought forward:		
Fiscal year 1980 . . . . .	273,632	358,549
Fiscal years 1981 through 1982 . . . . .	.....	15,347,121
Fiscal years 1981 through 1983 . . . . .	<u>17,758,053</u>	<u>.....</u>
	<u>18,031,685</u>	<u>15,705,670</u>
Unobligated capital funds (no year) brought forward:		
Fiscal year 1980 . . . . .	201,847	599,957
Fiscal years 1981 through 1982 . . . . .	.....	5,118,488
Fiscal years 1981 through 1983 . . . . .	<u>10,284,351</u>	<u>.....</u>
	<u>10,486,198</u>	<u>5,718,445</u>
	<u>50,330,883</u>	<u>50,448,115</u>
Emergency fund (no year) . . . . .	<u>10,000,000</u>	<u>10,000,000</u>
TOTAL SOURCE OF APPROPRIATIONS . . . . .	<u>\$497,465,100</u>	<u>\$540,266,762</u>

The accompanying notes are an integral part of this statement.

**Table 5.—Statement of Status of Appropriations  
Fiscal Years Ended September 30, 1984 and 1983**

	<i>1984</i>	<i>1983</i>
APPLICATION OF APPROPRIATIONS:		
Operating funds:		
Expenditures from operating appropriations:		
Repayment to the U.S. Treasury of the fiscal year 1980 appropriation lapsed .....	\$.....	\$28,200,421
Fiscal year 1980 .....	886,097	21,121,981
Fiscal year 1981 .....	1,167,815	2,830,821
Fiscal year 1982 .....	2,326,651	38,274,112
Fiscal year 1983 .....	29,591,407	333,648,633
Fiscal year 1984 .....	<u>326,034,746</u>	<u>.....</u>
	<u>360,006,716</u>	<u>424,075,968</u>
Obligated operating funds:		
Fiscal year 1980 .....	1,692,534	2,543,398
Fiscal year 1981 .....	3,558,134	3,424,423
Fiscal year 1982 .....	2,854,042	4,717,168
Fiscal year 1983 .....	3,887,554	34,537,228
Fiscal year 1984 .....	<u>34,192,800</u>	<u>.....</u>
	<u>46,185,064</u>	<u>45,222,217</u>
Unobligated operating funds lapsed .....	<u>30,942,437</u>	<u>10,520,462</u>
	<u>437,134,217</u>	<u>479,818,647</u>
Capital funds:		
Expenditures from capital appropriations:		
Fiscal year 1980 .....	229,106	483,026
Fiscal years 1981 through 1983 .....	.....	21,447,206
Fiscal years 1981 through 1984 .....	<u>21,115,752</u>	<u>.....</u>
	<u>21,344,858</u>	<u>21,930,232</u>
Obligated capital funds:		
Fiscal year 1980 .....	159,269	273,632
Fiscal years 1981 through 1983 .....	.....	17,758,053
Fiscal years 1981 through 1984 .....	<u>19,633,562</u>	<u>.....</u>
	<u>19,792,831</u>	<u>18,031,685</u>
Unobligated capital funds (no year):		
Fiscal year 1980 .....	87,103	201,848
Fiscal years 1981 through 1983 .....	.....	10,284,350
Fiscal years 1981 through 1984 .....	<u>9,106,091</u>	<u>.....</u>
	<u>9,193,194</u>	<u>10,486,198</u>
	<u>50,330,883</u>	<u>50,448,115</u>
Unobligated emergency fund (no year) .....	<u>10,000,000</u>	<u>10,000,000</u>
TOTAL APPLICATION OF APPROPRIATIONS .....	<u>\$497,465,100</u>	<u>\$540,266,762</u>

The accompanying notes are an integral part of this statement.

**Table 6.—Statement of Property, Plant and Equipment  
September 30, 1984 and 1983**

	1984		1983	
	Estimated service life	Cost	Cost	Depreciation and valuation allowances
Titles and treaty rights .....	40 years	\$14,728,889	\$14,728,889	\$3,774,278
Interest during construction .....	.....	50,892,311	50,892,311	50,892,311
Canal excavation, fills and embankments .....	15-100 years	347,536,452	347,536,452	88,974,673
Canal structures and equipment .....	4-100 years	227,921,383	223,188,786	107,678,797
Supporting and general facilities .....	4-100 years	163,216,450	159,531,771	98,621,330
Minor items of plant and equipment .....	.....	10,339,272	10,081,037	10,081,037
Facilities held for future use .....	10-100 years	2,915,933	3,166,947	2,508,355
Plant additions in progress .....	.....	30,855,313	20,546,230	.....
Suspended construction projects .....	.....	40,145,798	40,145,798	40,145,798
TOTAL .....		\$888,551,801	\$869,818,221	\$402,676,579

The accompanying notes are an integral part of this statement.

## NOTES TO FINANCIAL STATEMENTS

**1. Summary of Significant Accounting Policies.**

The Comptroller General of the United States approved the Accounting Principles and Standards Statement of the Panama Canal Commission in his letter dated September 14, 1982. A summary of significant accounting policies follows:

a. *Accounting and reporting.* As required by section 1311(a) of the Panama Canal Act of 1979, hereinafter referred to as the Act, the accounts of the Commission are maintained pursuant to the Accounting and Auditing Act of 1950. This requires that the principles, standards and related requirements be met, as prescribed by the Comptroller General of the United States, after consulting with the Secretary of the Treasury and the Director of the Office of Management and Budget concerning their accounting, financial reporting and budgetary needs. The Accounting and Auditing Act of 1950 also requires that the accounts be maintained on an accrual basis.

b. *Cost recovery.* As required by section 1341(e)(1) of the Act, the application of generally accepted accounting principles to the Panama Canal Commission, a United States Government agency comparable to a rate-regulated public utility, determines the manner in which costs are recognized. The basis for tolls rates is prescribed in section 1602(b) of the Act. This section of the Act, known as the "statutory tolls formula," provides that:

"Tolls shall be prescribed at rates calculated to produce revenues to cover as nearly as practicable all costs of maintaining and operating the Panama Canal, together with the facilities and appurtenances related thereto, including unrecovered costs incurred on or after the effective date of this Act, interest, depreciation, payments to the Republic of Panama pursuant to paragraph 5 of Article III and paragraph 4(a) and (b) of Article XIII of the Panama Canal Treaty of 1977, and capital for plant replacement, expansion, and improvements. Tolls shall not be prescribed at rates calculated to produce revenues sufficient to cover payments to the Republic of Panama pursuant to paragraph 4(c) of Article XIII of the Panama Canal Treaty of 1977."

Under this statutory tolls formula, any unrecovered costs are to be recovered from subsequent revenues. The amount for recovery from subsequent revenues is transferred from Invested Capital to an account within the Other Assets classification. Unrecovered costs are charged back to Invested Capital to the extent subsequent annual revenues exceed annual costs.

c. *Property, plant and equipment.* Property, plant and equipment are recorded at cost, or if acquired from another United States Government agency, at the value determined by the Director of the Office of Management



and Budget. Administrative and other related general expenses are recovered currently and therefore not capitalized. The cost of minor items of property, plant and equipment is charged to expense as incurred.

d. *Advances for capital.* A portion of tolls in excess of depreciation recoveries may be programmed annually by the Board of Directors for plant replacement, expansion, or improvements. Such funds are considered capital advances from Canal users. Upon utilization, these advances are amortized through an offset to depreciation expense in an amount calculated to approximate the depreciation on assets acquired with such advances.

e. *Depreciation.* Property, plant and equipment are depreciated over their estimated service lives at rates computed using a straight-line method with additional annual depreciation, identified as composite, to provide for premature plant retirements.

The recurring costs of dredging the waterway are charged to expense. Non-recurring dredging costs for substantial improvements and betterments to the waterway are considered additions to plant and are capitalized and depreciated over their estimated service lives.

f. *Accounts receivable.* Uncollectible accounts receivable of the Panama Canal Commission are recognized as a reduction in revenue when written off. Any subsequent collections of Commission accounts receivable previously written off are recorded as revenue.

g. *Inventories.* Operating materials and supplies are stated at average cost, plus cost of transportation to the ultimate destination on the Isthmus of Panama. An allowance has been established to reflect the estimated cost of obsolete and excess stock.

h. *Retirement benefits.* Employer payments to the contributory United States Civil Service Retirement System and to the Republic of Panama Social Security System are charged to expense. The Commission has no liability for future payments to employees under these systems.

Non-United States citizen employees who retired from predecessor agencies prior to October 5, 1958, are not covered by the United States Civil Service Retirement System but do receive benefits under a separate annuity plan. Payments made under this annuity plan are recorded as a current year expense. The liability of the Commission for future annuity payments to these former employees or their eligible widows is reflected in the balance sheet as "Retirement Benefits to Certain Former Employees of Predecessor Agencies" and an equal amount is recorded as a Deferred Charge.

As required by the Act, the Panama Canal Commission is liable for the increase in the unfunded liability of the United States Civil Service Retirement Fund which is attributable to benefits payable from that fund to, or on behalf of, employees and their survivors under the early retirement provisions of the Act. The annual installment to liquidate the increased liability is determined by the Office of Personnel Management.

i. *Reserve for lock overhauls.* A reserve is provided through an annual

charge to expense to cover the estimated cost of periodic lock overhauls.

j. *Reserve for casualty losses.* A reserve is provided through an annual charge to expense to cover the estimated cost of marine accidents and other casualty losses.

k. *Housing use rights.* No monetary value is assigned to the rights granted to the United States Government by the Republic of Panama to use Canal Area housing transferred to the Republic of Panama under the terms of the Panama Canal Treaty of 1977. The cost to manage, maintain and provide livability improvements to these quarters is charged to expense. Rental income is included in other revenues.

## **2. Plant Valuation Allowances.**

At July 1, 1951, certain valuation allowances for property, plant and equipment transferred from the Panama Canal (agency) to the Panama Canal Company and the Canal Zone Government were established, to reduce to usable value the costs of the assets transferred. At October 1, 1979, such valuation allowances as were applicable to the assets transferred from the Panama Canal Company and the Canal Zone Government to the Panama Canal Commission were carried forward and are comprised of: (a) \$5.5 million at September 30, 1984, and \$5.6 million at September 30, 1983, to reduce to usable value the cost of property, plant and equipment transferred; (b) \$50.9 million at September 30, 1984, and 1983, to offset interest costs imputed for the original Canal construction period; and (c) \$42.8 million at September 30, 1984, and 1983, to offset the cost of defense facilities and suspended construction projects, the latter being principally the partial construction of a third set of locks abandoned in the early part of World War II.

Property, plant and equipment offset by valuation allowances, when fully or partially reactivated, are reinstated by a reduction in the valuation allowance and by an increase to the non-interest-bearing investment of the United States Government in proportion to the value to the Commission of the reactivated asset.

## **3. Depreciation as a Percentage of Average Cost of Plant.**

The provision for depreciation, expressed as a percentage of average cost of depreciable plant exclusive of valuation allowances, was 2.63% for fiscal year 1984 and 2.55% for fiscal year 1983.

## **4. Cash and Fund Balances.**

As of September 30, 1984, the cash and fund balances of \$86,761,243 are made up of \$83,845,968 on deposit in the United States Treasury, \$1,209,019 on deposit in commercial banks, and \$1,706,256 on hand. Of the total, \$85,171,089 is comprised of current budgetary accounts which include appropriated funds for operations, capital and the emergency fund.

As of September 30, 1983, the cash and fund balances of \$85,314,410 were

made up of \$80,721,975 on deposit in the United States Treasury, \$1,647,360 on deposit in commercial banks, and \$2,945,075 on hand. Of the total, \$83,740,100 was comprised of current budgetary accounts which included appropriated funds for operations, capital and the emergency fund.

The emergency fund represents the amount on deposit in the United States Treasury which is to be used “. . . to defray emergency expenditures and to insure the continuous efficient and safe operation of the Panama Canal when funds appropriated for the operation and maintenance of the Canal prove insufficient for such purposes . . . .”

The postal fund consists of outstanding money orders, postal savings and interest accrued thereon. This fund will remain available until liquidated. The trust fund primarily includes deposits made by customers for future tolls and other service payments.

### 5. Panama Canal Commission Fund.

The Panama Canal Commission Fund as established by the Panama Canal Act of 1979 (Public Law No. 96-70) is made up of receipts deposited in the United States Treasury less appropriation warrants issued during the fiscal year. The balance in this account, \$171.2 million as of September 30, 1984, and \$146.3 million as of September 30, 1983, is available for future appropriations.

Section 1302 of the Panama Canal Act of 1979 (Public Law No. 96-70) provides that all appropriations necessary to operate the Panama Canal shall be issued from the Panama Canal Commission Fund. The appropriations for fiscal year 1980 were issued to the Commission from the General Fund of the United States Treasury. The status of the amount still owed to the General Fund of the United States Treasury for fiscal year 1980 is as follows:

	<i>Millions of Dollars</i>	
Operating Appropriation.....	\$427.2	
Capital Appropriation .....	<u>36.6</u>	\$463.8
Repaid to General Fund (07/81) .....	(350.0)	
Repaid to General Fund (12/82) .....	<u>(28.2)</u>	<u>(378.2)</u>
Amount owed General Fund of U.S. Treasury as of September 30, 1984 .....		<u>\$ 85.6</u>

### 6. Accounting Changes.

a. Amortization of Advances for Capital (see Note 1d) was implemented in fiscal year 1983 based on the following procedure: At the beginning of each fiscal year, an amount equivalent to any capital advance funds disbursed for plant replacement, expansion, or improvement during the previous fiscal year is reclassified and amortized over the average accounting life of assets acquired in the fiscal year in which the funds were expended. Beginning in fiscal year 1984 a new method was adopted for amortizing disbursements based on the flow of costs from construction work in progress. Disbursements are amortized in proportion

to depreciation costs arising from completed projects transferred from construction work in progress.

b. The intent of the lock overhauls reserve policy is to normalize costs directly related to the periodic repair and maintenance of the locks. Repair and maintenance costs of caissons, which are used exclusively for lock overhauls, have increased dramatically in recent years. To minimize significant fluctuations in results of operations, these costs are now charged to the reserve. In fiscal year 1983, \$754,136 for repair and maintenance of caissons was charged to the reserve for lock overhauls.

c. During fiscal year 1984, a reserve was established for floating equipment repair similar to the reserves now in existence for lock overhauls and marine accidents. A one-time charge to expense of \$2.5 million was made to establish the reserve. The annual accrual will be reviewed and adjusted as appropriate.

d. Effective with fiscal year 1984, there was a change in the method of applying the accounting policy for certain inventories. Inventories of manufactured materials and supplies and water system chemicals valued at \$1.3 million were written off by a charge to operations in fiscal year 1984.

#### **7. Other Receivables.**

Other receivables represent services provided in connection with ship accidents for which the vessel is considered to be responsible awaiting final settlement. This amount is also included in the computation of estimated liabilities established for ship accident claims.

#### **8. Unrecovered Costs Due from Subsequent Revenues.**

Pursuant to the provisions of section 1341(e) and section 1602(b) of the Panama Canal Act of 1979 (Public Law No. 96-70) the net loss of \$4.1 million from fiscal year 1983 operations was recovered from fiscal year 1984 operating revenue.

#### **9. Interest-Bearing Investment of the United States Government.**

The interest-bearing investment of the United States Government in the Panama Canal is determined based on section 1603(a) of the Panama Canal Act of 1979. The interest-bearing investment of the United States Government at September 30, 1984, and September 30, 1983, was determined as follows:

	<i>Millions of Dollars</i>	
Investment at September 30, 1982 .....		\$ 89.8
Fiscal year 1983 transactions:		
Disbursements .....	\$ 446.0	
Receipts .....	(398.5)	
Repayment to United States Treasury of FY 1980 lapsed funds .....	(28.2)	
Net property transfers .....	<u>(0.2)</u>	
Net change .....		<u>19.1</u>
Investment at September 30, 1983 .....		108.9
Fiscal year 1984 transactions:		
Disbursements .....	381.4	
Receipts .....	(406.0)	
Net property transfers .....	<u>(0.3)</u>	
Net change .....		<u>(24.9)</u>
Investment at September 30, 1984 .....		<u><u>\$ 84.0</u></u>

### 10. Ship Accident Claims.

Liabilities arising from ship accident claims are divided into fund and non-fund categories. The fund category is made up of the following:

- a. Accidents which occurred prior to October 1, 1979.
- b. Accidents which occurred within the locks after September 30, 1979.
- c. Accidents which occurred outside the locks after September 30, 1979, for which the claim or estimated liability is \$120,000 or less per ship per accident.

Settlement of liabilities for ship accidents which occurred outside the locks where the claim exceeds \$120,000 requires specific Congressional approval. Until Congressional action is completed, liabilities for these accidents are booked as non-fund.

### 11. Payments to the Government of Panama.

Based on Article III and Article XIII of the Treaty, the Government of Panama has received payment for public services, fixed annuity and thirty cents per Panama Canal net ton. In addition to these payments, an amount of \$2.7 million is payable to the Government of Panama in accordance with paragraph 4(c) of Article XIII, which states that an annual amount of up to \$10 million will be paid out of operating revenues to the extent that such revenues exceed expenditures of the Commission. This amount is subject to the limitations set forth in section 1341(e) of the Panama Canal Act of 1979 (Public Law No. 96-70).

### 12. Advances for Capital—Transit Booking System Fees.

During fiscal year 1982, with approval of the Board of Directors, the Commission tested a system whereby shippers, for a fee, could make an advance reservation for vessel transit. The system was activated in fiscal year 1983 and generated funds of \$1.2 million and \$4.9 million in fiscal year 1984. Such funds are considered capital advances from Canal users. By direction of the Board of Directors, these fees are set aside for capital improvements.



### **13. Reserve for Casualty Losses.**

The reserve for casualty losses at September 30, 1984, of \$12.4 million includes \$11.8 million for marine accidents and \$0.6 million for other casualty losses. The monthly accrual for the reserve for marine accidents in fiscal year 1984 was \$0.3 million per month for a total of \$4.0 million.

The reserve for casualty losses at September 30, 1983, of \$12.8 million included \$12.5 million for marine accidents and \$0.3 million for other casualty losses. As a result of a management analysis of accident frequency and severity, the regular monthly accrual of \$0.8 million was adjusted downward to recognize in the reserve account balance the decreased loss trend for larger vessels and the reduced potential loss exposure resulting from the significant drop in overall transit levels. Accordingly, the reserve for marine accidents was adjusted during fiscal year 1983 to maintain a balance of \$12.5 million in the account.

### **14. Contingent Liabilities and Commitments.**

In addition to recorded liabilities, the estimated maximum contingent liability which could result from pending claims and lawsuits was \$3.4 million at September 30, 1984, and \$9.8 million at September 30, 1983. In the opinion of management and Commission counsel, these pending claims and lawsuits will be resolved with no material adverse effect on the financial condition of the agency.

Commitments under uncompleted construction contracts and unfilled purchase orders amounted to \$29.7 million at September 30, 1984, and \$30.8 million at September 30, 1983. Of this amount \$0.1 million in unfilled purchase orders were prepaid as of September 30, 1984, and \$0.2 million at September 30, 1983. In addition, the Panama Canal Commission is liable for an indeterminable amount with respect to death and disability payments under the Federal Employees' Compensation Act.

Cash and negotiable securities of a kind acceptable by the United States Government in the amount of \$6.3 million were held by United States depositories designated by the Panama Canal Commission at September 30, 1984, and \$6.5 million at September 30, 1983, to guarantee payment by third parties of their obligations.

The Panama Canal Treaty of 1977, Article XIII, paragraph 4(c), provides that an annual amount of up to \$10 million per year be paid to the Government of Panama out of operating revenues to the extent that such revenues exceed expenditures. Payment to the Government of Panama is subject to the limitations set forth in section 1341(e) of the Panama Canal Act of 1979 (Public Law No. 96-70). In the event operating revenues in any year do not produce a surplus sufficient to cover this payment, the unpaid balance shall be paid from operating surpluses in future years up to the amount available from these surpluses. As of September 30, 1984, the balance contingently payable to the Government of Panama amounts to \$44.2 million. As of September 30, 1983, the balance contingently payable to the Government of Panama amounted to \$36.9 million.

**15. Treaty Impact.**

On September 7, 1977, the United States of America and the Republic of Panama signed the Panama Canal Treaty of 1977. The Treaty provided for the establishment of the Panama Canal Commission on October 1, 1979, to assume certain operational responsibilities for the Canal until December 31, 1999. When the Treaty terminates on December 31, 1999, the Republic of Panama shall assume total responsibility for the management, operation, and maintenance of the Panama Canal, which shall be turned over in operating condition and free of liens and debts, except as the two Parties may otherwise agree. The effects of these long-range requirements are not considered in the financial statements.



*Chapter VI*

**STATISTICAL TABLES**

**Shipping Statistics**

Table 1.—Panama Canal Traffic—Fiscal Years 1975 Through 1984

Fiscal year	Total traffic			Traffic assessed tolls on net tonnage basis		Traffic assessed tolls on displacement tonnage basis	
	Number of transits	Tolls	Long tons of cargo	Number of transits	Panama Canal net tonnage	Number of transits	Displacement tonnage
<b>OCEANGOING COMMERCIAL TRAFFIC<sup>1</sup></b>							
1975	13,609	\$141,898,218	140,101,459	13,565	135,053,680	44	171,006
1976	12,157	134,204,402	117,212,266	12,123	127,778,919	34	131,258
*TQ	3,037	35,272,300	30,888,300	3,031	33,686,757	6	23,205
1977	11,896	163,826,571	122,978,785	11,868	133,353,132	28	108,642
1978	12,677	194,773,111	142,518,288	12,647	156,907,260	30	109,798
1979	12,935	208,376,741	154,110,866	12,902	167,470,601	33	136,600
1980	13,507	291,838,590	167,214,935	13,476	182,063,175	31	137,593
1981	13,884	301,762,600	171,221,762	13,847	188,656,491	37	111,418
1982	14,009	323,958,366	185,452,332	13,976	202,884,207	33	129,684
1983	11,707	285,983,805	145,590,759	11,668	169,503,918	39	132,431
1984	11,230	286,677,844	140,470,818	11,199	162,334,838	31	116,335
<b>OCEANGOING U.S. GOVERNMENT TRAFFIC<sup>1</sup></b>							
1975	170	\$1,376,797	526,497	148	1,287,777	22	122,953
1976	85	727,983	177,508	68	641,137	17	87,728
*TQ	18	166,779	55,383	13	118,300	5	65,025
1977	88	805,983	212,677	59	577,483	29	165,148
1978	103	889,093	291,115	70	589,085	33	214,145
1979	111	1,054,169	357,482	80	726,755	31	207,640
1980	101	1,515,326	396,481	73	844,748	28	217,055
1981	89	1,241,442	301,776	68	705,936	21	143,121
1982	110	1,546,746	285,451	67	794,282	43	309,206
1983	125	1,721,925	354,873	77	812,840	48	350,699
1984	137	2,388,272	329,607	88	1,131,865	49	410,682
<b>FREE OCEANGOING TRAFFIC<sup>1 2</sup></b>							
1975	7	.....	.....	2	694	5	10,400
1976	38	.....	5,635	17	22,854	21	41,655
*TQ	4	.....	.....	3	1,474	1	1,800
1977	13	.....	380	8	21,252	5	10,380
1978	5	.....	.....	4	3,789	1	1,100
1979	10	.....	1	8	4,527	2	2,194
1980	6	.....	.....	3	1,686	3	4,810
1981	11	.....	.....	4	2,248	7	8,544
1982	23	.....	.....	9	5,010	14	21,903
1983	14	.....	2,504	9	9,119	5	5,986
1984	17	.....	.....	4	2,224	13	21,025
<b>TOTAL OCEANGOING TRAFFIC<sup>1</sup></b>							
1975	13,786	\$143,275,015	140,627,956	13,715	136,342,151	71	304,359
1976	12,280	134,932,385	117,395,409	12,208	128,442,910	72	260,641
*TQ	3,059	35,439,079	30,943,683	3,047	33,806,531	12	90,030
1977	11,997	164,632,554	123,191,842	11,935	133,951,867	62	284,170
1978	12,785	195,662,204	142,809,403	12,721	157,500,134	64	325,043
1979	13,056	209,430,910	154,468,349	12,990	168,201,883	66	346,434
1980	13,614	293,353,916	167,611,416	13,552	182,909,609	62	359,458
1981	13,984	303,004,042	171,523,538	13,919	189,364,675	65	263,083
1982	14,142	325,505,112	185,737,783	14,052	203,683,499	90	460,793
1983	11,846	287,705,730	145,948,136	11,754	170,325,877	92	489,116
1984	11,384	289,066,116	140,800,425	11,291	163,469,927	93	548,042

**Table 1.—Panama Canal Traffic—Fiscal Years 1975 Through 1984  
(Continued)**

Fiscal year	Total traffic			Traffic assessed tolls on net tonnage basis		Traffic assessed tolls on displacement tonnage basis	
	Number of transits	Tolls	Long tons of cargo	Number of transits	Panama Canal net tonnage	Number of transits	Displacement tonnage
<b>SMALL COMMERCIAL TRAFFIC<sup>3</sup></b>							
1975	804	\$52,684	7,939	798	54,174	6	1,120
1976	745	49,314	6,866	737	50,281	8	1,229
*TQ	204	24,785	1,236	204	15,389	...	.....
1977	759	39,960	2,820	751	48,717	8	1,108
1978	792	63,526	6,962	785	57,827	7	1,040
1979	936	76,591	7,718	934	69,229	2	94
1980	788	74,898	787	787	52,052	1	57
1981	791	65,604	1,355	788	44,962	3	279
1982	830	73,228	928	826	50,399	4	315
1983	810	73,887	669	810	48,033	..	.....
1984	802	76,921	652	800	47,787	2	145
<b>SMALL U.S. GOVERNMENT TRAFFIC<sup>3</sup></b>							
1975	110	\$4,729	1	27	1,023	83	6,382
1976	136	6,168	.....	18	1,159	118	8,019
*TQ	36	1,613	23	4	481	32	2,144
1977	277	12,851	.....	22	953	255	16,769
1978	187	9,504	8	25	1,446	162	10,742
1979	315	14,375	9	48	2,865	267	15,519
1980	276	15,129	.....	29	1,357	247	14,313
1981	225	10,712	2	16	751	209	10,431
1982	241	10,757	.....	12	415	229	10,973
1983	242	11,406	5	11	332	230	11,177
1984	241	11,998	.....	8	336	233	11,282
<b>SMALL FREE TRAFFIC<sup>2, 3</sup></b>							
1975	35	.....	31	30	1,518	5	185
1976	40	.....	50	31	1,484	9	701
*TQ	14	.....	.....	14	944	...	.....
1977	54	.....	10	50	2,840	4	466
1978	44	.....	20	42	2,986	2	72
1979	55	.....	3	47	2,160	8	632
1980	47	.....	.....	41	2,317	6	560
1981	50	.....	.....	41	2,613	9	1,012
1982	58	.....	70	40	2,803	18	1,172
1983	56	.....	8	39	2,321	17	2,010
1984	96	.....	59	86	4,637	10	1,360
<b>TOTAL PANAMA CANAL TRAFFIC</b>							
1975	14,735	\$143,332,428	140,635,927	14,570	136,398,866	165	312,046
1976	13,201	134,987,867	117,402,325	12,994	128,495,834	207	270,590
*TQ	3,313	35,465,477	30,944,942	3,269	33,823,345	44	92,174
1977	13,087	164,685,365	123,194,672	12,758	134,004,377	329	302,513
1978	13,808	195,735,234	142,816,393	13,573	157,562,393	235	336,897
1979	14,362	209,521,876	154,476,079	14,019	168,276,137	343	362,679
1980	14,725	293,443,943	167,612,203	14,409	182,965,335	316	374,388
1981	15,050	303,080,358	171,524,895	14,764	189,413,001	286	274,805
1982	15,271	325,589,097	185,738,781	14,930	203,737,116	341	473,253
1983	12,954	287,791,023	145,948,818	12,615	170,376,563	339	502,303
1984	12,523	289,155,035	140,801,136	12,185	163,521,687	338	560,829

<sup>1</sup>Oceangoing traffic includes ships of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

<sup>2</sup>Free traffic includes ships of the Colombian and Panamanian Governments and ships transiting for repair by the Commission.

<sup>3</sup>Includes vessels under 300 net tons, Panama Canal measurement (or under 500 displacement tons for vessels assessed on displacement tonnage).

\*Effective 10-1-76 the fiscal year for all U.S. Government agencies was changed from July 1 through June 30, to October 1 through September 30. For continuity purposes, July, August, and September 1976 were designated the Transition Quarter.

Table 2.—Oceangoing Commercial Traffic by Months—Fiscal Years 1984 and 1983

	Number of Transits		Panama Canal Net Tonnage		Long Tons of Cargo		Tolls	
	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83
October.....	901	1,123	12,851,296	16,748,651	10,983,458	14,529,313	\$ 22,706,763	\$ 26,680,275
November.....	871	976	12,842,014	14,437,271	10,938,373	12,367,803	22,570,931	23,155,390
December.....	915	1,038	13,066,789	15,159,478	10,737,399	12,748,194	22,960,793	24,211,772
January.....	913	994	13,552,761	14,281,604	11,402,597	11,852,750	23,970,069	22,886,215
February.....	898	901	12,854,233	13,006,067	11,084,966	10,838,426	22,680,013	20,902,219
March.....	984	1,044	13,705,979	14,616,188	11,637,624	12,738,743	24,204,031	24,892,027
April.....	963	999	13,295,263	14,448,846	11,342,269	11,845,294	23,497,029	25,421,185
May.....	996	955	14,377,680	13,618,472	12,354,653	11,590,813	25,377,511	24,122,215
June.....	950	953	14,056,164	13,729,177	12,139,019	11,674,644	24,830,193	24,069,247
July.....	934	926	13,488,255	13,257,916	12,360,590	11,831,786	23,995,141	23,411,530
August.....	990	923	14,642,511	13,456,699	12,991,960	11,977,380	25,808,306	23,733,896
September.....	915	875	13,601,893	12,743,549	12,497,910	11,595,613	24,077,064	22,497,834
Total.....	11,230	11,707	162,334,838	169,503,918	140,470,818	145,590,759	\$286,677,844	\$285,983,805
Average per month.....	936	976	13,527,903	14,125,326	11,705,902	12,132,563	\$23,889,820	\$23,831,984

NOTE: The above includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on a displacement tonnage basis. Statistics on these vessels, except as relates to displacement tonnage, have been included in the table above.

Table 3.—Canal Traffic<sup>1</sup> by Flag of Vessel—Fiscal Year 1984

Flag	Number of transits	Measured tonnage			Long tons of cargo
		Panama Canal net	Registered gross <sup>2</sup>	Tolls	
Algeria	4	44,066	53,926	\$78,239	49,815
Argentina	2	45,478	53,038	83,225	36,605
Australia	10	212,000	256,910	387,960	155,444
Austria	3	68,331	80,532	125,046	53,008
Bahamas	33	434,128	527,791	790,760	379,103
Belgium	54	966,662	1,140,631	1,755,355	1,111,099
Bermuda	3	29,196	23,799	46,227	2,241
Bolivia	9	76,599	96,300	140,176	68,255
Brazil	32	269,075	323,514	490,310	125,706
Bulgaria	8	50,158	60,839	91,789	40,348
Canada	11	33,114	48,306	59,007	19,034
Cayman Islands	6	4,164	2,200	7,117	1,417
Chile	100	927,020	1,054,342	1,638,245	852,909
Colombia	168	2,301,267	2,551,048	4,120,048	1,562,699
Costa Rica	6	5,682	5,952	10,398	1,741
Cuba	125	751,909	883,884	1,349,906	578,353
Cyprus	86	804,007	872,642	1,454,435	805,870
Czechoslovakia	1	8,811	10,416	16,124	13,858
Denmark	250	4,913,177	6,248,367	8,741,658	3,555,601
Dominican Republic	1	8,275	9,661	15,143	14,436
East Germany	10	53,886	58,750	88,642	15,379
Ecuador	454	3,924,611	4,584,842	6,815,958	2,914,773
Egypt	1	18,762	22,606	34,334	30,394
Finland	24	313,025	383,614	565,026	386,915
France	78	1,322,464	1,178,910	2,434,016	854,638
Ghana	3	29,544	39,012	54,066	24,028
Greece	788	12,151,998	13,808,383	21,402,463	14,522,261
Honduras	25	140,887	173,576	239,685	44,076
Hong Kong	15	346,808	429,572	621,783	537,387
India	18	423,865	510,336	747,399	527,389
Indonesia	10	114,396	131,907	209,345	79,597
Iraq	2	20,478	25,948	37,475	38,197
Ireland	4	31,716	37,830	57,435	53,477
Israel	67	1,349,688	1,770,153	2,469,929	861,572
Italy	93	1,104,287	1,390,968	2,005,981	791,049
Japan	1,191	22,190,145	18,775,393	38,425,469	11,873,771
Kuwait	2	24,204	30,892	44,293	15,031
Liberia	1,379	25,493,575	26,043,109	44,926,127	25,359,753
Libya	6	40,855	51,486	66,963	28,071
Malaysia	14	229,705	275,563	420,360	392,116
Malta	23	229,373	262,391	408,641	270,423
Mauritania	4	2,509	1,049	3,880	.....
Mexico	97	1,872,156	2,406,042	3,141,887	1,638,344
Morocco	7	76,047	93,091	137,127	124,463
Netherlands	216	2,319,145	2,586,488	4,162,252	1,884,015
New Zealand	4	50,241	52,028	94,372	26,338
Nicaragua	22	37,382	32,940	65,770	17,396
Norway	337	6,269,607	6,699,166	11,079,426	5,800,614
Panama	1,770	22,351,853	22,318,616	39,406,920	20,570,055
People's Republic of China	132	2,630,788	2,925,450	4,661,452	2,588,032
Peru	197	2,130,210	2,574,852	3,754,032	2,278,542
Philippines	170	2,219,499	2,183,090	3,965,557	2,620,480
Poland	67	488,263	538,356	869,785	257,326
Portugal	4	4,318	5,375	7,902	3,015
Rumania	4	35,166	41,166	57,848	16,672
St. Vincent	3	19,298	22,812	31,820	11,889
Samoa	2	18,398	21,100	33,668	15,166
Saudi Arabia	15	95,942	89,626	153,465	17,362
Singapore	222	4,375,177	3,903,033	7,589,730	3,304,008
South Korea	185	2,744,765	3,299,467	5,016,393	3,625,203
Spain	126	729,832	715,442	1,323,680	574,667
Sri Lanka	4	54,170	61,826	92,869	45,514
Sweden	115	2,503,812	2,045,346	4,522,016	1,066,348
Switzerland	79	766,623	906,526	1,400,295	349,291
Taiwan	167	3,826,453	4,744,484	6,918,014	3,104,410
Thailand	2	9,522	11,046	17,425	7,019
Tonga	1	422	424	772	121
Turkey	12	104,198	128,082	186,624	132,954
United Arab Emirates	3	25,421	31,191	43,392	9,321
United Kingdom	557	9,432,702	11,333,745	16,869,077	9,570,188
United States	742	8,718,555	9,888,001	15,235,736	6,922,442
Uruguay	3	13,708	14,433	24,402	21,825
U.S.S.R.	435	3,062,916	3,484,111	5,380,104	1,823,706
Venezuela	87	193,984	220,807	339,298	105,420
West Germany	232	2,817,494	3,305,859	5,112,291	2,022,601
Yugoslavia	88	827,321	983,361	1,502,005	868,232
Total	11,230	162,334,838	171,957,770	\$286,677,844	140,470,818

<sup>1</sup> Includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

<sup>2</sup> Includes 3 transits where no registered tonnage was reported.

Table 3.—Canal Traffic<sup>1</sup> by Flag of Vessel—Fiscal Year 1984—Continued

NOTE.—In Canal traffic statistics, foreign naval vessels such as transports, supply ships, tankers, etc., with a measurement of 300 net tons (Panama Canal measurement) and over, and vessels of war, dredges, etc., with a displacement of 500 tons and over, are classified as oceangoing commercial vessels. Statistics on these vessels, except as related to displacement tonnage, have been included in the table above. As displacement tonnage cannot be combined with net tonnage, the following table shows statistics covering 31 vessels which transited the Canal during fiscal year 1984 and paid tolls on displacement tonnage.

<i>Flag</i>	<i>Type</i>	<i>Number of transits</i>	<i>Displace- ment tonnage</i>	<i>Tolls</i>
Canada .....	Dredge	1	2,370	\$2,417
Chile .....	Naval	2	7,500	7,650
Ecuador .....	do	6	4,739	4,834
France .....	do	3	18,916	19,294
Italy .....	do	2	13,100	13,362
Japan .....	do	4	14,590	14,882
Netherlands .....	Dredge	3	19,014	19,394
New Zealand .....	Naval	1	3,060	3,121
People's Republic of China .....	Dredge	1	15,216	15,520
Peru .....	Naval	4	4,732	4,827
Turkey .....	do	1	2,200	2,244
United Kingdom .....	do	2	6,398	6,526
United States .....	Dredge	1	4,500	4,590
Total .....		31	116,335	\$118,661

Statistics compiled by Office of Executive Planning.





Table 4.—Classification of Canal Traffic<sup>1</sup> by Type of Vessel—Fiscal Year 1984

Type of Vessel	Laden			Ballast			Grand Total
	Atlantic to Pacific	Pacific to Atlantic	Total	Atlantic to Pacific	Pacific to Atlantic	Total	
<b>CARGO AND CARGO PASSENGER SHIPS:</b>							
<b>Bulk Carriers:</b>							
Number of transits .....	1,639	1,578	3,217	391	184	575	3,792
Panama Canal net tonnage (thousands) .....	32,695	30,744	63,439	11,548	3,080	14,628	78,067
Tolls (thousands of dollars) .....	\$59,830	\$56,263	\$116,093	\$16,862	\$4,497	\$21,359	\$137,452
Cargo (thousands of long tons) .....	47,423	28,325	75,748	.....	.....	.....	75,748
<b>Container Cargo Ships:</b>							
Number of transits .....	797	872	1,669	14	13	27	1,696
Panama Canal net tonnage (thousands) .....	13,513	15,375	28,888	94	117	211	29,099
Tolls (thousands of dollars) .....	\$24,727	\$28,137	\$52,864	\$137	\$171	\$308	\$53,172
Cargo (thousands of long tons) .....	8,835	10,295	19,130	.....	.....	.....	19,130
<b>General Cargo Ships:</b>							
Number of transits .....	844	788	1,632	69	91	160	1,792
Panama Canal net tonnage (thousands) .....	6,234	6,214	12,448	422	374	796	13,244
Tolls (thousands of dollars) .....	\$11,409	\$11,372	\$22,781	\$616	\$546	1,162	\$23,943
Cargo (thousands of long tons) .....	5,146	4,867	10,013	.....	.....	.....	10,013
<b>Passenger Ships:<sup>2</sup></b>							
Number of transits .....	70	76	146	2	1	3	149
Panama Canal net tonnage (thousands) .....	1,068	1,064	2,132	42	2	44	2,176
Tolls (thousands of dollars) .....	\$1,954	\$1,946	\$3,900	\$61	\$3	64	\$3,964
Cargo (thousands of long tons) .....	.....	69	69	.....	.....	.....	69
<b>Refrigerated Cargo Ships:</b>							
Number of transits .....	438	733	1,171	347	69	416	1,587
Panama Canal net tonnage (thousands) .....	2,288	3,753	6,041	1,839	316	2,155	8,196
Tolls (thousands of dollars) .....	\$4,187	\$6,868	\$11,055	\$2,686	\$461	\$3,147	\$14,202
Cargo (thousands of long tons) .....	505	1,802	2,307	.....	.....	.....	2,307
<b>Tank Ships:</b>							
Number of transits .....	637	578	1,215	294	288	582	1,797
Panama Canal net tonnage (thousands) .....	9,885	10,037	19,922	5,841	4,369	10,210	30,132
Tolls (thousands of dollars) .....	\$18,090	\$18,367	\$36,457	\$8,527	\$6,378	\$14,905	\$51,362
Cargo (thousands of long tons) .....	16,079	16,549	32,628	.....	.....	.....	32,628

OTHER TYPE SHIPS:

Naval Vessels:									
Number of transits	.....	.....	.....	16	9	25	.....	.....	.....
Displacement tonnage (thousands)	.....	.....	.....	43	32	75	.....	.....	.....
Tolls (thousands of dollars)	.....	.....	.....	\$44	\$33	\$77	.....	.....	.....
Cargo (thousands of long tons)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barges, Dredges, Drydocks, Tugs, etc.:									
Number of transits	146	132	278	71	43	114	.....	.....	.....
Panama Canal net tonnage (thousands)	562	483	1,045	231	145	376	.....	.....	.....
Displacement tonnage (thousands)	.....	.....	.....	12	29	41	.....	.....	.....
Tolls (thousands of dollars)	\$1,029	\$886	\$1,915	\$349	\$242	\$591	.....	.....	.....
Cargo (thousands of long tons)	271	305	576	.....	.....	.....	.....	.....	.....
<b>SUMMARY:</b>									
Total Cargo and Cargo/Passenger Ships:									
Number of transits	4,425	4,625	9,050	1,117	646	1,763	.....	.....	.....
Panama Canal net tonnage (thousands)	65,683	67,187	132,870	19,786	8,258	28,044	.....	.....	.....
Tolls (thousands of dollars)	\$120,197	\$122,953	\$243,150	\$28,889	\$12,056	\$40,945	.....	.....	.....
Cargo (thousands of long tons)	77,988	61,907	139,895	.....	.....	.....	.....	.....	.....
Total Other Type Ships:									
Number of transits	146	132	278	87	52	139	.....	.....	.....
Panama Canal net tonnage (thousands)	562	483	1,045	231	145	376	.....	.....	.....
Displacement tonnage (thousands)	.....	.....	.....	55	61	116	.....	.....	.....
Tolls (thousands of dollars)	\$1,029	\$886	\$1,915	\$393	\$275	\$668	.....	.....	.....
Cargo (thousands of long tons)	271	305	576	.....	.....	.....	.....	.....	.....
Grand Total Ships:									
Number of transits	4,571	4,757	9,328	1,204	698	1,902	.....	.....	.....
Panama Canal net tonnage (thousands)	66,245	67,670	133,915	20,017	8,403	28,420	.....	.....	.....
Displacement tonnage (thousands)	.....	.....	.....	55	61	116	.....	.....	.....
Tolls (thousands of dollars)	\$121,226	\$123,839	\$245,065	\$29,282	\$12,331	\$41,613	.....	.....	.....
Cargo (thousands of long tons)	78,259	62,212	140,471	.....	.....	.....	.....	.....	.....

<sup>1</sup>Includes only commercial vessels of 300 net tons and over (Panama Canal measurement) for vessels paying tolls on net tonnage basis, or of 500 displacement tons and over for vessels paying on displacement tonnage.

<sup>2</sup>Vessels certificated for more than 12 passengers.



Table 5.—Laden and Ballast Traffic by Flag of Vessel  
Fiscal Year 1984

	Laden			Ballast		
	Number of transits	Panama Canal net tonnage	Tolls	Number of transits	Panama Canal net tonnage	Tolls
Algeria	3	37,574	\$ 68,760	1	6,492	\$ 9,478
Argentina	2	45,478	83,225			
Australia	10	212,000	387,960			
Austria	3	68,331	125,046			
Bahamas	31	424,143	776,182	2	9,985	14,578
Belgium	50	929,807	1,701,547	4	36,855	53,808
Bermuda	1	9,732	17,810	2	19,464	28,417
Bolivia	9	76,599	140,176			
Brazil	31	263,407	482,035	1	5,668	8,275
Bulgaria	8	50,158	91,789			
Canada	6	22,279	40,771	4	10,835	15,819
Cayman Islands	4	2,803	5,129	2	1,361	1,987
Chile	79	749,043	1,370,749	19	177,977	259,846
Colombia	147	2,054,591	3,759,902	21	246,676	360,147
Costa Rica	6	5,682	10,398			
Cuba	109	681,402	1,246,966	16	70,507	102,940
Cyprus	76	758,337	1,387,757	10	45,670	66,678
Czechoslovakia	1	8,811	16,124			
Denmark	210	4,238,973	7,757,321	40	674,204	984,338
Dominican Republic	1	8,275	15,143			
East Germany	5	26,943	49,306	5	26,943	39,337
Ecuador	361	2,922,140	5,347,516	87	1,002,471	1,463,608
Egypt	1	18,762	34,334			
Finland	23	291,917	534,208	1	21,108	30,818
France	71	1,307,903	2,393,462	4	14,561	21,259
Ghana	3	29,544	54,066			
Greece	654	9,893,367	18,104,862	134	2,258,631	3,297,601
Honduras	17	91,866	168,115	8	49,021	71,571
Hong Kong	13	312,008	570,975	2	34,800	50,808
India	15	347,450	635,834	3	76,415	111,566
Indonesia	10	114,396	209,345			
Iraq	2	20,478	37,475			
Ireland	3	30,079	55,045	1	1,637	2,390
Israel	67	1,349,688	2,469,929			
Italy	84	1,027,999	1,881,238	7	76,288	111,380
Japan	923	16,251,285	29,739,851	264	5,938,860	8,670,737
Kuwait	2	24,204	44,293			
Liberia	1,144	20,820,533	38,101,574	235	4,673,042	6,824,786
Libya	3	19,770	36,179	3	21,085	30,784
Malaysia	14	229,705	420,360			
Malta	20	199,341	364,794	3	30,032	43,847
Mauritania	1	586	1,072	3	1,923	2,808
Mexico	59	1,104,160	2,020,613	38	767,996	1,121,274
Morocco	6	70,535	129,079	1	5,512	8,048
Netherlands	175	2,045,333	3,742,959	38	273,812	399,766
New Zealand	2	48,376	88,528	1	1,865	2,723
Nicaragua	15	30,249	55,356	7	7,133	10,414
Norway	275	5,204,864	9,524,901	62	1,064,743	1,554,525
Panama	1,474	18,305,985	33,499,952	296	4,045,868	5,906,967
People's Republic of China	110	2,175,625	3,981,394	21	455,163	664,538
Peru	166	1,727,293	3,160,946	27	402,917	588,259
Philippines	152	1,959,699	3,586,249	18	259,800	379,308
Poland	58	424,111	776,123	9	64,152	93,662
Portugal	4	4,318	7,902			
Rumania	2	17,583	32,177	2	17,583	25,671
Saint Vincent	2	9,850	18,026	1	9,448	13,794
Samoa	2	18,398	33,668			
Saudi Arabia	6	37,965	69,476	9	57,527	83,989
Singapore	179	3,248,571	5,944,885	43	1,126,606	1,644,845
South Korea	180	2,727,124	4,990,637	5	17,641	25,756
Spain	111	697,636	1,276,674	15	32,196	47,006
Sri Lanka	2	37,245	68,158	2	16,925	24,710
Sweden	107	2,341,757	4,285,415	8	162,055	236,600
Switzerland	78	759,528	1,389,936	1	7,095	10,359
Taiwan	158	3,598,091	6,584,507	9	228,362	333,409
Thailand	2	9,522	17,425			
Tonga	1	422	772			
Turkey	9	87,166	159,514	2	17,032	24,867
United Arab Emirates	2	16,965	31,046	1	8,456	12,346
United Kingdom	473	8,353,530	15,286,960	82	1,079,172	1,575,591
United States	590	6,762,312	12,375,031	151	1,956,243	2,856,115
Uruguay	2	11,859	21,702	1	1,849	2,700
U.S.S.R.	345	2,454,720	4,492,138	90	608,196	887,966
Venezuela	63	151,570	277,373	24	42,414	61,924
West Germany	211	2,699,323	4,939,761	21	118,171	172,530
Yugoslavia	84	794,908	1,454,682	4	32,413	47,323
<b>Total</b>	<b>9,328</b>	<b>133,913,982</b>	<b>\$245,062,587</b>	<b>1,871</b>	<b>28,420,947</b>	<b>\$41,496,595</b>

Above table involves only commercial vessels of 300 net tons or over, Panama Canal measurement.

Table 6.—Segregation of Transits<sup>1</sup> by Registered Gross Tonnage—Fiscal Year 1984

Flag	Under 2,000	2,000 to 3,999	4,000 to 5,999	6,000 to 7,999	8,000 to 9,999	10,000 to 14,999	15,000 to 19,999	20,000 to 29,999	30,000 to 39,999	40,000 and over	Total <sup>2</sup>	Registered gross tonnage	Average gross tonnage per vessel
Algeria					2						4	53,926	13,482
Argentina								2			2	53,038	26,519
Australia										1	10	256,910	25,691
Austria				3				3			3	80,532	26,844
Bahamas		4		8	7	2		17			33	527,791	15,994
Belgium	1			3	1	7	6	22	9		54	1,140,631	21,123
Bermuda				3							3	23,799	7,933
Bolivia						9					9	96,300	10,700
Brazil			2	1	13	14	2				32	323,514	10,110
Bulgaria		2	4				2				8	60,839	7,605
Canada	4	3				3					10	44,930	4,493
Cayman Islands	6										6	2,200	367
Chile	7	9			13	68			1		98	1,053,943	10,755
Colombia	4	2	9	2	1	78	33	39			168	2,551,048	15,185
Costa Rica	6										6	5,952	992
Cuba		47	4	7	43	23	1				125	883,884	7,071
Cyprus	4	8	11	5	32	8	11	6	1		86	872,642	10,147
Czechoslovakia						1					1	10,416	10,416
Denmark		42	2	8	12	8	11	29	112	26	250	6,248,367	24,993
Dominican Republic											1	9,661	9,661
East Germany			6	4							10	58,750	5,875
Ecuador	9	36	28	152	49	61	93	20			448	4,582,689	10,229
Egypt											1	22,606	22,606
Finland						14	6	4			24	383,614	15,984
France	11					28	18	18			75	1,176,770	15,690
Ghana						3					3	39,012	13,004
Greece	15	3	22	20	103	239	161	63	162		788	13,808,383	17,523
Honduras	3			6	16			5			25	173,576	6,943
Hong Kong				2		3	4	1	7	5	15	429,572	28,638
India											10	510,336	28,352
Indonesia						4	6				18	131,907	28,352
Iraq						2					2	25,948	12,974
Ireland	2						2				4	37,830	9,458
Israel								67			67	1,770,153	26,420
Italy			7		28	12	33	8	3		91	1,375,118	15,111
Japan	131	88	60	128	81	164	215	93	201	26	1,187	18,775,393	15,818
Kuwait							2				2	30,892	15,446
Liberia	3	15	74	60	131	208	364	264	255	5	1,379	26,043,109	18,886



Table 7.—Principal Commodities Shipped Through Canal by Fiscal Years

Commodity	South		North	
	1982	1984	1983	1984
Canned and Refrigerated Foods	574	518	518	565
Canned Foods	64	74	110	110
Fish	4	3	2	2
Fruit	6	6	24	24
Milk	40	57	68	68
Other and unclassified	14	8	16	16
Refrigerated Foods	510	443	455	455
Bananas	.....	1	7	7
Dairy Products	14	6	6	6
Fish	147	131	148	148
Fruit, excluding bananas	111	100	115	115
Meat	8	10	6	6
Other and unclassified	230	195	171	171
Chemicals and Petroleum Chemicals	3,892	4,121	4,180	4,180
Caustic soda	513	674	927	927
Chemicals, unclassified	2,429	2,474	2,376	2,376
Petroleum Chemicals, miscellaneous	950	973	877	877
Coal and Coke (excluding petroleum coke)	21,249	9,161	8,115	8,115
Grains	33,349	34,785	25,089	25,089
Barley	34	118	16	16
Corn	13,557	21,625	9,490	9,490
Oats	22	27	9	9
Rice	62	75	117	117
Sorghum	2,013	1,345	1,322	1,322
Soybeans	6,468	7,039	6,837	6,837
Wheat	11,013	4,478	7,213	7,213
Other and unclassified	180	78	84	84
Lumber and Products	439	529	614	614
Boards and planks	11	9	12	12
Plywood, veneers, composition board	12	20	14	14
Pulpwood	375	475	559	559
Other and unclassified	41	25	30	30
Canned Foods	222	274	211	211
Fish	33	43	52	52
Fruit	115	62	80	80
Milk	53	28	38	38
Other and unclassified	21	38	41	41
Refrigerated Foods	2,521	2,718	3,051	3,051
Bananas	811	888	972	972
Dairy Products	23	20	24	24
Fish	605	592	791	791
Fruit, excluding bananas	459	461	418	418
Meat	31	73	156	156
Other and unclassified	591	684	690	690
Chemicals and Petroleum Chemicals	979	846	984	984
Caustic soda	41	65	46	46
Chemicals, unclassified	886	671	870	870
Petroleum Chemicals, miscellaneous	52	110	68	68
Coal and Coke (excluding petroleum coke)	1,839	1,556	1,280	1,280
Grains	3,033	1,675	4,232	4,232
Barley	533	299	763	763
Corn	7	1	2	2
Oats	15	1	.....	.....
Rice	517	210	315	315
Sorghum	.....	.....	4	4
Soybeans	61	10	4	4
Wheat	1,757	1,084	2,984	2,984
Other and unclassified	143	70	160	160
Lumber and Products	5,749	5,335	4,806	4,806
Boards and planks	3,182	2,738	2,358	2,358
Plywood, veneers, composition board	878	981	664	664
Pulpwood	1,435	1,411	1,527	1,527
Other and unclassified	254	205	257	257

[Thousands of long tons]

Commodity



	713	525	550	Machinery and Equipment	1,631	1,475	1,538
93	59	59	59	Agricultural machinery and implements	32	16	24
338	243	292	292	Automobiles, trucks, accessories and parts	1,464	1,305	1,343
150	104	91	91	Construction machinery and equipment	69	65	56
65	48	41	41	Electrical machinery and apparatus	29	33	45
4	2	2	2	Motorcycles, bicycles, and parts	9	19	24
63	69	64	64	Other and unclassified	28	37	46
1,896	1,632	1,842	1,842	Manufactures of Iron and Steel	5,424	3,563	5,178
227	123	168	168	Angles, shapes, and sections	294	403	514
9	10	54	54	Nails, tacks, and spikes	118	70	96
750	950	869	869	Plates, sheets, and coils	2,084	1,277	1,145
148	72	98	98	Tubes, pipes, and fittings	1,039	696	1,842
317	161	307	307	Wire, bars, and rods	420	314	299
445	316	347	347	Other and unclassified	1,470	803	1,282
228	228	177	177	Minerals, miscellaneous	3,691	3,070	3,831
23	20	18	18	Asbestos	4	3	4
2	12	5	5	Borax	414	391	426
3	2	9	9	Infusorial earth	9	5	10
118	122	77	77	Salt	696	577	585
80	61	55	55	Soda and sodium compounds	136	149	231
2	11	13	13	Sulfur	2,431	1,945	2,575
6,902	7,950	8,617	8,617	Nitrates, Phosphates, and Potash	1,263	1,467	1,553
464	379	535	535	Ammonium compounds	48	26	8
1	1	.....	.....	Fishmeal	725	823	989
76	27	84	84	Nitrate of soda	170	277	208
5,149	5,826	6,395	6,395	Phosphates	86	143	70
108	127	113	113	Potash	175	142	198
1,104	1,590	1,490	1,490	Fertilizers, unclassified	59	56	80
2,166	3,391	3,636	3,636	Ores and Metals	5,028	4,577	5,676
741	750	888	888	Ores	3,825	2,937	4,136
366	375	454	454	Alumina/bauxite	892	107	180
4	.....	4	4	Chrome	71	11	50
29	1	.....	.....	Copper	390	414	730
23	69	11	11	Iron	73	54	262
35	18	11	11	Lead	167	124	149
184	133	79	79	Manganese	91	88	68
.....	.....	.....	.....	Tin	32	31	43
37	97	131	131	Zinc	572	468	555
63	57	197	197	Other and unclassified	1,539	1,640	2,099

Table 7.—Principal Commodities Shipped Through Canal by Fiscal Years—Continued

Commodity	South Atlantic to Pacific		North Pacific to Atlantic		
	1982	1983	1984	1983	1982
Metals	1,425	2,641	2,747	1,203	1,540
Aluminum	312	397	312	53	64
Copper	4	42	33	885	944
Iron	22	238	87	8	100
Lead	18	14	14	85	129
Scrap	989	1,846	2,227	3	96
Tin, including tinplate	32	15	12	19	21
Zinc	6	13	29	104	129
Other and unclassified	42	76	35	46	80
Other Agricultural Commodities	2,028	1,953	1,603	4,026	3,471
Beans, edible	41	56	43	46	42
Cocoa and cacao beans	3	3	3	49	31
Coffee, raw and processed	20	19	9	458	467
Copra and coconuts	1	.....	1	11	14
Cotton, raw	160	28	15	110	123
Molasses	11	3	3	672	827
Oilseeds	160	91	36	336	64
Peas, dry	3	51	.....	48	36
Rubber, raw	1	.....	.....	96	61
Skins and hides	2	.....	.....	3	3
Sugar	1,624	1,701	1,493	2,179	1,803
Wool, raw	2	.....	.....	19	20
Petroleum and Products	13,691	13,727	12,555	18,107	20,191
Asphalt	128	90	155	8	.....
Crude oil	4,410	4,547	3,898	10,267	14,123
Diesel oil	1,696	1,277	1,129	815	569
Fuel oil, residual	2,121	3,318	3,007	3,836	2,800
Gasoline	2,159	1,352	983	760	347
Jet fuel	1,264	627	593	77	9
Kerosene	108	45	104	.....	.....
Liquefied natural gas	259	799	737	46	28
Lubricating oil	657	524	689	167	114
Petroleum coke	162	712	460	1,752	1,624

	727	436	798	378	571	485
	9,430	9,309	10,717	8,698	7,627	7,760
Other and unclassified						
Miscellaneous	46	21	24	11	5	18
Bricks and tile	6	4	4	1	1	80
Carbon black	60	64	174	5	7	9
Cement	445	380	357	25	28	7
Clay, fire and china	47	21	40	15	17	13
Fibers, plant	252	242	219	31	54	35
Flour, wheat	50	20	24	6	11	15
Glass and glassware	46	29	36	37	37	47
Groceries, miscellaneous	36	31	16	7	5	6
Liquors and wines	21	25	41	.....	1	1
Marble and stone	3	4	4	.....	91	108
Oil, coconut	.....	8	17	164	87	176
Oil, fish	311	245	247	95	108	230
Oil, vegetable	696	702	761	368	514	537
Paper and paper products	2	1	3	3	3	6
Porcelainware	347	210	168	3	6	7
Resin	24	29	45	38	49	32
Rubber, manufactured	1	34	1	10	3	22
Seeds, excluding oilseeds	19	15	72	1	.....	8
Slag, clinkers, and dross	57	67	66	40	39	14
Tallow	142	48	47	43	41	43
Textiles	59	46	10	4	3	3
Tobacco and manufactures	8	13	16	17	3	6
Wax, paraffin	6,752	7,050	8,326	7,681	6,514	6,337
All other and unclassified	96,557	87,829	78,259	62,212	57,762	88,895
Total						

Table 8.—Origin and Destination of Commercial Cargo Through the Panama Canal From Atlantic to Pacific During Fiscal Year 1984  
Segregated by Countries in Principal Trade Routes

	[Long tons]													
	To West Coast United States					To West Coast Central America								
	Alaska	Hawaii	Mainland	Total	Canada	Costa Rica	El Salvador	Guatemala	Mexico	Nicaragua	Panama	Central America (other)	Bahia, R.P. <sup>2</sup>	Total
<b>EAST COAST NORTH AMERICA:</b>														
United States:														
North Atlantic ports	1	6,922	280,094	287,017	.....	4,330	60,539	.....	33,008	3,908	388	.....	38,064	140,237
South Atlantic ports	.....	654	55,047	55,701	324,245	6,791	.....	.....	73,544	1,025	17,034	2,705	11,365	112,464
Great Lakes ports	.....	.....	.....	.....	.....	.....	16,091	.....	25,708	.....	.....	.....	8,627	50,426
Gulf ports	9	10	1,046,785	1,046,804	621,872	181,983	302,460	.....	424,799	70,843	36,374	7,681	312,984	1,337,124
United States (other) <sup>1</sup>	.....	21,098	213,119	234,217	49	.....	3,831	.....	.....	.....	5,478	2,947	57,505	69,761
Total United States	10	28,684	1,595,045	1,623,739	946,166	193,104	382,921	.....	557,059	75,776	59,274	13,333	428,545	1,710,012
<b>EAST COAST CANADA:</b>														
.....	.....	.....	46,483	46,483	1,438	3,716	3,684	.....	.....	15,467	4,131	8,935	.....	35,933
<b>EAST COAST CENTRAL AMERICA:</b>														
Mexico	.....	.....	17,237	17,237	.....	.....	339,837	257,036	3,494,440	136,094	2,362	.....	.....	4,229,769
Panama	.....	.....	330	330	.....	.....	8,011	.....	.....	1,111	477	.....	55,510	65,109
Central America (other) <sup>1</sup>	.....	.....	10,871	10,871	.....	.....	.....	.....	.....	.....	631	69	9,618	10,318
Cristobal, R.P. <sup>2</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	779	.....	83	.....	862
Total Central America	.....	.....	28,438	28,438	.....	.....	347,848	257,036	3,494,440	137,984	3,470	152	65,128	4,306,058
<b>EAST COAST SOUTH AMERICA:</b>														
Brazil	.....	.....	310,003	310,003	43,955	883	4,876	.....	185,970	5,504	.....	.....	.....	197,233
Colombia	.....	.....	108,440	108,440	.....	.....	3,038	.....	103,052	1,612	.....	52	1,181	108,935
Venezuela	32,350	58,959	400,405	491,714	5,119	10,725	303,088	311,995	9,728	5,800	923	.....	45,901	688,160
South America (other) <sup>1</sup>	.....	.....	23,658	23,658	9,890	210	.....	.....	20,664	17,165	.....	.....	.....	38,039
Total South America	32,350	58,959	842,506	933,815	58,964	11,818	311,002	311,995	309,686	34,009	5,800	975	47,082	1,032,367
<b>WEST INDIES:</b>														
Cuba	.....	.....	14,074	14,074	.....	681	2,374	.....	12,525	60,601	.....	2,287	.....	78,468
Jamaica	.....	.....	138,380	138,380	.....	5,846	271	.....	.....	.....	.....	.....	96,679	6,117
Netherlands West Indies	.....	100,092	162,336	262,428	.....	8,838	2,573	103,458	.....	8,647	20,156	40,649	.....	281,000
Trinidad/Tobago	.....	.....	141,654	141,654	.....	5,324	.....	.....	.....	.....	.....	.....	.....	5,324
West Indies (other) <sup>1</sup>	25,719	167,677	172,888	366,284	.....	.....	.....	.....	.....	2,231	1,071	.....	.....	3,302
Total West Indies	25,719	267,769	629,332	922,820	.....	20,689	5,218	103,458	12,525	71,479	21,227	42,936	96,679	374,211



Table 8.—Origin and Destination of Commercial Cargo Through the Panama Canal From Atlantic to Pacific During Fiscal Year 1984  
Segregated by Countries in Principal Trade Areas—Continued

	[Long tons]										
	To West Coast South America					To Oceania					
	Chile	Colombia	Ecuador	Peru	South America (other) <sup>1</sup>	Total	Australia	French Oceania	New Zealand	Oceania (other)	Total
<b>EAST COAST NORTH AMERICA:</b>											
United States:											
North Atlantic ports .....	188,761	24,529	43,491	126,743	13,317	396,841	104,112	.....	85,422	101,748	291,282
South Atlantic ports .....	14,399	18,964	51,598	56,542	8,588	150,091	67,919	.....	36,581	29,727	134,227
Great Lakes ports .....	5,026	.....	1,848	27,358	688	34,920	37,983	.....	.....	.....	37,983
Gulf ports .....	1,381,106	524,168	911,908	1,251,845	79,446	4,146,473	1,302,922	.....	145,087	106,289	1,554,298
United States (other) <sup>1</sup> .....	122,787	15,519	79,812	53,849	24,940	296,907	32,137	.....	8,031	78,244	118,412
Total United States .....	1,712,079	583,180	1,088,657	1,516,337	126,979	5,027,232	1,545,073	.....	275,121	316,008	2,136,202
<b>EAST COAST CANADA .....</b>											
	21,029	10,688	45,137	52,237	5,418	134,509	45,207	.....	23,484	60,287	128,978
<b>EAST COAST CENTRAL AMERICA:</b>											
Mexico .....	5,273	7,694	130,728	49,194	2,859	154,748	5	.....	10,005	.....	10,010
Panama .....	.....	.....	657	930	440	2,027	.....	47,159	.....	.....	47,159
Central America (other) <sup>1</sup> .....	.....	3,968	5,343	103	.....	9,414	.....	.....	.....	.....	.....
Cristobal, R.P. <sup>2</sup> .....	28	.....	974	28	4,500	5,530	.....	.....	.....	.....	.....
Total Central America .....	5,301	11,662	137,702	50,255	7,799	212,719	5	47,159	10,005	.....	57,169
<b>EAST COAST SOUTH AMERICA:</b>											
Brazil .....	.....	25,708	64,860	.....	.....	90,568	.....	.....	.....	.....	.....
Colombia .....	3,524	350,107	44,691	1,806	1,083	401,211	.....	.....	.....	.....	.....
Venezuela .....	1,167,126	18,195	5,646	45,839	27,854	1,264,660	30,299	.....	15	23	30,337
South America (other) <sup>1</sup> .....	51,783	3,491	7,538	6,938	2,662	72,432	.....	.....	.....	2,165	2,165
Total South America .....	1,222,433	397,501	122,755	54,583	31,599	1,828,871	30,299	.....	15	2,188	32,502
<b>WEST INDIES:</b>											
Cuba .....	.....	.....	4,751	37,570	24,340	66,661	.....	.....	41,336	.....	41,336
Jamaica .....	818	.....	6,429	998	.....	8,245	42	.....	25	227	294
Netherlands West Indies .....	450,375	15,623	59,447	6,075	78,962	610,482	60,073	18,235	37,703	26,390	143,301
Trinidad/Tobago .....	344	.....	1,996	.....	.....	2,340	20	74,924	1,176	.....	76,120
West Indies (other) <sup>1</sup> .....	87,468	.....	15,967	25,751	2,867	132,053	23	.....	901	155	1,079
Total West Indies .....	539,005	15,623	88,590	70,394	106,169	819,781	61,058	93,159	81,141	26,772	262,130

<b>EUROPE:</b>												
Belgium.....	78,885	14,566	24,798	50,761	22,753	191,763	4,404	10,668	21,110	11,185	47,367	
France.....	17,520	4,897	4,747	15,643	6,051	48,858	2,057	197,383	862	25,473	225,775	
Italy.....	7,635	8,189	5,040	7,716	9,139	37,719	1,771	7,623	2,078	8,723	20,195	
Netherlands.....	25,626	5,697	13,919	21,549	13,374	80,165	29,130	4,995	109,289	48,507	191,921	
Norway.....	696	65	815	511	449	2,536	12,311	.....	.....	.....	12,311	
Spain-Portugal.....	17,504	7,931	7,052	16,657	21,907	71,051	999	624	2,775	8,032	12,430	
Sweden.....	17,976	2,714	2,281	5,004	5,505	33,480	.....	.....	1,043	14	1,057	
United Kingdom.....	17,023	3,546	5,156	6,950	15,202	47,877	22,196	176	23,466	31,961	77,799	
U.S.S.R.....	.....	.....	11	774	75,400	76,185	.....	.....	16,291	.....	16,291	
West Germany.....	64,533	11,293	36,302	66,797	31,201	210,126	8,850	7,775	11,422	15,089	43,136	
Europe (other) <sup>1</sup> .....	67,312	29,048	92,617	48,152	41,790	278,919	67,103	41,280	42,236	92,360	242,979	
Total Europe.....	314,710	87,946	192,738	240,514	242,771	1,078,679	148,821	270,524	230,572	241,344	891,261	
AFRICA.....	2,017	.....	66	.....	777	2,860	1,052	.....	.....	30	1,082	
Grand total.....	3,816,574	1,106,600	1,675,645	1,984,320	521,512	9,104,651	1,831,515	410,842	620,338	646,629	3,509,324	
Percent of Pacific-Bound Cargo.....	4.9	1.4	2.1	2.5	0.7	11.6	2.3	0.5	0.8	0.8	4.5	

See footnotes at end of table.



Table 8.—Origin and Destination of Commercial Cargo Through the Panama Canal From Atlantic to Pacific During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To Asia										Total	Grand total	Percent of total Pacific-bound cargo	
	China (Mainland)	China (Taiwan)	Hong Kong	Indonesia	Japan	Philippine Islands	Singapore	South Korea	Thailand	U.S.S.R.				Asia (other) <sup>1</sup>
<b>EAST COAST NORTH AMERICA:</b>														
United States:														
North Atlantic ports	236,645	1,154,514	145,941	3,691	4,413,861	8,376	57,182	1,122,294	3,041	.....	428,067	7,573,612	8,688,989	11.1
South Atlantic ports	324,568	183,258	136,320	20,339	940,986	7,587	35,108	37,344	1,278	.....	223,320	1,910,108	2,686,836	3.4
Great Lakes ports	.....	.....	.....	.....	189,164	.....	.....	26,513	11,635	.....	.....	227,312	350,641	0.4
Gulf ports	5,444,371	3,438,089	58,144	133,617	19,107,964	333,250	95,728	2,866,991	45,616	271,677	682,124	32,477,571	41,186,142	52.6
United States (other) <sup>1</sup>	92,220	447,373	235,811	9,640	359,179	4,311	88,943	146,897	7,484	.....	431,587	1,823,445	2,542,791	3.2
Total United States	6,097,804	5,223,234	576,216	167,287	25,011,154	353,524	276,961	4,200,039	69,054	271,677	1,765,098	44,012,048	55,455,399	70.9
<b>EAST COAST CANADA</b> ..... 262,874 36,039 33,873 1,475 720,015 ..... 27 106,922 ..... 313,469 1,474,694 1,822,035 2.3														
<b>EAST COAST CENTRAL AMERICA:</b>														
Mexico	.....	1,890	.....	.....	63,533	.....	.....	3,112	336	.....	.....	105,161	4,557,925	5.8
Panama	.....	.....	.....	.....	49	.....	.....	.....	.....	.....	.....	49	114,674	0.1
Central America (other) <sup>1</sup>	.....	10	.....	.....	20,494	.....	.....	.....	.....	.....	5,056	25,560	56,163	0.1
Cristobal, R.P. <sup>2</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59	6,451	.0
Total Central America	.....	1,900	5	.....	84,076	.....	.....	3,112	336	.....	.....	130,829	4,735,213	6.1
<b>EAST COAST SOUTH AMERICA:</b>														
Brazil	.....	7,813	.....	.....	100,205	.....	.....	3,655	.....	.....	4,931	116,604	758,363	1.0
Colombia	.....	.....	.....	.....	2,843	.....	.....	.....	.....	.....	839	3,682	622,268	0.8
Venezuela	30,211	26,235	25,726	.....	1,260,180	.....	.....	735	.....	.....	5,591	1,348,678	3,828,668	4.9
South America (other) <sup>1</sup>	4,585	5,258	.....	.....	50,690	.....	.....	.....	.....	.....	7,421	67,954	214,138	0.3
Total South America	34,796	39,306	25,726	.....	1,413,918	.....	.....	4,390	.....	.....	839	1,536,918	5,423,437	6.9
<b>WEST INDIES:</b>														
Cuba	657,792	2,001	.....	.....	277,715	.....	.....	.....	.....	.....	118,012	1,146,692	1,347,231	1.7
Jamaica	.....	1,921	.....	.....	5,208	.....	6	23	.....	.....	.....	12,661	165,697	0.2
Netherlands West Indies	.....	22	2,657	1,995	4,125	.....	699	.....	.....	.....	.....	40,726	1,337,937	1.7
Trinidad/Tobago	.....	10,450	.....	.....	32,220	.....	.....	15,788	.....	.....	30	58,488	283,926	0.4
West Indies (other) <sup>1</sup>	.....	6,425	31,634	.....	23,113	30,983	.....	.....	.....	.....	2,758	94,913	597,631	0.8
Total West Indies	657,792	18,898	36,212	1,995	342,381	30,983	705	15,811	.....	118,012	130,691	1,353,480	3,732,422	4.8

<b>EUROPE:</b>												
Belgium	319	6,720	35,497	86	42,622	821,161	1.0					
France	307	3,501	812	2,438	7,178	511,620	0.7					
Italy	382	2,549	20	2,549	7,951	236,704	0.3					
Netherlands	39,633	88,674	15,881	64,056	216,594	1,025,830	1.3					
Norway	377	2,500	2,500	2,198	4,698	229,180	0.3					
Spain-Portugal	356	8,614	34	3,992	13,373	506,495	0.6					
Sweden	413	9,029	40,830	1,331	10,360	174,229	0.2					
United Kingdom	1,538	13,297	8,995	17,075	88,539	377,282	0.5					
U.S.S.R.	947	5,852	572	454	4,291	456,064	0.6					
West Germany	1,415	5,171	1,629	80	8,866	779,532	1.0					
Europe (other) <sup>1</sup>	1,528	5,171	153	27,836	43,866	1,536,756	2.0					
Total Europe	947	43,992	97,775	122,095	443,338	6,654,853	8.5					
<b>ASIA (MIDDLE EAST)</b>												
		30	31	427	488	64,247	0.1					
<b>AFRICA</b>												
		59,826	1,716	6,603	68,145	371,693	0.5					
Grand total	7,954,213	5,363,369	674,289	293,691	77,412	394,365	2,397,726	49,019,940	78,259,299	100.0		
Percent of Pacific-Bound Cargo	9.0	6.9	0.9	0.2	35.5	0.5	0.4	5.7	0.1	0.5	3.1	62.6

<sup>1</sup> Includes cargo not routed to permit segregation between definite countries.

<sup>2</sup> Includes both local and transhipped cargo.

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas

[Long tons]

	To East Coast United States				To E. C. Canada			To East Coast Central America				
	North Atlantic ports	South Atlantic ports	Great Lakes ports	Gulf ports	United States (other) <sup>1</sup>	Total	Canada	Mexico	Panama	Central America (other) <sup>2</sup>	Chistobal R. P. <sup>3</sup>	Total
<b>WEST COAST NORTH AMERICA:</b>												
United States:												
Alaska	655				31,057	391,661						
Hawaii					11,117	140,707						
Mainland	662,090	61,587		1,954,681	168,855	2,847,213	355,148	4,056	33,864	2,958	18,211	59,089
Total United States	662,745	61,587		2,444,220	211,029	3,379,581	355,148	4,056	33,864	2,958	18,211	59,089
<b>WEST COAST CANADA</b>	682,133	292,498		324,819	346,723	1,646,173	25,802	6,208			10	6,218
<b>WEST COAST CENTRAL AMERICA:</b>												
Costa Rica	22,766	22,819		26,136	50,814	122,535				2,008		22,627
El Salvador	28,106	19,227		106,602		153,935			1,240			3,798
Guatemala	61,812	39,324		27,791	47,970	176,897						
Honduras	9,443			19,290		28,733						
Mexico	24,803	22,259		180,311		227,373	18,364	116,878			974	117,852
Nicaragua				19,311		19,311				17,727	4	17,731
Panama	105,944	4,768		127,478	5,700	243,890				236		236
Central America (other) <sup>1</sup>					16,533	10,000				194	84	278
Balboa, R. P. <sup>2</sup>		132		204	719	1,055						
Total Central America	252,874	108,529		523,656	115,203	1,000,262	18,364	137,497	1,240	20,165	3,620	162,522
<b>WEST COAST SOUTH AMERICA:</b>												
Chile	735,041	78,639		272,123	125,682	1,211,485	73,975	2,108		4,916	268	7,292
Colombia	75,847	15,647		159,288	26,203	276,985	31,136	647				647
Ecuador	806,664	34,478		3,358,545	257,739	4,457,426	52,167	321	865,161	2,172	339	867,993
Peru	1,221,176	38,009	1,103	610,938	275,194	2,146,420	9,295	46,506	73,762	91	641	121,000
South America (other) <sup>1</sup>	32,587	9,741		29,792	9,838	81,958	1,552	3,256				6,512
Total South America	2,871,315	176,514	1,103	4,430,686	694,656	8,174,274	168,125	52,838	938,923	7,179	4,504	1,003,444
<b>OCEANIA:</b>												
Australia	448,662	66,413	37,555	1,399,796	117,185	2,069,611	443,163	44,112	3,600			47,970
British Oceania	2,881	132		27,847		30,860						
French Oceania	18,851			60	1,989	20,900						
New Zealand	104,595	24,255		77,779	12,111	218,740	15,477	43,413			819	44,232
Oceania (other) <sup>1</sup>	177,460	33,868		33,911	42,683	287,922	32,747	14				14
Total Oceania	752,449	124,668	37,555	1,539,393	173,968	2,628,033	491,387	87,539	3,600		1,077	92,216

ASIA:																		
China.....	127,874	34,475	.....	1,094,786	78,584	1,335,719	30,806	6,024	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,024
Taiwan.....	325,387	114,509	.....	65,482	334,011	839,389	32,110	.....	602	155	9,860	.....	.....	.....	.....	.....	.....	10,617
Hong Kong.....	165,962	36,579	.....	2,986	131,736	357,263	26,475	.....	44	104	3,112	.....	.....	.....	.....	.....	.....	3,260
Indonesia.....	104,296	31,507	.....	264,937	203,787	604,527	73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan.....	1,828,919	845,116	290,034	2,866,868	1,120,838	6,951,775	190,545	672	1,150	8,625	35,130	.....	.....	.....	.....	.....	.....	45,577
Philippine Islands.....	293,163	2,104	.....	59,436	197,964	552,667	.....	.....	2,027	.....	800	.....	.....	.....	.....	.....	.....	800
Singapore.....	104,598	24,251	.....	53,189	81,033	263,071	4,597	.....	.....	.....	474	.....	.....	.....	.....	.....	.....	2,501
South Korea.....	164,208	74,689	.....	514,203	267,835	1,020,935	81	20,668	.....	.....	2,353	.....	.....	.....	.....	.....	.....	3,070
Thailand.....	41,010	220	.....	78,130	3,995	123,355	.....	.....	.....	.....	440	.....	.....	.....	.....	.....	.....	21,108
Asia (other).....	1,088,793	432,032	12,774	317,376	444,018	2,294,993	108,834	.....	820	5,745	74,510	.....	.....	.....	.....	.....	.....	81,075
Total Asia.....	4,244,210	1,615,482	302,808	5,317,393	2,863,801	14,343,694	393,521	27,364	4,643	15,346	126,679	.....	.....	.....	.....	.....	.....	174,032
Grand total.....	9,465,726	2,379,278	341,466	14,580,167	4,405,380	31,172,017	1,452,347	315,502	982,270	45,648	154,101	.....	.....	.....	.....	.....	.....	1,497,521
Percent of Atlantic-Bound Cargo.....	15.2	3.8	0.5	23.4	7.1	50.1	2.3	0.5	1.6	0.1	0.2	.....	.....	.....	.....	.....	.....	2.4

See footnotes at end of table.

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To East Coast South America				To West Indies								
	Brazil	Colombia	Venezuela	South America (other) <sup>1</sup>	Total	Cuba	Haiti/Dominican Republic	Jamaica	Netherlands West Indies	Puerto Rico	Trinidad/Tobago	West Indies (other) <sup>1</sup>	Total
<b>WEST COAST NORTH AMERICA:</b>													
United States:													
Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	794,019	794,019
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	692	692
Mainland	75,809	13,853	179,959	9,445	279,066	.....	5,712	1,804	121,126	95,509	93	176,015	400,259
Total United States	75,809	13,853	179,959	9,445	279,066	.....	5,712	1,804	121,126	95,509	93	176,015	400,259
<b>WEST COAST CANADA</b>	345,007	683	78,785	1,794	426,269	163,708	.....	39,215	.....	23,518	.....	149,401	375,842
<b>WEST COAST CENTRAL AMERICA:</b>													
Costa Rica	.....	.....	.....	42	42	.....	.....	.....	.....	1,968	.....	.....	1,968
El Salvador	.....	.....	.....	27	27	.....	.....	.....	71,377	.....	4,302	.....	75,679
Guatemala	.....	.....	.....	.....	.....	.....	10,334	.....	.....	.....	.....	.....	10,334
Honduras	.....	640	638	2	1,280	.....	.....	.....	.....	1,596	19,643	2	21,241
Mexico	53	432	463	1,282	2,230	3,872	85	.....	.....	.....	.....	333	4,290
Nicaragua	55	75	1,579	.....	1,709	10,344	.....	.....	.....	.....	.....	.....	10,344
Panama	.....	2,214	1,744	.....	3,958	4,250	.....	.....	.....	2,645	.....	51,126	58,021
Central America (other) <sup>1</sup>	.....	.....	9,986	.....	9,986	9,992	228	.....	.....	12,015	.....	117	22,352
Balboa, R. P. <sup>2</sup>	.....	.....	.....	5,010	5,010	.....	.....	.....	.....	.....	.....	.....	.....
Total Central America	108	3,361	14,410	6,363	24,242	28,458	313	10,334	71,377	18,224	23,945	51,578	204,229
<b>WEST COAST SOUTH AMERICA:</b>													
Chile	.....	8,671	125,228	743	134,759	.....	.....	.....	282	20,009	.....	99	45,587
Colombia	.....	817,252	18,903	.....	836,155	.....	25,197	.....	6	11	.....	.....	17
Ecuador	.....	43,677	52,651	.....	96,328	52,154	.....	.....	196,543	1,295,041	3,476	407,125	1,954,339
Peru	10,524	6,178	44,799	6,109	67,610	8,761	.....	.....	77,315	1,319,571	.....	57,206	1,462,853
South America (other) <sup>1</sup>	.....	12,931	3,687	16	16,634	33,489	.....	.....	.....	3,600	.....	.....	37,089
Total South America	10,641	888,709	245,268	6,868	1,151,486	94,404	25,197	.....	274,146	2,638,232	3,476	464,430	3,499,885
<b>OCEANIA:</b>													
Australia	.....	.....	15,537	.....	15,537	4,565	1,019	558	675	41,771	3,070	3,333	54,991
French Oceania	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,647	1,254	.....	7,901
New Zealand	.....	.....	25,248	1,275	26,523	6,721	6,767	647	94	443	1,987	4,302	20,961
Oceania (other) <sup>1</sup>	.....	.....	1,514	.....	1,514	.....	376	1,390	383	102,435	8,925	4,056	117,565
Total Oceania	.....	.....	42,299	1,275	43,574	11,286	8,162	2,595	1,152	151,296	15,236	11,691	201,418







Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To Europe													Total
	Belgium	Denmark	Finland	France	Italy	Netherlands	Spain/Portugal	Sweden	United Kingdom	U.S.S.R.	Yugoslavia	West Germany	Europe (other) <sup>1</sup>	
<b>WEST COAST NORTH AMERICA:</b>														
United States:														
Alaska .....					4,823							5,120	2,816	12,759
Hawaii .....							38		16,500					16,538
Mainland .....	528,829	15,034		278,082	340,431	1,266,206	318,168	84,428	191,793	32,567	5,223	173,505	727,638	3,961,904
Total United States .....	528,829	15,034		278,082	345,254	1,266,206	318,206	84,428	208,293	32,567	5,223	178,625	730,454	3,991,201
<b>WEST COAST CANADA .....</b>	818,426	212,717	225,286	436,118	309,886	1,298,893	122,946	159,432	758,480	261,701	15,853	555,253	1,651,528	6,826,519
<b>WEST COAST CENTRAL AMERICA:</b>														
Costa Rica .....				950	26,778	4,170	477		4,931			14,667	12,142	64,115
El Salvador .....	36			751	2,125	2,805	4,277		824	2	2,286	57,383	13,820	84,309
Guatemala .....				658	9,047							1,931	6,255	17,891
Honduras .....					1,902		6,165					250		8,317
Mexico .....	88			1,169	6,900	1,036	51,085	540	2,983	40		176,325	28,668	268,834
Nicaragua .....	3,875	2,000		11,069	2,938	9,744	1,313		1,680	721		24,928	11,742	70,010
Panama .....					57,300	1,000	4,764							63,065
Central America (other) <sup>1</sup> .....				1,408	8,125	2,100	4,199					16,097	5,005	36,934
Total Central America .....	3,999	2,000		16,005	115,115	20,855	72,280	540	10,418	763	2,286	291,581	77,633	613,475
<b>WEST COAST SOUTH AMERICA:</b>														
Chile .....	145,776	1,157	32,733	66,529	178,125	279,825	40,133	26,910	99,300		21,207	348,378	311,400	1,551,473
Colombia .....	15,233			581	13,587	19,422	339	113	2,906	11,785		111,766	19,889	195,621
Ecuador .....	37,268	4	82	2,556	42,456	15,512	5,132	357	5,081	25,980	9,062	59,464	117,101	320,055
Peru .....	247,801	1,541	1,451	57,969	74,141	48,689	62,693	8,757	86,844	42,409	30,363	119,842	180,851	963,351
South America (other) <sup>1</sup> .....	14,973	35	2	42,164	15,485	30,055	10,711	2,034	13,416	269,391	14,436	16,106	126,018	554,826
Total South America .....	461,051	2,737	34,268	169,799	323,794	393,503	119,008	38,171	207,547	349,565	75,068	655,556	755,259	3,585,326
<b>OCEANIA:</b>														
Australia .....	25,323				178	14,059	1,230		38,133			12,021	44,449	135,393
British Oceania .....		3,169				6,122			199,354				19,839	228,484
French Oceania .....	18,587			45,702	4,225		78						15,126	83,718
New Zealand .....	52,653			10,071	3,837	116,003	47,036	12,264	80,696			11,179	87,197	420,936
Oceania (other) <sup>1</sup> .....	5,652			11,996	1,662	19,437	850		58,166			575	37,648	135,986
Total Oceania .....	102,215	3,169		67,769	9,902	155,621	49,194	12,264	376,349			23,775	204,259	1,004,517
<b>ASIA:</b>														
Taiwan .....				65	17		28						290	400
Hong Kong .....				835			773						362	1,970
Indonesia .....									26					26
Japan .....	6,038		648	6,475	71	42,337	267		7,215			919	1,426	65,396
Philippine Islands .....						22,633								22,633
South Korea .....							12						62	74
U.S.S.R. .....										842		130		972
Asia (other) <sup>1</sup> .....				136			1,250		2,980			1,763	2,520	8,649
Total Asia .....	6,038		648	7,511	88	64,970	2,330		10,221	842		2,812	4,660	100,120
<b>Grand total .....</b>	<b>1,920,558</b>	<b>235,657</b>	<b>260,202</b>	<b>975,284</b>	<b>1,104,039</b>	<b>3,200,048</b>	<b>683,964</b>	<b>294,835</b>	<b>1,571,308</b>	<b>645,438</b>	<b>98,430</b>	<b>1,707,602</b>	<b>3,423,793</b>	<b>16,121,158</b>
Percent of Atlantic-Bound Cargo .....	3.1	0.4	0.4	1.6	1.8	5.1	1.1	0.5	2.5	1.0	0.2	2.7	5.5	25.9

See footnotes at end of table.





**Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued**

	[Long tons]										Percent of total Atlantic-bound cargo		
	To Asia (Middle East)		To Africa						Total	Grand Total			
	Asia (Middle East)	Algeria	Egypt	Morocco	South Africa	Tunisia	Africa (other) <sup>1</sup>						
<b>WEST COAST NORTH AMERICA:</b>													
United States:													
Alaska.....	.....	.....	12,397	.....	.....	.....	.....	.....	.....	12,397	1,210,836	1.9	
Hawaii.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157,937	0.3	
Mainland.....	33,419	5,900	656,365	.....	27,985	61,428	58,370	.....	.....	810,048	8,746,146	14.1	
Total United States.....	33,419	5,900	668,762	.....	27,985	61,428	58,370	.....	.....	822,445	10,114,919	16.3	
<b>WEST COAST CANADA.....</b>	.....	294,887	695,315	373,196	136,100	258,961	140,663	.....	.....	1,899,122	11,205,945	18.0	
<b>WEST COAST CENTRAL AMERICA:</b>													
Costa Rica.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	211,287	0.3	
El Salvador.....	4,499	.....	3,030	.....	.....	.....	2,569	.....	.....	5,599	327,846	0.5	
Guatemala.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	205,122	0.3	
Honduras.....	.....	.....	.....	.....	.....	.....	9,452	.....	.....	9,452	69,023	0.1	
Mexico.....	10,734	54,130	1,549	.....	.....	.....	.....	.....	.....	55,679	705,356	1.1	
Nicaragua.....	.....	44,591	.....	.....	.....	.....	13,938	.....	.....	58,529	177,634	0.3	
Panama.....	.....	48,348	.....	.....	.....	.....	.....	.....	.....	.....	417,518	0.7	
Central America (other) <sup>1</sup> .....	.....	.....	.....	.....	752	1,010	.....	.....	.....	1,010	98,900	0.2	
Balboa, R.P. <sup>2</sup> .....	1,807	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,065	0.0	
Total Central America.....	65,388	98,721	4,579	.....	.....	1,010	25,959	.....	.....	130,269	2,218,751	3.6	
<b>WEST COAST SOUTH AMERICA:</b>													
Chile.....	.....	.....	10,219	1,049	.....	17,468	.....	.....	.....	28,736	3,054,729	4.9	
Colombia.....	1,422	.....	.....	12,000	.....	.....	.....	.....	.....	12,000	1,352,561	2.2	
Ecuador.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,772,551	12.5	
Peru.....	24,243	.....	.....	.....	.....	.....	.....	.....	.....	.....	15,651	4,807,373	7.7
South America (other) <sup>1</sup> .....	21,193	.....	.....	.....	.....	.....	15,651	.....	.....	7,782	706,353	1.1	
Total South America.....	46,858	.....	10,219	13,049	.....	17,468	23,433	.....	.....	64,169	17,693,567	28.4	
<b>OCEANIA:</b>													
Australia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,766,665	4.4	
British Oceania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	259,344	0.4	
French Oceania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	112,519	0.2	
New Zealand.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	746,869	1.2	
Oceania (other) <sup>1</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	575,748	0.9	
Total Oceania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,461,145	7.2	



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO WEST COAST</b>			
UNITED STATES:			
Canned and refrigerated foods, miscellaneous.....	1	1	1
Chemicals and petroleum chemicals .....	383	309	371
Caustic soda .....	188	127	154
Chemicals, unclassified .....	86	54	92
Petroleum chemicals, miscellaneous .....	109	128	125
Machinery and equipment, miscellaneous .....	3	8	.....
Manufactures of iron and steel .....	14	.....	7
Plates, sheets, and coils .....	.....	.....	7
Other and unclassified .....	14	.....	.....
Nitrates, phosphates, and potash .....	64	76	135
Ammonium compounds .....	15	49	.....
Phosphates.....	49	27	135
Ores and metals .....	137	30	90
Ore, alumina/bauxite.....	137	30	90
Petroleum and products .....	479	800	1,450
Crude oil .....	.....	.....	65
Fuel oil, residual.....	61	381	159
Gasoline .....	75	87	494
Jet fuel .....	32	45	160
Kerosene .....	.....	.....	11
Lubricating oil .....	251	186	346
Other and unclassified .....	60	101	215
Miscellaneous .....	514	413	334
All other and unclassified .....	514	413	334
Total.....	1,595	1,637	2,388
<b>EAST COAST UNITED STATES TO WEST COAST CANADA:</b>			
Nitrates, phosphates, and potash .....	937	569	601
Phosphates.....	937	569	601
Miscellaneous .....	9	27	.....
All other and unclassified .....	9	27	.....
Total.....	946	596	601
<b>EAST COAST UNITED STATES TO WEST COAST CENTRAL</b>			
AMERICA:			
Chemicals and petroleum chemicals, miscellaneous ....	10	20	13
Coal .....	.....	88	505
Grains.....	697	1,924	793
Corn .....	227	860	140
Sorghum .....	104	379	242
Soybeans .....	148	461	151
Wheat .....	210	219	241
Other and unclassified .....	8	5	19
Lumber and products, miscellaneous .....	6	2	5
Machinery and equipment, miscellaneous .....	2	3	3
Manufactures of iron and steel, miscellaneous .....	.....	5	3
Minerals, miscellaneous.....	13	1	4
Borax .....	.....	1	.....
Soda and sodium compounds .....	8	.....	4
Sulfur .....	5	.....	.....
Nitrates, phosphates, and potash.....	291	334	459
Ammonium compounds .....	76	117	25
Fertilizers, unclassified.....	85	121	214

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO WEST COAST CENTRAL AMERICA—Continued</b>			
Nitrates, phosphates, and potash—Continued			
Phosphates.....	119	71	204
Potash.....	11	25	16
Ores and metals.....	.....	.....	2
Ores, miscellaneous.....	.....	.....	2
Other agricultural commodities.....	89	77	164
Oilseeds.....	26	55	136
Sugar.....	63	22	28
Petroleum and products.....	95	54	33
Diesel oil.....	.....	2	22
Gasoline.....	1	2	1
Fuel oil, residual.....	78	45	.....
Lubricating oil.....	10	5	10
Petroleum products, miscellaneous.....	6	.....	1
Miscellaneous.....	78	85	82
Flour, wheat.....	.....	2	3
Paper and paper products.....	23	30	18
Tallow.....	14	10	4
All other and unclassified.....	41	43	57
Total.....	<u>1,281</u>	<u>2,593</u>	<u>2,067</u>
<b>EAST COAST UNITED STATES TO WEST COAST SOUTH AMERICA:</b>			
Canned and refrigerated foods, miscellaneous.....	36	29	16
Chemicals and petroleum chemicals.....	183	186	171
Caustic soda.....	42	45	33
Chemicals, unclassified.....	128	134	125
Petroleum chemicals, miscellaneous.....	13	7	13
Coal and coke.....	161	227	100
Grains.....	2,806	3,100	3,231
Corn.....	347	619	824
Oats.....	3	7	15
Rice.....	85	20	7
Sorghum.....	22	122	75
Soybeans.....	137	162	146
Wheat.....	2,210	2,165	2,156
Other and unclassified.....	2	5	8
Lumber and products.....	7	15	15
Pulpwood.....	5	13	10
Other and unclassified.....	2	2	5
Machinery and equipment.....	66	67	139
Agricultural machinery and implements.....	18	19	29
Automobiles, trucks, accessories, and parts.....	19	22	55
Construction machinery and equipment.....	18	13	29
Electrical machinery and apparatus.....	8	6	13
Other and unclassified.....	3	7	13
Manufactures of iron and steel.....	30	30	104
Angles, shapes, and sections.....	3	9	6
Plates, sheets, and coils.....	6	4	8
Tubes, pipes, and fittings.....	12	7	16
Wire, bars, and rods.....	3	8	61
Other and unclassified.....	6	2	13
Minerals, miscellaneous.....	14	23	34
Soda and sodium compounds.....	14	18	27
Sulfur.....	.....	2	1
Other and unclassified.....	.....	3	6



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO WEST COAST</b>			
<b>SOUTH AMERICA—Continued</b>			
Nitrates, phosphates, and potash .....	417	282	236
Ammonium compounds .....	22	8	17
Fertilizers, unclassified .....	230	150	109
Phosphates .....	147	111	96
Potash .....	18	13	14
Ores and metals .....	132	46	51
Ores, miscellaneous .....	5	7	14
Metals .....	127	39	37
Scrap .....	111	30	26
Tin, including tinplate .....	2	3	4
Other and unclassified .....	14	6	7
Other agricultural commodities .....	44	10	12
Oilseeds .....	1	5	10
Sugar .....	43	2	.....
Other and unclassified .....	.....	3	2
Petroleum and products .....	466	439	170
Diesel oil .....	183	130	53
Gasoline .....	142	134	14
Jet fuel .....	5	12	.....
Liquified natural gas .....	54	54	20
Lubricating oil .....	37	37	41
Residual fuel oil .....	38	29	40
Other and unclassified .....	7	43	2
Miscellaneous .....	665	670	721
Bricks and tile .....	3	3	6
Carbon black .....	.....	1	1
Clay, fire, and china .....	17	10	12
Flour, wheat .....	44	59	56
Groceries, miscellaneous .....	.....	7	15
Oil, coconut .....	3	4	2
Oil, vegetable .....	66	127	104
Paper and paper products .....	109	99	135
Resin .....	23	33	37
Rubber, manufactured .....	6	7	7
Tallow .....	43	49	34
Textiles .....	9	8	10
All other and unclassified .....	342	263	302
Total .....	<u>5,027</u>	<u>5,124</u>	<u>5,000</u>
<b>EAST COAST UNITED STATES TO BALBOA, R.P.:</b>			
Canned and refrigerated foods, miscellaneous .....	8	8	8
Grains .....	88	93	92
Corn .....	26	35	37
Wheat .....	60	48	55
Other and unclassified .....	2	10	.....
Machinery and equipment, miscellaneous .....	4	4	1
Ores and metals, miscellaneous .....	3	4	6
Petroleum and products .....	186	248	68
Diesel .....	25	.....	35
Fuel oil, residual .....	140	237	28
Other and unclassified .....	21	11	5
Miscellaneous .....	140	144	128
Oil, vegetable .....	14	14	18
All other and unclassified .....	126	130	110
Total .....	<u>429</u>	<u>501</u>	<u>303</u>

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO HAWAII:</b>			
Miscellaneous .....	29	53	52
All other and unclassified .....	29	53	52
Total .....	<u>29</u>	<u>53</u>	<u>52</u>
<b>EAST COAST UNITED STATES TO OCEANIA:</b>			
Chemicals and petroleum chemicals .....	705	570	427
Caustic soda .....	560	390	274
Chemicals, unclassified .....	145	172	117
Petroleum chemicals, miscellaneous .....	.....	8	36
Coal and coke .....	.....	30	21
Grains .....	32	116	27
Rice .....	.....	1	1
Soybeans .....	29	105	14
Other and unclassified .....	3	10	12
Lumber and products .....	9	.....	5
Pulpwood .....	9	.....	5
Machinery and equipment .....	13	12	22
Agricultural machinery and implements .....	8	2	10
Automobiles, trucks, accessories and parts .....	1	1	2
Construction machinery and equipment .....	2	6	7
Electrical machinery and apparatus .....	.....	1	1
Other and unclassified .....	2	2	2
Manufactures of iron and steel, miscellaneous .....	.....	3	3
Minerals, miscellaneous .....	.....	1	.....
Nitrates, phosphates, and potash .....	500	710	488
Ammonium compounds .....	13	8	21
Fertilizers, unclassified .....	122	184	104
Phosphates .....	348	513	358
Potash .....	17	5	5
Petroleum and products .....	265	293	159
Liquefied gas .....	66	21	25
Lubricating oil .....	16	8	30
Residual fuel oil .....	2	144	.....
Petroleum coke .....	177	101	68
Other and unclassified .....	4	19	36
Miscellaneous .....	612	574	800
Clay, fire and china .....	.....	11	24
Glass and glassware .....	.....	2	4
Oil, vegetable .....	4	3	39
Paper and paper products .....	27	35	25
Resin .....	12	19	9
Rubber, manufactured .....	1	1	4
Textiles .....	.....	.....	1
All other and unclassified .....	568	503	694
Total .....	<u>2,136</u>	<u>2,309</u>	<u>1,952</u>
<b>EAST COAST UNITED STATES TO ASIA:</b>			
Canned and refrigerated foods .....	177	189	215
Canned foods, miscellaneous .....	6	7	7
Refrigerated foods .....	171	182	208
Fruit .....	104	89	107
Meat .....	1	2	.....
Other and unclassified .....	66	91	101
Chemicals and petroleum chemicals .....	2,148	2,257	2,212
Caustic soda .....	49	56	2
Chemicals, unclassified .....	1,423	1,494	1,498

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO ASIA—Continued</b>			
<b>Chemicals and petroleum chemicals—Continued</b>			
Petroleum chemicals, miscellaneous .....	676	707	712
Coal and coke .....	7,838	8,729	20,484
Grains .....	<u>20,962</u>	<u>29,326</u>	<u>28,896</u>
Barley .....		104	
Corn .....	8,878	20,103	12,515
Rice .....		25	50
Sorghum .....	1,195	834	1,650
Soybeans .....	6,148	6,264	6,074
Wheat .....	4,679	1,955	8,477
Other and unclassified .....	62	41	130
Lumber and products .....	<u>229</u>	<u>281</u>	<u>196</u>
Pulpwood .....	225	258	174
Other and unclassified .....	4	23	22
Machinery and equipment .....	<u>49</u>	<u>67</u>	<u>67</u>
Agricultural machinery and implements .....	4	6	11
Automobiles, trucks, accessories and parts .....	10	7	8
Construction machinery and equipment .....	10	23	23
Electrical machinery and apparatus .....	9	11	10
Other and unclassified .....	16	20	15
Manufactures of iron and steel .....	<u>103</u>	<u>96</u>	<u>162</u>
Angles, shapes, and sections .....	34	33	30
Plates, sheets, and coils .....	15	8	19
Tubes, pipes, and fittings .....	3	21	21
Wires, bars, and rods .....		4	16
Other and unclassified .....	51	30	76
Minerals, miscellaneous .....		1	1
Nitrates, phosphates, and potash .....	<u>5,207</u>	<u>4,961</u>	<u>3,981</u>
Ammonium compounds .....	93	47	40
Fertilizers, unclassified .....	329	401	232
Phosphates .....	4,775	4,477	3,659
Potash .....	10	36	50
Ores and metals .....	<u>1,988</u>	<u>1,810</u>	<u>1,015</u>
Ores, miscellaneous .....	7	25	12
Metals .....	<u>1,981</u>	<u>1,785</u>	<u>1,003</u>
Aluminum .....	26	26	2
Iron .....		69	
Scrap .....	1,946	1,654	964
Tin, including tinplate .....	1	3	11
Other and unclassified .....	8	33	26
Other agricultural commodities .....	<u>24</u>	<u>59</u>	<u>201</u>
Beans, edible .....	22	34	30
Cotton, raw .....		23	152
Other and unclassified .....	2	2	19
Petroleum and products .....	<u>598</u>	<u>1,234</u>	<u>709</u>
Gasoline .....	4	18	31
Liquefied gas .....	178	360	100
Lubricating oil .....	103	58	66
Petroleum coke .....	260	590	61
Diesel .....	34	24	136
Residual fuel oil .....		145	217
Jet fuel .....		29	31
Other and unclassified .....	19	10	67
Miscellaneous .....	<u>4,689</u>	<u>4,039</u>	<u>4,115</u>
Bricks and tile .....		1	3
Carbon black .....			2

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST UNITED STATES TO ASIA—Continued</b>			
Miscellaneous—Continued			
Clay, fire and china .....	320	323	380
Fibers, plant .....	21	15	39
Flour, wheat .....	50	103	150
Groceries, miscellaneous .....	12	7	14
Marble and stone .....	16	11	12
Oil, vegetable .....	67	47	115
Paper and paper products .....	164	243	208
Resin .....	80	106	240
Rubber, manufactured .....	27	5	1
Tallow .....	2	6	17
Textiles .....	27	17	113
Tobacco and manufactures .....	7	45	53
All other and unclassified .....	3,896	3,110	2,768
Total .....	<u>44,012</u>	<u>53,049</u>	<u>62,254</u>
<b>EAST COAST CANADA TO WEST COAST UNITED STATES:</b>			
Petroleum and products .....	.....	.....	26
Gasoline .....	.....	.....	26
Miscellaneous .....	46	11	12
Pulpwood .....	1	2	5
All other and unclassified .....	45	9	7
Total .....	<u>46</u>	<u>11</u>	<u>38</u>
<b>EAST COAST CANADA TO WEST COAST CENTRAL AMERICA:</b>			
Manufactures of iron and steel, miscellaneous .....	.....	1	8
Miscellaneous .....	36	57	19
Paper and paper products .....	12	10	10
All other and unclassified .....	24	47	9
Total .....	<u>36</u>	<u>58</u>	<u>27</u>
<b>EAST COAST CANADA TO WEST COAST SOUTH AMERICA:</b>			
Grains .....	5	8	7
Barley .....	5	5	.....
Other and unclassified .....	.....	3	7
Machinery and equipment, miscellaneous .....	5	5	4
Manufactures of iron and steel, miscellaneous .....	4	17	20
Minerals, miscellaneous .....	12	13	13
Asbestos .....	12	13	13
Ores and metals .....	2	1	3
Metals .....	2	1	3
Tin, including tinplate .....	.....	.....	1
Other and unclassified .....	2	1	2
Miscellaneous .....	107	89	94
Paper and paper products .....	48	45	54
All other and unclassified .....	59	44	40
Total .....	<u>135</u>	<u>133</u>	<u>141</u>
<b>EAST COAST CANADA TO OCEANIA:</b>			
Miscellaneous .....	129	100	184
Paper and paper products .....	10	.....	17
All other and unclassified .....	119	100	167
Total .....	<u>129</u>	<u>100</u>	<u>184</u>

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST CANADA TO ASIA:</b>			
Canned and refrigerated foods .....	43	49	60
Refrigerated foods .....	43	49	60
Fish .....	25	31	39
Other and unclassified .....	18	18	21
Chemicals and petroleum chemicals, miscellaneous .....	.....	4	2
Grains .....	176	88	145
Barley .....	.....	.....	8
Corn .....	.....	.....	20
Soybeans .....	176	45	60
Wheat .....	.....	43	43
Other and unclassified .....	.....	.....	14
Lumber and products .....	228	146	120
Pulpwood .....	226	144	120
Other and unclassified .....	2	2	.....
Machinery and equipment, miscellaneous .....	1	.....	2
Manufactures of iron and steel, miscellaneous .....	42	58	37
Ores and metals .....	335	550	203
Ores, miscellaneous .....	117	108	74
Metals .....	218	442	129
Aluminum .....	40	142	119
Iron .....	9	87	10
Scrap .....	118	160	.....
Other and unclassified .....	51	53	.....
Miscellaneous .....	650	674	650
Paper and paper products .....	70	105	89
Resin .....	16	26	36
Slag .....	.....	15	19
All other and unclassified .....	564	528	506
Total .....	1,475	1,569	1,219
<b>EAST COAST CENTRAL AMERICA TO WEST COAST UNITED STATES:</b>			
Nitrates, phosphates, and potash .....	14	28	29
Ammonium compounds .....	14	15	29
Fertilizers, unclassified .....	.....	13	.....
Petroleum and products .....	.....	.....	106
Residual fuel oil .....	.....	.....	106
Miscellaneous .....	14	19	.....
All other and unclassified .....	14	19	.....
Total .....	28	47	135
<b>EAST COAST CENTRAL AMERICA TO WEST COAST CENTRAL AMERICA:</b>			
Nitrates, phosphates, and potash .....	132	102	101
Ammonium compounds .....	25	.....	38
Phosphates .....	.....	.....	21
Fertilizers .....	107	102	42
Petroleum and products .....	4,092	3,247	2,199
Crude oil .....	931	1,378	875
Diesel oil .....	79	139	159
Liquefied gas .....	312	198	5
Fuel oil, residual .....	2,337	1,396	908
Gasoline .....	.....	.....	4
Other and unclassified .....	433	136	248

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST CENTRAL AMERICA TO WEST COAST CENTRAL AMERICA—Continued</b>			
Miscellaneous .....	16	3	6
All other and unclassified .....	16	3	6
Total .....	<u>4,240</u>	<u>3,352</u>	<u>2,306</u>
<b>EAST COAST CENTRAL AMERICA TO WEST COAST SOUTH AMERICA:</b>			
Nitrates, phosphates, and potash .....	26	20	.....
Fertilizers, miscellaneous .....	26	20	.....
Other agricultural commodities .....	5	.....	10
Sugar .....	5	.....	10
Petroleum and products .....	70	5	17
Other and unclassified .....	70	5	17
Miscellaneous .....	106	39	42
All other and unclassified .....	106	39	42
Total .....	<u>207</u>	<u>64</u>	<u>69</u>
<b>EAST COAST CENTRAL AMERICA TO BALBOA, R.P.:</b>			
Petroleum and products .....	65	56	99
Diesel oil .....	4	33	62
Fuel, oil, residual .....	61	23	30
Other and unclassified .....	.....	.....	7
Total .....	<u>65</u>	<u>56</u>	<u>99</u>
<b>EAST COAST CENTRAL AMERICA TO OCEANIA:</b>			
Petroleum products .....	46	.....	.....
Miscellaneous .....	11	4	6
All other and unclassified .....	11	4	6
Total .....	<u>57</u>	<u>4</u>	<u>6</u>
<b>EAST COAST CENTRAL AMERICA TO ASIA:</b>			
Chemicals and petroleum chemicals .....	13	10	24
Nitrates, phosphates, and potash .....	.....	10	7
Phosphates .....	.....	.....	2
Fertilizers, miscellaneous .....	.....	10	5
Ores and metals, miscellaneous .....	43	61	73
Other agricultural commodities .....	2	11	10
Coffee .....	2	11	10
Petroleum and products .....	.....	56	.....
Crude petroleum .....	.....	56	.....
Miscellaneous .....	73	76	38
All other and unclassified .....	73	76	38
Total .....	<u>131</u>	<u>224</u>	<u>152</u>
<b>EAST COAST SOUTH AMERICA TO WEST COAST UNITED STATES:</b>			
Canned and refrigerated foods, miscellaneous .....	16	2	.....
Chemicals and petroleum chemicals .....	74	90	3
Lumber and products, miscellaneous .....	31	24	2
Manufactures of iron and steel, miscellaneous .....	171	181	54
Ores and metals .....	30	44	19
Ores .....	27	44	19
Alumina/bauxite .....	27	24	19
Other and unclassified .....	.....	20	.....
Metals, miscellaneous .....	3	.....	.....
Other agricultural commodities .....	6	11	5
Cocoa and cacao beans .....	.....	1	1



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST SOUTH AMERICA TO WEST COAST UNITED STATES—Continued</b>			
<b>Other agricultural commodities—Continued</b>			
Coffee .....	6	5	4
Sugar, raw .....	.....	5	.....
Petroleum and products .....	450	480	295
Asphalt .....	107	56	64
Crude oil .....	136	258	48
Diesel oil .....	.....	29	.....
Fuel oil, residual .....	62	50	.....
Gasoline .....	89	87	48
Jet fuel .....	32	.....	90
Kerosene .....	.....	.....	45
Liquefied gas .....	24	.....	.....
Miscellaneous .....	97	38	30
Paper and products .....	10	23	7
All other and unclassified .....	87	15	23
Total .....	875	870	408
<b>EAST COAST SOUTH AMERICA TO WEST COAST CANADA:</b>			
Manufactures of iron and steel .....	43	33	20
Miscellaneous .....	16	.....	17
All other and unclassified .....	16	.....	17
Total .....	59	33	37
<b>EAST COAST SOUTH AMERICA TO WEST COAST CENTRAL AMERICA:</b>			
Coal .....	103	79	79
Grains .....	205	.....	62
Sorghum .....	.....	.....	38
Soybeans .....	197	.....	19
Other and unclassified .....	8	.....	5
Nitrates, phosphates, and potash .....	23	55	4
Fertilizers, miscellaneous .....	23	55	4
Petroleum and products .....	594	669	818
Crude oil .....	594	667	754
Liquefied gas .....	.....	2	3
Other and unclassified .....	.....	.....	61
Other agricultural commodities .....	12	52	28
Sugar .....	12	52	28
Miscellaneous .....	48	7	23
All other and unclassified .....	48	7	23
Total .....	985	862	1,014
<b>EAST COAST SOUTH AMERICA TO WEST COAST SOUTH AMERICA:</b>			
Chemicals and petroleum chemicals, miscellaneous .....	18	12	25
Grains .....	7	2	.....
Oats .....	1	2	.....
Grains, miscellaneous .....	6	.....	.....
Minerals, miscellaneous .....	.....	.....	3
Salt .....	.....	.....	3
Nitrates, phosphates, and potash .....	57	62	22
Fertilizers, unclassified .....	57	62	22
Ores and metals .....	28	26	15
Ore, alumina/bauxite .....	18	14	9



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EAST COAST SOUTH AMERICA TO WEST COAST</b>			
<b>SOUTH AMERICA—Continued</b>			
Ores and metals—Continued			
Metals, miscellaneous .....	10	12	6
Other agricultural commodities .....	.....	18	10
Sugar .....	.....	13	.....
Other and unclassified .....	.....	5	10
Petroleum and products .....	1,568	1,654	1,643
Crude oil .....	1,085	1,116	1,165
Diesel oil .....	102	168	198
Fuel oil, residual .....	26	112	104
Gasoline .....	224	180	96
Jet fuel .....	25	18	.....
Liquefied gas .....	.....	4	59
Lubricating oil .....	23	44	21
Other and unclassified .....	83	12	.....
Miscellaneous .....	151	82	127
All other and unclassified .....	151	82	127
Total .....	1,829	1,856	1,845
<b>EAST COAST SOUTH AMERICA TO BALBOA, R.P.:</b>			
Petroleum and products .....	42	74	46
Diesel oil .....	20	19	.....
Gasoline .....	22	8	16
Fuel oil, residual .....	.....	47	30
Miscellaneous .....	5	4	1
All other and unclassified .....	5	4	1
Total .....	47	78	47
<b>EAST COAST SOUTH AMERICA TO HAWAII:</b>			
Petroleum and products .....	59	.....	27
Jet fuel .....	26	.....	27
Kerosene .....	33	.....	.....
Nitrates, phosphates, and potash .....	.....	.....	11
Fertilizers, unclassified .....	.....	.....	11
Total .....	59	.....	38
<b>EAST COAST SOUTH AMERICA TO OCEANIA:</b>			
Petroleum and products .....	30	25	.....
Miscellaneous .....	3	47	9
All other and unclassified .....	3	47	9
Total .....	33	72	9
<b>EAST COAST SOUTH AMERICA TO ASIA:</b>			
Canned and refrigerated foods, miscellaneous .....	22	19	15
Chemicals and petroleum chemicals, miscellaneous .....	47	38	153
Lumber and products, miscellaneous .....	32	29	11
Manufactures of iron and steel, miscellaneous .....	88	143	28
Nitrates, phosphates, and potash .....	.....	2	19
Fertilizers, miscellaneous .....	.....	2	19
Ores and metals .....	290	323	284
Ores .....	121	103	107
Alumina/bauxite .....	49	16	23
Copper .....	.....	.....	13
Manganese .....	37	74	64
Other and unclassified .....	35	13	7
Metals, miscellaneous .....	169	220	177
Other agricultural commodities .....	.....	4	7
Cotton, raw .....	.....	2	5

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EAST COAST SOUTH AMERICA TO ASIA—Continued</b>			
Other agricultural commodities—Continued			
Other and unclassified .....		2	2
Petroleum and products .....	1,031	1,093	1,660
Crude oil .....	892	846	1,360
Diesel oil .....		61	119
Gasoline .....		53	46
Jet fuel .....	92	30	87
Liquefied gas .....		8	.....
Residual fuel oil .....		48	38
Other and unclassified .....	47	47	10
Miscellaneous .....	27	32	31
Paper and products .....	16	.....	.....
All other and unclassified .....	11	32	31
Total .....	1,537	1,683	2,208
<b>WEST INDIES TO WEST COAST UNITED STATES:</b>			
Chemicals and petroleum chemicals, miscellaneous .....	99	.....	24
Minerals, miscellaneous .....	24	24	.....
Salt .....	24	24	.....
Ores and metals .....	253	284	159
Ore, alumina/bauxite .....	184	251	159
Metals, miscellaneous .....	69	33	.....
Petroleum and products .....	233	487	568
Asphalt .....	27	31	5
Liquefied gas .....	17	.....	.....
Fuel oil, residual .....	60	287	81
Gasoline .....	.....	58	355
Jet fuel .....	60	64	122
Lubricating oil .....	69	47	5
Miscellaneous .....	46	.....	1
All other and unclassified .....	46	.....	1
Total .....	655	795	752
<b>WEST INDIES TO WEST COAST CANADA:</b>			
Machinery and equipment .....	.....	.....	6
Electrical machinery and apparatus .....	.....	.....	6
Ores and metals .....	.....	4	6
Ore, alumina/bauxite .....	.....	4	6
Total .....	.....	4	12
<b>WEST INDIES TO WEST COAST CENTRAL AMERICA:</b>			
Chemicals and petroleum chemicals, miscellaneous .....	2	1	2
Other agricultural commodities .....	18	11	13
Sugar .....	18	11	13
Petroleum and products .....	187	265	675
Crude oil .....	.....	34	43
Diesel oil .....	81	97	267
Fuel oil, residual .....	.....	7	189
Gasoline .....	49	78	140
Lubricating oil .....	6	4	4
Other and unclassified .....	51	45	32
Miscellaneous .....	71	45	38
Cement .....	4	6	18
All other and unclassified .....	67	39	20
Total .....	278	322	728

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST INDIES TO WEST COAST SOUTH AMERICA:</b>			
Chemicals and petroleum chemicals, miscellaneous . . . . .		3	5
Other agricultural commodities . . . . .	53	47	.....
Minerals, miscellaneous . . . . .	6	9	.....
Sulfur . . . . .	6	9	.....
Ores and metals . . . . .	12	.....	1
Ores, miscellaneous . . . . .	7	.....	1
Metals, miscellaneous . . . . .	5	.....	.....
Petroleum and products . . . . .	733	975	1,453
Crude oil . . . . .	.....	45	52
Diesel oil . . . . .	357	363	471
Fuel oil, residual . . . . .	91	53	25
Gasoline . . . . .	147	379	729
Jet fuel . . . . .	5	28	36
Kerosene . . . . .	39	26	40
Liquefied gas . . . . .	.....	7	8
Lubricating oil . . . . .	79	56	77
Other and unclassified . . . . .	15	18	15
Miscellaneous . . . . .	16	27	20
All other and unclassified . . . . .	16	27	20
Total . . . . .	820	1,061	1,479
<b>WEST INDIES TO BALBOA, R.P.:</b>			
Petroleum and products . . . . .	97	297	182
Diesel oil . . . . .	28	110	59
Fuel oil, residual . . . . .	5	117	102
Gasoline . . . . .	22	65	15
Other and unclassified . . . . .	42	5	6
Miscellaneous . . . . .	.....	.....	13
All other and unclassified . . . . .	.....	.....	13
Total . . . . .	97	297	195
<b>WEST INDIES TO HAWAII:</b>			
Petroleum and products . . . . .	268	323	388
Diesel oil . . . . .	.....	16	.....
Jet fuel . . . . .	268	297	388
Residual fuel oil . . . . .	.....	10	.....
Total . . . . .	268	323	388
<b>WEST INDIES TO OCEANIA:</b>			
Minerals, miscellaneous . . . . .	38	44	97
Salt . . . . .	38	44	97
Other agricultural commodities . . . . .	41	.....	15
Sugar . . . . .	41	.....	15
Petroleum and products . . . . .	180	99	69
Diesel oil . . . . .	46	16	4
Gasoline . . . . .	78	48	6
Jet fuel . . . . .	34	28	54
Lubricating oil . . . . .	4	.....	5
Other and unclassified . . . . .	18	7	.....
Miscellaneous . . . . .	3	4	14
All other and unclassified . . . . .	3	4	14
Total . . . . .	262	147	195

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST INDIES TO ASIA:</b>			
Canned and refrigerated foods.....	25	14	21
Fish, refrigerated.....	19	7	21
Other and unclassified.....	6	7	.....
Chemicals and petroleum chemicals, miscellaneous....	38	49	17
Ores and metals.....	36	46	48
Ores.....	31	39	43
Alumina/bauxite.....	26	39	36
Other and unclassified.....	5	.....	7
Metals, miscellaneous.....	5	7	5
Other agricultural commodities.....	1,162	1,394	1,466
Sugar.....	1,161	1,393	1,464
Other and unclassified.....	1	1	2
Petroleum and products.....	70	439	374
Diesel oil.....	.....	.....	36
Liquefied gas.....	.....	86	.....
Gasoline.....	.....	78	7
Jet fuel.....	.....	71	246
Fuel oil, residual.....	.....	138	58
Lubricating oil.....	38	66	27
Petroleum products, miscellaneous.....	32	.....	.....
Miscellaneous.....	22	34	15
All other and unclassified.....	22	34	15
Total.....	1,353	1,976	1,941
<b>EUROPE TO WEST COAST UNITED STATES:</b>			
Canned and refrigerated foods, miscellaneous.....	46	39	36
Chemicals and petroleum chemicals.....	23	24	15
Caustic soda.....	5	2	7
Chemicals, unclassified.....	18	22	8
Lumber and products, miscellaneous.....	20	17	15
Machinery and equipment.....	193	150	152
Automobiles, trucks, accessories and parts.....	185	138	148
Construction machinery and equipment.....	5	4	1
Electrical machinery and apparatus.....	1	5	.....
Other and unclassified.....	2	3	3
Manufactures of iron and steel.....	780	610	732
Angles, shapes, and sections.....	53	34	88
Plates, sheets, and coils.....	469	379	308
Tubes, pipes, and fittings.....	33	14	28
Wires, bars, and rods.....	108	41	104
Other and unclassified.....	117	142	204
Nitrates, phosphates, and potash.....	346	244	317
Ammonium compounds.....	100	63	163
Fertilizers, unclassified.....	200	159	78
Nitrate of soda.....	42	22	76
Other and unclassified.....	4	.....	.....
Ores and metals.....	51	92	14
Ores, miscellaneous.....	12	20	1
Metals.....	39	72	13
Iron.....	29	63	1
Other and unclassified.....	10	9	12
Petroleum and products.....	53	23	94
Other and unclassified.....	53	23	94
Miscellaneous.....	1,428	953	833
Bricks and tile.....	10	8	12

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EUROPE TO WEST COAST UNITED STATES—Continued</b>			
<b>Miscellaneous—Continued</b>			
Cement .....	92	35	.....
Glass and glassware .....	1	2	1
Liquors and wines .....	6	8	2
Marble and stone .....	9	2	6
Paper and paper products .....	201	57	42
Rubber, manufactured .....	1	.....	1
All other and unclassified .....	1,108	841	769
<b>Total .....</b>	<b><u>2,940</u></b>	<b><u>2,152</u></b>	<b><u>2,208</u></b>
<b>EUROPE TO WEST COAST CANADA:</b>			
Canned and refrigerated foods, miscellaneous .....	7	5	5
Machinery and equipment .....	13	14	9
Automobiles, trucks, accessories and parts .....	6	5	8
Other and unclassified .....	7	9	1
Manufactures of iron and steel .....	137	68	209
Angles, shapes, and sections .....	22	7	38
Plates, sheets, and coils .....	43	27	84
Tubes, pipes, and fittings .....	16	2	19
Wire, bars, and rods .....	26	6	25
Other and unclassified .....	30	26	43
Nitrates, phosphates, and potash .....	7	11	.....
Fertilizers, unclassified .....	7	.....	.....
Petroleum and products .....	.....	.....	6
Asphalt .....	.....	.....	6
Miscellaneous .....	283	164	174
Bricks and tile .....	1	.....	2
Liquors and wines .....	1	3	3
All other and unclassified .....	281	161	169
<b>Total .....</b>	<b><u>447</u></b>	<b><u>262</u></b>	<b><u>403</u></b>
<b>EUROPE TO WEST COAST CENTRAL AMERICA:</b>			
Canned and refrigerated foods, miscellaneous .....	4	1	.....
Chemicals and petroleum chemicals, miscellaneous .....	13	38	6
Grains .....	53	33	48
Corn .....	4	1	10
Wheat .....	30	25	34
Other and unclassified .....	19	7	4
Machinery and equipment .....	41	24	35
Automobiles, trucks, accessories and parts .....	9	10	11
Other and unclassified .....	32	14	24
Manufactures of iron and steel .....	46	64	55
Angles, shapes, and sections .....	11	11	3
Plates, sheets, and coils .....	15	21	26
Tubes, pipes, and fittings .....	2	.....	3
Wire, bars, and rods .....	14	15	17
Other and unclassified .....	4	17	6
Nitrates, phosphates, and potash .....	271	267	225
Ammonium compounds .....	20	35	56
Fertilizers, unclassified .....	240	204	162
Potash .....	11	28	7
Ores and metals .....	10	9	1
Metals, miscellaneous .....	10	9	1
Petroleum and products .....	239	3	.....
Other agricultural commodities .....	25	101	24

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EUROPE TO WEST COAST CENTRAL AMERICA—Continued</b>			
Other agricultural commodities—Continued			
Sugar .....	25	101	24
Miscellaneous .....	139	125	100
Cement .....	1	.....	1
Glass and glassware .....	.....	1	2
Paper and paper products .....	14	4	1
All other and unclassified .....	124	120	96
Total .....	841	665	494
<b>EUROPE TO WEST COAST SOUTH AMERICA:</b>			
Canned and refrigerated foods .....	26	28	41
Canned foods .....	21	14	30
Milk .....	16	11	24
Other and unclassified .....	5	3	6
Refrigerated foods .....	5	14	11
Dairy products .....	3	3	7
Other and unclassified .....	2	11	4
Chemicals and petroleum chemicals .....	63	58	75
Caustic soda .....	4	4	6
Chemicals, unclassified .....	56	51	62
Petroleum chemicals, miscellaneous .....	3	3	7
Coal and coke .....	13	8	.....
Grains .....	47	83	28
Barley .....	5	1	14
Oats .....	3	16	2
Wheat .....	16	19	7
Rice .....	5	20	.....
Other and unclassified .....	18	27	5
Lumber and products .....	3	1	4
Pulpwood .....	1	.....	1
Other and unclassified .....	2	1	3
Machinery and equipment .....	93	109	183
Agricultural machinery and implements .....	17	20	29
Automobiles, trucks, accessories and parts .....	22	26	55
Construction machinery and equipment .....	27	35	54
Electrical machinery and apparatus .....	15	14	25
Other and unclassified .....	12	14	20
Manufactures of iron and steel .....	115	121	158
Angles, shapes, and sections .....	16	16	28
Plates, sheets, and coils .....	48	46	51
Tubes, pipes, and fittings .....	13	13	24
Wire, bars, and rods .....	19	14	24
Other and unclassified .....	19	32	31
Minerals, miscellaneous .....	22	37	38
Soda and sodium compounds .....	22	36	36
Other and unclassified .....	.....	1	2
Nitrates, phosphates, and potash .....	82	111	158
Ammonium compounds .....	16	24	36
Fertilizers, unclassified .....	48	47	87
Phosphates .....	7	20	18
Potash .....	10	19	17
Other and unclassified .....	1	1	.....
Ores and metals .....	21	16	36
Ores, miscellaneous .....	4	1	11
Metals .....	17	15	25



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>EUROPE TO WEST COAST SOUTH AMERICA—Continued</b>			
Ores and metals—Continued			
Iron .....	1	3	3
Tin, including tinplate .....	8	5	14
Other and unclassified .....	8	7	8
Other agricultural commodities .....	52	75	44
Sugar .....	52	69	34
Other and unclassified .....	.....	6	10
Petroleum and products .....	64	131	81
Diesel oil .....	42	53	26
Gasoline .....	4	23	5
Liquefied gas .....	.....	27	17
Residual fuel oil .....	10	20	6
Other and unclassified .....	8	8	27
Miscellaneous .....	478	414	462
Ammunition and explosives .....	1	2	1
Bricks and tile .....	5	6	17
Cement .....	3	2	6
Flour, wheat .....	41	29	15
Glass and glassware .....	6	6	20
Groceries, miscellaneous .....	3	9	3
Liquors and wines .....	2	7	12
Marble and stone .....	.....	.....	1
Oil, vegetable .....	1	.....	2
Paper and paper products .....	33	39	55
Resin .....	6	8	8
Rubber, manufactured .....	3	5	4
Textiles .....	7	5	8
Wax, paraffin .....	7	4	5
All other and unclassified .....	360	292	305
Total .....	1,079	1,192	1,308
<b>EUROPE TO OCEANIA:</b>			
Canned and refrigerated foods, miscellaneous .....	15	14	14
Chemicals and petroleum chemicals .....	164	111	117
Caustic soda .....	45	30	29
Chemicals, unclassified .....	108	67	79
Petroleum chemicals, miscellaneous .....	11	14	9
Lumber and products, miscellaneous .....	28	4	1
Machinery and equipment .....	24	31	36
Agricultural machinery and implements .....	1	1	3
Automobiles, trucks, accessories and parts .....	14	11	21
Construction machinery and equipment .....	3	12	8
Electrical machinery and apparatus .....	2	3	2
Other and unclassified .....	4	4	2
Manufactures of iron and steel .....	28	29	37
Angles, shapes, and sections .....	4	5	5
Plates, sheets, and coils .....	7	7	8
Tubes, pipes, and fittings .....	7	3	7
Wire, bars, and rods .....	6	6	10
Other and unclassified .....	4	8	7
Minerals, miscellaneous .....	10	7	6
Salt .....	9	6	5
Soda and sodium compounds .....	1	1	1
Nitrates, phosphates, and potash .....	69	51	17
Ammonium compounds .....	13	1	2
Fertilizers, unclassified .....	19	32	15



**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>EUROPE TO OCEANIA—Continued</b>			
Nitrates, phosphates, and potash—Continued			
Phosphates.....		17	
Potash .....	37	1	
Ores and metals, miscellaneous .....	2		1
Other agricultural commodities, miscellaneous .....	6	9	9
Petroleum and products .....	60	5	10
Lubricating oil .....	7	2	8
Other and unclassified .....	53	3	2
Miscellaneous .....	485	505	580
Bricks and tile .....	2	1	4
Cement .....	18	16	30
Flour, wheat .....	12	9	9
Glass and glassware .....	2	2	1
Groceries, miscellaneous .....	4	2	7
Liquors and wines .....	2	9	3
Oil, vegetable.....	26	16	11
Paper and paper products .....	9	6	7
Rubber, manufactured.....		1	
Textiles.....		1	1
All other and unclassified .....	410	442	507
Total .....	<u>891</u>	<u>766</u>	<u>828</u>
<b>EUROPE TO ASIA:</b>			
Canned and refrigerated foods .....	14	13	14
Refrigerated foods, miscellaneous .....	14	13	14
Chemicals and petroleum chemicals .....	251	283	182
Caustic soda .....	19	13	8
Chemicals, unclassified .....	219	234	151
Petroleum chemicals, miscellaneous .....	13	36	23
Coal and coke .....			59
Lumber and products, miscellaneous .....	2		19
Machinery and equipment .....	7	9	13
Automobiles, trucks, accessories and parts .....	7	9	13
Ores and metals, miscellaneous .....	48		13
Petroleum and products, miscellaneous .....	54	53	15
Miscellaneous .....	67	104	31
Paper and paper products .....		17	
All other and unclassified .....	67	87	31
Total .....	<u>443</u>	<u>462</u>	<u>346</u>
<b>AFRICA TO WEST COAST UNITED STATES:</b>			
Canned and refrigerated foods, miscellaneous .....			1
Manufactures of iron and steel, miscellaneous .....	88	76	115
Ores and metals .....	40	22	91
Metals.....	14	11	6
Other and unclassified .....	14	11	6
Ores .....	26	11	85
Manganese ore .....	21	3	50
Lead ore.....		8	33
Other and unclassified .....	5		2
Petroleum and products .....	143	177	181
Crude oil .....	59	147	47
Gasoline .....	28	30	27
Other and unclassified .....	56		107

**Table 10.—Important Commodity Shipments Over Principal Trade Routes  
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>AFRICA TO WEST COAST UNITED STATES—Continued</b>			
Miscellaneous .....	21	6	11
All other and unclassified .....	21	6	11
Total .....	<u>292</u>	<u>281</u>	<u>399</u>
<b>AFRICA TO WEST COAST CANADA:</b>			
Manufactures of iron and steel, miscellaneous .....		4	40
Miscellaneous .....	4	7	31
Phosphates .....			29
All other and unclassified .....	4	7	2
Total .....	<u>4</u>	<u>11</u>	<u>71</u>
<b>AFRICA TO WEST COAST CENTRAL AMERICA:</b>			
Canned and refrigerated foods .....	1		
Nitrates, phosphates, and potash .....		32	21
Fertilizer, miscellaneous .....		12	
Phosphates .....		20	21
Miscellaneous .....	3		
All other and unclassified .....	3		
Total .....	<u>4</u>	<u>32</u>	<u>21</u>
<b>AFRICA TO WEST COAST SOUTH AMERICA:</b>			
Manufactures of iron and steel, miscellaneous .....		6	27
Miscellaneous .....	3	5	13
All other and unclassified .....	3	5	13
Total .....	<u>3</u>	<u>11</u>	<u>40</u>
<b>AFRICA TO ASIA:</b>			
Canned and refrigerated foods .....	68	61	59
Fish, refrigerated .....	68	59	52
Other and unclassified .....		2	7
Nitrates, phosphates, and potash .....			6
Phosphates .....			6
Miscellaneous .....			9
All other and unclassified .....			9
Total .....	<u>68</u>	<u>61</u>	<u>74</u>
<b>ASIA (MIDDLE EAST) TO WEST COAST UNITED STATES:</b>			
Miscellaneous .....	61	61	13
Chemicals, miscellaneous .....		39	
Liquefied gas .....	28		
All other and unclassified .....	33	22	13
Total .....	<u>61</u>	<u>61</u>	<u>13</u>
<b>ASIA (MIDDLE EAST) TO WEST COAST SOUTH AMERICA:</b>			
Miscellaneous .....		2	4
All other and unclassified .....		2	4
Total .....		<u>2</u>	<u>4</u>

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST COAST UNITED STATES TO EAST COAST</b>			
<b>UNITED STATES:</b>			
Canned and refrigerated foods, miscellaneous.....	1	8	1
Chemicals and petroleum chemicals .....	93	94	85
Chemicals, unclassified .....	90	78	78
Petroleum chemicals, miscellaneous .....	3	16	7
Lumber and products .....	59	34	5
Minerals, miscellaneous.....	105	87	139
Soda and sodium compounds .....	68	87	139
Salt .....	37	.....	.....
Petroleum and products .....	2,553	6,663	32,369
Crude oil .....	1,816	5,923	31,249
Diesel oil .....	327	190	269
Fuel oil, residual.....	151	63	284
Gasoline .....	117	115	88
Lubricating oil .....	96	102	131
Other and unclassified .....	46	270	348
Miscellaneous .....	428	279	266
All other and unclassified .....	428	279	266
Total .....	3,239	7,165	32,865
<b>WEST COAST UNITED STATES TO EAST COAST CANADA:</b>			
Petroleum and products .....	327	26	.....
Diesel oil .....	193	.....	.....
Other and unclassified .....	134	26	.....
Miscellaneous .....	28	8	10
All other and unclassified .....	28	8	10
Total .....	355	34	10
<b>WEST COAST UNITED STATES TO EAST COAST SOUTH AMERICA:</b>			
Canned and refrigerated foods .....	8	15	26
Canned foods, miscellaneous .....	5	5	14
Refrigerated foods .....	3	10	12
Fruit, excluding bananas.....	3	9	12
Other and unclassified .....	.....	1	.....
Chemicals and petroleum chemicals, miscellaneous ...	8	3	3
Coke, coal type.....	27	.....	10
Grains .....	60	21	42
Wheat .....	58	18	23
Barley .....	.....	.....	17
Other and unclassified .....	2	3	2
Lumber and products .....	31	35	41
Pulpwood.....	31	30	34
Other and unclassified .....	.....	5	7
Machinery and equipment, miscellaneous .....	3	5	5
Manufactures of iron and steel, miscellaneous .....	1	2	1
Minerals, miscellaneous .....	45	83	112
Borax .....	3	5	7
Salt .....	6	20	15
Soda and sodium compounds .....	28	58	85
Infusorial earth .....	8	.....	5
Nitrates, phosphates, and potash .....	1	7	.....
Fertilizers, unclassified.....	.....	1	.....
Potash .....	.....	6	.....
Ammonium compounds .....	1	.....	.....
Ores and metals .....	1	1	2
Metals, miscellaneous .....	1	1	2

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST UNITED STATES TO EAST COAST SOUTH AMERICA:</b>			
Other agricultural commodities .....	15	9	23
Beans, edible .....	11	2	9
Peas, dry .....	4	7	14
Petroleum and products .....	.....	1	21
Petroleum coke .....	.....	.....	21
Other and unclassified .....	.....	1	.....
Miscellaneous .....	80	46	52
Clay, fire and china .....	8	5	4
Flour, wheat .....	1	.....	.....
Oil, vegetable .....	6	.....	5
Paper and paper products .....	17	4	4
All other and unclassified .....	48	37	39
Total .....	279	228	338
<b>WEST COAST UNITED STATES TO WEST INDIES:</b>			
Canned and refrigerated foods, miscellaneous .....	1	5	9
Grains .....	95	77	84
Rice .....	95	77	84
Petroleum and products .....	1,091	1,316	3,575
Crude oil .....	.....	287	3,255
Diesel oil .....	89	100	.....
Gasoline .....	.....	28	.....
Residual fuel oil .....	918	800	320
Other and unclassified .....	84	101	.....
Miscellaneous .....	7	4	8
All other and unclassified .....	7	4	8
Total .....	1,194	1,402	3,676
<b>WEST COAST UNITED STATES TO EUROPE:</b>			
Canned and refrigerated foods .....	71	123	104
Canned foods, miscellaneous .....	1	3	.....
Refrigerated foods .....	70	120	104
Fish .....	4	5	19
Fruit, excluding bananas .....	10	40	20
Other and unclassified .....	56	75	65
Chemicals and petroleum chemicals, miscellaneous .....	65	95	72
Coal and coke .....	102	601	516
Grains .....	344	137	597
Barley .....	.....	.....	126
Rice .....	298	5	110
Wheat .....	46	132	358
Other and unclassified .....	.....	.....	3
Lumber and products .....	566	636	553
Boards and planks .....	222	222	175
Plywood, veneers, composition board .....	75	134	76
Pulpwood .....	217	257	272
Other and unclassified .....	52	23	30
Machinery and equipment, miscellaneous .....	.....	.....	2
Manufactures of iron and steel, miscellaneous .....	2	.....	6
Minerals, miscellaneous .....	434	408	418
Borax .....	411	385	386
Salt .....	.....	.....	26
Sulfur .....	23	23	6
Nitrates, phosphates, and potash .....	1	1	35
Ammonium compounds .....	.....	.....	4
Fertilizers, unclassified .....	.....	.....	28

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST COAST UNITED STATES TO EUROPE:</b>			
Nitrates, phosphates, and potash—Continued			
Fishmeal.....	1	1	3
Ores and metals.....	81	112	56
Ores.....	43	68	49
Copper.....		50	38
Lead.....		4	3
Other and unclassified.....	43	14	8
Metals.....	38	44	7
Copper.....	30	41	1
Lead.....		1	6
Tin, including tinplate.....		2	.....
Other and unclassified.....	8		.....
Other agricultural commodities.....	102	44	39
Beans, edible.....	1		1
Cotton, raw.....	41	40	9
Molasses.....	43		24
Oilseeds.....	17	4	5
Petroleum and products.....	1,538	1,884	1,841
Petroleum coke.....	1,538	1,512	1,198
Residual fuel oil.....		195	460
Other and unclassified.....		177	183
Miscellaneous.....	669	700	806
Carbon black.....			79
Clay, fire and china.....	16	21	5
Groceries, miscellaneous.....	2	1	7
Oil, vegetable.....	6	7	6
Paper and paper products.....	55	56	51
Seeds, excluding oilseeds.....			3
Slag.....			5
All other and unclassified.....	590	615	650
Total.....	3,975	4,741	5,045
<b>WEST COAST UNITED STATES TO AFRICA:</b>			
Chemicals and petroleum chemicals, miscellaneous.....		1	1
Coke, coal type.....		53	.....
Grains.....	636	506	1,673
Wheat.....	583	485	1,673
Other and unclassified.....	53	21	.....
Lumber and products, miscellaneous.....	15	2	34
Machinery and equipment, miscellaneous.....			2
Minerals, miscellaneous.....	128	139	72
Sulfur.....	101	139	60
Other and unclassified.....	27		12
Petroleum and products, miscellaneous.....	28		28
Miscellaneous.....	15	24	70
Flour, wheat.....		20	29
Oil, vegetable.....	10		18
All other and unclassified.....	5	4	23
Total.....	822	725	1,880
<b>WEST COAST CANADA TO EAST COAST UNITED STATES:</b>			
Chemicals and petroleum chemicals, miscellaneous.....	181	154	149
Lumber and products.....	1,196	1,080	686
Boards and planks.....	1,188	1,000	648
Other and unclassified.....	8	80	38

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST CANADA TO EAST COAST UNITED STATES:</b>			
Minerals, miscellaneous	49	11	.....
Sulfur	49	11	.....
Nitrates, phosphates, potash	124	133	77
Ammonium compounds	.....	14	.....
Fertilizers, miscellaneous	.....	29	.....
Potash	124	90	77
Ores and metals	.....	11	7
Other and unclassified	.....	11	7
Petroleum and products	85	213	.....
Crude oil	.....	108	.....
Others and unclassified	85	105	.....
Miscellaneous	11	29	13
All other and unclassified	11	29	13
Total	1,646	1,631	932
<b>WEST COAST CANADA TO EAST COAST SOUTH AMERICA:</b>			
Coal	.....	30	80
Grains	51	21	21
Barley	.....	21	21
Wheat	51	.....	.....
Lumber and products	56	32	27
Pulpwood	56	29	27
Other and unclassified	.....	3	.....
Minerals, miscellaneous	256	120	327
Sulfur	256	120	326
Other and unclassified	.....	.....	1
Nitrates, phosphates, and potash	34	20	115
Fertilizers, unclassified	.....	1	1
Potash	32	19	111
Other and unclassified	2	.....	3
Ores and metals, miscellaneous	2	.....	14
Miscellaneous	27	35	20
Paper and paper products	23	22	10
All other and unclassified	4	13	10
Total	426	258	604
<b>WEST COAST CANADA TO WEST INDIES:</b>			
Grains	.....	.....	14
Barley	.....	.....	14
Chemicals and petroleum chemicals, miscellaneous	2	36	.....
Lumber and products	31	29	29
Boards and planks	31	29	29
Nitrates, phosphates, and potash	37	17	.....
Minerals, miscellaneous	121	69	165
Sulfur	121	69	165
Other agricultural commodities	31	.....	.....
Peas, dry	31	.....	.....
Petroleum and products	150	52	.....
Other and unclassified	150	52	.....
Miscellaneous	4	2	9
Paper and paper products	4	2	6
All other and unclassified	.....	.....	3
Total	376	205	217



**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST CANADA TO EUROPE:</b>			
Canned and refrigerated foods, miscellaneous . . . . .	34	31	39
Chemicals and petroleum chemicals, miscellaneous . . . . .	331	173	62
Coal and coke . . . . .	1,446	766	520
Grains . . . . .	877	665	1,431
Barley . . . . .	483	272	557
Wheat . . . . .	278	361	751
Other and unclassified . . . . .	116	32	123
Lumber and products . . . . .	2,304	2,037	2,292
Boards and planks . . . . .	1,064	886	1,092
Plywood, veneers, composition board . . . . .	171	175	165
Pulpwood . . . . .	923	875	993
Other and unclassified . . . . .	146	101	41
Machinery and equipment . . . . .	.....	3	1
Machinery and equipment, miscellaneous . . . . .	.....	3	1
Minerals, miscellaneous . . . . .	1,021	677	794
Asbestos . . . . .	3	2	3
Sulfur . . . . .	1,018	675	791
Nitrates, phosphates, and potash . . . . .	1	18	25
Fertilizers, unclassified . . . . .	.....	.....	22
Potash . . . . .	.....	14	.....
Fishmeal . . . . .	1	4	3
Ores and metals . . . . .	55	87	126
Ores . . . . .	17	30	72
Copper . . . . .	6	12	51
Zinc . . . . .	4	6	7
Other and unclassified . . . . .	7	12	14
Metals . . . . .	38	57	54
Aluminum . . . . .	1	.....	2
Copper . . . . .	.....	1	6
Lead . . . . .	17	37	18
Zinc . . . . .	19	15	28
Other and unclassified . . . . .	1	4	.....
Other agricultural commodities . . . . .	294	57	30
Oilseeds . . . . .	291	51	26
Other and unclassified . . . . .	3	6	4
Petroleum and products . . . . .	118	86	115
Petroleum coke . . . . .	103	84	115
Other and unclassified . . . . .	15	2	.....
Miscellaneous . . . . .	346	610	708
Paper and paper products . . . . .	157	357	428
All other and unclassified . . . . .	189	253	280
Total . . . . .	6,827	5,210	6,143
<b>WEST COAST CANADA TO AFRICA:</b>			
Chemicals and petroleum chemicals, miscellaneous . . . . .	.....	26	.....
Coal and coke . . . . .	35	50	.....
Grains . . . . .	659	53	103
Wheat . . . . .	659	53	103
Lumber and products . . . . .	299	312	153
Boards and planks . . . . .	261	265	94
Pulpwood . . . . .	29	18	41
Other and unclassified . . . . .	9	29	18
Minerals, miscellaneous . . . . .	855	786	1,045
Sulfur . . . . .	855	786	1,045



**Table 11.—Important Commodity Shipments Over Principal Trade Routes Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST CANADA TO AFRICA—Continued</b>			
Nitrates, phosphates, and potash .....	13	7	.....
Potash .....	13	7	.....
Miscellaneous .....	38	2	7
All other and unclassified .....	38	2	7
Total .....	<u>1,899</u>	<u>1,236</u>	<u>1,308</u>
<b>WEST COAST CANADA TO ASIA (MIDDLE EAST):</b>			
Grains .....	.....	.....	26
Barley .....	.....	.....	26
Lumber and products .....	.....	2	4
Other and unclassified .....	.....	2	4
Minerals, miscellaneous .....	.....	123	153
Sulfur .....	.....	123	153
Miscellaneous .....	.....	.....	3
Other and unclassified .....	.....	.....	3
Total .....	.....	<u>125</u>	<u>186</u>
<b>WEST COAST CENTRAL AMERICA TO EAST COAST UNITED STATES:</b>			
Canned and refrigerated foods .....	114	162	98
Refrigerated foods .....	114	162	98
Bananas .....	114	161	98
Other and unclassified .....	.....	1	.....
Minerals, miscellaneous .....	203	150	272
Salt .....	194	150	272
Sulfur .....	9	.....	.....
Nitrates, phosphates, and potash .....	4	9	5
Fishmeal .....	4	9	5
Ores and metals, miscellaneous .....	.....	23	18
Other agricultural commodities .....	666	548	328
Coffee .....	33	43	31
Molasses .....	215	189	69
Sugar .....	416	316	222
Other and unclassified .....	2	.....	6
Petroleum and products .....	6	5	26
Miscellaneous .....	6	12	21
Oil, vegetable .....	.....	7	9
All other and unclassified .....	6	5	12
Total .....	<u>999</u>	<u>909</u>	<u>768</u>
<b>WEST COAST CENTRAL AMERICA TO EAST COAST CENTRAL AMERICA:</b>			
Grains, miscellaneous .....	43	21	22
Nitrates, phosphates, and potash .....	85	143	69
Phosphates .....	85	143	69
Petroleum and products .....	17	.....	52
Crude oil .....	.....	.....	27
Gasoline .....	1	.....	.....
Diesel oil .....	16	.....	25
Miscellaneous .....	14	2	8
All other and unclassified .....	14	2	8
Total .....	<u>159</u>	<u>166</u>	<u>151</u>

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST CENTRAL AMERICA TO WEST INDIES:</b>			
Canned and refrigerated foods .....	24	63	79
Refrigerated foods, miscellaneous .....	24	63	79
Lumber and products .....	22	41	33
Boards and planks .....	19	41	31
Other and unclassified .....	3	.....	2
Other agricultural commodities .....	19	43	4
Molasses .....	.....	29	.....
Other and unclassified .....	19	14	4
Petroleum and products, miscellaneous .....	123	.....	13
Miscellaneous .....	16	21	12
All other and unclassified .....	16	21	12
Total .....	204	168	141
<b>WEST COAST CENTRAL AMERICA TO EUROPE:</b>			
Canned and refrigerated foods .....	99	120	126
Refrigerated foods .....	99	120	126
Bananas .....	76	101	93
Other and unclassified .....	23	19	33
Chemicals and petroleum chemicals, miscellaneous .....	.....	20	.....
Grains, miscellaneous .....	13	.....	1
Lumber and products .....	9	16	15
Boards and planks .....	9	15	14
Other and unclassified .....	.....	1	1
Manufactures of iron and steel, miscellaneous .....	15	15	35
Nitrates, phosphates, and potash .....	4	1	12
Fertilizers, unclassified .....	4	.....	9
Fishmeal .....	.....	1	2
Other and unclassified .....	.....	.....	1
Ores and metals, miscellaneous .....	205	183	172
Ores .....	201	153	151
Copper .....	196	125	151
Other and unclassified .....	5	28	.....
Metals .....	4	30	21
Copper .....	.....	25	21
Other and unclassified .....	4	5	.....
Other agricultural commodities .....	169	257	421
Beans, edible .....	5	4	.....
Cocoa and cocoa beans .....	6	.....	.....
Coffee .....	79	77	76
Cotton, raw .....	46	45	47
Molasses .....	5	86	241
Oilseeds .....	14	6	24
Peas, dry .....	7	17	28
Sugar .....	7	22	5
Miscellaneous .....	99	124	117
Seeds, excluding oilseeds .....	3	.....	1
Textiles .....	.....	5	.....
Tobacco and manufactures .....	1	1	1
All other and unclassified .....	95	118	115
Total .....	613	736	898
<b>WEST COAST CENTRAL AMERICA TO AFRICA:</b>			
Canned and refrigerated foods .....	.....	1	10
Bananas .....	.....	.....	10
Other and unclassified .....	.....	1	.....
Lumber and products, miscellaneous .....	9	2	7

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST COAST CENTRAL AMERICA TO AFRICA—Continued</b>			
Manufactures of iron and steel .....	54	64	8
Other agricultural commodities .....	66	35	14
Coffee .....	11	19	1
Peas, dried .....	.....	6	.....
Sugar, raw .....	55	.....	.....
Other and unclassified .....	.....	10	13
Miscellaneous .....	1	2	11
All other and unclassified .....	1	2	11
Total .....	<u>130</u>	<u>104</u>	<u>50</u>
<b>WEST COAST SOUTH AMERICA TO EAST COAST UNITED STATES:</b>			
Canned and refrigerated foods .....	561	504	513
Canned foods, miscellaneous .....	24	10	21
Refrigerated foods .....	537	494	492
Bananas .....	305	315	354
Fish .....	27	23	18
Fruit, excluding bananas .....	194	141	116
Refrigerated, miscellaneous .....	11	15	4
Chemicals and petroleum chemicals, miscellaneous .....	28	24	66
Lumber and products .....	28	19	23
Boards and planks .....	11	8	8
Other and unclassified .....	17	11	15
Manufactures of iron and steel, miscellaneous .....	5	3	5
Minerals, miscellaneous .....	472	382	198
Salt .....	460	377	197
Soda and sodium compounds .....	11	5	.....
Other and unclassified .....	1	.....	1
Nitrates, phosphates, and potash .....	135	166	154
Fishmeal .....	33	42	44
Nitrate of soda .....	102	120	105
Potash .....	.....	4	5
Ores and metals .....	555	742	1,015
Ores .....	232	319	727
Copper .....	11	10	12
Iron .....	19	.....	161
Lead .....	36	25	9
Tin .....	9	1	2
Zinc .....	20	11	12
Other and unclassified .....	137	272	531
Metals .....	323	423	288
Copper .....	267	367	233
Lead .....	14	20	14
Zinc .....	30	33	29
Other and unclassified .....	12	3	12
Other agricultural commodities .....	588	596	441
Beans, edible .....	.....	1	2
Cocoa and cacao beans .....	27	19	38
Coffee .....	175	124	128
Cotton, raw .....	5	3	7
Molasses .....	139	301	146
Sugar .....	242	148	120
Petroleum and products .....	5,603	5,076	4,055
Crude oil .....	3,567	3,724	2,981
Fuel oil, residual .....	1,725	1,224	943
Gasoline .....	113	20	15

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST COAST SOUTH AMERICA TO EAST COAST UNITED STATES—Continued</b>			
<b>Petroleum and products—Continued</b>			
Other and unclassified .....	198	108	116
Miscellaneous .....	199	126	131
Fibers, plant .....	5	6	8
Groceries, miscellaneous .....	7	4	7
Oil, fish .....	.....	.....	18
Paper and products .....	9	3	2
Textiles .....	11	10	9
All other and unclassified .....	167	106	89
Total .....	<u>8,174</u>	<u>7,638</u>	<u>6,601</u>
<b>WEST COAST SOUTH AMERICA TO EAST COAST CANADA:</b>			
Nitrates, phosphates, and potash .....	4	10	1
Nitrate of soda .....	4	10	1
Ores and metals, miscellaneous .....	76	52	61
Other agricultural commodities .....	32	40	10
Molasses .....	19	.....	10
Sugar .....	12	39	.....
Other and unclassified .....	1	1	.....
Minerals, miscellaneous .....	.....	30	75
Salt .....	.....	30	75
Petroleum and products .....	52	55	.....
Crude oil .....	52	55	.....
Miscellaneous .....	4	1	4
All other and unclassified .....	4	1	4
Total .....	<u>168</u>	<u>188</u>	<u>151</u>
<b>WEST COAST SOUTH AMERICA TO EAST COAST CENTRAL AMERICA:</b>			
Manufactures of iron and steel, miscellaneous .....	5	21	.....
Nitrates, phosphates, and potash .....	.....	.....	11
Nitrate of soda .....	.....	.....	11
Ores and metals .....	52	24	38
Metals, miscellaneous .....	5	11	22
Ores, miscellaneous .....	47	13	16
Other agricultural commodities .....	2	12	.....
Sugar .....	.....	12	.....
Other and unclassified .....	2	.....	.....
Petroleum and products .....	939	821	228
Crude oil .....	939	821	228
Miscellaneous .....	1	12	18
Paper and paper products .....	.....	2	2
All other and unclassified .....	1	10	16
Total .....	<u>999</u>	<u>890</u>	<u>295</u>
<b>WEST COAST SOUTH AMERICA TO EAST COAST SOUTH AMERICA:</b>			
Canned and refrigerated foods .....	5	5	9
Fruit refrigerated, excluding bananas .....	.....	3	5
Other and unclassified .....	5	2	4
Chemicals and petroleum chemicals, miscellaneous .....	13	3	11
Lumber and products, miscellaneous .....	75	44	109
Manufactures of iron and steel, miscellaneous .....	1	1	.....

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>WEST COAST SOUTH AMERICA TO EAST COAST SOUTH AMERICA—Continued</b>			
Nitrates, phosphates, and potash .....			1
Ores and metals, miscellaneous .....	51	54	84
Other agricultural commodities .....	40	27	122
Beans, edible .....	23	26	34
Sugar .....	16		87
Other and unclassified .....	1	1	1
Petroleum and products .....	922	1,537	1,202
Crude oil .....	907	1,528	1,074
Other and unclassified .....	15	9	128
Miscellaneous .....	44	31	89
Oil, fish .....	4		
Oil, vegetable .....	6	3	27
Paper and paper products .....	15	9	13
All other and unclassified .....	19	19	49
Total .....	<u>1,151</u>	<u>1,702</u>	<u>1,627</u>
<b>WEST COAST SOUTH AMERICA TO WEST INDIES:</b>			
Canned and refrigerated foods .....	44	56	44
Canned foods, miscellaneous .....	4		
Fish, refrigerated .....	40	55	44
Other and unclassified .....		1	
Grains, miscellaneous .....	2	12	13
Lumber and products .....	26	27	21
Boards and planks .....	22	27	17
Other and unclassified .....	4		4
Nitrates, phosphates, and potash .....	9	12	24
Fishmeal .....	9	12	24
Ores and metals .....			13
Ores, miscellaneous .....			11
Metals, miscellaneous .....			2
Other agricultural commodities .....		18	15
Molasses .....			13
Sugar .....		16	
Other and unclassified .....		2	2
Petroleum and products .....	3,392	2,059	1,062
Crude oil .....	2,624	1,650	948
Fuel oil, residual .....	730	343	82
Other and unclassified .....	38	66	32
Miscellaneous .....	27	27	2
All other and unclassified .....	27	27	2
Total .....	<u>3,500</u>	<u>2,211</u>	<u>1,194</u>
<b>WEST COAST SOUTH AMERICA TO EUROPE:</b>			
Canned and refrigerated foods .....	699	723	1,009
Canned foods, miscellaneous .....	24	25	27
Refrigerated foods .....	675	698	982
Bananas .....	238	278	342
Fish, refrigerated .....	297	293	474
Fruit, excluding bananas .....	139	116	141
Other and unclassified .....	1	11	25
Chemicals and petroleum chemicals, miscellaneous .....	9	9	7
Coke, coal type .....		3	21
Grains, miscellaneous .....	45	37	52
Lumber and products .....	118	172	137
Boards and planks .....	13	7	7

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>WEST COAST SOUTH AMERICA TO EUROPE—Continued</b>			
Lumber and products—Continued			
Pulpwood.....	98	153	97
Other and unclassified.....	7	12	33
Manufactures of iron and steel.....	11	.....	.....
Nitrates, phosphates, and potash.....	<u>733</u>	<u>895</u>	<u>964</u>
Ammonium compounds.....	23	.....	.....
Fertilizers, unclassified.....	.....	11	17
Fishmeal.....	646	737	861
Nitrate of soda.....	64	147	82
Potash.....	.....	.....	4
Ores and metals.....	<u>1,415</u>	<u>1,564</u>	<u>1,890</u>
Ores.....	<u>759</u>	<u>730</u>	<u>1,043</u>
Copper.....	111	103	206
Iron.....	.....	53	101
Lead.....	101	64	105
Tin.....	21	30	36
Zinc.....	500	448	525
Other and unclassified.....	26	32	70
Metals.....	<u>656</u>	<u>834</u>	<u>847</u>
Copper.....	563	667	585
Lead.....	34	41	41
Zinc.....	40	54	135
Other and unclassified.....	19	72	86
Other agricultural commodities.....	<u>209</u>	<u>357</u>	<u>320</u>
Cocoa and cacao beans.....	12	9	14
Coffee.....	143	189	204
Cotton, raw.....	11	30	27
Molasses.....	13	.....	.....
Oilseeds.....	5	1	3
Sugar.....	12	107	59
Wool, raw.....	10	16	9
Other and unclassified.....	3	5	4
Petroleum and products.....	.....	3	.....
Other and unclassified.....	.....	3	.....
Miscellaneous.....	<u>346</u>	<u>253</u>	<u>292</u>
Groceries, miscellaneous.....	12	6	15
Oil, fish.....	109	54	125
Paper and paper products.....	13	5	8
Seeds, excluding oilseeds.....	1	.....	1
Textiles.....	7	9	6
All other and unclassified.....	<u>204</u>	<u>179</u>	<u>137</u>
Total.....	<u><u>3,585</u></u>	<u><u>4,016</u></u>	<u><u>4,692</u></u>
<b>HAWAII TO EAST COAST UNITED STATES:</b>			
Other agricultural commodities.....	<u>129</u>	<u>196</u>	<u>50</u>
Sugar.....	129	196	50
Miscellaneous.....	<u>12</u>	<u>19</u>	<u>7</u>
All other and unclassified.....	<u>12</u>	<u>19</u>	<u>7</u>
Total.....	<u><u>141</u></u>	<u><u>215</u></u>	<u><u>57</u></u>
<b>OCEANIA TO EAST COAST UNITED STATES:</b>			
Canned and refrigerated foods.....	<u>311</u>	<u>378</u>	<u>405</u>
Refrigerated foods.....	<u>311</u>	<u>378</u>	<u>405</u>
Dairy products.....	.....	1	5
Fruit, refrigerated.....	8	61	77
Meat.....	23	12	1
Other and unclassified.....	<u>280</u>	<u>303</u>	<u>322</u>



**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>OCEANIA TO EAST COAST UNITED STATES—Continued</b>			
Chemicals and petroleum chemicals, miscellaneous . . . .	10	9	31
Manufactures of iron and steel, miscellaneous . . . . .	64	62	40
Ores and metals . . . . .	<u>1,175</u>	<u>418</u>	<u>497</u>
Ores . . . . .	<u>1,156</u>	<u>376</u>	<u>481</u>
Alumina/bauxite . . . . .	611	31	66
Iron . . . . .	53	.....	.....
Lead . . . . .	5	53	4
Manganese . . . . .	61	47	55
Other and unclassified . . . . .	426	245	356
Metals . . . . .	<u>19</u>	<u>42</u>	<u>16</u>
Aluminum metal . . . . .	.....	25	.....
Lead metal . . . . .	11	11	6
Zinc . . . . .	.....	1	1
Other and unclassified . . . . .	8	5	15
Other agricultural commodities . . . . .	<u>445</u>	<u>311</u>	<u>634</u>
Molasses . . . . .	203	101	233
Sugar . . . . .	242	210	398
Wool, raw . . . . .	.....	.....	3
Petroleum and products . . . . .	<u>241</u>	<u>100</u>	<u>191</u>
Crude oil . . . . .	.....	.....	36
Fuel oil, residual . . . . .	160	100	115
Other and unclassified . . . . .	81	.....	40
Miscellaneous . . . . .	<u>382</u>	<u>372</u>	<u>352</u>
All other and unclassified . . . . .	<u>382</u>	<u>372</u>	<u>352</u>
Total . . . . .	<u>2,628</u>	<u>1,650</u>	<u>2,150</u>
<b>OCEANIA TO EAST COAST CANADA:</b>			
Canned and refrigerated foods . . . . .	<u>33</u>	<u>55</u>	<u>37</u>
Refrigerated foods . . . . .	<u>33</u>	<u>55</u>	<u>37</u>
Other and unclassified . . . . .	33	55	37
Ores and metals . . . . .	<u>76</u>	<u>25</u>	<u>12</u>
Ores, miscellaneous . . . . .	76	25	12
Other agricultural commodities . . . . .	<u>347</u>	<u>216</u>	<u>303</u>
Sugar . . . . .	347	216	303
Miscellaneous . . . . .	<u>35</u>	<u>54</u>	<u>49</u>
All other and unclassified . . . . .	<u>35</u>	<u>54</u>	<u>49</u>
Total . . . . .	<u>491</u>	<u>350</u>	<u>401</u>
<b>OCEANIA TO EAST COAST CENTRAL AMERICA:</b>			
Canned and refrigerated foods, miscellaneous . . . . .	28	12	20
Coal . . . . .	22	.....	.....
Ores and metals . . . . .	<u>37</u>	<u>86</u>	<u>46</u>
Manganese ore . . . . .	22	39	.....
Ores, miscellaneous . . . . .	15	47	46
Miscellaneous . . . . .	<u>4</u>	<u>6</u>	<u>14</u>
All other and unclassified . . . . .	<u>4</u>	<u>6</u>	<u>14</u>
Total . . . . .	<u>91</u>	<u>104</u>	<u>80</u>
<b>OCEANIA TO WEST INDIES:</b>			
Canned and refrigerated foods . . . . .	<u>143</u>	<u>74</u>	<u>32</u>
Canned foods, miscellaneous . . . . .	10	4	7
Refrigerated foods . . . . .	<u>133</u>	<u>70</u>	<u>25</u>
Dairy products . . . . .	6	5	1
Fish, refrigerated . . . . .	113	50	9
Meat . . . . .	5	8	14
Other and unclassified . . . . .	9	7	1



**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>OCEANIA TO WEST INDIES—Continued</b>			
Miscellaneous .....	58	11	32
All other and unclassified .....	58	11	32
Total .....	201	85	64
<b>OCEANIA TO EUROPE:</b>			
Canned and refrigerated foods .....	186	185	298
Refrigerated foods .....	186	185	298
Dairy products .....	.....	6	15
Fruit, excluding bananas .....	92	53	75
Meat .....	2	.....	59
Other and unclassified .....	92	126	149
Chemicals and petroleum chemicals, miscellaneous .....	115	.....	.....
Grains, miscellaneous .....	74	.....	.....
Ores and metals .....	72	155	277
Ores .....	58	79	217
Alumina/bauxite .....	38	.....	.....
Copper .....	.....	71	201
Other and unclassified .....	20	8	16
Metals .....	14	76	60
Copper .....	.....	35	26
Zinc .....	.....	15	.....
Other and unclassified .....	14	26	34
Other agricultural commodities .....	271	251	232
Copra .....	7	11	9
Molasses .....	20	69	90
Skins and hides .....	.....	1	1
Sugar .....	236	166	123
Wool, raw .....	8	4	9
Miscellaneous .....	287	296	335
Groceries, miscellaneous .....	.....	1	.....
Oil, coconut .....	8	5	44
Oil, vegetable .....	26	24	23
Tallow .....	32	5	5
All other and unclassified .....	221	261	263
Total .....	1,005	887	1,142
<b>ASIA TO EAST COAST UNITED STATES:</b>			
Canned and refrigerated foods .....	175	205	149
Canned foods .....	90	64	79
Fruit .....	85	45	61
Vegetables .....	1	6	9
Other and unclassified .....	5	13	9
Refrigerated foods .....	85	141	70
Fruit, refrigerated .....	9	78	15
Other and unclassified .....	76	63	55
Chemicals and petroleum chemicals, miscellaneous .....	69	108	118
Coal and coke .....	183	.....	45
Lumber and products .....	693	641	414
Boards and planks .....	58	37	13
Plywood, veneers, composition board .....	591	585	357
Other and unclassified .....	44	19	44
Machinery and equipment .....	1,369	1,210	1,258
Agricultural machinery .....	24	11	10

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
<b>ASIA TO EAST COAST UNITED STATES—Continued</b>			
Machinery and equipment—Continued			
Automobiles, trucks, accessories and parts .....	1,275	1,131	1,164
Construction machinery and equipment .....	45	19	34
Electrical machinery and apparatus .....	12	13	21
Other and unclassified .....	13	36	29
Manufactures of iron and steel .....	4,931	2,905	4,311
Angles, shapes, and sections .....	277	348	459
Nails, tacks, and spikes .....	102	59	84
Plates, sheets, and coils .....	1,852	1,035	896
Tubes, pipes, and fittings .....	951	564	1,438
Wire, bars, and rods .....	320	174	220
Other and unclassified .....	1,429	725	1,214
Nitrates, phosphates, and potash .....	2	2	2
Fertilizers, unclassified .....	2	2	2
Ores and metals .....	1,054	901	1,124
Ores .....	1,018	835	1,059
Alumina/bauxite .....	143	43	102
Chrome .....	28	11	38
Manganese .....	7	1	11
Other and unclassified .....	840	780	908
Metals .....	36	66	65
Aluminum .....	30	29	32
Copper .....	1	7	5
Iron .....	.....	1	20
Zinc .....	.....	.....	1
Other and unclassified .....	5	29	7
Other agricultural commodities .....	532	323	411
Coffee .....	5	8	1
Copra .....	3	1	1
Rubber, raw .....	92	56	35
Sugar .....	428	251	373
Other and unclassified .....	4	7	1
Petroleum and products, miscellaneous .....	676	141	375
Miscellaneous .....	4,660	3,611	3,283
Bricks and tile .....	3	1	2
Clay, fire and china .....	1	2	.....
Fibers, plant .....	1	1	2
Glass and glassware .....	2	4	7
Groceries, miscellaneous .....	10	7	9
Oil, coconut .....	43	63	56
Oil, vegetable .....	5	32	93
Porcelainware .....	2	2	1
Rubber, manufactured .....	33	41	18
Textiles .....	16	6	9
All other and unclassified .....	4,544	3,452	3,086
Total .....	<u>14,344</u>	<u>10,047</u>	<u>11,490</u>
<b>ASIA TO EAST COAST CANADA:</b>			
Canned and refrigerated foods, miscellaneous .....	5	1	1
Machinery and equipment .....	.....	6	2
Other and unclassified .....	.....	6	2
Manufactures of iron and steel .....	7	30	18
Plates, sheets, and coils .....	.....	10	6
Tubes, pipes, and fittings .....	4	9	9
Wire, bars, and rods .....	.....	2	3
Other and unclassified .....	3	9	.....

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>ASIA TO EAST COAST CANADA—Continued</b>			
Ores and metals, miscellaneous .....	55	6	1
Ores .....	55	6	.....
Alumina/bauxite .....	55	6	.....
Metals .....	.....	.....	1
Other and unclassified .....	.....	.....	1
Miscellaneous .....	327	278	262
All other and unclassified .....	327	278	262
Total .....	394	321	284
<b>ASIA TO EAST COAST CENTRAL AMERICA:</b>			
Chemicals and petroleum chemicals, miscellaneous .....	.....	70	276
Grains, miscellaneous .....	21	.....	.....
Machinery and equipment, miscellaneous .....	3	.....	4
Manufactures of iron and steel, miscellaneous .....	8	14	71
Ores and metals, miscellaneous .....	.....	58	43
Ores, miscellaneous .....	.....	58	43
Miscellaneous .....	15	27	24
All other and unclassified .....	15	27	24
Total .....	47	169	418
<b>ASIA TO EAST COAST SOUTH AMERICA:</b>			
Chemicals and petroleum chemicals, miscellaneous .....	2	4	4
Machinery and equipment .....	42	72	70
Automobiles, trucks, accessories and parts .....	16	19	29
Construction machinery and equipment .....	6	32	6
Electrical machinery and apparatus .....	9	11	13
Other and unclassified .....	11	10	22
Manufactures of iron and steel .....	161	230	522
Plates, sheets, and coils .....	72	91	141
Tubes, pipes, and fittings .....	46	86	293
Other and unclassified .....	43	53	88
Nitrates, phosphates, and potash .....	.....	4	.....
Fertilizers, unclassified .....	.....	4	.....
Ores and metals .....	15	32	47
Ores .....	2	22	8
Chrome .....	.....	.....	8
Other and unclassified .....	2	22	.....
Metals .....	13	10	39
Tin, including tinplate .....	6	3	4
Other and unclassified .....	7	7	35
Other agricultural commodities .....	3	4	4
Rubber, raw .....	3	4	4
Petroleum and products .....	.....	2	2
Other and unclassified .....	.....	2	2
Miscellaneous .....	157	186	341
Glass and glassware .....	.....	1	1
Resin .....	1	1	3
Rubber, manufactured .....	1	6	10
Textiles .....	1	2	6
All other and unclassified .....	154	176	321
Total .....	380	534	990

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
<b>ASIA TO CRISTOBAL, R.P.:</b>			
Machinery and equipment .....	12	4	7
Electrical machinery and apparatus.....	2	1	1
Other and unclassified .....	10	3	6
Manufactures of iron and steel, miscellaneous .....	22	20	21
Miscellaneous .....	93	81	103
Textiles.....	1	2	1
All other and unclassified .....	92	79	102
Total.....	127	105	131
<b>ASIA TO WEST INDIES:</b>			
Canned and refrigerated foods .....	50	43	43
Canned foods, miscellaneous .....	24	30	27
Refrigerated foods .....	26	13	16
Fish, refrigerated .....	24	13	16
Other and unclassified .....	2	.....	.....
Chemicals and petroleum chemicals, miscellaneous ...	10	7	12
Coal and coke .....	8	21	21
Grains .....	94	116	113
Corn .....	6	.....	2
Rice.....	83	106	111
Soybeans .....	5	10	.....
Lumber and products .....	184	133	143
Boards and planks .....	160	96	97
Plywood veneers .....	13	19	23
Pulpwood.....	10	12	8
Other and unclassified .....	1	6	15
Machinery and equipment .....	182	158	151
Automobiles, trucks, accessories and parts .....	161	144	127
Electrical machinery and apparatus.....	5	3	4
Other and unclassified .....	16	11	20
Manufactures of iron and steel .....	124	152	126
Plates, sheets, and coils .....	67	70	52
Tubes, pipes, and fittings .....	32	30	36
Other and unclassified .....	25	52	38
Nitrates, phosphates and potash .....	33	.....	2
Fertilizers, unclassified.....	31	.....	.....
Fishmeal.....	2	.....	2
Ores and metals .....	14	8	20
Metals, miscellaneous .....	7	4	13
Ores, miscellaneous .....	7	4	7
Petroleum and products .....	121	.....	5
Diesel oil .....	4	.....	4
Gasoline .....	117	.....	.....
Other and unclassified .....	.....	.....	1
Miscellaneous .....	291	316	262
Bricks and tile .....	3	3	4
Glass and glassware .....	2	5	4
Groceries, miscellaneous .....	.....	1	2
Paper and paper products.....	13	16	5
Porcelainware .....	1	1	1
Resin.....	.....	1	1
Rubber, manufactured.....	4	1	3
Textiles.....	6	6	10
All other and unclassified .....	262	282	232
Total.....	1,111	954	898

**Table 11.—Important Commodity Shipments Over Principal Trade Routes  
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	<i>1984</i>	<i>1983</i>	<i>1982</i>
ASIA TO EUROPE:			
Canned and refrigerated foods.....	4	15	6
Chemicals and petroleum chemicals, miscellaneous . . .	3	3	12
Coke, coal type.....	.....	32	46
Machinery and equipment .....	4	3	10
Automobiles, trucks, accessories and parts .....	2	3	10
Other and unclassified .....	2	.....	.....
Ores and metals, miscellaneous .....	2	.....	29
Other agricultural commodities .....	.....	23	.....
Sugar raw .....	.....	23	.....
Petroleum and products, miscellaneous .....	4	.....	58
Miscellaneous .....	83	85	69
Oil, coconut.....	24	19	.....
Oil, fish .....	37	31	27
Oil, vegetable.....	2	.....	8
All other and unclassified .....	20	35	34
Total .....	100	161	230

Table 12.—Principal Canal Commodities by Direction—Fiscal Year 1984

[Long tons]

Commodity	Atlantic to Pacific	Pacific to Atlantic	Total
Ammonium compounds.....	534,564	48,194	582,758
Asbestos.....	18,272	4,137	22,409
Asphalt.....	155,120	7,752	162,872
Automobiles, trucks, and accessories.....	291,978	1,464,446	1,756,424
Bananas.....	7,281	810,586	817,867
Barley.....	16,217	533,118	549,335
Beans, edible.....	41,794	46,362	88,156
Benzene.....	39,670	38,457	78,127
Borax.....	5,320	414,453	419,773
Bricks and tile.....	23,761	10,935	34,696
Canned food products.....	110,066	222,052	332,118
Carbon black.....	4,301	654	4,955
Caustic soda.....	926,776	40,854	967,630
Cement.....	173,650	4,680	178,330
Chemicals, petroleum various.....	876,875	51,859	928,734
Chemicals, various.....	2,284,963	848,197	3,133,160
Clay, fire and china.....	357,338	24,945	382,283
Coal and coke (excluding petroleum coke) ..	8,114,756	1,839,461	9,954,217
Cocoa and cacao beans.....	3,424	48,928	52,352
Coffee.....	9,394	457,502	466,896
Coke, petroleum.....	459,978	1,752,350	2,212,328
Copra and coconuts.....	644	10,649	11,293
Corn.....	9,490,137	6,769	9,496,906
Cotton, raw.....	14,522	109,552	124,074
Fertilizers, various.....	1,489,549	58,961	1,548,510
Fibers, plant.....	40,489	14,514	55,003
Fishmeal.....	146	724,813	724,959
Flour, wheat.....	218,886	30,805	249,691
Gasoline.....	983,101	760,179	1,743,280
Glass and glassware.....	23,960	6,437	30,397
Grains, various.....	84,255	142,982	227,237
Groceries, various.....	35,926	37,409	73,335
Infusorial earth.....	8,714	8,921	17,635
Jet fuel.....	593,446	76,785	670,231
Kerosene.....	103,963	9	103,972
Liquefied gas.....	737,363	46,254	783,617
Liquors.....	16,141	6,815	22,956
Lumber and products (excluding pulpwood)	55,430	4,314,158	4,369,588
Machinery, agricultural.....	59,284	32,411	91,695
Machinery, construction.....	91,140	68,623	159,763
Machinery, electrical.....	41,026	29,260	70,286
Machinery, various.....	66,121	36,480	102,601
Manufactures of iron and steel.....	1,842,064	5,424,091	7,266,155
Metal, aluminum.....	308,901	53,121	362,022
Metal, copper.....	33,104	885,466	918,570
Metal, iron.....	86,660	7,843	94,503
Metal, scrap.....	2,227,015	2,556	2,229,571
Metals, various (including tinplate).....	91,113	254,201	345,314
Molasses.....	3,227	672,371	675,598
Nitrate of soda.....	84,437	169,781	254,218
Oats.....	9,085	14,621	23,706
Oil, coconut.....	3,572	91,854	95,426
Oil, crude.....	3,898,360	10,267,133	14,165,493
Oil, diesel.....	1,129,458	815,191	1,944,649
Oil, fish.....	16,835	164,393	181,228
Oil, lubricating.....	689,285	167,438	856,723
Oil, residual fuel.....	3,007,038	3,835,746	6,842,784
Oil, vegetable.....	247,018	95,478	342,496
Oilseeds.....	35,939	336,304	372,243
Ore, alumina/bauxite.....	454,023	891,864	1,345,887
Ore, copper.....	.....	389,512	389,512

Table 12.—Principal Canal Commodities by Direction—Fiscal Year 1984—

Continued

[Long tons]

<i>Commodity</i>	<i>Atlantic to Pacific</i>	<i>Pacific to Atlantic</i>	<i>Total</i>
Ore, iron .....	11,286	72,731	84,017
Ores, various .....	422,412	2,471,194	2,893,606
Paper and paper products .....	761,427	368,471	1,129,898
Peas, dry .....	382	47,693	48,075
Petroleum and products, various .....	797,570	377,758	1,175,328
Phosphates .....	6,395,119	86,163	6,481,282
Potash .....	113,469	174,921	288,390
Pulpwood .....	558,726	1,434,788	1,993,514
Refrigerated food products (excluding bananas) .....	447,564	1,710,405	2,157,969
Resin .....	167,901	2,630	170,531
Rice .....	117,197	517,207	634,404
Rubber, manufactured .....	44,576	38,291	82,867
Rubber, raw .....	463	96,202	96,665
Salt .....	77,451	696,231	773,682
Seeds, excluding oilseeds .....	1,287	9,638	10,925
Slag, clinkers, and dross .....	71,676	1,198	72,874
Soda and sodium compounds .....	55,167	136,052	191,219
Sorghum .....	1,321,691	36	1,321,727
Soybeans .....	6,837,354	61,387	6,898,741
Sugar .....	1,493,408	2,178,612	3,672,020
Sulfur .....	12,520	2,430,820	2,443,340
Tallow .....	66,404	39,868	106,272
Textiles .....	47,136	43,486	90,622
Tobacco and manufactures .....	9,558	4,370	13,928
Toluene .....	51,956	65	52,021
Wax, paraffin .....	15,533	17,104	32,637
Wheat .....	7,213,478	1,756,966	8,970,444
Wool, raw .....	68	19,107	19,175
All other .....	8,369,645	7,686,453	16,056,098
Total .....	<u>78,259,299</u>	<u>62,211,519</u>	<u>140,470,818</u>



## Other Statistics

Table 13.—Water Supply and Usage

	Fiscal year		Percent of usage	
	1984	1983	1984	1983
	(Acre feet)			
<b>MADDEN AND GATUN LAKE WATER SUPPLY:</b>				
Total runoff, Madden Lake Basin .....	2,160,415	1,334,650		
Evaporation from Madden Lake .....	44,821	36,993		
Municipal water use Madden Lake .....	81,865	80,028		
Available for Madden Lake usage .....	2,033,729	1,217,629		
Total runoff, Gatun Lake (area below Madden) ...	2,775,947	1,637,906		
Subtotal .....	4,809,676	2,855,535		
Evaporation from Gatun Lake .....	433,455	444,508		
Available for Gatun watershed usage.....	4,376,221	2,411,027		
<b>MADDEN LAKE WATER USAGE:</b>				
Hydroelectric power .....	1,457,483	1,165,151	81	88
Leakage .....	14,519	14,479	1	1
Spillway discharge.....	241,093	62,351	13	5
Municipal .....	81,865	80,028	5	6
Total Madden Lake usage .....	1,794,960	1,322,009	100	100
<b>GATUN LAKE WATER USAGE:</b>				
Hydroelectric power .....	1,711,708	425,023	43	18
Lockages, Gatun and Pedro Miguel.....	1,876,653	1,858,609	47	78
Municipal and other usages .....	94,975	94,654	2	4
Spillway discharge.....	303,007	.....	8	...
Total Gatun Lake usage.....	3,986,343	2,378,286	100	100

Table 14.—Dredging Operations—Fiscal Year 1984

	(Cubic yards)		
	Earth	Rock	Total
Pacific District .....	.....	.....	.....
Central District .....	2,578,415	452,045	3,030,460
Atlantic District .....	.....	.....	.....
Grand Total .....	2,578,415	452,045	3,030,460

Table 15.—Electrical Power Generated

(Gigawatt hours) <sup>1</sup>

	Fiscal year	
	1984	1983
Generation:		
Gatun hydro station .....	93	27
Madden hydro station .....	162	114
Thermal generating stations .....	347	440
Gross generated by Panama Canal Commission .....	602	581
Less station service usage .....	(13)	(16)
Net total generated by Panama Canal Commission .....	589	565
Power Purchases:		
Through interconnect from Panama .....	2	.....
Net Energy charged for Wheeling .....	8	9
Power Sales:		
Through interconnect to Panama .....	(66)	(7)
Net power generated and purchases for Canal area only .....	533	567
Other power generated by military for own use .....	....	....
Total Canal area requirements .....	533	567
Power distributed to Comission's customers .....	488	523
Distribution losses .....	45	44
Peak load (thousands of kilowatts) .....	84	91
Date of peak load .....	Feb. 27	Apr. 4
Canal area load factor <sup>2</sup> .....	72.6%	71.4%

<sup>1</sup> One gigawatt hour equal to 1 million kilowatt hours.<sup>2</sup> Total Canal area requirements divided by number of hours per year times peak load.

Table 16.—Fire Statistics

	Fiscal Year 1983		Fiscal Year 1984	
	Number of fires	Property loss	Number of fires	Property loss
PCC .....	86	\$168,887	164	\$8,259
Armed Forces .....	329	36,280	474	43,710
Private (including ships) .....	61	372,066	82	189,768
R.P.* .....	104	50,830	265	9,195
Total .....	580	\$628,063	985	\$250,932
Value of Property involved in ship fires .....		\$103,418,187		\$46,626,259
Value of Property involved in other fires .....		90,789,357		100,950,457
Calls for emergency aid ** .....		2,729		2,926
Total number of calls (all types) responded to .....		3,453		4,102

\* Statistics started as of October 1, 1979 due to the Treaty implementation.

\*\* Includes Fire Apparatus and Ambulance.



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