
WATERBORNE COMMERCE OF THE UNITED STATES

Calendar Year 1998

Part 4—
Waterways and Harbors
Pacific Coast, Alaska and Hawaii



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Introduction

General

Waterborne Commerce of the United States, WCUS, Part 4 is one of a series of publications which provides statistics on the foreign and domestic waterborne commerce moved on the United States waters. WCUS, Parts 1-4 present detailed data on the movements of vessels and commodities at the ports and harbors and on the waterways and canals of the United States, the Commonwealth of Puerto Rico, and the Virgin Islands.

The publication numbers and the geographical areas covered in **WCUS, Parts 1-5** are detailed below:

WCUS, Part 1 Atlantic Coast

WCUS, Part 2 Gulf Coast, Mississippi River System and Antilles

WCUS, Part 3 Great Lakes

WCUS, Part 4 Pacific Coast, Alaska and Hawaii

WCUS, Part 5 National Summaries

Legal Authority

The legal authority for the collection, compilation and publication of waterborne commerce statistics by the Army Corps of Engineers is Section 11 of the Rivers and Harbors Appropriations Act of 1922 (42 Stat. 1043), as amended, and codified in 33 U.S.C. 555 and provides the following:

Owners, agents, masters, and clerks of vessels and other craft plying upon the navigable waters of the United States, and all individuals and corporations engaged in transporting their own goods upon the navigable waters of the United States, shall furnish such statements relative to vessels, passengers, freight and tonnage as may be required by the Secretary of the Army: Provided. That this provision shall not apply to those rafting logs, except upon a direct request upon the owner

to furnish specific information.

Every person or persons offending against the provisions of this section shall, for each and every offense, be liable to a fine of not more than \$5,000 or imprisonment not exceeding two months, to be enforced in any district court of the United States within whose territorial jurisdiction such offense may have been committed. In addition, the Secretary may assess a civil penalty of up to \$2,500 per violation against any person or entity, that fails to provide timely, accurate statements required to be submitted pursuant to this section by the Secretary.

The vessel and commodity movement information collected and compiled is designed to meet the data requirements of the Department of the Army in connection with the duties assigned by Congress. These data also provide valuable information for other governmental departments, commercial and shipping concerns and others interested in the U.S. transportation industry.

Domestic Commerce

Contiguous and non-contiguous states and territories constitute the geographical space upon which domestic commerce may be transported. This includes Hawaii, Alaska, the 48 contiguous states, Puerto Rico and the Virgin Islands, Guam, American Samoa, Wake Island and the U.S. Trust Territories.

The waterborne traffic movements are reported to the Corps of Engineers by all vessel operators of record on ENG Forms 3925 and 3925b (or equivalent) approved by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3510(a)). The reports are generally submitted on the basis of individual vessel movements completed. For

movements with cargo, the point of loading and the point of unloading of each individual commodity must be delineated. Cargo moved for the military agencies in commercial vessels is reported as ordinary commercial cargo; military cargo movements in Department of Defense vessels are not collected.

In summarizing the domestic commerce certain movements are excluded: Cargo carried on general ferries; coal and petroleum products loaded from shore facilities directly into bunkers of vessels for fuel; and insignificant amounts of government materials (less than 100 tons) moved on government owned equipment in support of Corps projects.

The fish landing data is furnished by the National Marine Fisheries Service. No domestic fishing vessel trips are included in the trip and draft data of the Trips and Drafts Section.

Foreign Commerce

Foreign commerce is waterborne import, export, and in-transit traffic between the United States, Puerto Rico and the Virgin Islands and any foreign country. These statistics do not include traffic between Guam, Wake Island and American Samoa and any other foreign country.

Foreign waterborne intraport and export statistics are derived primarily from data furnished to the Corps of Engineers by the Bureau of the Census and the U.S. Customs Service. In-transit statistics are derived primarily from data purchased from the Port Import Export Reporting Service, Inc. and supplemented by data provided by Customs and Census.

The Republic of Panama is considered a foreign country. However, individual vessel movements with origin and destination at United States ports traveling via the Panama Canal are considered domestic traffic. Alaskan crude oil (origin at Valdez, AK) shipped via the Panama pipeline (west to east) and destined for gulf and east coast ports is also considered domestic commerce.

Import and export shipments for use of the United States Armed Forces abroad are not reported to the Waterborne Commerce Statistics Center (WCSC). Beginning with calendar year 1989 shipments under the military assistance program of the Department of Defense are

included in the statistics under the appropriate commodity code. In prior years these cargoes were given as commodity code 9999.

Commodity Descriptions

The first two digits of the WCSC publication codes correspond with the Lock Performance Monitoring System (LPMS) commodity codes. Both LPMS and WCSC codes were standardized to reflect the hierarchical structure of the Standard Industrial Trade Classification (SITC) Revision 3 commodity codes. SITC, Rev. 3 commodity codes conform to the Harmonized Commodity Description and Coding System (HS). Using SITC, Rev. 3 allows direct comparisons with U.S. imports and exports, as well as, with commodity movements of other countries.

Tonnage

The tonnage figures provided throughout the **WCUS, Parts 1-5** represent short tons (2000 pounds). Tonnage figures are rounded to the nearest 1000 tons.

A zero represents less than 500 tons but more than zero. Dashes mean zero tons. Columns and rows may not add up exactly to totals and subtotals due to rounding.

Some freight tables have "Total" and "Grand Total". The "Total" means that in some cases it is the total for domestic or foreign and Canadian traffic. The "Grand Total" specifically represents the sum total of all the different traffics, including all domestic and foreign traffic. If a particular column or traffic type has only dashes and zeroes in the tonnage fields for that entire freight table then that column (traffic type) will not print.

Ton-Miles

For lakewise domestic movements, ton-miles equal the cargo tonnage times the distance between the U.S. Great Lakes ports. For overseas imports and exports, foreign ton-miles are computed by multiplying the cargo tonnage by the miles carried on U.S. waterways and channels. Ton-miles are rounded to the nearest 1000 ton-miles. The ton-mile data appears in the publication by traffic type at the end of a particular freight table for a given project. Since there are columns that will not print (see

tonnage above) the ton-miles associated with these columns will likewise not be included in the total ton-miles for that particular freight table. They will be included in "Ton-miles All Traffic" at the end of the project.

Trips

A trip is a vessel movement. For self-propelled vessels, a trip is logged between every point of departure and every point of arrival. For loaded barges, a trip is logged from the point of the loading of the barge to the point of unloading of the barge (i.e., excluding fleeting areas). For empty barges, trips are logged from point of unloading to the point of loading counting the fleeting areas in between (e.g. if an empty barge moved from Dock A to Dock B and the barge stopped at three fleeting areas in between, then four trips are logged.)

Some towboat trips and empty barge moves are estimated from a sample to expedite processing and reduce costs. Even with sampling, however, the number of towboat trips

are calculated from more than 70% of the total number of towboat moves reported, and the number of barge trips are derived from more than 85% of the total number of barge trips reported.

The number of trips also includes vessels engaged in foreign trade. These moves are furnished by the Bureau of the Census who process the data collected on U.S. Customs Service entrance and clearance forms.

To more accurately reflect actual traffic patterns (e.g. inbound versus outbound trip counts), some adjustments are made to the trip counts in the trip and draft tables in this publication.

Special Interest

... For calendar year 1997 the State of California did not furnish the fish statistics in time for this printing.

... Passenger totals are not included in this publication but are available on request.

Terminology

Types of Traffic

Foreign

Imports

Overseas: Inbound merchandise for direct consumption and entries into custom bonded storage and manufacturing warehouses originating in foreign countries other than Canada.

Canadian: Inbound merchandise for direct consumption and entries into custom bonded storage and manufacturing warehouses originating in Canada.

Exports

Overseas: Outbound domestic merchandise and re-export of foreign merchandise from a U.S. foreign trade zone destined for foreign countries other than Canada.

Canadian: Outbound domestic merchandise and re-export of foreign merchandise from a U.S. foreign trade zone destined for Canada.

In-transit Merchandise: Merchandise coming into the United States from a foreign country and shipped to a foreign country without having been entered as an import. In-transit merchandise is treated as an **Import (inbound)** when unloaded from a vessel and as an **Export (outbound)** when loaded onto a vessel.

Domestic

Coastwise: Domestic traffic receiving a carriage over the ocean, or the Gulf of Mexico, (e.g. New Orleans to Baltimore, New York to Puerto Rico, San Francisco to Hawaii, Alaska to Hawaii). Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also termed **Coastwise**.

Lakewise: Waterborne traffic between the United States ports on the Great Lakes System. The Great Lakes System is treated as a separate waterway system rather than as a part of the inland waterway system. In comparing historical data for the Great Lakes System, one should note that prior to calendar year 1990, marine products, and sand and gravel being moved from the Great Lakes to Great Lake destinations were classified as local traffic. From 1990 on, these activities are classified as lakewise traffic.

Internal: Vessel movements (origin and destination) which take place solely on inland waterways. An inland waterway is one geographically located within the boundaries of the contiguous 48 states or within the boundaries of the State of Alaska. The term "internal traffic" is also applied to these vessel movements: those which involve carriage on both inland waterways and the Great Lakes; those occurring between offshore areas and inland waterways (e.g., oil rig supplies and fish); and those taking place within Delaware Bay, Chesapeake Bay, Puget Sound, and San Francisco Bay, which are considered internal bodies of water rather than arms of the ocean.

Intraport: Movement of freight within the confines of a port whether the port has one or several arms or channels included in the port definition. This traffic type will not include car-ferries and general ferries moving within a port.

Through: Movements transiting a waterway, or stretch thereof, as defined in the project description of individual tables, and having origins and destinations outside of the defined area.

Intra-waterway: Shipments and receipts within the limits of a river, waterway or canal. This traffic will not include car-ferries and general ferries moving within a waterway or Corps project.

Intra-territory: Traffic between ports in Puerto Rico and the Virgin Islands, which are considered a single unit.

Traffic Direction

Waterways

Upbound: Traffic that moves in an upstream direction. For waterways without a characteristic monodirectional flow (e.g. the Gulf Intracoastal Waterway), "upbound" means in a northerly or easterly direction.

Downbound: Traffic that moves in a downstream direction. For waterways without a characteristic monodirectional flow, "downbound" means in a southerly or westerly direction.

Inbound: Traffic moving from one waterway into another where the destination is on the subject waterway.

Outbound: Traffic moving from one waterway into another where the origin is on the subject waterway.

Ports

Receipts: Traffic moving from one location to another where the destination is within the limits of the subject port.

Shipments: Traffic moving from one location to another where the origin is within the limits of the subject port.

Commodity Descriptions: The first two digits of the Waterborne Commerce Statistics Center (WCSC) publication codes correspond with the Lock Performance Monitoring System (LPMS) commodity codes. Both LPMS and WCSC codes were standardized to reflect the hierarchical structure of the Standard Industrial Trade Classification (SITC) Revision 3 commodity codes. SITC, Rev. 3 commodity codes conform to the Harmonized Commodity Description and Coding System (HS). Using SITC, Rev. 3 allows direct comparisons with U.S. imports and exports, as well as with commodity movements of other countries.

Tons: The tonnage figures provided throughout the *Waterborne Commerce of the United States*, **WCUS, Parts 1-5** represent short tons (2000 pounds). Where noted, tonnage figures are rounded to the nearest thousand tons. A zero represents less than 500 tons but more than zero. Dashes mean zero tons. Columns and rows may not add up exactly to totals and subtotals due to rounding.

Ton-miles: Water carriage ton-miles were first compiled and published in calendar year 1962. The distances used are statute miles. Domestic ton-miles are calculated by multiplying the tons of commerce being moved by the number of miles actually moved on the water (e.g. 50 short tons moving 200 miles on a particular waterway would yield 10,000 ton-miles for that waterway). The ton-mile parameter measures the total performance of a waterway. Ton-miles are not computed for ports.

For coastwise traffic this represents the mileage on the shortest route that safe navigation permits between the point of origin and destination. The source of this distance information for coastwise traffic is the publication, *Distance Between United States Ports*, published by the National Oceanic and Atmospheric Administration (1987).

For rivers and inland waterways the distances were computed from waterway survey maps and records of the Corps of Engineers.

For the Great Lakes System the ton-miles are computed for movements of cargo west of the international boundary of St. Regis, Quebec, Canada to head of Lake Superior at Duluth, MN and Superior, WI.

For Canadian imports and exports, foreign ton-miles are computed as the tonnage times the distance between the U.S. and Canadian ports.

For lakewise domestic movements, ton-miles equal the cargo tonnage times the distance between the U.S. Great Lakes ports.

For overseas imports and exports, foreign ton-miles are computed by multiplying the cargo tonnage by the miles carried on U.S. waterways and channels.

Ton-miles are rounded to the nearest thousand.

Trans-shipments: Ports and offshore anchorages where cargo is moved from one vessel to another. These are: St. Lucia, Virgin Islands; Heald Bank off the Louisiana and Texas coasts; Chirqui Grande, Panama; Puerto Armuelles, Panama; and Hondo Platform-Pacific Ocean.

Commodity Classification List

Major Grouping	Major Grouping
Minor Grouping	Minor Grouping
Pub Group Pub Name	Pub Group Pub Name
00 Units	3282 Pigments & Paints
0200 Vehicles	3283 Coloring Mat. NEC
0300 Passengers	3284 Medicines
	3285 Perfumes & Cleansers
10 Coal	3286 Plastics
1100 Coal	3291 Pesticides
1200 Coal Coke	3292 Starches,Gluten,Glue
	3293 Explosives
20 Petroleum & Petroleum Products	3297 Chemical Additives
21 Crude Petroleum	3298 Wood & Resin Chem.
2100 Crude Petroleum	3299 Chem. Products NEC
22-29 Petroleum Products	40 Crude Materials, Inedible Except Fuels
2211 Gasoline	41 Forest Products, Wood and Chips
2221 Kerosene	4110 Rubber & Gums
2330 Distillate Fuel Oil	4150 Fuel Wood
2340 Residual Fuel Oil	4161 Wood Chips
2350 Lube Oil & Greases	4170 Wood in the Rough
2410 Petro. Jelly & Waxes	4189 Lumber
2429 Naphtha & Solvents	4190 Forest Products NEC
2430 Asphalt, Tar & Pitch	42 Pulp and Waste Paper
2540 Petroleum Coke	4225 Pulp & Waste Paper
2640 Liquid Natural Gas	43 Soil, Sand, Gravel, Rock and Stone
2990 Petro. Products NEC	4310 Building Stone
	4322 Limestone
30 Chemicals and Related Products	4323 Gypsum
31 Fertilizers	4327 Phosphate Rock
3110 Nitrogenous Fert.	4331 Sand & Gravel
3120 Phosphatic Fert.	4333 Dredged Material
3130 Potassic Fert.	4335 Waterway Improv. Mat
3190 Fert. & Mixes NEC	4338 Soil & Fill Dirt
32 Other Chemicals and Related Products	44 Iron Ore and Scrap
3211 Acyclic Hydrocarbons	4410 Iron Ore
3212 Benzene & Toluene	4420 Iron & Steel Scrap
3219 Other Hydrocarbons	45 Marine Shells
3220 Alcohols	4515 Marine Shells
3230 Carboxylic Acids	46 Non-Ferrous Ores and Scrap
3240 Nitrogen Func. Comp.	4630 Copper Ore
3250 Organo-Inorganic Comp.	4650 Aluminum Ore
3260 Organic Comp. NEC	4670 Manganese Ore
3271 Sulphur (Liquid)	4680 Non-Ferrous Scrap
3272 Sulphuric Acid	4690 Non-Ferrous Ores NEC
3273 Ammonia	47 Sulphur, Clay and Salt
3274 Sodium Hydroxide	4741 Sulphur, (Dry)
3275 Inorg. Elem.,Oxides, & Halogen Salts	4782 Clay & Refrac. Mat.
3276 Metallic Salts	4783 Salt
3279 Inorganic Chem. NEC	48 Slag
3281 Radioactive Material	4860 Slag
	49 Other Non-Metal. Min.
	4900 Non-Metal. Min. NEC

Commodity Classification List (continued)

<u>Major Grouping</u>	<u>Major Grouping</u>
<u>Minor Grouping</u>	<u>Minor Grouping</u>
<u>Pub Group Pub Name</u>	<u>Pub Group Pub Name</u>
50 Primary Manufactured Goods	68 Other Agricultural Products
51 Paper Products	6811 Meat, Fresh, Frozen
5110 Newsprint	6817 Meat, Prepared
5120 Paper & Paperboard	6822 Dairy Products
5190 Paper Products NEC	6835 Fish, Prepared
52 Lime, Cement and Glass	6838 Tallow, Animal Oils
5210 Lime	6839 Animals & Prod. NEC
5220 Cement & Concrete	6856 Bananas & Plantains
5240 Glass & Glass Prod.	6857 Fruit & Nuts NEC
5290 Misc. Mineral Prod.	6858 Fruit Juices
53 Primary Iron and Steel Products	6861 Sugar
5312 Pig Iron	6865 Molasses
5315 Ferro Alloys	6871 Coffee
5320 I&S Primary Forms	6872 Cocoa Beans
5330 I&S Plates & Sheets	6885 Alcoholic Beverages
5360 I&S Bars & Shapes	6887 Groceries
5370 I&S Pipe & Tube	6888 Water & Ice
5390 Primary I&S NEC	6889 Food Products NEC
54 Primary Non-Ferrous Metal Products	6891 Tobacco & Products
5421 Copper	6893 Cotton
5422 Aluminum	6894 Natural Fibers NEC
5429 Smelted Prod. NEC	6899 Farm Products NEC
5480 Fab. Metal Products	
55 Primary Wood Products; Veneer	70 All Manufactured Equipment, Machinery
5540 Primary Wood Prod.	and Products
	7110 Machinery (Not Elec)
60 Food and Farm Products	7120 Electrical Machinery
61 Fish	7210 Vehicles & Parts
6134 Fish (Not Shellfish)	7220 Aircraft & Parts
6136 Shellfish	7230 Ships & Boats
62-64 Grain	7300 Ordnance & Access.
6241 Wheat	7400 Manufac. Wood Prod.
6344 Corn	7500 Textile Products
6442 Rice	7600 Rubber & Plastic Pr.
6443 Barley & Rye	7800 Empty Containers
6445 Oats	7900 Manufac. Prod. NEC
6447 Sorghum Grains	
65 Oilseeds	80 Waste and Scrap NEC
6521 Peanuts	8900 Waste and Scrap NEC
6522 Soybeans	
6534 Flaxseed	90 Unknown or Not Elsewhere Classified
6590 Oilseeds NEC	99 Unknown or Not Elsewhere Clsfd
66 Vegetable Products	9900 Unknown or NEC
6653 Vegetable Oils	
6654 Vegetables & Prod.	
67 Processed Grain and Animal Feed	
6746 Wheat Flour	
6747 Grain Mill Products	
6781 Hay & Fodder	
6782 Animal Feed, Prep.	

Section 1

Freight Traffic

SAN DIEGO HARBOR, CA

Section Included: Entire harbor. Controlling and Project Depths: 42 feet in entrance channel; 30 to 42 feet in Bay Channel, and turning basin 26 to 35 feet in anchorage areas; 10 to 16 feet in other channels and areas.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,741	1992	638	1995	1,351	1998	1,873
1990	1,280	1993	1,294	1996	1,842		
1991	904	1994	1,167	1997	1,724		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			
		Imports*	Exports	Imports	Total	Coastwise	Internal	
					Receipts	Receipts	Intraport	
Total, all commodities	1,873	639	648	37	549	517	26	6
Total coal	0	---	0	---	---	---	---	---
1100 coal lignite	0	---	0	---	---	---	---	---
Total petroleum and petroleum products	386	---	3	---	383	383	---	---
Subtotal petroleum products	386	---	3	---	383	383	---	---
2211 gasoline	185	---	---	---	185	185	---	---
2340 residual fuel oil	198	---	---	---	198	198	---	---
2350 lube oil & greases	3	---	3	---	---	---	---	---
2429 naphtha & solvents	0	---	0	---	---	---	---	---
2640 liquid natural gas	0	---	0	---	---	---	---	---
Total chemicals and related products	666	82	583	---	---	---	---	---
Subtotal fertilizers	82	82	---	---	---	---	---	---
3110 nitrogenous fert.	64	64	---	---	---	---	---	---
3190 fert. & mixes nec	18	18	---	---	---	---	---	---
Subtotal other chemicals and related products	584	0	583	---	---	---	---	---
3219 other hydrocarbons	0	---	0	---	---	---	---	---
3220 alcohols	0	0	0	---	---	---	---	---
3230 carboxylic acids	0	---	0	---	---	---	---	---
3240 nitrogen func. comp.	0	---	0	---	---	---	---	---
3250 organo-inorg. comp.	0	---	0	---	---	---	---	---
3260 organic comp. nec	0	---	0	---	---	---	---	---
3275 inorg. elem. oxides, & halogen salts	0	---	0	---	---	---	---	---
3276 metallic salts	576	0	576	---	---	---	---	---
3282 pigments & paints	0	---	0	---	---	---	---	---
3283 coloring mat. nec	0	---	0	---	---	---	---	---
3284 medicines	0	0	0	---	---	---	---	---
3285 perfumes & cleansers	0	0	0	---	---	---	---	---
3286 plastics	6	0	6	---	---	---	---	---
3291 pesticides	0	---	0	---	---	---	---	---
3297 chemical additives	0	---	0	---	---	---	---	---
3298 wood & resin chem.	0	---	0	---	---	---	---	---
3299 chem. products nec	0	0	0	---	---	---	---	---
Total crude materials, inedible except fuels	190	7	9	8	166	134	26	6
Subtotal forest products, wood and chips	175	7	0	8	160	134	26	---
4170 wood in the rough	0	---	0	---	---	---	---	---
4189 lumber	142	---	0	8	134	134	---	---
4190 forest products nec	33	7	---	---	26	---	26	---
Subtotal pulp and waste paper	8	---	8	---	---	---	---	---
4225 pulp & waste paper	8	---	8	---	---	---	---	---
Subtotal soil, sand, gravel, rock and stone	6	---	---	---	6	---	---	6
4331 sand & gravel	6	---	---	---	6	---	---	6
Subtotal iron ore and scrap	0	---	0	---	---	---	---	---
4420 iron & steel scrap	0	---	0	---	---	---	---	---
Subtotal non-ferrous ores and scrap	0	---	0	---	---	---	---	---
4680 non-ferrous scrap	0	---	0	---	---	---	---	---
Subtotal sulphur, clay and salt	1	---	1	---	---	---	---	---
4782 clay & refrac. mat.	1	---	1	---	---	---	---	---
Subtotal other non-metal. min.	0	---	0	---	---	---	---	---
4900 non-metal. min. nec	0	---	0	---	---	---	---	---
Total primary manufactured goods	88	53	6	29	0	---	---	0
Subtotal paper products	44	11	4	29	---	---	---	---
5110 newsprint	40	11	---	29	---	---	---	---
5120 paper & paperboard	4	0	4	---	---	---	---	---
5190 paper products nec	0	---	0	---	---	---	---	---
Subtotal lime, cement and glass	39	39	0	---	---	---	---	---
5220 cement & concrete	39	39	---	---	---	---	---	---
5240 glass & glass prod.	0	---	0	---	---	---	---	---
5290 misc. mineral prod.	0	0	0	---	---	---	---	---

SAN DIEGO HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			
		Imports*	Exports	Imports	Total	Coastwise	Internal	
					Receipts	Receipts	Receipts	Intraport
Subtotal primary iron and steel products	0	---	0	---	---	---	---	---
5320 i&s primary forms	0	---	0	---	---	---	---	---
5370 i&s pipe & tube	0	---	0	---	---	---	---	---
5390 primary i&s nec	0	---	0	---	---	---	---	---
Subtotal primary non-ferrous metal products	4	3	1	---	0	---	---	0
5421 copper	1	1	0	---	---	---	---	---
5422 aluminum	1	---	1	---	---	---	---	---
5429 smelted prod. nec	0	---	0	---	---	---	---	---
5480 fab. metal products	2	2	1	---	0	---	---	0
Subtotal primary wood products	0	---	0	---	---	---	---	---
5540 primary wood prod.	0	---	0	---	---	---	---	---
Total food and farm products	123	103	20	---	---	---	---	---
Subtotal fish	0	0	---	---	---	---	---	---
6134 fish (not shellfish)	0	0	---	---	---	---	---	---
Subtotal grain	16	---	16	---	---	---	---	---
6344 corn	0	---	0	---	---	---	---	---
6442 rice	16	---	16	---	---	---	---	---
6445 oats	0	---	0	---	---	---	---	---
Subtotal oilseeds	38	38	0	---	---	---	---	---
6521 peanuts	0	---	0	---	---	---	---	---
6590 oilseeds nec	38	38	---	---	---	---	---	---
Subtotal vegetable products	0	0	0	---	---	---	---	---
6653 vegetable oils	0	0	0	---	---	---	---	---
6654 vegetables & prod.	0	---	0	---	---	---	---	---
Subtotal processed grain and animal feed	1	---	1	---	---	---	---	---
6781 hay & fodder	1	---	1	---	---	---	---	---
6782 animal feed, prep.	1	---	1	---	---	---	---	---
Subtotal other agricultural products	67	65	2	---	---	---	---	---
6811 meat, fresh, frozen	2	---	2	---	---	---	---	---
6857 fruit & nuts nec	65	65	0	---	---	---	---	---
6871 coffee	0	---	0	---	---	---	---	---
6885 alcoholic beverages	0	0	---	---	---	---	---	---
6888 water & ice	0	0	---	---	---	---	---	---
6889 food products nec	0	---	0	---	---	---	---	---
6893 cotton	0	---	0	---	---	---	---	---
Total all manufactured equipment, machinery and products	420	394	26	---	0	---	---	0
7110 machinery (not elec)	1	0	1	---	0	---	---	0
7120 electrical machinery	1	0	1	---	0	---	---	0
7210 vehicles & parts	411	392	18	---	---	---	---	---
7220 aircraft & parts	0	---	0	---	---	---	---	---
7230 ships & boats	0	0	0	---	---	---	---	---
7500 textile products	5	0	5	---	---	---	---	---
7600 rubber & plastic pr.	1	0	0	---	---	---	---	---
7900 manufac. prod. nec	1	0	1	---	---	---	---	---
Total unknown or not elsewhere classified	0	0	0	---	---	---	---	---
9900 unknown or nec	0	0	0	---	---	---	---	---

*Includes 0 (x1000) tons of foreign inbound in-transits.

LONG BEACH HARBOR, CA

Section Included: Entire harbor within the city limits of Long Beach. Controlling Depth: 62 feet in Long Beach Entrance Channel; 50 feet to 55 feet in turning basins; 35 feet in Cerritos Channel. Project Depth: 35 feet in Long Beach channel and other channels and basins.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	54,808	1992	52,049	1995	53,227	1998	57,745
1990	52,425	1993	54,321	1996	58,395		
1991	52,891	1994	56,522	1997	57,255		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Total, all commodities	39,524	24,978	14,140	344	62
Total coal	456	1	455	---	0
1100 coal lignite	456	1	455	---	0
1200 coal coke	0	---	0	---	---

LONG BEACH HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Total petroleum and petroleum products	12,292	7,000	5,189	43	60
Subtotal crude petroleum	5,513	5,432	—	32	48
2100 crude petroleum	5,513	5,432	—	32	48
Subtotal petroleum products	6,780	1,568	5,189	11	11
2211 gasoline	53	38	15	—	—
2221 kerosene	595	583	12	—	0
2330 distillate fuel oil	186	121	44	10	11
2340 residual fuel oil	858	712	146	—	—
2350 lube oil & greases	80	3	77	—	—
2410 petro. jelly & waxes	11	5	5	1	—
2429 naphtha & solvents	399	91	308	—	—
2430 asphalt, tar & pitch	157	9	149	—	—
2540 petroleum coke	4,413	0	4,413	—	—
2640 liquid natural gas	27	7	20	—	—
Total chemicals and related products	3,461	1,533	1,856	73	0
Subtotal fertilizers	45	6	39	—	—
3110 nitrogenous fert.	3	1	2	—	—
3120 phosphatic fert.	0	—	0	—	—
3130 potassic fert.	7	0	7	—	—
3190 fert. & mixes nec	35	4	30	—	—
Subtotal other chemicals and related products	3,416	1,527	1,817	73	0
3211 acyclic hydrocarbons	9	1	8	—	—
3212 benzene & toluene	1	0	0	—	—
3219 other hydrocarbons	99	37	36	27	—
3220 alcohols	139	31	67	42	—
3230 carboxylic acids	84	38	45	—	—
3240 nitrogen func. comp.	134	36	98	—	—
3250 organo-inorg. comp.	68	19	49	—	0
3260 organic comp. nec	804	767	37	—	—
3271 sulphur (liquid)	41	—	41	—	—
3272 sulphuric acid	3	0	3	—	—
3273 ammonia	30	22	8	—	—
3274 sodium hydroxide	22	14	3	4	—
3275 inorg. elem., oxides, & halogen salts	140	62	78	0	—
3276 metallic salts	176	40	137	0	—
3279 inorganic chem. nec	10	8	2	—	—
3281 radioactive material	13	12	1	—	—
3282 pigments & paints	82	15	66	—	—
3283 coloring mat. nec	24	16	8	0	—
3284 medicines	39	15	24	—	0
3285 perfumes & cleansers	96	21	76	—	0
3286 plastics	1,080	285	795	0	0
3291 pesticides	29	6	22	—	—
3292 starches, gluten, glue	51	17	35	0	0
3293 explosives	26	25	1	—	—
3297 chemical additives	63	2	61	—	—
3298 wood & resin chem.	13	6	7	—	—
3299 chem. products nec	142	32	110	0	0
Total crude materials, inedible except fuels	3,074	940	2,077	57	0
Subtotal forest products, wood and chips	290	173	60	57	0
4110 rubber & gums	98	95	3	—	—
4150 fuel wood	3	2	1	—	—
4161 wood chips	7	0	7	—	—
4170 wood in the rough	18	6	12	—	0
4189 lumber	122	39	27	56	0
4190 forest products nec	41	31	10	0	—
Subtotal pulp and waste paper	957	15	942	—	—
4225 pulp & waste paper	957	15	942	—	—
Subtotal soil, sand, gravel, rock and stone	614	568	46	0	0
4310 building stone	6	5	1	0	—
4322 limestone	0	0	0	—	—
4323 gypsum	560	549	11	—	0
4327 phosphate rock	9	0	9	—	—
4331 sand & gravel	39	14	25	—	—
Subtotal iron ore and scrap	298	21	277	—	—
4410 iron ore	26	19	7	—	—
4420 iron & steel scrap	272	2	270	—	—
Subtotal marine shells	1	0	0	—	—
4515 marine shells	1	0	0	—	—
Subtotal non-ferrous ores and scrap	130	24	106	—	—
4630 copper ore	0	0	0	—	—
4650 aluminum ore	17	7	10	—	—
4670 manganese ore	0	0	0	—	—
4680 non-ferrous scrap	98	12	87	—	—
4690 non-ferrous ores nec	14	6	8	—	—
Subtotal sulphur, clay and salt	591	15	576	—	—
4741 sulphur, (dry)	495	0	495	—	—
4782 clay & refrac. mat.	96	15	81	—	—
Subtotal slag	1	0	1	—	—
4860 slag	1	0	1	—	—
Subtotal other non-metal. min.	192	123	69	—	0
4900 non-metal. min. nec	192	123	69	—	0
Total primary manufactured goods	5,714	4,909	637	167	1
Subtotal paper products	819	352	300	166	0
5110 newsprint	265	87	13	165	—
5120 paper & paperboard	425	187	237	1	0
5190 paper products nec	128	77	51	0	—
Subtotal lime, cement and glass	2,472	2,344	128	0	—
5210 lime	1	0	1	—	—
5220 cement & concrete	1,408	1,406	2	—	—
5240 glass & glass prod.	216	177	39	—	—
5290 misc. mineral prod.	847	761	86	0	—

LONG BEACH HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Subtotal primary iron and steel products	1,159	1,115	44	0	0
5312 pig iron	9	6	3	—	—
5315 ferro alloys	14	12	2	0	—
5320 i&s primary forms	5	2	3	—	—
5330 i&s plates & sheets	637	626	11	0	0
5360 i&s bars & shapes	287	280	8	0	0
5370 i&s pipe & tube	151	136	15	—	0
5390 primary i&s nec	56	55	2	0	0
Subtotal primary non-ferrous metal products	1,184	1,033	151	0	0
5421 copper	56	28	29	—	—
5422 aluminum	78	35	42	—	—
5429 smelted prod. nec	52	34	17	—	0
5480 fab. metal products	998	936	62	0	0
Subtotal primary wood products	80	66	14	0	—
5540 primary wood prod.	80	66	14	0	—
Total food and farm products	4,883	2,062	2,818	2	1
Subtotal fish	353	286	66	0	0
6134 fish (not shellfish)	203	150	52	0	0
6136 shellfish	150	136	14	0	—
Subtotal grain	64	39	24	—	—
6241 wheat	0	0	0	—	—
6344 corn	11	0	10	—	—
6442 rice	51	39	12	—	—
6443 barley & rye	0	0	0	—	—
6445 oats	1	0	1	—	—
6447 sorghum grains	1	—	1	—	—
Subtotal oilseeds	62	10	52	—	—
6521 peanuts	3	3	0	—	—
6522 soybeans	35	1	35	—	—
6534 flaxseed	0	0	0	—	—
6590 oilseeds nec	24	7	18	—	—
Subtotal vegetable products	466	221	243	1	0
6653 vegetable oils	54	38	16	0	—
6654 vegetables & prod.	412	183	227	1	0
Subtotal processed grain and animal feed	794	113	681	—	0
6746 wheat flour	3	1	2	—	0
6747 grain mill products	118	59	59	—	—
6781 hay & fodder	416	0	416	—	—
6782 animal feed, prep.	257	53	204	—	0
Subtotal other agricultural products	3,144	1,393	1,750	1	0
6811 meat, fresh, frozen	260	78	182	—	—
6817 meat, prepared	38	10	28	—	0
6822 dairy products	30	8	21	—	0
6835 fish, prepared	122	107	15	0	—
6838 tallow, animal oils	35	1	33	—	—
6839 animals & prod. nec	125	24	101	—	0
6856 bananas & plantains	334	332	2	—	—
6857 fruit & nuts nec	615	148	467	—	0
6858 fruit juices	192	142	50	0	—
6861 sugar	2	1	1	—	0
6865 molasses	51	51	0	—	—
6871 coffee	121	111	10	—	—
6872 cocoa beans	11	10	1	—	—
6885 alcoholic beverages	352	186	166	1	—
6888 water & ice	60	54	6	—	—
6889 food products nec	324	103	221	0	0
6891 tobacco & products	50	6	45	—	—
6893 cotton	390	3	387	—	0
6894 natural fibers nec	7	5	1	—	—
6899 farm products nec	26	12	13	0	—
Total all manufactured equipment, machinery and products	9,484	8,451	1,030	2	0
7110 machinery (not elec)	1,030	797	233	0	0
7120 electrical machinery	1,926	1,737	187	1	0
7210 vehicles & parts	750	659	91	0	0
7220 aircraft & parts	7	2	5	—	—
7230 ships & boats	14	1	13	—	—
7300 ordnance & access.	8	5	3	—	—
7400 manufac. wood prod.	138	118	20	0	0
7500 textile products	1,435	1,276	159	0	0
7600 rubber & plastic pr.	860	733	127	0	0
7900 manufac. prod. nec	3,317	3,124	193	0	0
Total unknown or not elsewhere classified	160	81	78	0	—
9900 unknown or nec	160	81	78	0	—

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	18,221	16,029	1,371	593	113	115
Total petroleum and petroleum products	16,754	15,085	879	570	105	114
Subtotal crude petroleum	13,199	12,979	220	—	—	—
2100 crude petroleum	13,199	12,979	220	—	—	—
Subtotal petroleum products	3,554	2,106	659	570	105	114
2211 gasoline	1,092	896	181	—	—	16
2330 distillate fuel oil	1,363	946	392	25	—	—

LONG BEACH HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic					
		Coastwise		Internal			
		Receipts	Shipments	Receipts	Shipments	Intraport	
2340 residual fuel oil	920	118	54	544	105	99	
2350 lube oil & greases	98	75	22	1	—	—	
2410 petro. jelly & waxes	0	—	0	—	—	—	
2429 naphtha & solvents	24	24	1	—	—	—	
2430 asphalt, tar & pitch	27	27	—	—	—	—	
2990 petro. products nec	29	20	9	—	—	—	
Total chemicals and related products	694	675	18	—	—	—	
Subtotal fertilizers	2	—	2	—	—	—	
3110 nitrogenous fert.	0	—	0	—	—	—	
3190 fert. & mixes nec	2	—	2	—	—	—	
Subtotal other chemicals and related products	692	675	17	—	—	—	
3211 acyclic hydrocarbons	1	—	1	—	—	—	
3219 other hydrocarbons	15	15	0	—	—	—	
3220 alcohols	15	10	5	—	—	—	
3230 carboxylic acids	0	—	0	—	—	—	
3250 organo-inorg. comp.	0	—	0	—	—	—	
3260 organic comp. nec	1	—	1	—	—	—	
3274 sodium hydroxide	23	23	—	—	—	—	
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—	—	
3282 pigments & paints	0	0	0	—	—	—	
3285 perfumes & cleansers	0	—	0	—	—	—	
3286 plastics	3	0	3	—	—	—	
3292 starches, gluten, glue	0	—	0	—	—	—	
3293 explosives	0	—	0	—	—	—	
3297 chemical additives	619	619	—	—	—	—	
3298 wood & resin chem.	11	8	3	—	—	—	
3299 chem. products nec	4	1	3	—	—	—	
Total crude materials, inedible except fuels	273	219	40	8	6	—	
Subtotal forest products, wood and chips	219	219	0	—	—	—	
4110 rubber & gums	0	0	0	—	—	—	
4150 fuel wood	0	—	0	—	—	—	
4170 wood in the rough	0	—	0	—	—	—	
4189 lumber	219	218	0	—	—	—	
4190 forest products nec	0	0	0	—	—	—	
Subtotal pulp and waste paper	34	—	34	—	—	—	
4225 pulp & waste paper	34	—	34	—	—	—	
Subtotal soil, sand, gravel, rock and stone	15	—	0	8	6	—	
4323 gypsum	0	—	0	—	—	—	
4331 sand & gravel	15	—	0	8	6	—	
Subtotal iron ore and scrap	5	0	5	—	—	—	
4420 iron & steel scrap	5	0	5	—	—	—	
Subtotal non-ferrous ores and scrap	1	0	1	—	—	—	
4630 copper ore	0	—	0	—	—	—	
4680 non-ferrous scrap	1	0	1	—	—	—	
4690 non-ferrous ores nec	0	—	0	—	—	—	
Subtotal sulphur, clay and salt	0	—	0	—	—	—	
4782 clay & refrac. mat.	0	—	0	—	—	—	
Subtotal other non-metal. min.	0	—	0	—	—	—	
4900 non-metal. min. nec	0	—	0	—	—	—	
Total primary manufactured goods	20	2	17	—	—	0	
Subtotal paper products	10	—	10	—	—	—	
5120 paper & paperboard	10	—	10	—	—	—	
5190 paper products nec	0	—	0	—	—	—	
Subtotal lime, cement and glass	3	2	0	—	—	0	
5220 cement & concrete	0	0	0	—	—	—	
5240 glass & glass prod.	2	2	0	—	—	—	
5290 misc. mineral prod.	0	—	0	—	—	0	
Subtotal primary iron and steel products	4	—	4	—	—	—	
5312 pig iron	0	—	0	—	—	—	
5320 i&s primary forms	0	—	0	—	—	—	
5330 i&s plates & sheets	0	—	0	—	—	—	
5360 i&s bars & shapes	4	—	4	—	—	—	
5370 i&s pipe & tube	0	—	0	—	—	—	
Subtotal primary non-ferrous metal products	2	0	2	—	—	—	
5421 copper	0	—	0	—	—	—	
5429 smelted prod. nec	0	—	0	—	—	—	
5480 fab. metal products	2	0	2	—	—	—	
Total food and farm products	111	5	95	11	—	—	
Subtotal fish	1	1	0	—	—	—	
6134 fish (not shellfish)	0	0	0	—	—	—	
6136 shellfish	1	1	0	—	—	—	
Subtotal grain	0	—	0	—	—	—	
6241 wheat	0	—	0	—	—	—	
6442 rice	0	—	0	—	—	—	
Subtotal oilseeds	0	—	0	—	—	—	
6521 peanuts	0	—	0	—	—	—	
Subtotal vegetable products	9	0	9	—	—	—	
6653 vegetable oils	0	—	0	—	—	—	
6654 vegetables & prod.	9	0	9	—	—	—	
Subtotal processed grain and animal feed	14	0	14	—	—	—	
6746 wheat flour	10	0	10	—	—	—	
6747 grain mill products	0	0	0	—	—	—	
6781 hay & fodder	1	—	1	—	—	—	
6782 animal feed, prep.	3	0	3	—	—	—	
Subtotal other agricultural products	86	3	72	11	—	—	
6811 meat, fresh, frozen	1	—	1	—	—	—	
6817 meat, prepared	3	—	3	—	—	—	
6822 dairy products	0	—	0	—	—	—	
6835 fish, prepared	0	—	0	—	—	—	

LONG BEACH HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Receipts	Internal	
		Receipts	Shipments		Shipments	Intraport
6839 animals & prod. nec	5	—	5	—	—	—
6857 fruit & nuts nec	28	0	28	—	—	—
6858 fruit juices	1	1	0	—	—	—
6861 sugar	0	—	0	—	—	—
6871 coffee	0	0	0	—	—	—
6885 alcoholic beverages	5	—	5	—	—	—
6888 water & ice	11	—	0	11	—	—
6889 food products nec	6	1	5	—	—	—
6891 tobacco & products	1	—	1	—	—	—
6893 cotton	0	—	0	—	—	—
6899 farm products nec	23	—	23	—	—	—
Total all manufactured equipment, machinery and products	369	42	322	4	1	0
7110 machinery (not elec)	1	0	0	0	0	—
7120 electrical machinery	1	0	1	—	—	—
7210 vehicles & parts	33	11	23	—	—	—
7220 aircraft & parts	0	0	0	—	—	—
7300 ordnance & access.	0	0	—	—	—	—
7400 manufac. wood prod.	0	—	0	—	—	—
7500 textile products	21	2	19	—	0	—
7600 rubber & plastic pr.	1	0	1	—	—	—
7900 manufac. prod. nec	311	29	278	4	1	0
Total unknown or not elsewhere classified	1	1	0	—	—	—
9900 unknown or nec	1	1	0	—	—	—

*Includes 1,585 (x1000) tons of foreign inbound in-transits; Includes 618 (x1000) tons of foreign outbound in-transits;
Includes 3 (x1000) tons of Canadian inbound in-transits; Includes 0 (x1000) tons of Canadian outbound in-transits.

LOS ANGELES HARBOR, CA

Section Included: Entire harbor within the city limits of Los Angeles. Controlling Depth: 45 to 51 feet in entrance and outer harbor channels and basins; 45 feet in Los Angeles channel and inner harbor basins and channels; 35 feet in Cerritos Channel. Project Depth: 45 to 51 feet in entrance and outer harbor channels and basins; 45 feet in Los Angeles channel and inner harbor basins and channels; 35 feet in Cerritos Channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	47,272	1992	40,104	1995	46,479	1998	44,144
1990	46,352	1993	43,623	1996	45,689		
1991	47,008	1994	43,140	1997	41,774		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Total, all commodities	34,662	22,160	12,156	280	67
Total coal	3,018	29	2,989	—	—
1100 coal lignite	3,018	29	2,989	—	—
1200 coal coke	0	—	0	—	—
Total petroleum and petroleum products	6,255	4,420	1,778	9	47
Subtotal crude petroleum	2,603	2,603	0	—	—
2100 crude petroleum	2,603	2,603	0	—	—
Subtotal petroleum products	3,653	1,817	1,778	9	47
2211 gasoline	61	60	0	—	—
2221 kerosene	1,071	1,071	0	—	—
2330 distillate fuel oil	217	163	45	9	—
2340 residual fuel oil	820	507	266	—	47
2350 lube oil & greases	50	2	47	—	0
2410 petro. jelly & waxes	17	14	4	0	—
2429 naphtha & solvents	123	0	122	0	—
2430 asphalt, tar & pitch	32	0	32	—	—
2540 petroleum coke	1,235	0	1,235	—	—
2640 liquid natural gas	28	0	27	—	—
Total chemicals and related products	3,378	1,302	1,929	146	0
Subtotal fertilizers	44	5	40	0	—
3110 nitrogenous fert.	4	3	1	—	—
3120 phosphatic fert.	0	—	0	—	—
3130 potassic fert.	0	0	0	—	—
3190 fert. & mixes nec	40	2	38	0	—
Subtotal other chemicals and related products	3,334	1,298	1,890	146	0
3211 acyclic hydrocarbons	32	0	32	—	—
3212 benzene & toluene	0	—	0	—	—
3219 other hydrocarbons	36	6	27	3	—
3220 alcohols	107	23	40	44	0
3230 carboxylic acids	116	41	74	0	—
3240 nitrogen func. comp.	136	32	104	—	—
3250 organo-inorg. comp.	64	20	44	—	—
3260 organic comp. nec	772	639	51	82	—

LOS ANGELES HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
3272 sulphuric acid	3	1	2	—	—
3273 ammonia	1	0	1	—	—
3274 sodium hydroxide	25	20	2	3	—
3275 inorg. elem., oxides, & halogen salts	182	51	131	—	0
3276 metallic salts	438	23	412	3	—
3279 inorganic chem. nec	5	4	1	0	—
3281 radioactive material	4	2	2	—	—
3282 pigments & paints	61	20	41	0	0
3283 coloring mat. nec	12	8	4	—	—
3284 medicines	26	12	13	0	—
3285 perfumes & cleansers	90	16	73	0	0
3286 plastics	883	251	622	9	0
3291 pesticides	25	12	13	—	—
3292 starches, gluten, glue	76	44	31	0	0
3293 explosives	33	33	0	—	—
3297 chemical additives	63	3	60	—	—
3298 wood & resin chem.	11	6	5	0	—
3299 chem. products nec	132	28	103	0	0
Total crude materials, inedible except fuels	2,357	411	1,885	60	0
Subtotal forest products, wood and chips	355	264	63	29	0
4110 rubber & gums	156	156	0	—	—
4150 fuel wood	11	4	8	—	—
4161 wood chips	4	—	4	—	—
4170 wood in the rough	13	1	13	—	—
4189 lumber	130	68	34	28	0
4190 forest products nec	41	36	4	1	—
Subtotal pulp and waste paper	871	13	827	31	—
4225 pulp & waste paper	871	13	827	31	—
Subtotal soil, sand, gravel, rock and stone	116	62	55	—	0
4310 building stone	4	2	2	—	0
4322 limestone	0	0	0	—	—
4323 gypsum	21	0	21	—	0
4327 phosphate rock	3	0	3	—	—
4331 sand & gravel	88	59	29	—	—
Subtotal iron ore and scrap	596	12	583	0	—
4410 iron ore	1	0	1	—	—
4420 iron & steel scrap	595	12	582	0	—
Subtotal marine shells	1	1	1	—	—
4515 marine shells	1	1	1	—	—
Subtotal non-ferrous ores and scrap	151	19	132	0	—
4630 copper ore	0	—	0	—	—
4650 aluminum ore	22	4	18	—	—
4670 manganese ore	1	—	1	—	—
4680 non-ferrous scrap	90	13	78	0	—
4690 non-ferrous ores nec	37	2	35	—	—
Subtotal sulphur, clay and salt	180	7	173	0	—
4741 sulphur, (dry)	107	0	107	—	—
4782 clay & refrac. mat.	73	7	66	0	—
Subtotal slag	1	—	1	—	—
4860 slag	1	—	1	—	—
Subtotal other non-metal. min.	86	33	53	0	0
4900 non-metal. min. nec	86	33	53	0	0
Total primary manufactured goods	6,309	5,766	509	32	3
Subtotal paper products	510	225	254	30	0
5110 newsprint	93	59	7	26	—
5120 paper & paperboard	315	103	209	3	0
5190 paper products nec	102	63	38	1	0
Subtotal lime, cement and glass	1,459	1,371	87	1	1
5210 lime	0	0	0	—	—
5220 cement & concrete	676	673	3	—	—
5240 glass & glass prod.	163	129	34	0	0
5290 misc. mineral prod.	619	569	49	1	0
Subtotal primary iron and steel products	3,055	3,016	38	0	0
5312 pig iron	12	3	9	—	—
5315 ferro alloys	4	3	1	—	—
5320 i&s primary forms	1,583	1,581	2	0	0
5330 i&s plates & sheets	703	693	10	0	0
5360 i&s bars & shapes	383	380	3	—	0
5370 i&s pipe & tube	330	318	11	—	0
5390 primary i&s nec	40	38	2	—	—
Subtotal primary non-ferrous metal products	1,137	1,014	120	1	2
5421 copper	45	30	15	—	—
5422 aluminum	74	33	41	0	—
5429 smelted prod. nec	44	31	12	—	2
5480 fab. metal products	974	920	53	1	0
Subtotal primary wood products	148	139	9	0	—
5540 primary wood prod.	148	139	9	0	—
Total food and farm products	4,403	2,195	2,174	21	12
Subtotal fish	192	162	28	2	0
6134 fish (not shellfish)	90	63	24	2	0
6136 shellfish	102	99	3	0	0
Subtotal grain	167	86	80	2	—
6241 wheat	0	—	0	—	—
6344 corn	71	0	71	—	—
6442 rice	90	85	4	—	—
6443 barley & rye	2	0	2	0	—
6445 oats	2	0	1	1	—
6447 sorghum grains	2	—	2	—	—
Subtotal oilseeds	49	7	42	0	0
6521 peanuts	2	0	2	—	—
6522 soybeans	32	1	31	—	—
6534 flaxseed	0	—	—	0	—

LOS ANGELES HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
6590 oilseeds nec	15	6	9	0	0
Subtotal vegetable products	412	209	196	6	0
6653 vegetable oils	82	60	22	0	—
6654 vegetables & prod.	330	149	175	6	0
Subtotal processed grain and animal feed	662	68	589	5	0
6746 wheat flour	6	1	5	0	—
6747 grain mill products	75	38	32	5	0
6781 hay & fodder	388	0	387	0	—
6782 animal feed, prep.	194	28	165	0	—
Subtotal other agricultural products	2,920	1,663	1,239	7	12
6811 meat, fresh, frozen	430	251	177	3	—
6817 meat, prepared	19	7	13	0	—
6822 dairy products	40	20	18	0	—
6835 fish, prepared	89	81	6	3	0
6838 tallow, animal oils	51	1	50	—	—
6839 animals & prod. nec	103	45	58	—	—
6856 bananas & plantains	494	494	1	—	—
6857 fruit & nuts nec	438	157	281	0	0
6858 fruit juices	182	143	39	0	0
6861 sugar	1	1	1	—	0
6865 molasses	52	52	0	—	—
6871 coffee	88	81	5	—	2
6872 cocoa beans	11	11	0	—	—
6885 alcoholic beverages	228	163	62	0	3
6888 water & ice	57	44	11	—	2
6889 food products nec	253	100	152	0	0
6891 tobacco & products	43	2	42	—	—
6893 cotton	318	0	315	—	3
6894 natural fibers nec	2	1	0	—	—
6899 farm products nec	19	8	10	0	—
Total all manufactured equipment, machinery and products	8,816	7,963	839	10	4
7110 machinery (not elec)	1,026	823	199	3	0
7120 electrical machinery	1,907	1,755	151	1	0
7210 vehicles & parts	848	734	111	3	0
7220 aircraft & parts	8	1	6	0	0
7230 ships & boats	5	3	2	0	—
7300 ordnance & access.	8	3	5	—	—
7400 manufac. wood prod.	116	103	11	1	0
7500 textile products	1,180	1,089	90	1	0
7600 rubber & plastic pr.	896	776	118	1	2
7900 manufac. prod. nec	2,824	2,677	146	1	0
Total unknown or not elsewhere classified	124	72	51	1	0
9900 unknown or nec	124	72	51	1	0

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	9,483	5,930	2,277	113	596	567
Total petroleum and petroleum products	5,675	3,372	1,098	105	570	529
Subtotal crude petroleum	1,089	1,011	78	—	—	—
2100 crude petroleum	1,089	1,011	78	—	—	—
Subtotal petroleum products	4,586	2,361	1,020	105	570	529
2211 gasoline	1,167	1,038	129	—	—	—
2330 distillate fuel oil	807	462	320	—	25	0
2340 residual fuel oil	1,981	314	491	105	544	527
2350 lube oil & greases	300	230	67	—	1	2
2429 naphtha & solvents	28	28	—	—	—	—
2430 asphalt, tar & pitch	253	252	2	—	—	—
2640 liquid natural gas	0	—	0	—	—	—
2990 petro. products nec	48	37	11	—	—	—
Total chemicals and related products	574	509	64	—	—	—
Subtotal fertilizers	7	0	7	—	—	—
3190 fert. & mixes nec	7	0	7	—	—	—
Subtotal other chemicals and related products	566	509	57	—	—	—
3274 sodium hydroxide	166	163	3	—	—	—
3281 radioactive material	0	0	—	—	—	—
3282 pigments & paints	12	0	12	—	—	—
3284 medicines	6	—	6	—	—	—
3285 perfumes & cleansers	24	0	24	—	—	—
3286 plastics	1	0	1	—	—	—
3291 pesticides	1	—	1	—	—	—
3293 explosives	1	0	1	—	—	—
3297 chemical additives	324	324	—	—	—	—
3298 wood & resin chem.	32	22	10	—	—	—
Total crude materials, inedible except fuels	1,764	1,667	48	6	8	34
Subtotal forest products, wood and chips	61	44	17	—	—	—
4189 lumber	60	44	16	—	—	—
4190 forest products nec	1	—	1	—	—	—
Subtotal pulp and waste paper	0	0	0	—	—	—
4225 pulp & waste paper	0	0	0	—	—	—
Subtotal soil, sand, gravel, rock and stone	1,683	1,606	28	6	8	34
4331 sand & gravel	1,682	1,606	27	6	8	34
4338 soil & fill dirt	1	—	1	—	—	—

LOS ANGELES HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Subtotal iron ore and scrap	17	17	—	—	—	—
4420 iron & steel scrap	17	17	—	—	—	—
Subtotal other non-metal. min.	3	0	3	—	—	—
4900 non-metal. min. nec	3	0	3	—	—	—
Total primary manufactured goods	155	4	151	—	0	—
Subtotal paper products	32	1	31	—	—	—
5110 newsprint	0	—	0	—	—	—
5120 paper & paperboard	11	—	11	—	—	—
5190 paper products nec	22	1	20	—	—	—
Subtotal lime, cement and glass	52	—	52	—	0	—
5220 cement & concrete	14	—	14	—	0	—
5240 glass & glass prod.	1	—	1	—	—	—
5290 misc. mineral prod.	37	—	37	—	—	—
Subtotal primary iron and steel products	8	—	8	—	0	—
5360 i&s bars & shapes	8	—	8	—	—	—
5370 i&s pipe & tube	0	—	—	—	0	—
Subtotal primary non-ferrous metal products	56	3	53	—	—	—
5429 smelted prod. nec	0	—	0	—	—	—
5480 fab. metal products	56	3	53	—	—	—
Subtotal primary wood products	7	—	7	—	—	—
5540 primary wood prod.	7	—	7	—	—	—
Total food and farm products	534	132	387	—	11	3
Subtotal fish	2	0	1	—	—	—
6134 fish (not shellfish)	2	0	1	—	—	—
Subtotal grain	1	—	1	—	—	—
6442 rice	1	—	1	—	—	—
Subtotal vegetable products	46	8	39	—	—	—
6654 vegetables & prod.	46	8	39	—	—	—
Subtotal processed grain and animal feed	18	2	17	—	—	—
6746 wheat flour	7	—	7	—	—	—
6747 grain mill products	1	0	1	—	—	—
6781 hay & fodder	1	—	1	—	—	—
6782 animal feed, prep.	9	2	7	—	—	—
Subtotal other agricultural products	467	122	330	—	11	3
6811 meat, fresh, frozen	46	0	46	—	—	—
6822 dairy products	12	0	12	—	—	—
6839 animals & prod. nec	3	2	0	—	—	—
6856 bananas & plantains	6	—	6	—	—	—
6857 fruit & nuts nec	4	0	4	—	—	—
6858 fruit juices	89	88	2	—	—	—
6861 sugar	0	0	0	—	—	—
6865 molasses	9	6	—	—	—	3
6871 coffee	1	0	1	—	—	—
6885 alcoholic beverages	91	0	91	—	—	—
6887 groceries	23	0	22	—	—	—
6888 water & ice	13	—	2	—	11	—
6889 food products nec	163	21	142	—	—	—
6891 tobacco & products	2	0	2	—	—	—
6899 farm products nec	5	5	0	—	—	—
Total all manufactured equipment, machinery and products	779	244	527	1	6	0
7110 machinery (not elec)	95	49	43	0	3	—
7120 electrical machinery	17	1	16	—	—	—
7210 vehicles & parts	82	34	48	—	—	—
7220 aircraft & parts	0	0	0	—	—	—
7230 ships & boats	1	0	1	—	—	—
7400 manufac. wood prod.	5	1	5	—	—	—
7500 textile products	11	1	10	0	—	—
7600 rubber & plastic pr.	8	1	6	—	—	—
7900 manufac. prod. nec	559	156	398	1	3	0
Total unknown or not elsewhere classified	1	—	1	—	—	—
9900 unknown or nec	1	—	1	—	—	—

*Includes 1,011 (x1000) tons of foreign inbound in-transits; Includes 257 (x1000) tons of foreign outbound in-transits;
Includes 51 (x1000) tons of Canadian inbound in-transits; Includes 14 (x1000) tons of Canadian outbound in-transits.

PORT HUENEME, CA

Section Included: Harbor at Port Hueneme. Project Depths: 40 feet in approach channel; 36 feet in entrance channel; 35 feet in Channel Basin and Channel A. Controlling Depth: 40 feet in approach channel; 36 feet in entrance channel; 35 feet in Central Basin and Channel A.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	749	1992	474	1995	1,076	1998	1,328
1990	574	1993	696	1996	943		
1991	416	1994	814	1997	988		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports*	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments
Total, all commodities	1,328	1,031	135	162	69	82	5	7
Total petroleum and petroleum products	129	---	---	129	67	62	---	---
Subtotal petroleum products	129	---	---	129	67	62	---	---
2340 residual fuel oil	129	---	---	129	67	62	---	---
Total chemicals and related products	58	58	0	---	---	---	---	---
Subtotal fertilizers	41	41	---	---	---	---	---	---
3110 nitrogenous fert.	40	40	---	---	---	---	---	---
3190 fert. & mixes nec	0	0	---	---	---	---	---	---
Subtotal other chemicals and related products	17	17	0	---	---	---	---	---
3219 other hydrocarbons	0	0	---	---	---	---	---	---
3220 alcohols	17	17	---	---	---	---	---	---
3230 carboxylic acids	0	0	---	---	---	---	---	---
3240 nitrogen func. comp.	0	0	---	---	---	---	---	---
3250 organo-inorg. comp.	0	0	---	---	---	---	---	---
3276 metallic salts	0	0	---	---	---	---	---	---
3282 pigments & paints	0	0	---	---	---	---	---	---
3284 medicines	0	0	---	---	---	---	---	---
3285 perfumes & cleansers	0	0	0	---	---	---	---	---
3291 pesticides	0	0	---	---	---	---	---	---
3297 chemical additives	0	0	---	---	---	---	---	---
Total crude materials, inedible except fuels	65	65	---	---	---	---	---	---
Subtotal forest products, wood and chips	0	0	---	---	---	---	---	---
4170 wood in the rough	0	0	---	---	---	---	---	---
4190 forest products nec	0	0	---	---	---	---	---	---
Subtotal pulp and waste paper	64	64	---	---	---	---	---	---
4225 pulp & waste paper	64	64	---	---	---	---	---	---
Subtotal non-ferrous ores and scrap	1	1	---	---	---	---	---	---
4690 non-ferrous ores nec	1	1	---	---	---	---	---	---
Subtotal other non-metal. min.	0	0	---	---	---	---	---	---
4900 non-metal. min. nec	0	0	---	---	---	---	---	---
Total primary manufactured goods	16	16	0	0	---	0	---	---
Subtotal paper products	0	0	---	---	---	---	---	---
5120 paper & paperboard	0	0	---	---	---	---	---	---
Subtotal lime, cement and glass	0	0	---	---	---	---	---	---
5240 glass & glass prod.	0	0	0	---	---	---	---	---
5290 misc. mineral prod.	0	0	---	---	---	---	---	---
Subtotal primary iron and steel products	15	15	---	---	---	---	---	---
5320 i&s primary forms	0	0	---	---	---	---	---	---
5330 i&s plates & sheets	12	12	---	---	---	---	---	---
5360 i&s bars & shapes	1	1	---	---	---	---	---	---
5370 i&s pipe & tube	1	1	---	---	---	---	---	---
Subtotal primary non-ferrous metal products	0	0	---	0	---	0	---	---
5421 copper	0	0	---	---	---	---	---	---
5429 smelted prod. nec	0	0	---	---	---	---	---	---
5480 fab. metal products	0	0	---	0	---	0	---	---
Subtotal primary wood products	0	0	---	---	---	---	---	---
5540 primary wood prod.	0	0	---	---	---	---	---	---
Total food and farm products	702	576	126	0	0	0	---	---
Subtotal fish	8	8	---	---	---	---	---	---
6134 fish (not shellfish)	0	0	---	---	---	---	---	---
6136 shellfish	8	8	---	---	---	---	---	---
Subtotal vegetable products	2	1	0	---	---	---	---	---
6654 vegetables & prod.	2	1	0	---	---	---	---	---
Subtotal processed grain and animal feed	0	0	0	---	---	---	---	---
6746 wheat flour	0	0	---	---	---	---	---	---
6747 grain mill products	0	0	0	---	---	---	---	---

PORT HUENEME, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports*	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments
6782 animal feed, prep.	0	—	0	—	—	—	—	—
Subtotal other agricultural products	692	567	125	0	0	0	—	—
6822 dairy products	0	0	—	—	—	—	—	—
6835 fish, prepared	0	0	—	—	—	—	—	—
6856 bananas & plantains	536	536	0	—	—	—	—	—
6857 fruit & nuts nec	154	29	125	—	—	—	—	—
6858 fruit juices	1	1	0	—	—	—	—	—
6871 coffee	0	0	—	—	—	—	—	—
6885 alcoholic beverages	0	0	—	—	—	—	—	—
6888 water & ice	0	—	—	0	0	0	—	—
6889 food products nec	0	0	—	—	—	—	—	—
6899 farm products nec	0	0	—	—	—	—	—	—
Total all manufactured equipment, machinery and products	357	315	9	33	1	20	5	7
7110 machinery (not elec)	67	33	1	33	1	20	5	7
7120 electrical machinery	0	0	0	—	—	—	—	—
7210 vehicles & parts	287	281	6	—	—	—	—	—
7220 aircraft & parts	0	0	—	—	—	—	—	—
7230 ships & boats	0	0	0	—	—	—	—	—
7300 ordnance & access.	0	0	0	—	—	—	—	—
7400 manufac. wood prod.	0	0	—	—	—	—	—	—
7500 textile products	0	0	0	—	—	—	—	—
7600 rubber & plastic pr.	0	0	—	—	—	—	—	—
7900 manufac. prod. nec	2	1	1	0	0	—	—	—
Total unknown or not elsewhere classified	2	1	1	—	—	—	—	—
9900 unknown or nec	2	1	1	—	—	—	—	—

*Includes 136 (x1000) tons of foreign inbound in-transits; Includes 0 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
MISSION BAY, CA	No Commerce Reported	
MORRO BAY HARBOR, CA	No Commerce Reported	
NEWPORT BAY HARBOR, CA	No Commerce Reported	
REDONDO BEACH, CA	4331 sand & gravel	13
	Total Tons(x1000)	13
SANTA BARBARA HARBOR, CA	5370 i&s pipe & tube	0
	Total Tons(x1000)	0

SACRAMENTO RIVER, CA (INCLUDING COMMERCE OF SACRAMENTO RIVER DEEPWATER SHIP CHANNEL AND THE PORT OF SACRAMENTO, CA)

Section Included: From mouth of river to Red Bluff via river route, a distance of 248 miles; from mouth of Cache Slough to Washington Lake via Sacramento River Deepwater Ship Channel, a distance of 29.9 miles. Controlling Depth: Mouth of river to Cache Slough, 29 feet; mouth of Cache Slough to Washington Lake via Sacramento River Deepwater Ship Channel, 29 feet.; mouth of Cache Slough to Sacramento via river route, 10 feet; Sacramento to Colusa, 6 feet in low water season; Colusa to Chico Landing, 3 feet., Chico Landing to Red Bluff, 1.5 feet. Project Depth: 30 feet from mouth of river to Cache Slough; 30 feet from Cache Slough to Washington Lake via Sacramento River Deepwater Ship Channel; 10 feet from mouth of Cache Slough to Sacramento via river route; 6 feet from Sacramento to Colusa; 5 feet. from Colusa to Chico Landing; such depths as practicable from Chico Landing to Red Bluff.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,440	1992	1,160	1995	1,171	1998	946
1990	1,574	1993	1,094	1996	1,289		
1991	1,335	1994	1,573	1997	1,178		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic		
		Imports	Exports*	Imports	Total	Coastwise	Internal
					Receipts	Upbound	
Total, all commodities	946	247	568	41	89	69	21
Total petroleum and petroleum products	6	—	6	—	—	—	—
Subtotal petroleum products	6	—	6	—	—	—	—
2340 residual fuel oil	6	—	6	—	—	—	—
2350 lube oil & greases	0	—	0	—	—	—	—
2429 naphtha & solvents	0	—	0	—	—	—	—
Total chemicals and related products	284	170	5	41	69	69	—
Subtotal fertilizers	182	170	—	—	12	12	—
3110 nitrogenous fert.	162	149	—	—	12	12	—
3190 fert. & mixes nec	21	21	—	—	—	—	—
Subtotal other chemicals and related products	102	0	5	41	56	56	—
3219 other hydrocarbons	0	—	0	—	—	—	—
3220 alcohols	0	—	0	—	—	—	—
3230 carboxylic acids	0	0	0	—	—	—	—
3240 nitrogen func. comp.	0	—	0	—	—	—	—
3250 organo - inorg. comp.	0	—	0	—	—	—	—
3260 organic comp. nec	0	—	0	—	—	—	—
3272 sulphuric acid	0	—	0	—	—	—	—
3273 ammonia	97	—	—	41	56	56	—
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—	—	—
3276 metallic salts	0	0	—	—	—	—	—
3281 radioactive material	0	—	0	—	—	—	—
3282 pigments & paints	0	—	0	—	—	—	—
3284 medicines	0	—	0	—	—	—	—
3285 perfumes & cleansers	0	—	0	—	—	—	—
3286 plastics	1	0	1	—	—	—	—
3291 pesticides	0	0	—	—	—	—	—
3292 starches, gluten, glue	0	—	0	—	—	—	—
3297 chemical additives	2	—	2	—	—	—	—
3299 chem. products nec	0	—	0	—	—	—	—
Total crude materials, inedible except fuels	228	—	207	—	21	—	21
Subtotal forest products, wood and chips	198	—	198	—	0	—	0
4161 wood chips	184	—	184	—	—	—	—
4170 wood in the rough	14	—	14	—	0	—	0
4189 lumber	0	—	0	—	—	—	—
Subtotal pulp and waste paper	8	—	8	—	—	—	—
4225 pulp & waste paper	8	—	8	—	—	—	—
Subtotal soil, sand, gravel, rock and stone	14	—	0	—	14	—	14
4331 sand & gravel	14	—	0	—	14	—	14
Subtotal iron ore and scrap	0	—	0	—	—	—	—
4420 iron & steel scrap	0	—	0	—	—	—	—
Subtotal marine shells	7	—	—	—	7	—	7
4515 marine shells	7	—	—	—	7	—	7
Subtotal non-ferrous ores and scrap	0	—	0	—	—	—	—
4650 aluminum ore	0	—	0	—	—	—	—
4680 non-ferrous scrap	0	—	0	—	—	—	—
Subtotal sulphur, clay and salt	0	—	0	—	—	—	—
4782 clay & refrac. mat.	0	—	0	—	—	—	—
Subtotal slag	0	—	0	—	—	—	—
4860 slag	0	—	0	—	—	—	—
Subtotal other non-metal. min.	0	—	0	—	—	—	—
4900 non-metal. min. nec	0	—	0	—	—	—	—
Total primary manufactured goods	48	46	2	—	—	—	—
Subtotal paper products	1	—	1	—	—	—	—
5120 paper & paperboard	1	—	1	—	—	—	—
5190 paper products nec	0	—	0	—	—	—	—
Subtotal lime, cement and glass	29	29	0	—	—	—	—
5220 cement & concrete	28	28	—	—	—	—	—
5240 glass & glass prod.	1	1	0	—	—	—	—
5290 misc. mineral prod.	0	0	0	—	—	—	—

SACRAMENTO RIVER, CA (INCLUDING COMMERCE OF SACRAMENTO RIVER DEEPWATER SHIP CHANNEL AND THE PORT OF
SACRAMENTO, CA)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic		
		Imports	Exports*	Imports	Total	Coastwise	Internal
					Receipts	Inbound	Upbound
Subtotal primary iron and steel products	17	17	0	---	---	---	---
5330 i&s plates & sheets	11	11	---	---	---	---	---
5360 i&s bars & shapes	5	5	---	---	---	---	---
5370 i&s pipe & tube	1	1	0	---	---	---	---
Subtotal primary non-ferrous metal products	0	0	0	---	---	---	---
5422 aluminum	0	---	0	---	---	---	---
5429 smelted prod. nec	0	---	0	---	---	---	---
5480 fab. metal products	0	0	0	---	---	---	---
Subtotal primary wood products	0	---	0	---	---	---	---
5540 primary wood prod.	0	---	0	---	---	---	---
Total food and farm products	375	30	345	---	---	---	---
Subtotal grain	351	23	327	---	---	---	---
6344 corn	18	---	18	---	---	---	---
6442 rice	310	---	310	---	---	---	---
6445 oats	23	23	---	---	---	---	---
Subtotal oilseeds	14	---	14	---	---	---	---
6521 peanuts	0	---	0	---	---	---	---
6590 oilseeds nec	14	---	14	---	---	---	---
Subtotal vegetable products	1	0	1	---	---	---	---
6654 vegetables & prod.	1	0	1	---	---	---	---
Subtotal processed grain and animal feed	1	---	1	---	---	---	---
6747 grain mill products	0	---	0	---	---	---	---
6781 hay & fodder	1	---	1	---	---	---	---
6782 animal feed, prep.	0	---	0	---	---	---	---
Subtotal other agricultural products	9	7	2	---	---	---	---
6811 meat, fresh, frozen	0	---	0	---	---	---	---
6839 animals & prod. nec	1	---	1	---	---	---	---
6857 fruit & nuts nec	1	---	1	---	---	---	---
6858 fruit juices	0	---	0	---	---	---	---
6861 sugar	0	---	0	---	---	---	---
6865 molasses	7	7	---	---	---	---	---
6885 alcoholic beverages	0	0	0	---	---	---	---
6888 water & ice	0	0	---	---	---	---	---
6889 food products nec	0	---	0	---	---	---	---
6893 cotton	0	---	0	---	---	---	---
Total all manufactured equipment, machinery and products	4	0	4	---	---	---	---
7110 machinery (not elec)	0	0	0	---	---	---	---
7120 electrical machinery	0	---	0	---	---	---	---
7210 vehicles & parts	0	---	0	---	---	---	---
7220 aircraft & parts	0	---	0	---	---	---	---
7230 ships & boats	0	0	0	---	---	---	---
7400 manufac. wood prod.	0	0	---	---	---	---	---
7500 textile products	1	0	1	---	---	---	---
7600 rubber & plastic pr.	1	---	1	---	---	---	---
7900 manufac. prod. nec	0	0	0	---	---	---	---
Total unknown or not elsewhere classified	0	0	0	---	---	---	---
9900 unknown or nec	0	0	0	---	---	---	---
Ton-miles (x1000)	79,512	21,237	48,848	3,523	5,930	5,903	1
Tons All Traffic (x1000)			946				
Ton-miles All Traffic (x1000)			79,539				

*Includes 22 (x1000) tons of foreign outbound in-transits.

SACRAMENTO RIVER DEEPWATER SHIP CHANNEL, CA (INCLUDED IN SACRAMENTO RIVER, CA)

Section Included: A Deepwater Ship Channel from Suisun Bay to the Inland Harbor at Sacramento, a distance of 43 miles; a triangular shaped deep draft harbor and turning basin located at West Sacramento; a 1.5 mile-long barge canal with navigation lock connecting the deep draft harbor with the Sacramento River. Controlling Depth: 29 feet. in the Deepwater Ship Channel and triangular shaped harbor and turning basin; 13 feet in the barge canal. Project Depth: 30 feet in the Deepwater Ship Channel and triangular shaped harbor and turning basin; 13 feet in the barge canal.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,287	1992	1,136	1995	1,131	1998	925
1990	1,359	1993	1,078	1996	1,240		
1991	1,197	1994	1,542	1997	1,143		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic
		Imports	Exports*	Imports	Coastwise Receipts
Total, all commodities	925	247	568	41	69
Total petroleum and petroleum products	6	---	6	---	---
Subtotal petroleum products	6	---	6	---	---
2340 residual fuel oil	6	---	6	---	---
2350 lube oil & greases	0	---	0	---	---
2429 naphtha & solvents	0	---	0	---	---
Total chemicals and related products	284	170	5	41	69
Subtotal fertilizers	182	170	---	---	12
3110 nitrogenous fert.	162	149	---	---	12
3190 fert. & mixes nec	21	21	---	---	---
Subtotal other chemicals and related products	102	0	5	41	56
3219 other hydrocarbons	0	---	0	---	---
3220 alcohols	0	---	0	---	---
3230 carboxylic acids	0	0	0	---	---
3240 nitrogen func. comp.	0	---	0	---	---
3250 organo - inorg. comp.	0	---	0	---	---
3260 organic comp. nec	0	---	0	---	---
3272 sulphuric acid	0	---	0	---	---
3273 ammonia	97	---	---	41	56
3275 inorg. elem., oxides, & halogen salts	0	---	0	---	---
3276 metallic salts	0	0	---	---	---
3281 radioactive material	0	---	0	---	---
3282 pigments & paints	0	---	0	---	---
3284 medicines	0	---	0	---	---
3285 perfumes & cleansers	0	---	0	---	---
3286 plastics	1	0	1	---	---
3291 pesticides	0	0	0	---	---
3292 starches, gluten, glue	0	---	0	---	---
3297 chemical additives	2	---	2	---	---
3299 chem. products nec	0	---	0	---	---
Total crude materials, inedible except fuels	207	---	207	---	---
Subtotal forest products, wood and chips	198	---	198	---	---
4161 wood chips	184	---	184	---	---
4170 wood in the rough	14	---	14	---	---
4189 lumber	0	---	0	---	---
Subtotal pulp and waste paper	8	---	8	---	---
4225 pulp & waste paper	8	---	8	---	---
Subtotal soil, sand, gravel, rock and stone	0	---	0	---	---
4331 sand & gravel	0	---	0	---	---
Subtotal iron ore and scrap	0	---	0	---	---
4420 iron & steel scrap	0	---	0	---	---
Subtotal non-ferrous ores and scrap	0	---	0	---	---
4650 aluminum ore	0	---	0	---	---
4680 non-ferrous scrap	0	---	0	---	---
Subtotal sulphur, clay and salt	0	---	0	---	---
4782 clay & refrac. mat.	0	---	0	---	---
Subtotal slag	0	---	0	---	---
4860 slag	0	---	0	---	---
Subtotal other non-metal. min.	0	---	0	---	---
4900 non-metal. min. nec	0	---	0	---	---
Total primary manufactured goods	48	46	2	---	---
Subtotal paper products	1	---	1	---	---
5120 paper & paperboard	1	---	1	---	---
5190 paper products nec	0	---	0	---	---
Subtotal lime, cement and glass	29	29	0	---	---
5220 cement & concrete	28	28	---	---	---
5240 glass & glass prod.	1	1	0	---	---
5290 misc. mineral prod.	0	0	0	---	---
Subtotal primary iron and steel products	17	17	0	---	---
5330 i&s plates & sheets	11	11	---	---	---
5360 i&s bars & shapes	5	5	---	---	---
5370 i&s pipe & tube	1	1	0	---	---
Subtotal primary non-ferrous metal products	0	0	0	---	---
5422 aluminum	0	---	0	---	---
5429 smelted prod. nec	0	---	0	---	---
5480 fab. metal products	0	0	0	---	---
Subtotal primary wood products	0	---	0	---	---
5540 primary wood prod.	0	---	0	---	---

SACRAMENTO RIVER DEEPWATER SHIP CHANNEL, CA (INCLUDED IN SACRAMENTO RIVER, CA)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic
		Imports	Exports*	Imports	Coastwise Receipts
Total food and farm products	375	30	345	---	---
Subtotal grain	351	23	327	---	---
6344 corn	18	---	18	---	---
6442 rice	310	---	310	---	---
6445 oats	23	23	---	---	---
Subtotal oilseeds	14	---	14	---	---
6521 peanuts	0	---	0	---	---
6590 oilseeds nec	14	---	14	---	---
Subtotal vegetable products	1	0	1	---	---
6654 vegetables & prod.	1	0	1	---	---
Subtotal processed grain and animal feed	1	---	1	---	---
6747 grain mill products	0	---	0	---	---
6781 hay & fodder	1	---	1	---	---
6782 animal feed, prep.	0	---	0	---	---
Subtotal other agricultural products	9	7	2	---	---
6811 meat, fresh, frozen	0	---	0	---	---
6839 animals & prod. nec	1	---	1	---	---
6857 fruit & nuts nec	1	---	1	---	---
6858 fruit juices	0	---	0	---	---
6861 sugar	0	---	0	---	---
6865 molasses	7	7	---	---	---
6885 alcoholic beverages	0	0	0	---	---
6888 water & ice	0	0	---	---	---
6889 food products nec	0	---	0	---	---
6893 cotton	0	---	0	---	---
Total all manufactured equipment, machinery and products	4	0	4	---	---
7110 machinery (not elec)	0	0	0	---	---
7120 electrical machinery	0	---	0	---	---
7210 vehicles & parts	0	---	0	---	---
7220 aircraft & parts	0	---	0	---	---
7230 ships & boats	0	0	0	---	---
7400 manufac. wood prod.	0	0	---	---	---
7500 textile products	1	0	1	---	---
7600 rubber & plastic pr.	1	---	1	---	---
7900 manufac. prod. nec	0	0	0	---	---
Total unknown or not elsewhere classified	0	0	0	---	---
9900 unknown or nec	0	0	0	---	---
Ton-miles (x1000)	37,907	10,125	23,288	1,680	2,814

Tons All Traffic (x1000) 925
Ton-miles All Traffic (x1000) 37,920

*Includes 22 (x1000) tons of foreign outbound in-transits.

SACRAMENTO, CA (INCLUDED IN SACRAMENTO RIVER, CA)

Section Included: A triangular shaped harbor and turning basin at Washington Lake, West Sacramento, adjacent to channel; a connecting barge canal to the Sacramento River shallow draft channel; thence upstream to a point approximately 6.6 miles upstream at Bryte. Controlling Depth: 29 feet in the deepwater channel harbor and turning basin; 13 feet in the connecting barge canal; 10 feet in the shallow draft channel. Project Depth: 30 feet in the deepwater channel harbor and turning basin; 13 feet in the connecting barge canal; 10 feet in the shallow draft channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,295	1992	1,136	1995	1,137	1998	925
1990	1,485	1993	1,078	1996	1,240		
1991	1,226	1994	1,545	1997	1,143		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic
		Imports	Exports*	Imports	Coastwise Receipts
Total, all commodities	925	247	568	41	69
Total petroleum and petroleum products	6	---	6	---	---
Subtotal petroleum products	6	---	6	---	---
2340 residual fuel oil	6	---	6	---	---
2350 lube oil & greases	0	---	0	---	---
2429 naphtha & solvents	0	---	0	---	---
Total chemicals and related products	284	170	5	41	69
Subtotal fertilizers	182	170	---	---	12
3110 nitrogenous fert.	162	149	---	---	12
3190 fert. & mixes nec	21	21	---	---	---
Subtotal other chemicals and related products	102	0	5	41	56
3219 other hydrocarbons	0	---	0	---	---
3220 alcohols	0	---	0	---	---
3230 carboxylic acids	0	0	0	---	---
3240 nitrogen func. comp.	0	---	0	---	---
3250 organo - inorg. comp.	0	---	0	---	---

SACRAMENTO, CA (INCLUDED IN SACRAMENTO RIVER, CA)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic
		Imports	Exports*	Imports	Coastwise Receipts
3260 organic comp. nec	0	—	0	—	—
3272 sulphuric acid	0	—	0	—	—
3273 ammonia	97	—	—	41	56
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—
3276 metallic salts	0	0	—	—	—
3281 radioactive material	0	—	0	—	—
3282 pigments & paints	0	—	0	—	—
3284 medicines	0	—	0	—	—
3285 perfumes & cleansers	0	—	0	—	—
3286 plastics	1	0	1	—	—
3291 pesticides	0	0	0	—	—
3292 starches, gluten, glue	0	—	0	—	—
3297 chemical additives	2	—	2	—	—
3299 chem. products nec	0	—	0	—	—
Total crude materials, inedible except fuels	207	—	207	—	—
Subtotal forest products, wood and chips	198	—	198	—	—
4161 wood chips	184	—	184	—	—
4170 wood in the rough	14	—	14	—	—
4189 lumber	0	—	0	—	—
Subtotal pulp and waste paper	8	—	8	—	—
4225 pulp & waste paper	8	—	8	—	—
Subtotal soil, sand, gravel, rock and stone	0	—	0	—	—
4331 sand & gravel	0	—	0	—	—
Subtotal iron ore and scrap	0	—	0	—	—
4420 iron & steel scrap	0	—	0	—	—
Subtotal non-ferrous ores and scrap	0	—	0	—	—
4650 aluminum ore	0	—	0	—	—
4680 non-ferrous scrap	0	—	0	—	—
Subtotal sulphur, clay and salt	0	—	0	—	—
4782 clay & refrac. mat.	0	—	0	—	—
Subtotal slag	0	—	0	—	—
4860 slag	0	—	0	—	—
Subtotal other non-metal. min.	0	—	0	—	—
4900 non-metal. min. nec	0	—	0	—	—
Total primary manufactured goods	48	46	2	—	—
Subtotal paper products	1	—	1	—	—
5120 paper & paperboard	1	—	1	—	—
5190 paper products nec	0	—	0	—	—
Subtotal lime, cement and glass	29	29	0	—	—
5220 cement & concrete	28	28	—	—	—
5240 glass & glass prod.	1	1	0	—	—
5290 misc. mineral prod.	0	0	0	—	—
Subtotal primary iron and steel products	17	17	0	—	—
5330 i&s plates & sheets	11	11	—	—	—
5360 i&s bars & shapes	5	5	—	—	—
5370 i&s pipe & tube	1	1	0	—	—
Subtotal primary non-ferrous metal products	0	0	0	—	—
5422 aluminum	0	—	0	—	—
5429 smelted prod. nec	0	—	0	—	—
5480 fab. metal products	0	0	0	—	—
Subtotal primary wood products	0	—	0	—	—
5540 primary wood prod.	0	—	0	—	—
Total food and farm products	375	30	345	—	—
Subtotal grain	351	23	327	—	—
6344 corn	18	—	18	—	—
6442 rice	310	—	310	—	—
6445 oats	23	23	—	—	—
Subtotal oilseeds	14	—	14	—	—
6521 peanuts	0	—	0	—	—
6590 oilseeds nec	14	—	14	—	—
Subtotal vegetable products	1	0	1	—	—
6654 vegetables & prod.	1	0	1	—	—
Subtotal processed grain and animal feed	1	—	1	—	—
6747 grain mill products	0	—	0	—	—
6781 hay & fodder	1	—	1	—	—
6782 animal feed, prep.	0	—	0	—	—
Subtotal other agricultural products	9	7	2	—	—
6811 meat, fresh, frozen	0	—	0	—	—
6839 animals & prod. nec	1	—	1	—	—
6857 fruit & nuts nec	1	—	1	—	—
6858 fruit juices	0	—	0	—	—
6861 sugar	0	—	0	—	—
6865 molasses	7	7	—	—	—
6885 alcoholic beverages	0	0	0	—	—
6888 water & ice	0	0	—	—	—
6889 food products nec	0	—	0	—	—
6893 cotton	0	—	0	—	—
Total all manufactured equipment, machinery and products	4	0	4	—	—
7110 machinery (not elec)	0	0	0	—	—
7120 electrical machinery	0	—	0	—	—
7210 vehicles & parts	0	—	0	—	—
7220 aircraft & parts	0	—	0	—	—
7230 ships & boats	0	0	0	—	—
7400 manufac. wood prod.	0	0	—	—	—
7500 textile products	1	0	1	—	—
7600 rubber & plastic pr.	1	—	1	—	—
7900 manufac. prod. nec	0	0	0	—	—

SACRAMENTO, CA (INCLUDED IN SACRAMENTO RIVER, CA)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic
		Imports	Exports*	Imports	Coastwise Receipts
Total unknown or not elsewhere classified	0	0	0	---	---
9900 unknown or nec	0	0	0	---	---

*Includes 22 (x1000) tons of foreign outbound in-transits.

SAN JOAQUIN RIVER, CA (INCLUDING COMMERCE OF PORT OF STOCKTON, CA)

Section Included: From mouth of New York Slough to city of Stockton, 41 miles; from Stockton Channel to Hills Ferry, 84 miles. Controlling Depth: mouth of river to Mormon Channel, Stockton, 35 feet; other connecting channels, 2 feet to 9 feet; to Edison Street, 22 feet. Project Depth: 35 feet from the mouth of New York Slough to Mormon Channel at Stockton; 30 feet from Mormon Channel to Edison Street; other connecting channels, 9 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	3,819	1992	3,530	1995	3,315	1998	3,325
1990	3,491	1993	2,493	1996	2,716		
1991	3,345	1994	3,337	1997	3,292		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			Internal	
		Imports	Exports*	Imports	Total	Coastwise		Inbound Upbound	Outbound Downbnd
						Receipts	Shipments		
Total, all commodities	3,325	1,869	1,101	116	239	119	11	77	32
Total petroleum and petroleum products	902	234	627	---	40	40	---	---	---
Subtotal crude petroleum	234	234	---	---	---	---	---	---	---
2100 crude petroleum	234	234	---	---	---	---	---	---	---
Subtotal petroleum products	668	---	627	---	40	40	---	---	---
2330 distillate fuel oil	40	---	---	---	40	40	---	---	---
2540 petroleum coke	627	---	627	---	---	---	---	---	---
Total chemicals and related products	465	269	1	116	79	79	---	---	---
Subtotal fertilizers	307	249	---	---	58	58	---	---	---
3110 nitrogenous fert.	305	247	---	---	58	58	---	---	---
3190 fert. & mixes nec	2	2	---	---	---	---	---	---	---
Subtotal other chemicals and related products	157	19	1	116	21	21	---	---	---
3211 acyclic hydrocarbons	1	---	1	---	---	---	---	---	---
3230 carboxylic acids	0	---	0	---	---	---	---	---	---
3260 organic comp. nec	11	11	---	---	---	---	---	---	---
3273 ammonia	122	---	---	114	7	7	---	---	---
3274 sodium hydroxide	15	---	---	2	13	13	---	---	---
3275 inorg. elem., oxides, & halogen salts	1	1	0	---	---	---	---	---	---
3276 metallic salts	8	8	0	---	---	---	---	---	---
3284 medicines	0	---	0	---	---	---	---	---	---
3285 perfumes & cleansers	0	---	0	---	---	---	---	---	---
3286 plastics	0	---	0	---	---	---	---	---	---
3292 starches, gluten, glue	0	---	0	---	---	---	---	---	---
3297 chemical additives	0	---	0	---	---	---	---	---	---
3298 wood & resin chem.	0	---	0	---	---	---	---	---	---

SAN JOAQUIN RIVER, CA (INCLUDING COMMERCE OF PORT OF STOCKTON, CA)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports	Exports*	Imports	Total	Coastwise		Internal	
					Receipts	Shipments	Inbound Upbound	Outbound Downbnd	
Total crude materials, inedible except fuels	688	337	320	---	32	---	---	---	32
Subtotal forest products, wood and chips	0	0	0	---	---	---	---	---	---
4190 forest products nec	0	0	0	---	---	---	---	---	---
Subtotal soil, sand, gravel, rock and stone	360	328	---	---	32	---	---	---	32
4323 gypsum	328	328	---	---	---	---	---	---	---
4331 sand & gravel	32	---	---	---	32	---	---	---	32
Subtotal non-ferrous ores and scrap	8	8	---	---	---	---	---	---	---
4650 aluminum ore	8	8	---	---	---	---	---	---	---
Subtotal sulphur, clay and salt	320	---	320	---	---	---	---	---	---
4741 sulphur, (dry)	319	---	319	---	---	---	---	---	---
4782 clay & refrac. mat.	0	---	0	---	---	---	---	---	---
Subtotal other non-metal. min.	1	1	0	---	---	---	---	---	---
4900 non-metal. min. nec	1	1	0	---	---	---	---	---	---
Total primary manufactured goods	916	884	21	---	11	---	11	---	---
Subtotal paper products	1	---	1	---	---	---	---	---	---
5120 paper & paperboard	1	---	1	---	---	---	---	---	---
Subtotal lime, cement and glass	127	115	0	---	11	---	11	---	---
5220 cement & concrete	115	115	---	---	---	---	---	---	---
5290 misc. mineral prod.	11	---	0	---	11	---	11	---	---
Subtotal primary iron and steel products	789	768	20	---	---	---	---	---	---
5320 i&s primary forms	1	1	---	---	---	---	---	---	---
5330 i&s plates & sheets	744	744	---	---	---	---	---	---	---
5360 i&s bars & shapes	24	24	---	---	---	---	---	---	---
5370 i&s pipe & tube	20	---	20	---	---	---	---	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---	---	---	---	---
5422 aluminum	0	---	0	---	---	---	---	---	---
5429 smelted prod. nec	0	---	0	---	---	---	---	---	---
5480 fab. metal products	0	---	0	---	---	---	---	---	---
Total food and farm products	349	146	126	---	77	---	---	77	---
Subtotal grain	111	---	111	---	---	---	---	---	---
6241 wheat	71	---	71	---	---	---	---	---	---
6442 rice	41	---	41	---	---	---	---	---	---
Subtotal oilseeds	11	---	11	---	---	---	---	---	---
6590 oilseeds nec	11	---	11	---	---	---	---	---	---
Subtotal vegetable products	1	---	1	---	---	---	---	---	---
6653 vegetable oils	1	---	1	---	---	---	---	---	---
6654 vegetables & prod.	0	---	0	---	---	---	---	---	---
Subtotal processed grain and animal feed	0	---	0	---	---	---	---	---	---
6781 hay & fodder	0	---	0	---	---	---	---	---	---
6782 animal feed, prep.	0	---	0	---	---	---	---	---	---
Subtotal other agricultural products	225	146	2	---	77	---	---	77	---
6811 meat, fresh, frozen	0	---	0	---	---	---	---	---	---

SAN JOAQUIN RIVER, CA (INCLUDING COMMERCE OF PORT OF STOCKTON, CA)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports	Exports*	Imports	Total	Coastwise		Internal	
					Receipts	Shipments	Inbound	Outbound	
						Upbound	Downbnd		
6838 tallow, animal oils	2	—	2	—	—	—	—	—	—
6857 fruit & nuts nec	0	—	0	—	—	—	—	—	—
6861 sugar	57	57	—	—	—	—	—	—	—
6865 molasses	165	88	—	—	77	—	—	77	—
Total all manufactured equipment, machinery and products	5	0	5	—	—	—	—	—	—
7110 machinery (not elec)	5	0	5	—	—	—	—	—	—
7120 electrical machinery	0	—	0	—	—	—	—	—	—
7210 vehicles & parts	0	—	0	—	—	—	—	—	—
7300 ordnance & access.	0	—	0	—	—	—	—	—	—
7500 textile products	0	—	0	—	—	—	—	—	—
7900 manufac. prod. nec	0	0	0	—	—	—	—	—	—
Total unknown or not elsewhere classified	0	—	0	—	—	—	—	—	—
9900 unknown or nec	0	—	0	—	—	—	—	—	—
Ton-miles (x1000)	60,439	28,007	21,445	4,797	6,190	2,803	56	3,236	95

Tons All Traffic (x1000) 3,325
 Ton-miles All Traffic (x1000) 60,439

*Includes 90 (x1000) tons of foreign outbound in-transits.

STOCKTON, CA (INCLUDED IN SAN JOAQUIN RIVER, CA)

Section Included: Harbor at Stockton (and vicinity). Controlling Depth: 35 feet in Stockton Channel up to mouth of Mormon Channel; 8 feet in Mormon Channel; 8 feet in Fremont Channel, McLeod Lake and in the head of Stockton Channel. Project Depth: (Included in San Joaquin River project).

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,138	1992	1,719	1995	1,320	1998	1,339
1990	1,732	1993	1,103	1996	1,143		
1991	1,491	1994	1,609	1997	1,647		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic		
		Imports	Exports*	Imports	Total	Coastwise	Internal
					Receipts	Receipts	Receipts
Total, all commodities	1,339	586	496	114	143	65	77
Total petroleum and petroleum products	29	—	29	—	—	—	—
Subtotal petroleum products	29	—	29	—	—	—	—
2540 petroleum coke	29	—	29	—	—	—	—
Total chemicals and related products	438	257	0	114	65	65	—
Subtotal fertilizers	307	249	—	—	58	58	—
3110 nitrogenous fert.	305	247	—	—	58	58	—
3190 fert. & mixes nec	2	2	—	—	—	—	—
Subtotal other chemicals and related products	130	8	0	114	7	7	—
3230 carboxylic acids	0	—	0	—	—	—	—
3273 ammonia	122	—	—	114	7	7	—
3275 inorg. elem. oxides, & halogen salts	1	1	0	—	—	—	—
3276 metallic salts	8	8	0	—	—	—	—
3284 medicines	0	—	0	—	—	—	—
3285 perfumes & cleansers	0	—	0	—	—	—	—
3286 plastics	0	—	0	—	—	—	—
3292 starches, gluten, glue	0	—	0	—	—	—	—
3298 wood & resin chem.	0	—	0	—	—	—	—
Total crude materials, inedible except fuels	321	1	320	—	—	—	—
Subtotal forest products, wood and chips	0	—	0	—	—	—	—
4190 forest products nec	0	—	0	—	—	—	—

STOCKTON, CA (INCLUDED IN SAN JOAQUIN RIVER, CA)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian Imports	Domestic		
		Imports	Exports*		Total	Coastwise Receipts	Internal Receipts
Subtotal sulphur, clay and salt	320	---	320	---	---	---	---
4741 sulphur, (dry)	319	---	319	---	---	---	---
4782 clay & refrac. mat.	0	---	0	---	---	---	---
Subtotal other non-metal. min.	1	1	---	---	---	---	---
4900 non-metal. min. nec	1	1	---	---	---	---	---
Total primary manufactured goods	198	182	16	---	---	---	---
Subtotal paper products	1	---	1	---	---	---	---
5120 paper & paperboard	1	---	1	---	---	---	---
Subtotal lime, cement and glass	116	115	0	---	---	---	---
5220 cement & concrete	115	115	---	---	---	---	---
5290 misc. mineral prod.	0	---	0	---	---	---	---
Subtotal primary iron and steel products	81	66	15	---	---	---	---
5320 i&s primary forms	1	1	---	---	---	---	---
5330 i&s plates & sheets	42	42	---	---	---	---	---
5360 i&s bars & shapes	24	24	---	---	---	---	---
5370 i&s pipe & tube	15	---	15	---	---	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---	---	---
5422 aluminum	0	---	0	---	---	---	---
5429 smelted prod. nec	0	---	0	---	---	---	---
5480 fab. metal products	0	---	0	---	---	---	---
Total food and farm products	348	146	126	---	77	---	77
Subtotal grain	111	---	111	---	---	---	---
6241 wheat	71	---	71	---	---	---	---
6442 rice	41	---	41	---	---	---	---
Subtotal oilseeds	11	---	11	---	---	---	---
6590 oilseeds nec	11	---	11	---	---	---	---
Subtotal vegetable products	0	---	0	---	---	---	---
6654 vegetables & prod.	0	---	0	---	---	---	---
Subtotal processed grain and animal feed	0	---	0	---	---	---	---
6781 hay & fodder	0	---	0	---	---	---	---
6782 animal feed, prep.	0	---	0	---	---	---	---
Subtotal other agricultural products	225	146	2	---	77	---	77
6811 meat, fresh, frozen	0	---	0	---	---	---	---
6838 tallow, animal oils	2	---	2	---	---	---	---
6857 fruit & nuts nec	0	---	0	---	---	---	---
6861 sugar	57	---	57	---	---	---	---
6865 molasses	165	---	88	---	77	---	77
Total all manufactured equipment, machinery and products	5	---	5	---	---	---	---
7110 machinery (not elec)	5	---	5	---	---	---	---
7120 electrical machinery	0	---	0	---	---	---	---
7210 vehicles & parts	0	---	0	---	---	---	---
7300 ordnance & access.	0	---	0	---	---	---	---
7500 textile products	0	---	0	---	---	---	---
7900 manufac. prod. nec	0	---	0	---	---	---	---
Total unknown or not elsewhere classified	0	---	0	---	---	---	---
9900 unknown or nec	0	---	0	---	---	---	---

*Includes 90 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
MIDDLE RIVER, CA	No Commerce Reported	
MOKELUMNE RIVER, CA	No Commerce Reported	
OLD RIVER, CA	No Commerce Reported	

TOTAL WATERBORNE COMMERCE OF THE SAN FRANCISCO BAY AND DELTA AREAS, CA

Freight Traffic, 1998
(thousand short tons)

Locality	*Foreign/Canadian		Domestic				Total	Percent	Through Traffic
	Imports	Exports	Coastwise		Internal				
			Receipts	Shipmnts	Receipts Shipmnts	Inraport			
ALVISO SLOUGH, CA	---	---	---	---	---	---	0.00	---	
BERKELEY, CA	---	---	---	---	0	0	0.00	---	
CARQUINEZ STRAIT, CA	2,604	1,490	4,002	1,426	3,276	275	21.14	6,465	
COYOTE HILL SLOUGH, CA	---	---	---	---	---	---	0.00	---	
NAPA RIVER, CA	---	---	---	---	46	---	0.07	---	
NEWARK SLOUGH, CA	---	---	---	---	---	---	0.00	---	
OAKLAND HARBOR, CA	3,451	5,289	381	1,239	788	---	18.02	---	
OTHER SAN FRANCISCO BAY AREA PORTS, CA	33	132	3,393	---	4,350	124	12.99	---	
PETALUMA RIVER, CA	---	---	---	---	280	---	0.45	---	
REDWOOD CITY HARBOR, CA	280	166	5	268	143	---	1.39	---	
RICHMOND HARBOR, CA	4,103	2,008	10,467	1,930	494	19	30.75	---	
SACRAMENTO RIVER, CA	288	568	69	0	21	---	1.53	---	
SAN FRANCISCO HARBOR, CA	544	240	9	---	537	---	2.15	---	
SAN JOAQUIN RIVER, CA**	1,985	1,101	119	11	109	---	5.38	---	
SAN PABLO BAY AND MARE ISLAND STRAIT, CA	468	78	12	286	545	19	2.28	18,791	
SAN RAFAEL CREEK, CA	---	---	---	---	---	---	0.00	---	
SUISUN BAY CHANNEL, CA	471	565	96	352	903	---	3.86	4,257	
SUISUN CHANNEL, CA	---	---	---	---	---	---	0.00	---	
TOTAL (UNADJUSTED)	14,227	11,637	18,552	5,512	11,492	437	---	29,513	
PERCENT (UNADJUSTED)	23.00	18.81	29.99	8.91	18.58	0.71	100.00	---	
NET VOLUME OF TONNAGE FOR THE AREA***	14,227	11,637	18,552	5,512	5,746	437	---	---	
PERCENT (ADJUSTED)	25.36	20.74	33.06	9.82	10.24	0.78	100.00	---	

* Not included in the total tonnage of the Bay and Delta Areas.

** Tributaries to San Joaquin River include Mokelumne, Middle, and Old River.

*** Adjusted to net volume by excluding duplication of internal traffic moved between ports and waterways of the San Francisco Bay and Delta Areas.

SAN FRANCISCO BAY ENTRANCE, CA

Section Included: Main ship channel. Controlling Depth: Main ship channel, 55.0 feet. Project Depth: Main ship channel, 55 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	64,058	1992	67,119	1995	61,356	1998	49,929
1990	61,599	1993	65,727	1996	59,850		
1991	61,150	1994	67,220	1997	53,698		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Through		Through		Total	Coastwise	
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd
Total, all commodities	49,929	13,403	11,522	824	115	24,065	18,552	5,512
Total coal	150	144	6	---	---	---	---	---
1100 coal lignite	6	0	6	---	---	---	---	---
1200 coal coke	144	144	0	---	---	---	---	---
Total petroleum and petroleum products	31,734	4,962	4,639	249	88	21,796	17,856	3,940
Subtotal crude petroleum	19,740	3,709	1	191	---	15,839	15,701	138
2100 crude petroleum	19,740	3,709	1	191	---	15,839	15,701	138
Subtotal petroleum products	11,994	1,253	4,638	58	88	5,957	2,154	3,803
2211 gasoline	3,570	43	371	---	88	3,069	468	2,601
2221 kerosene	139	104	17	17	---	---	---	---
2330 distillate fuel oil	1,884	165	109	9	---	1,601	1,081	520
2340 residual fuel oil	2,530	14	1,612	16	---	888	446	442
2350 lube oil & greases	345	0	37	---	---	308	114	194
2410 petro. jelly & waxes	20	18	1	---	---	0	0	---
2429 naphtha & solvents	1,623	908	690	16	---	9	4	4
2430 asphalt, tar & pitch	550	---	541	---	---	9	9	---
2540 petroleum coke	1,260	0	1,260	---	---	---	---	---
2640 liquid natural gas	0	---	0	---	---	0	---	0
2990 petro. products nec	72	---	---	---	---	72	31	41
Total chemicals and related products	3,194	1,860	422	482	8	421	323	99
Subtotal fertilizers	594	495	12	---	---	87	76	11
3110 nitrogenous fert.	513	437	0	---	---	75	75	---
3120 phosphatic fert.	0	0	0	---	---	---	---	---
3130 potassic fert.	0	0	0	---	---	---	---	---

SAN FRANCISCO BAY ENTRANCE, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Through		Through		Total	Coastwise	
		Upbound	Downbnd	Upbound	Downbnd		Through	
						Upbound	Downbnd	
3190 fert. & mixes nec	81	57	11	—	—	12	1	11
Subtotal other chemicals and related products	2,600	1,365	411	482	8	334	246	88
3211 acyclic hydrocarbons	30	0	2	—	—	28	—	28
3212 benzene & toluene	12	6	0	—	—	6	6	—
3219 other hydrocarbons	12	4	7	—	—	0	—	0
3220 alcohols	132	15	9	102	—	6	—	6
3230 carboxylic acids	14	7	6	—	—	0	0	0
3240 nitrogen func. comp.	13	5	8	—	—	—	—	—
3250 organo - inorg. comp.	8	3	5	—	—	0	0	0
3260 organic comp. nec	1,353	1,163	6	183	—	1	1	—
3271 sulphur (liquid)	0	0	0	—	—	—	—	—
3272 sulphuric acid	2	1	1	—	—	0	—	0
3273 ammonia	313	1	62	187	—	64	64	0
3274 sodium hydroxide	212	8	22	10	—	172	167	5
3275 inorg. elem., oxides, & halogen salts	24	8	14	—	—	2	0	2
3276 metallic salts	34	15	11	—	8	—	—	—
3279 inorganic chem. nec	3	2	1	—	—	—	—	—
3281 radioactive material	2	0	2	—	—	0	0	0
3282 pigments & paints	32	3	23	0	—	6	0	6
3283 coloring mat. nec	3	1	3	—	—	—	—	—
3284 medicines	9	3	5	—	—	1	0	1
3285 perfumes & cleansers	53	4	35	—	—	14	0	14
3286 plastics	136	43	88	—	0	5	3	2
3291 pesticides	5	1	3	—	—	1	—	1
3292 starches, gluten, glue	44	32	12	0	—	0	0	—
3293 explosives	3	1	0	—	—	2	0	2
3297 chemical additives	60	0	59	—	—	—	—	—
3298 wood & resin chem.	23	0	1	—	—	22	3	20
3299 chem. products nec	68	40	25	—	—	3	2	1
Total crude materials, inedible except fuels	3,697	1,019	2,302	39	19	319	37	282
Subtotal forest products, wood and chips	415	99	306	—	—	10	1	9
4110 rubber & gums	4	3	0	—	—	—	—	—
4150 fuel wood	1	0	1	—	—	0	—	0
4161 wood chips	230	0	230	—	—	—	—	—
4170 wood in the rough	41	2	38	—	—	0	0	0
4189 lumber	123	83	30	—	—	9	1	8
4190 forest products nec	17	10	6	—	—	1	—	1
Subtotal pulp and waste paper	682	0	648	—	0	34	33	1
4225 pulp & waste paper	682	0	648	—	0	34	33	1
Subtotal soil, sand, gravel, rock and stone	748	704	4	39	—	1	0	1
4310 building stone	1	1	0	—	—	—	—	—
4322 limestone	39	—	0	39	—	—	—	—
4323 gypsum	703	702	0	—	—	0	0	—
4327 phosphate rock	2	—	2	—	—	—	—	—
4331 sand & gravel	3	1	2	—	—	0	0	—
4338 soil & fill dirt	1	—	—	—	—	1	—	1
Subtotal iron ore and scrap	792	0	790	—	—	2	2	—
4410 iron ore	0	0	—	—	—	—	—	—
4420 iron & steel scrap	792	—	790	—	—	2	2	—
Subtotal marine shells	0	0	0	—	—	—	—	—
4515 marine shells	0	0	0	—	—	—	—	—
Subtotal non-ferrous ores and scrap	258	190	67	—	—	1	1	—
4630 copper ore	1	—	1	—	—	—	—	—
4650 aluminum ore	193	187	6	—	—	—	—	—
4670 manganese ore	1	—	1	—	—	—	—	—
4680 non-ferrous scrap	58	1	56	—	—	1	1	—
4690 non-ferrous ores nec	5	1	4	—	—	—	—	—
Subtotal sulphur, clay and salt	368	1	367	—	—	0	0	0
4741 sulphur, (dry)	351	0	351	—	—	—	—	—
4782 clay & refrac. mat.	17	1	16	—	—	0	0	0
Subtotal slag	1	0	1	—	—	—	—	—
4860 slag	1	0	1	—	—	—	—	—
Subtotal other non-metal. min.	433	24	119	—	19	272	0	272
4900 non-metal. min. nec	433	24	119	—	19	272	0	272
Total primary manufactured goods	2,776	2,428	251	19	0	78	6	72
Subtotal paper products	304	189	87	9	—	19	0	18
5110 newsprint	149	138	2	9	—	0	—	0
5120 paper & paperboard	109	36	62	—	—	10	0	10
5190 paper products nec	46	15	22	—	—	8	0	8
Subtotal lime, cement and glass	713	605	71	9	0	27	3	24
5220 cement & concrete	417	402	3	9	—	3	2	1
5240 glass & glass prod.	128	85	42	—	0	1	0	1
5290 misc. mineral prod.	167	118	26	0	—	22	1	22
Subtotal primary iron and steel products	1,466	1,425	38	—	—	3	1	3
5312 pig iron	19	16	2	—	—	—	—	—
5315 ferro alloys	1	1	0	—	—	—	—	—
5320 i&s primary forms	3	3	0	—	—	0	0	—
5330 i&s plates & sheets	1,159	1,150	9	—	—	0	—	0

SAN FRANCISCO BAY ENTRANCE, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Through		Through		Total	Coastwise	
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd
5360 i&s bars & shapes	192	186	3	—	—	3	1	2
5370 i&s pipe & tube	84	61	23	—	—	0	0	0
5390 primary i&s nec	8	7	0	—	—	—	—	—
Subtotal primary	272	198	48	0	0	26	2	25
non-ferrous metal products								
5421 copper	7	4	3	—	—	0	0	—
5422 aluminum	16	8	8	—	—	—	—	—
5429 smelted prod. nec	11	3	7	—	—	0	—	0
5480 fab. metal products	239	182	31	0	0	26	1	25
Subtotal primary wood	20	10	6	0	0	3	0	3
products								
5540 primary wood prod.	20	10	6	0	0	3	0	3
Total food and farm	5,738	1,531	3,477	36	0	695	161	533
products								
Subtotal fish	22	7	14	—	—	1	0	1
6134 fish (not shellfish)	18	4	13	—	—	1	0	1
6136 shellfish	4	3	1	—	—	0	0	—
Subtotal grain	836	116	635	34	—	52	0	52
6241 wheat	71	—	71	—	—	—	—	—
6344 corn	32	0	32	—	—	—	—	—
6442 rice	640	57	531	—	—	52	0	52
6443 barley & rye	68	35	0	34	—	—	—	—
6445 oats	23	23	0	—	—	—	—	—
6447 sorghum grains	2	—	2	—	—	—	—	—
Subtotal oilseeds	124	46	78	—	—	—	—	—
6521 peanuts	0	0	0	—	—	—	—	—
6522 soybeans	26	1	25	—	—	—	—	—
6590 oilseeds nec	98	45	53	—	—	—	—	—
Subtotal vegetable products	777	310	415	0	0	51	2	49
6653 vegetable oils	279	214	65	0	0	0	—	0
6654 vegetables & prod.	498	97	350	—	0	51	2	49
Subtotal processed grain	346	23	295	—	—	28	10	19
and animal feed								
6746 wheat flour	16	1	2	—	—	13	9	4
6747 grain mill products	53	17	36	—	—	0	0	0
6781 hay & fodder	141	0	140	—	—	1	0	0
6782 animal feed, prep.	136	5	117	—	—	14	0	14
Subtotal other agricultural	3,633	1,028	2,040	2	0	563	149	413
products								
6811 meat, fresh, frozen	577	49	470	0	—	58	0	58
6817 meat, prepared	35	2	28	—	—	5	0	5
6822 dairy products	85	8	52	—	—	25	0	25
6835 fish, prepared	12	9	3	0	—	—	—	—
6838 tallow, animal oils	38	0	38	—	—	0	—	0
6839 animals & prod. nec	159	7	136	—	0	16	11	5
6856 bananas & plantains	1	0	0	—	—	0	—	0
6857 fruit & nuts nec	609	9	549	0	0	50	8	42
6858 fruit juices	249	113	94	0	0	42	42	0
6861 sugar	357	355	1	—	—	1	—	1
6865 molasses	164	106	2	—	—	55	55	—
6871 coffee	89	81	3	0	—	5	3	2
6872 cocoa beans	8	8	1	—	—	—	—	—
6885 alcoholic beverages	497	203	244	1	0	48	0	48
6887 groceries	70	—	—	—	—	70	0	70
6888 water & ice	22	21	1	0	—	—	—	—
6889 food products nec	357	47	158	—	—	152	7	145
6891 tobacco & products	55	2	51	—	—	2	1	2
6893 cotton	202	0	202	—	—	0	0	—
6894 natural fibers nec	1	1	—	—	—	—	—	—
6899 farm products nec	47	6	9	—	0	32	22	11
Total all manufactured	2,572	1,443	391	0	0	739	164	575
equipment, machinery and								
products								
7110 machinery (not elec)	334	189	93	0	0	52	21	30
7120 electrical machinery	514	445	65	0	0	3	0	3
7210 vehicles & parts	437	200	77	0	0	160	28	132
7220 aircraft & parts	1	0	1	—	—	0	0	0
7230 ships & boats	2	1	1	—	0	0	0	0
7300 ordnance & access.	6	0	5	—	—	1	1	0
7400 manufac. wood prod.	74	43	27	0	0	4	1	3
7500 textile products	171	114	26	—	—	31	7	23
7600 rubber & plastic pr.	115	80	32	—	0	4	1	3
7900 manufac. prod. nec	918	371	63	0	0	484	104	380
Total unknown or not	68	18	34	0	0	16	6	10
elsewhere classified								
9900 unknown or nec	68	18	34	0	0	16	6	10

SAN FRANCISCO HARBOR, CA

Section Included: From Fort Point to San Francisco Airport on the west side of the San Francisco Bay. Controlling Depth: Main ship channel, 55.0 feet; Presidio Shoal, 34.1 feet; Black Point Shoal, 35.5 feet; Rincon Reef Rock (inner), 41 feet; Rincon Reef (outer), 42.5 feet; Blossom Rock, 40 feet; Alcatraz Shoal, 34.5 feet; Arch Rock, 36.2 feet; Harding Rocks, 36.7 feet; Shag Rocks 1 and 2, 36.9 feet; Point Knox Shoal, 38.2 feet, Islais Creek Shoal, 38.2 feet; channel and basin at San Francisco Airport, 6.8 feet in the maintained 200-foot wide southerly portion; 8 feet in the maintained portion of turning basin, 8.6 feet to seaplane ramp. Project Depth: 55 feet in entrance channel across the bar; 40 feet across Presidio Shoal, Black Point Shoal, Blossom Rock, Rincon Reef Rock, and a portion of Alcatraz Shoal; 37 feet across Arch, Shag, and Harding Rocks; 35 feet across Racoon Shoal, and the western part of Point Knox Shoal; 35 feet across Islais Creek Shoal; 10 feet to the San Francisco Airport.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	3,359	1992	3,198	1995	1,330	1998	1,330
1990	2,297	1993	2,340	1996	1,982		
1991	2,898	1994	1,739	1997	1,003		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Imports*	Exports*	Imports	Exports	Total	Coastwise Receipts	Internal Receipts
Total, all commodities	1,330	534	197	10	43	545	9	537
Total petroleum and petroleum products	393	236	99	---	43	15	9	7
Subtotal crude petroleum	236	236	---	---	---	---	---	---
2100 crude petroleum	236	236	---	---	---	---	---	---
Subtotal petroleum products	157	0	99	---	43	15	9	7
2211 gasoline	43	---	---	---	43	---	---	---
2330 distillate fuel oil	14	---	---	---	---	14	9	6
2340 residual fuel oil	1	---	---	---	---	1	---	1
2350 lube oil & greases	0	0	0	---	---	---	---	---
2410 petro. jelly & waxes	0	---	0	---	---	---	---	---
2429 naphtha & solvents	66	---	66	---	---	---	---	---
2430 asphalt, tar & pitch	10	---	10	---	---	---	---	---
2540 petroleum coke	23	---	23	---	---	---	---	---
Total chemicals and related products	38	35	3	---	---	---	---	---
Subtotal fertilizers	3	2	1	---	---	---	---	---
3190 fert. & mixes nec	3	2	1	---	---	---	---	---
Subtotal other chemicals and related products	35	33	2	---	---	---	---	---
3219 other hydrocarbons	0	---	0	---	---	---	---	---
3220 alcohols	0	0	---	---	---	---	---	---
3230 carboxylic acids	1	0	0	---	---	---	---	---
3240 nitrogen func. comp.	0	0	---	---	---	---	---	---
3250 organo - inorg. comp.	0	0	0	---	---	---	---	---
3260 organic comp. nec	30	30	---	---	---	---	---	---
3274 sodium hydroxide	0	0	---	---	---	---	---	---
3275 inorg. elem. oxides, & halogen salts	0	0	0	---	---	---	---	---
3276 metallic salts	1	0	0	---	---	---	---	---
3279 inorganic chem. nec	0	---	0	---	---	---	---	---
3282 pigments & paints	0	0	0	---	---	---	---	---
3283 coloring mat. nec	0	---	0	---	---	---	---	---
3284 medicines	0	0	0	---	---	---	---	---
3285 perfumes & cleansers	0	0	0	---	---	---	---	---
3286 plastics	1	0	1	---	---	---	---	---
3291 pesticides	0	0	0	---	---	---	---	---
3292 starches, gluten, glue	2	2	0	---	---	---	---	---
3293 explosives	0	---	0	---	---	---	---	---
3299 chem. products nec	0	0	0	---	---	---	---	---
Total crude materials, inedible except fuels	609	48	36	---	---	525	---	525
Subtotal forest products, wood and chips	47	47	0	---	---	0	---	0
4170 wood in the rough	0	0	0	---	---	0	---	0
4189 lumber	47	47	0	---	---	---	---	---
4190 forest products nec	0	0	0	---	---	---	---	---
Subtotal pulp and waste paper	1	0	1	---	---	---	---	---
4225 pulp & waste paper	1	0	1	---	---	---	---	---
Subtotal soil, sand, gravel, rock and stone	525	---	0	---	---	525	---	525
4323 gypsum	0	---	0	---	---	---	---	---
4331 sand & gravel	525	---	---	---	---	525	---	525
Subtotal iron ore and scrap	1	---	1	---	---	---	---	---
4420 iron & steel scrap	1	---	1	---	---	---	---	---
Subtotal marine shells	0	0	---	---	---	---	---	---
4515 marine shells	0	0	---	---	---	---	---	---
Subtotal non-ferrous ores and scrap	1	1	0	---	---	---	---	---
4650 aluminum ore	0	0	0	---	---	---	---	---
4680 non-ferrous scrap	0	0	0	---	---	---	---	---
4690 non-ferrous ores nec	1	1	---	---	---	---	---	---
Subtotal sulphur, clay and salt	31	---	31	---	---	---	---	---
4741 sulphur, (dry)	30	---	30	---	---	---	---	---
4782 clay & refrac. mat.	1	---	1	---	---	---	---	---

SAN FRANCISCO HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Imports*	Exports*	Imports	Exports	Total	Coastwise	Internal
						Receipts	Receipts	Receipts
Subtotal other non-metal. min.	2	---	2	---	---	---	---	---
4900 non-metal. min. nec	2	---	2	---	---	---	---	---
Total primary manufactured goods	83	71	3	9	0	0	---	0
Subtotal paper products	13	4	0	9	---	---	---	---
5110 newsprint	13	4	---	9	---	---	---	---
5120 paper & paperboard	0	0	0	---	---	---	---	---
5190 paper products nec	0	0	0	---	---	---	---	---
Subtotal lime, cement and glass	33	31	2	---	---	0	---	0
5220 cement & concrete	28	28	---	---	---	---	---	---
5240 glass & glass prod.	3	2	1	---	---	---	---	---
5290 misc. mineral prod.	2	1	1	---	---	0	---	0
Subtotal primary iron and steel products	31	31	0	---	---	---	---	---
5320 i&s primary forms	0	---	0	---	---	---	---	---
5330 i&s plates & sheets	6	6	---	---	---	---	---	---
5360 i&s bars & shapes	19	19	---	---	---	---	---	---
5370 i&s pipe & tube	5	5	0	---	---	---	---	---
5390 primary i&s nec	1	1	---	---	---	---	---	---
Subtotal primary non-ferrous metal products	4	4	0	---	0	---	---	---
5421 copper	0	0	---	---	---	---	---	---
5422 aluminum	0	0	0	---	---	---	---	---
5429 smelted prod. nec	1	1	0	---	---	---	---	---
5480 fab. metal products	3	3	0	---	0	---	---	---
Subtotal primary wood products	2	2	0	0	0	---	---	---
5540 primary wood prod.	2	2	0	0	0	---	---	---
Total food and farm products	174	125	48	1	0	---	---	---
Subtotal fish	1	1	1	---	---	---	---	---
6134 fish (not shellfish)	1	0	1	---	---	---	---	---
6136 shellfish	0	0	0	---	---	---	---	---
Subtotal grain	1	---	1	---	---	---	---	---
6241 wheat	0	---	0	---	---	---	---	---
6344 corn	0	---	0	---	---	---	---	---
6442 rice	0	---	0	---	---	---	---	---
Subtotal oilseeds	0	0	---	---	---	---	---	---
6590 oilseeds nec	0	0	---	---	---	---	---	---
Subtotal vegetable products	14	2	11	---	---	---	---	---
6653 vegetable oils	6	0	6	---	---	---	---	---
6654 vegetables & prod.	8	2	5	---	---	---	---	---
Subtotal processed grain and animal feed	3	1	2	---	---	---	---	---
6746 wheat flour	0	0	0	---	---	---	---	---
6747 grain mill products	1	0	1	---	---	---	---	---
6781 hay & fodder	1	---	1	---	---	---	---	---
6782 animal feed, prep.	2	1	0	---	---	---	---	---
Subtotal other agricultural products	154	121	33	1	0	---	---	---
6811 meat, fresh, frozen	12	9	3	---	---	---	---	---
6817 meat, prepared	1	1	1	---	---	---	---	---
6822 dairy products	3	1	2	---	---	---	---	---
6835 fish, prepared	1	0	0	---	---	---	---	---
6838 tallow, animal oils	13	---	13	---	---	---	---	---
6839 animals & prod. nec	1	0	0	---	---	---	---	---
6857 fruit & nuts nec	6	1	4	0	---	---	---	---
6858 fruit juices	16	14	2	---	---	---	---	---
6861 sugar	44	44	---	---	---	---	---	---
6871 coffee	29	29	---	---	---	---	---	---
6872 cocoa beans	0	0	---	---	---	---	---	---
6885 alcoholic beverages	22	18	4	0	---	---	---	---
6888 water & ice	1	1	0	---	---	---	---	---
6889 food products nec	3	1	1	---	---	---	---	---
6891 tobacco & products	1	0	1	---	---	---	---	---
6893 cotton	1	---	1	---	---	---	---	---
6894 natural fibers nec	0	0	---	---	---	---	---	---
6899 farm products nec	1	0	0	---	0	---	---	---
Total all manufactured equipment, machinery and products	29	17	7	0	0	5	---	5
7110 machinery (not elec)	7	5	2	---	---	---	---	---
7120 electrical machinery	3	1	2	---	---	---	---	---
7210 vehicles & parts	3	2	2	---	---	---	---	---
7220 aircraft & parts	0	0	0	---	---	---	---	---
7230 ships & boats	0	0	0	---	---	---	---	---
7300 ordnance & access.	0	0	0	---	---	---	---	---
7400 manufac. wood prod.	4	3	1	0	0	---	---	---
7500 textile products	1	1	0	---	---	---	---	---
7600 rubber & plastic pr.	3	3	0	---	---	---	---	---
7900 manufac. prod. nec	9	3	1	---	---	5	---	5
Total waste and scrap nec	0	---	---	---	---	0	---	0
8900 waste and scrap nec	0	---	---	---	---	0	---	0

SAN FRANCISCO HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic		
		Imports*	Exports*	Imports	Exports	Total	Coastwise	Internal
						Receipts		Receipts
Total unknown or not elsewhere classified	3	2	1	0	---	---	---	---
9900 unknown or nec	3	2	1	0	---	---	---	---

*Includes 4 (x1000) tons of foreign inbound in-transits; Includes 0 (x1000) tons of foreign outbound in-transits.

REDWOOD CITY HARBOR, CA

Section Included: San Bruno Shoal channel 500 feet wide and about 4 miles long across; Redwood City Harbor channel, a channel from deep water in San Francisco Bay to Steinberger Slough. Controlling Depth: 30.8 feet in San Bruno Shoal channel; 29.8 feet in San Francisco Bay to Beacon No.8; 29.7 feet to Beacon No.15 and beginning of (outer) Turning Basin No.1; 29.5 feet in Turning Basin No.1; 29.5 feet in Turning Basin No.1; 28.5 feet to (upper) Turning Basin No.2; 29.1 in turning basin. Project Depth: 30 feet in San Bruno Shoal Channel; 30 feet to the head of the turning basin in Redwood Creek; 5 feet to Steinberger Slough, and 4 feet in Steinberger Slough.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	945	1992	816	1995	754	1998	861
1990	499	1993	1,829	1996	985		
1991	507	1994	846	1997	1,293		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic		
		Imports	Exports	Exports	Total	Coastwise	Internal
					Receipts	Shipments	Receipts
Total, all commodities	861	280	139	27	415	5	268
Total chemicals and related products	8	---	---	8	---	---	---
Subtotal other chemicals and related products	8	---	---	8	---	---	---
3276 metallic salts	8	---	---	8	---	---	---
Total crude materials, inedible except fuels	673	104	139	19	411	1	268
Subtotal forest products, wood and chips	1	0	---	---	1	1	---
4170 wood in the rough	0	0	---	---	0	---	0
4189 lumber	1	---	---	---	1	1	---
Subtotal soil, sand, gravel, rock and stone	247	104	---	---	143	---	143
4323 gypsum	104	104	---	---	---	---	---
4331 sand & gravel	143	---	---	---	143	---	143
Subtotal iron ore and scrap	139	---	139	---	---	---	---
4420 iron & steel scrap	139	---	139	---	---	---	---
Subtotal other non-metal. min.	287	---	---	19	268	---	268
4900 non-metal. min. nec	287	---	---	19	268	---	268
Total primary manufactured goods	179	176	---	---	3	3	---
Subtotal lime, cement and glass	178	175	---	---	3	3	---
5220 cement & concrete	177	175	---	---	2	2	---
5290 misc. mineral prod.	1	---	---	---	1	1	---
Subtotal primary iron and steel products	1	1	---	---	---	---	---
5330 i&s plates & sheets	1	1	---	---	---	---	---
Total all manufactured equipment, machinery and products	1	0	---	---	1	1	---
7120 electrical machinery	0	0	---	---	---	---	---
7400 manufac. wood prod.	1	---	---	---	1	1	---

OAKLAND HARBOR, CA

Section Included: Outer and inner harbor from deep water in San Francisco Bay to San Leandro Bay, a distance of 8.5 miles. Controlling Depth: 37.1 feet in the entrance channel of the outer harbor to Bart Tube; 34.5 to Albers Mill; 34.7 to Shed 5; 34.8 feet in the entrance channel to the inner harbor; 34.4 feet in inner harbor to foot of Ferro Street; 34.2 feet to Posey Tube; 34.0 feet at Posey; Tube; 34.5 feet to Fortmann Basin; 24.0 feet to Park Street Bridge; 15.3 feet in tidal canal to Fruitvale Avenue Bridge; 14.4 feet in tidal canal to San Leandro Bay; 7 feet in north channel of Brooklyn Basin. Project Depth: 35 feet in the entrance channel to the outer harbor; 35 feet in the outer harbor; 35 feet in the entrance channel to the inner harbor; 35 feet in the inner harbor to the Park Street bridge; 25 feet in the tidal canal to San Leandro Bay; 35 feet for a distance of 1,300 feet thence 25 feet in north channel of Brooklyn Basin (maintained 18 feet).

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	10,000	1992	13,211	1995	13,224	1998	11,148
1990	10,290	1993	12,734	1996	11,230		
1991	10,356	1994	12,914	1997	10,858		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports
Total, all commodities	8,740	3,383	5,288	68	1
Total coal	4	1	3	—	—
1100 coal lignite	3	0	3	—	—
1200 coal coke	1	1	0	—	—
Total petroleum and petroleum products	196	18	177	—	—
Subtotal crude petroleum	1	—	1	—	—
2100 crude petroleum	1	—	1	—	—
Subtotal petroleum products	195	18	176	—	—
2211 gasoline	0	0	0	—	—
2330 distillate fuel oil	4	—	4	—	—
2340 residual fuel oil	51	—	51	—	—
2350 lube oil & greases	16	0	16	—	—
2410 petro. jelly & waxes	1	1	1	—	—
2429 naphtha & solvents	88	17	70	—	—
2430 asphalt, tar & pitch	1	—	1	—	—
2540 petroleum coke	33	0	33	—	—
2640 liquid natural gas	0	—	0	—	—
Total chemicals and related products	591	204	364	23	0
Subtotal fertilizers	27	16	11	—	—
3110 nitrogenous fert.	9	9	0	—	—
3120 phosphatic fert.	0	0	0	—	—
3130 potassic fert.	0	0	0	—	—
3190 fert. & mixes nec	17	7	10	—	—
Subtotal other chemicals and related products	564	187	353	23	0
3211 acyclic hydrocarbons	0	0	0	—	—
3212 benzene & toluene	0	—	0	—	—
3219 other hydrocarbons	12	4	7	—	—
3220 alcohols	18	3	9	6	—
3230 carboxylic acids	13	7	6	—	—
3240 nitrogen func. comp.	13	5	8	—	—
3250 organo - inorg. comp.	7	3	5	—	—
3260 organic comp. nec	38	31	6	—	—
3271 sulphur (liquid)	0	0	0	—	—
3272 sulphuric acid	2	1	1	—	—
3273 ammonia	80	1	62	17	—
3274 sodium hydroxide	23	0	22	—	—
3275 inorg. elem., oxides, & halogen salts	20	7	13	—	—
3276 metallic salts	18	7	11	—	—
3279 inorganic chem. nec	2	1	1	—	—
3281 radioactive material	2	0	2	—	—
3282 pigments & paints	26	3	23	0	—
3283 coloring mat. nec	3	1	3	—	—
3284 medicines	8	3	5	—	—
3285 perfumes & cleansers	38	4	34	—	—
3286 plastics	129	43	86	—	0
3291 pesticides	4	1	3	—	—
3292 starches, gluten, glue	42	30	12	0	—
3293 explosives	1	1	0	—	—
3297 chemical additives	10	0	9	—	—
3298 wood & resin chem.	1	0	1	—	—
3299 chem. products nec	56	32	24	—	—
Total crude materials, inedible except fuels	1,462	81	1,381	—	0
Subtotal forest products, wood and chips	141	52	89	—	—
4110 rubber & gums	4	3	0	—	—
4150 fuel wood	1	0	1	—	—
4161 wood chips	28	0	28	—	—
4170 wood in the rough	26	2	24	—	—
4189 lumber	66	36	30	—	—
4190 forest products nec	16	10	6	—	—
Subtotal pulp and waste paper	639	0	639	—	0
4225 pulp & waste paper	639	0	639	—	0
Subtotal soil, sand, gravel, rock and stone	6	2	4	—	—
4310 building stone	1	1	0	—	—
4322 limestone	0	—	0	—	—
4323 gypsum	0	0	0	—	—
4327 phosphate rock	2	—	2	—	—
4331 sand & gravel	3	1	2	—	—
Subtotal iron ore and scrap	449	0	449	—	—
4410 iron ore	0	0	—	—	—
4420 iron & steel scrap	449	—	449	—	—

OAKLAND HARBOR, CA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports
Subtotal marine shells	0	0	0	---	---
4515 marine shells	0	0	0	---	---
Subtotal non-ferrous ores and scrap	69	2	66	---	---
4630 copper ore	1	---	1	---	---
4650 aluminum ore	6	1	5	---	---
4670 manganese ore	1	---	1	---	---
4680 non-ferrous scrap	57	1	56	---	---
4690 non-ferrous ores nec	4	1	4	---	---
Subtotal sulphur, clay and salt	17	1	16	---	---
4741 sulphur, (dry)	1	0	1	---	---
4782 clay & refrac. mat.	16	1	15	---	---
Subtotal slag	1	0	1	---	---
4860 slag	1	0	1	---	---
Subtotal other non-metal. min.	138	23	116	---	---
4900 non-metal. min. nec	138	23	116	---	---
Total primary manufactured goods	1,213	979	225	9	0
Subtotal paper products	270	186	84	---	---
5110 newsprint	136	134	2	---	---
5120 paper & paperboard	96	36	60	---	---
5190 paper products nec	38	15	22	---	---
Subtotal lime, cement and glass	312	234	69	9	0
5220 cement & concrete	47	35	3	9	---
5240 glass & glass prod.	123	82	41	---	0
5290 misc. mineral prod.	142	117	25	0	---
Subtotal primary iron and steel products	378	361	18	---	---
5312 pig iron	2	0	2	---	---
5315 ferro alloys	1	1	0	---	---
5320 i&s primary forms	3	2	0	---	---
5330 i&s plates & sheets	238	229	9	---	---
5360 i&s bars & shapes	77	74	3	---	---
5370 i&s pipe & tube	50	48	2	---	---
5390 primary i&s nec	7	7	0	---	---
Subtotal primary non-ferrous metal products	240	192	48	0	---
5421 copper	7	4	3	---	---
5422 aluminum	15	8	8	---	---
5429 smelted prod. nec	10	3	7	---	---
5480 fab. metal products	208	178	30	0	---
Subtotal primary wood products	12	6	6	---	---
5540 primary wood prod.	12	6	6	---	---
Total food and farm products	3,486	680	2,771	35	0
Subtotal fish	20	7	13	---	---
6134 fish (not shellfish)	16	4	12	---	---
6136 shellfish	4	3	1	---	---
Subtotal grain	189	57	98	34	---
6241 wheat	0	---	0	---	---
6344 corn	14	0	14	---	---
6442 rice	139	57	82	---	---
6443 barley & rye	34	0	0	34	---
6445 oats	0	0	0	---	---
6447 sorghum grains	2	---	2	---	---
Subtotal oilseeds	40	3	37	---	---
6521 peanuts	0	0	0	---	---
6522 soybeans	26	1	25	---	---
6590 oilseeds nec	14	2	12	---	---
Subtotal vegetable products	454	100	355	0	0
6653 vegetable oils	17	6	12	0	0
6654 vegetables & prod.	437	94	343	---	0
Subtotal processed grain and animal feed	312	21	291	---	---
6746 wheat flour	3	1	2	---	---
6747 grain mill products	51	16	35	---	---
6781 hay & fodder	138	0	138	---	---
6782 animal feed, prep.	120	4	116	---	---
Subtotal other agricultural products	2,471	492	1,977	1	0
6811 meat, fresh, frozen	506	39	467	0	---
6817 meat, prepared	29	2	28	---	---
6822 dairy products	57	7	50	---	---
6835 fish, prepared	11	9	2	0	---
6838 tallow, animal oils	2	0	1	---	---
6839 animals & prod. nec	142	6	136	---	0
6856 bananas & plantains	0	0	0	---	---
6857 fruit & nuts nec	551	8	543	---	0
6858 fruit juices	190	99	91	0	0
6861 sugar	2	1	0	---	---
6865 molasses	5	2	2	---	---
6871 coffee	55	52	3	0	---
6872 cocoa beans	8	7	1	---	---
6885 alcoholic beverages	426	185	240	1	0
6888 water & ice	20	19	1	0	---
6889 food products nec	201	46	156	---	---
6891 tobacco & products	50	2	48	---	---
6893 cotton	201	0	201	---	---
6894 natural fibers nec	1	1	---	---	---
6899 farm products nec	14	6	8	---	0
Total all manufactured equipment, machinery and products	1,740	1,405	335	0	0
7110 machinery (not elec)	268	183	85	0	0
7120 electrical machinery	507	444	63	0	0
7210 vehicles & parts	223	181	41	0	0
7220 aircraft & parts	1	0	1	---	---
7230 ships & boats	1	0	1	---	0
7300 ordnance & access.	2	0	2	---	---
7400 manufac. wood prod.	65	39	27	0	---
7500 textile products	137	113	24	---	---

OAKLAND HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports
7600 rubber & plastic pr.	107	77	30	—	0
7900 manufac. prod. nec	428	366	62	0	0
Total unknown or not elsewhere classified	48	16	32	0	0
9900 unknown or nec	48	16	32	0	0

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
Total, all commodities	2,408	381	1,239	706	82
Total petroleum and petroleum products	149	1	7	141	—
Subtotal petroleum products	149	1	7	141	—
2340 residual fuel oil	141	—	—	141	—
2350 lube oil & greases	2	0	2	—	—
2410 petro. jelly & waxes	0	0	—	—	—
2429 naphtha & solvents	1	1	—	—	—
2640 liquid natural gas	0	—	0	—	—
2990 petro. products nec	4	0	4	—	—
Total chemicals and related products	49	10	39	—	—
Subtotal fertilizers	12	1	11	—	—
3190 fert. & mixes nec	12	1	11	—	—
Subtotal other chemicals and related products	37	9	28	—	—
3219 other hydrocarbons	0	—	0	—	—
3220 alcohols	0	—	0	—	—
3230 carboxylic acids	0	0	0	—	—
3250 organo - inorg. comp.	0	0	0	—	—
3260 organic comp. nec	1	1	—	—	—
3273 ammonia	0	—	0	—	—
3275 inorg. elem., oxides, & halogen salts	2	0	2	—	—
3281 radioactive material	0	0	0	—	—
3282 pigments & paints	6	0	6	—	—
3284 medicines	1	0	1	—	—
3285 perfumes & cleansers	14	0	14	—	—
3286 plastics	5	3	2	—	—
3291 pesticides	1	—	1	—	—
3292 starches, gluten, glue	0	0	—	—	—
3293 explosives	0	0	0	—	—
3298 wood & resin chem.	3	3	0	—	—
3299 chem. products nec	3	2	1	—	—
Total crude materials, inedible except fuels	615	37	14	564	—
Subtotal forest products, wood and chips	9	1	9	0	—
4150 fuel wood	0	—	0	—	—
4170 wood in the rough	0	0	0	0	—
4189 lumber	9	1	8	—	—
4190 forest products nec	1	—	1	—	—
Subtotal pulp and waste paper	34	33	1	—	—
4225 pulp & waste paper	34	33	1	—	—
Subtotal soil, sand, gravel, rock and stone	565	0	1	564	—
4323 gypsum	0	0	—	—	—
4331 sand & gravel	564	0	—	564	—
4338 soil & fill dirt	1	—	1	—	—
Subtotal iron ore and scrap	2	2	—	—	—
4420 iron & steel scrap	2	2	—	—	—
Subtotal non-ferrous ores and scrap	1	1	—	—	—
4680 non-ferrous scrap	1	1	—	—	—
Subtotal sulphur, clay and salt	0	0	0	—	—
4782 clay & refrac. mat.	0	0	0	—	—
Subtotal other non-metal. min.	4	0	4	—	—
4900 non-metal. min. nec	4	0	4	—	—
Total primary manufactured goods	65	3	61	1	—
Subtotal paper products	19	0	18	—	—
5110 newsprint	0	—	0	—	—
5120 paper & paperboard	10	0	10	—	—
5190 paper products nec	8	0	8	—	—
Subtotal lime, cement and glass	13	0	12	1	—
5220 cement & concrete	1	—	1	—	—
5240 glass & glass prod.	1	0	1	—	—
5290 misc. mineral prod.	11	0	10	1	—
Subtotal primary iron and steel products	3	1	3	—	—
5320 i&s primary forms	0	0	—	—	—
5330 i&s plates & sheets	0	—	0	—	—
5360 i&s bars & shapes	3	1	2	—	—
5370 i&s pipe & tube	0	0	0	—	—
Subtotal primary non-ferrous metal products	27	2	25	0	—
5421 copper	0	0	—	—	—
5429 smelted prod. nec	0	—	0	—	—
5480 fab. metal products	27	1	25	0	—
Subtotal primary wood products	3	0	3	—	—
5540 primary wood prod.	3	0	3	—	—
Total food and farm products	772	161	533	—	77
Subtotal fish	1	0	1	—	—
6134 fish (not shellfish)	1	0	1	—	—

OAKLAND HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
6136 shellfish	0	0	—	—	—
Subtotal grain	52	0	52	—	—
6442 rice	52	0	52	—	—
Subtotal vegetable products	51	2	49	—	—
6653 vegetable oils	0	—	0	—	—
6654 vegetables & prod.	51	2	49	—	—
Subtotal processed grain and animal feed	28	10	19	—	—
6746 wheat flour	13	9	4	—	—
6747 grain mill products	0	0	0	—	—
6781 hay & fodder	1	0	0	—	—
6782 animal feed, prep.	14	0	14	—	—
Subtotal other agricultural products	640	149	413	—	77
6811 meat, fresh, frozen	58	0	58	—	—
6817 meat, prepared	5	0	5	—	—
6822 dairy products	25	0	25	—	—
6838 tallow, animal oils	0	—	0	—	—
6839 animals & prod. nec	16	11	5	—	—
6856 bananas & plantains	0	—	0	—	—
6857 fruit & nuts nec	50	8	42	—	—
6858 fruit juices	42	42	0	—	—
6861 sugar	1	—	1	—	—
6865 molasses	132	55	—	—	77
6871 coffee	5	3	2	—	—
6885 alcoholic beverages	48	0	48	—	—
6887 groceries	70	0	70	—	—
6889 food products nec	152	7	145	—	—
6891 tobacco & products	2	1	2	—	—
6893 cotton	0	0	—	—	—
6899 farm products nec	32	22	11	—	—
Total all manufactured equipment, machinery and products	743	163	575	—	5
7110 machinery (not elec)	52	21	30	—	—
7120 electrical machinery	3	0	3	—	—
7210 vehicles & parts	160	28	132	—	—
7220 aircraft & parts	0	0	0	—	—
7230 ships & boats	0	0	0	—	—
7300 ordnance & access.	1	1	0	—	—
7400 manufac. wood prod.	3	0	3	—	—
7500 textile products	31	7	23	—	—
7600 rubber & plastic pr.	4	1	3	—	—
7900 manufac. prod. nec	489	104	380	—	5
Total unknown or not elsewhere classified	16	6	10	—	—
9900 unknown or nec	16	6	10	—	—

*Includes 69 (x1000) tons of foreign inbound in-transits; Includes 41 (x1000) tons of foreign outbound in-transits;
Includes 1 (x1000) tons of Canadian inbound in-transits.

RICHMOND HARBOR, CA

Section Included: Inner harbor, from southern end of Richmond Long Wharf maneuvering area to the head of Santa Fe Channel, a distance of about 5 miles; outer harbor, from southern end of maneuvering area at Richmond Long Wharf to Point San Pablo and the north side of Point San Pablo; includes a connecting channel (Southampton Channel) to the Richmond Long Wharf maneuvering area and approach areas at Point San Pablo and Point Orient. Controlling Depth: 45.7 feet in Southampton Channel (connecting channel from San Francisco Bay to Richmond Long Wharf maneuvering area); 44.7 feet in maneuvering area to Richmond Long Wharf; 34.8 feet from Richmond Long Wharf maneuvering area to turning basin Point Richmond; 34.8 feet in Point Richmond turning basin; 34.5 feet to Point Potrero; 34.0 feet in turning basin at Point Potrero; Point Potrero (southerly apex only) 28.7 feet; 34.7 feet to Lauritzen Canal then 30.4 feet in Santa Fe Channel to upper turning basin; 30.4 feet in upper turning basin; 27 feet in approach to Point Orient; 26 feet in approach to Point San Pablo; 30.6 feet at Molate Point; and 33.4 feet in West Richmond Channel. Project Depth: 45 feet in connecting channel (Southampton Channel) from San Francisco Bay to Richmond Long Wharf maneuvering area; 45 feet in maneuvering area to Richmond Long Wharf; 35 feet to turning basin at Point Richmond; 35 feet to Point Potrero; 35 feet to Santa Fe Channel; 35 feet in Santa Fe Channel for approximately 2,000 feet then 30 feet in the remainder of Santa Fe Channel and turning basin; 20 feet in channel east of Point San Pablo Channel; 32 feet in approach to Point Orient; 32 feet in approach to Point San Pablo.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	25,103	1992	21,042	1995	20,839	1998	19,020
1990	21,156	1993	24,570	1996	21,803		
1991	19,919	1994	24,094	1997	21,706		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian Imports
		Imports*	Exports*	
Total, all commodities	6,111	3,857	2,008	246
Total coal	146	143	3	—
1100 coal lignite	3	—	3	—
1200 coal coke	143	143	—	—

RICHMOND HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian
		Imports*	Exports*	Imports
Total petroleum and petroleum products	4,090	2,398	1,667	25
Subtotal crude petroleum	1,347	1,347	—	—
2100 crude petroleum	1,347	1,347	—	—
Subtotal petroleum products	2,743	1,051	1,667	25
2211 gasoline	116	—	116	—
2221 kerosene	72	72	—	—
2330 distillate fuel oil	203	165	29	9
2340 residual fuel oil	1,148	14	1,134	—
2350 lube oil & greases	4	—	4	—
2410 petro. jelly & waxes	18	18	0	—
2429 naphtha & solvents	821	782	23	16
2430 asphalt, tar & pitch	124	—	124	—
2540 petroleum coke	237	—	237	—
Total chemicals and related products	533	306	44	182
Subtotal fertilizers	57	57	—	—
3110 nitrogenous fert.	32	32	—	—
3190 fert. & mixes nec	26	26	—	—
Subtotal other chemicals and related products	475	249	44	182
3211 acyclic hydrocarbons	1	—	1	—
3212 benzene & toluene	6	6	—	—
3220 alcohols	108	12	—	96
3230 carboxylic acids	0	0	0	—
3240 nitrogen func. comp.	0	—	0	—
3250 organo - inorg. comp.	0	0	0	—
3260 organic comp. nec	288	219	—	69
3273 ammonia	15	—	—	15
3274 sodium hydroxide	6	4	—	2
3275 inorg. elem. oxides, & halogen salts	0	—	0	—
3279 inorganic chem. nec	1	1	—	—
3282 pigments & paints	0	—	0	—
3283 coloring mat. nec	0	—	0	—
3285 perfumes & cleansers	0	0	0	—
3286 plastics	0	—	0	—
3297 chemical additives	43	—	43	—
3299 chem. products nec	7	7	0	—
Total crude materials, inedible except fuels	706	449	219	39
Subtotal forest products, wood and chips	18	0	18	—
4161 wood chips	18	0	18	—
4170 wood in the rough	0	0	—	—
4189 lumber	0	—	0	—
Subtotal pulp and waste paper	0	—	0	—
4225 pulp & waste paper	0	—	0	—
Subtotal soil, sand, gravel, rock and stone	308	270	—	39
4322 limestone	39	—	—	39
4323 gypsum	270	270	—	—
Subtotal iron ore and scrap	201	—	201	—
4420 iron & steel scrap	201	—	201	—
Subtotal non-ferrous ores and scrap	179	179	0	—
4650 aluminum ore	179	179	—	—
4680 non-ferrous scrap	0	—	0	—
Subtotal other non-metal. min.	0	—	0	—
4900 non-metal. min. nec	0	—	0	—
Total primary manufactured goods	271	271	0	—
Subtotal paper products	0	0	0	—
5120 paper & paperboard	0	0	—	—
5190 paper products nec	0	—	0	—
Subtotal lime, cement and glass	21	21	—	—
5220 cement & concrete	21	21	—	—
5240 glass & glass prod.	1	1	—	—
Subtotal primary iron and steel products	247	246	0	—
5312 pig iron	16	16	—	—
5330 i&s plates & sheets	160	160	—	—
5360 i&s bars & shapes	64	64	—	—
5370 i&s pipe & tube	7	7	0	—
5390 primary i&s nec	0	0	—	—
Subtotal primary non-ferrous metal products	1	1	0	—
5421 copper	0	—	0	—
5422 aluminum	0	0	0	—
5480 fab. metal products	1	1	0	—
Subtotal primary wood products	2	2	—	—
5540 primary wood prod.	2	2	—	—
Total food and farm products	361	287	74	—
Subtotal grain	35	35	—	—
6443 barley & rye	35	35	—	—
Subtotal oilseeds	52	43	9	—
6590 oilseeds nec	52	43	9	—
Subtotal vegetable products	242	199	43	—
6653 vegetable oils	242	199	43	—
6654 vegetables & prod.	0	—	0	—
Subtotal processed grain and animal feed	0	—	0	—
6747 grain mill products	0	—	0	—
Subtotal other agricultural products	32	10	22	—
6811 meat, fresh, frozen	0	—	0	—
6838 tallow, animal oils	19	—	19	—
6839 animals & prod. nec	0	0	0	—
6857 fruit & nuts nec	1	—	1	—
6858 fruit juices	0	—	0	—
6865 molasses	9	9	—	—
6871 coffee	0	—	0	—
6885 alcoholic beverages	0	0	—	—

RICHMOND HARBOR, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian
		Imports*	Exports*	Imports
6888 water & ice	0	0	—	—
6889 food products nec	1	0	1	—
6891 tobacco & products	1	0	1	—
Total all manufactured equipment, machinery and products	4	3	1	—
7110 machinery (not elec)	1	0	0	—
7120 electrical machinery	1	1	0	—
7210 vehicles & parts	0	0	0	—
7220 aircraft & parts	0	—	0	—
7230 ships & boats	0	0	—	—
7300 ordnance & access.	0	0	0	—
7400 manufac. wood prod.	1	1	—	—
7500 textile products	0	0	0	—
7600 rubber & plastic pr.	0	0	0	—
7900 manufac. prod. nec	1	1	0	—
Total unknown or not elsewhere classified	0	—	0	—
9900 unknown or nec	0	—	0	—

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	12,909	10,467	1,930	367	127	19
Total petroleum and petroleum products	12,707	10,306	1,888	367	126	19
Subtotal crude petroleum	9,155	8,975	—	155	25	—
2100 crude petroleum	9,155	8,975	—	155	25	—
Subtotal petroleum products	3,552	1,332	1,888	212	101	19
2211 gasoline	1,967	289	1,639	38	—	—
2330 distillate fuel oil	798	602	75	93	27	—
2340 residual fuel oil	568	324	88	64	74	19
2350 lube oil & greases	189	84	86	18	—	—
2429 naphtha & solvents	4	4	—	—	—	—
2990 petro. products nec	28	28	—	—	—	—
Total chemicals and related products	201	160	41	—	—	—
Subtotal other chemicals and related products	201	160	41	—	—	—
3211 acyclic hydrocarbons	28	—	28	—	—	—
3212 benzene & toluene	6	6	—	—	—	—
3220 alcohols	3	—	3	—	—	—
3274 sodium hydroxide	154	154	—	—	—	—
3298 wood & resin chem.	10	—	10	—	—	—
Total crude materials, inedible except fuels	0	—	—	0	0	—
Subtotal forest products, wood and chips	0	—	—	0	0	—
4170 wood in the rough	0	—	—	0	0	—
Total primary manufactured goods	0	—	—	—	0	—
Subtotal lime, cement and glass	0	—	—	—	0	—
5290 misc. mineral prod.	0	—	—	—	0	—
Total waste and scrap nec	0	—	—	—	0	—
8900 waste and scrap nec	0	—	—	—	0	—

*Includes 34 (x1000) tons of foreign inbound in-transits; Includes 1 (x1000) tons of foreign outbound in-transits.

SAN PABLO BAY AND MARE ISLAND STRAIT, CA

Section Included: All of San Pablo Bay and Mare Island Strait. Controlling Depth: Pinole Shoal channel 36.3 feet from San Pablo buoy at beginning of channel to buoy 9; 34.3 feet to buoy 11; 35.1 feet to end of channel; Mare Island Strait (the maintained westerly 55% of project width) 36.3 feet to the Navy Ammunition Pier; 35.8 feet to Finger Pier No. 21; 36.0 feet to "A" Street (end of maintained section); 20.5 feet to the end of 26-foot project at causeway. Project Depth: 35 feet in Pinole Shoal Channel and 30 feet in Mare Island Strait, except at upstream end of turning basin, 26 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	36,352	1992	36,085	1995	31,265	1998	20,198
1990	33,982	1993	34,447	1996	28,579		
1991	32,326	1994	32,367	1997	22,480		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports	Exports	Through		Imports	Through Upbound
				Upbound	Downbnd		
Total, all commodities	9,618	445	78	4,870	3,724	23	477
Total petroleum and petroleum products	5,133	322	77	1,955	2,555	—	224
Subtotal crude petroleum	2,317	322	—	1,804	—	—	191
2100 crude petroleum	2,317	322	—	1,804	—	—	191
Subtotal petroleum products	2,816	—	77	151	2,555	—	33
2211 gasoline	298	—	—	43	255	—	—
2221 kerosene	34	—	—	—	17	—	17
2330 distillate fuel oil	75	—	—	—	75	—	—
2340 residual fuel oil	443	—	22	—	405	—	16
2350 lube oil & greases	17	—	—	—	17	—	—
2429 naphtha & solvents	609	—	49	108	451	—	—
2430 asphalt, tar & pitch	406	—	6	—	401	—	—
2540 petroleum coke	934	—	—	—	934	—	—
Total chemicals and related products	1,602	122	0	1,193	11	23	254
Subtotal fertilizers	419	—	—	419	—	—	—
3110 nitrogenous fert.	396	—	—	396	—	—	—
3190 fert. & mixes nec	23	—	—	23	—	—	—
Subtotal other chemicals and related products	1,183	122	0	773	11	23	254
3211 acyclic hydrocarbons	1	—	—	—	1	—	—
3219 other hydrocarbons	0	—	—	—	0	—	—
3220 alcohols	0	—	—	—	0	—	—
3230 carboxylic acids	0	—	—	0	0	—	—
3240 nitrogen func. comp.	0	—	—	—	0	—	—
3250 organo - inorg. comp.	0	—	—	—	0	—	—
3260 organic comp. nec	996	122	—	760	0	23	91
3272 sulphuric acid	0	—	—	—	0	—	—
3273 ammonia	155	—	—	—	—	—	155
3274 sodium hydroxide	11	—	—	4	—	—	7
3275 inorg. elem., oxides, & halogen salts	1	—	—	1	0	—	—
3276 metallic salts	8	—	—	8	0	—	—
3281 radioactive material	0	—	—	—	0	—	—
3282 pigments & paints	0	—	—	—	0	—	—
3284 medicines	0	—	—	—	0	—	—
3285 perfumes & cleansers	0	—	—	—	0	—	—
3286 plastics	2	0	—	0	1	—	—
3291 pesticides	0	—	—	0	0	—	—
3292 starches, gluten, glue	0	—	0	—	0	—	—
3293 explosives	0	—	—	0	0	—	—
3297 chemical additives	7	—	—	—	7	—	—
3298 wood & resin chem.	0	—	—	—	0	—	—
3299 chem. products nec	1	—	—	1	0	—	—
Total crude materials, inedible except fuels	864	—	0	337	527	—	—
Subtotal forest products, wood and chips	199	—	0	0	199	—	—
4161 wood chips	184	—	—	—	184	—	—
4170 wood in the rough	14	—	—	—	14	—	—
4189 lumber	0	—	0	—	0	—	—
4190 forest products nec	0	—	—	0	0	—	—
Subtotal pulp and waste paper	8	—	0	—	8	—	—
4225 pulp & waste paper	8	—	0	—	8	—	—
Subtotal soil, sand, gravel, rock and stone	329	—	—	328	0	—	—
4323 gypsum	328	—	—	328	—	—	—
4331 sand & gravel	0	—	—	—	0	—	—
Subtotal iron ore and scrap	0	—	—	—	0	—	—
4420 iron & steel scrap	0	—	—	—	0	—	—
Subtotal non-ferrous ores and scrap	8	—	—	8	0	—	—
4650 aluminum ore	8	—	—	8	0	—	—
4680 non-ferrous scrap	0	—	—	—	0	—	—
Subtotal sulphur, clay and salt	320	—	—	—	320	—	—
4741 sulphur, (dry)	319	—	—	—	319	—	—
4782 clay & refrac. mat.	0	—	—	—	0	—	—
Subtotal slag	0	—	—	—	0	—	—
4860 slag	0	—	—	—	0	—	—
Subtotal other non-metal. min.	1	—	—	1	0	—	—
4900 non-metal. min. nec	1	—	—	1	0	—	—
Total primary manufactured goods	954	0	0	930	23	—	—
Subtotal paper products	2	—	0	—	2	—	—
5120 paper & paperboard	2	—	0	—	2	—	—

SAN PABLO BAY AND MARE ISLAND STRAIT, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports	Exports	Through		Imports	Through
				Upbound	Downbnd		Upbound
5190 paper products nec	0	—	—	—	0	—	—
Subtotal lime, cement and glass	145	0	0	144	0	—	—
5220 cement & concrete	144	—	—	144	—	—	—
5240 glass & glass prod.	1	—	—	1	0	—	—
5290 misc. mineral prod.	0	0	0	0	0	—	—
Subtotal primary iron and steel products	806	—	—	786	20	—	—
5320 i&s primary forms	1	—	—	1	—	—	—
5330 i&s plates & sheets	755	—	—	755	0	—	—
5360 i&s bars & shapes	29	—	—	29	—	—	—
5370 i&s pipe & tube	21	—	—	1	20	—	—
Subtotal primary non-ferrous metal products	0	0	0	0	0	—	—
5422 aluminum	0	—	—	—	0	—	—
5429 smelted prod. nec	0	—	—	—	0	—	—
5480 fab. metal products	0	0	0	0	0	—	—
Subtotal primary wood products	0	0	—	—	0	—	—
5540 primary wood prod.	0	0	—	—	0	—	—
Total food and farm products	1,000	1	—	438	561	—	—
Subtotal fish	0	0	—	—	—	—	—
6136 shellfish	0	0	—	—	—	—	—
Subtotal grain	544	0	—	23	521	—	—
6241 wheat	71	—	—	—	71	—	—
6344 corn	18	—	—	—	18	—	—
6442 rice	433	0	—	—	432	—	—
6445 oats	23	—	—	23	—	—	—
Subtotal oilseeds	25	—	—	—	25	—	—
6521 peanuts	0	—	—	—	0	—	—
6590 oilseeds nec	25	—	—	—	25	—	—
Subtotal vegetable products	16	0	—	9	6	—	—
6653 vegetable oils	14	—	—	9	5	—	—
6654 vegetables & prod.	2	0	—	0	1	—	—
Subtotal processed grain and animal feed	1	—	—	0	1	—	—
6747 grain mill products	0	—	—	—	0	—	—
6781 hay & fodder	1	—	—	—	1	—	—
6782 animal feed, prep.	0	—	—	0	0	—	—
Subtotal other agricultural products	414	0	—	406	8	—	—
6811 meat, fresh, frozen	1	—	—	0	0	—	—
6838 tallow, animal oils	5	—	—	—	5	—	—
6839 animals & prod. nec	1	—	—	0	1	—	—
6857 fruit & nuts nec	1	—	—	—	1	—	—
6858 fruit juices	0	—	—	—	0	—	—
6861 sugar	310	—	—	310	0	—	—
6865 molasses	95	—	—	95	—	—	—
6871 coffee	0	0	—	0	—	—	—
6872 cocoa beans	0	—	—	0	—	—	—
6885 alcoholic beverages	0	—	—	0	0	—	—
6888 water & ice	0	—	—	0	—	—	—
6889 food products nec	0	0	—	—	0	—	—
6891 tobacco & products	1	—	—	—	1	—	—
6893 cotton	0	—	—	—	0	—	—
Total all manufactured equipment, machinery and products	65	0	0	17	47	—	—
7110 machinery (not elec)	6	0	—	0	6	—	—
7120 electrical machinery	0	0	—	—	0	—	—
7210 vehicles & parts	51	—	0	17	34	—	—
7220 aircraft & parts	0	—	—	—	0	—	—
7230 ships & boats	0	—	—	0	0	—	—
7300 ordnance & access.	3	—	—	—	3	—	—
7400 manufac. wood prod.	0	—	—	0	0	—	—
7500 textile products	2	0	0	0	1	—	—
7600 rubber & plastic pr.	1	0	—	—	1	—	—
7900 manufac. prod. nec	1	0	0	0	1	—	—
Total unknown or not elsewhere classified	0	—	—	0	0	—	—
9900 unknown or nec	0	—	—	0	0	—	—
Ton-miles (x1000) Foreign & Canadian	96,178	4,454	777	48,704	37,239	228	4,775

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total, all commodities	6,374	12	286	4,287	1,789
Total petroleum and petroleum products	6,192	7	286	4,139	1,759
Subtotal crude petroleum	3,471	—	—	3,333	138
2100 crude petroleum	3,471	—	—	3,333	138
Subtotal petroleum products	2,721	7	286	806	1,622
2211 gasoline	1,141	7	60	172	902
2330 distillate fuel oil	916	—	125	470	321
2340 residual fuel oil	477	—	60	122	294
2350 lube oil & greases	135	—	24	30	81
2429 naphtha & solvents	4	—	—	—	4
2430 asphalt, tar & pitch	9	—	—	9	—

SAN PABLO BAY AND MARE ISLAND STRAIT, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
2990 petro. products nec	40	—	17	3	20
Total chemicals and related products	171	5	—	147	19
Subtotal fertilizers	75	5	—	70	—
3110 nitrogenous fert.	75	5	—	70	—
Subtotal other chemicals and related products	96	—	—	77	19
3220 alcohols	3	—	—	—	3
3272 sulphuric acid	0	—	—	—	0
3273 ammonia	64	—	—	64	—
3274 sodium hydroxide	18	—	—	13	5
3293 explosives	2	—	—	—	2
3298 wood & resin chem.	10	—	—	—	10
Total primary manufactured goods	11	—	—	—	11
Subtotal lime, cement and glass	11	—	—	—	11
5290 misc. mineral prod.	11	—	—	—	11
Total all manufactured equipment, machinery and products	0	0	—	—	—
7110 machinery (not elec)	0	0	—	—	—
Ton-miles (x1000) Coastwise	63,569	121	2,689	42,866	17,893

Commodity	Total	Internal						
		Inbound		Outbound		Through		Intra
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Downbnd
Total, all commodities	4,206	94	206	167	78	3,045	598	19
Total petroleum and petroleum products	3,700	94	206	164	75	2,865	277	19
Subtotal crude petroleum	2,916	87	11	—	—	2,819	—	—
2100 crude petroleum	2,916	87	11	—	—	2,819	—	—
Subtotal petroleum products	783	7	195	164	75	46	277	19
2211 gasoline	129	—	91	—	—	—	38	—
2330 distillate fuel oil	202	3	9	49	37	24	62	19
2340 residual fuel oil	434	4	95	115	39	22	159	—
2350 lube oil & greases	18	—	—	—	—	—	18	—
Total crude materials, inedible except fuels	424	—	—	0	3	103	319	—
Subtotal forest products, wood and chips	0	—	—	0	0	—	—	—
4170 wood in the rough	0	—	—	0	0	—	—	—
Subtotal soil, sand, gravel, rock and stone	399	—	—	—	3	78	319	—
4331 sand & gravel	399	—	—	—	3	78	319	—
Subtotal marine shells	25	—	—	—	—	25	—	—
4515 marine shells	25	—	—	—	—	25	—	—
Total primary manufactured goods	2	—	—	—	—	0	2	—
Subtotal lime, cement and glass	2	—	—	—	—	0	2	—
5290 misc. mineral prod.	2	—	—	—	—	0	2	—
Total food and farm products	80	—	—	3	—	77	—	—
Subtotal other agricultural products	80	—	—	3	—	77	—	—
6865 molasses	77	—	—	—	—	77	—	—
6888 water & ice	3	—	—	3	—	—	—	—
Ton-miles (x1000) Internal	36,808	658	367	502	619	30,379	4,153	130
Tons All Traffic (x1000)			20,198					
Ton-miles All Traffic (x1000)			196,555					

CARQUINEZ STRAIT, CA

Section Included: All of Carquinez Strait from Davis Point on the westerly end to the Benicia-Martinez Bridge at Suisun Point on the easterly end, a distance of about 8 miles. Controlling Depth: 33 feet. Project Depth: 45 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	28,117	1992	27,656	1995	26,931	1998	19,539
1990	26,565	1993	26,046	1996	24,841		
1991	25,700	1994	26,118	1997	20,421		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports*	Exports*	Through Upbound	Through Downbnd	Imports*	Through Upbound
Total, all commodities	9,072	2,305	1,490	2,566	2,234	300	178
Total petroleum and petroleum products	4,734	1,346	1,379	609	1,176	224	---
Subtotal crude petroleum	1,995	1,222	---	582	---	191	---
2100 crude petroleum	1,995	1,222	---	582	---	191	---
Subtotal petroleum products	2,739	124	1,379	27	1,176	33	---
2211 gasoline	298	43	35	---	221	---	---
2221 kerosene	34	---	14	---	3	17	---
2330 distillate fuel oil	75	---	21	---	54	---	---
2340 residual fuel oil	421	---	184	---	221	16	---
2350 lube oil & greases	17	---	17	---	0	---	---
2429 naphtha & solvents	559	81	401	27	50	---	---
2430 asphalt, tar & pitch	401	---	401	---	---	---	---
2540 petroleum coke	934	---	307	---	627	---	---
Total chemicals and related products	1,457	679	5	514	6	76	178
Subtotal fertilizers	419	---	---	419	---	---	---
3110 nitrogenous fert.	396	---	---	396	---	---	---
3190 fert. & mixes nec	23	---	---	23	---	---	---
Subtotal other chemicals and related products	1,038	679	5	95	6	76	178
3211 acyclic hydrocarbons	1	---	1	---	1	---	---
3219 other hydrocarbons	0	---	---	---	0	---	---
3220 alcohols	0	---	---	---	0	---	---
3230 carboxylic acids	0	---	---	0	0	---	---
3240 nitrogen func. comp.	0	---	---	---	0	---	---
3250 organo - inorg. comp.	0	---	---	---	0	---	---
3260 organic comp. nec	851	674	---	86	0	70	21
3272 sulphuric acid	0	---	---	---	0	---	---
3273 ammonia	155	---	---	---	---	---	155
3274 sodium hydroxide	11	4	---	---	---	5	2
3275 inorg. elem., oxides, & halogen salts	1	---	---	1	0	---	---
3276 metallic salts	8	---	---	8	0	---	---
3281 radioactive material	0	---	---	---	0	---	---
3282 pigments & paints	0	---	---	---	0	---	---
3284 medicines	0	---	---	---	0	---	---
3285 perfumes & cleansers	0	---	---	---	0	---	---
3286 plastics	2	---	---	0	1	---	---
3291 pesticides	0	---	---	0	0	---	---
3292 starches, gluten, glue	0	---	---	---	0	---	---
3293 explosives	0	0	0	---	---	---	---
3297 chemical additives	7	---	4	---	3	---	---
3298 wood & resin chem.	0	---	---	---	0	---	---
3299 chem. products nec	1	1	---	---	0	---	---
Total crude materials, inedible except fuels	864	---	---	337	527	---	---
Subtotal forest products, wood and chips	199	---	---	0	199	---	---
4161 wood chips	184	---	---	---	184	---	---
4170 wood in the rough	14	---	---	---	14	---	---
4189 lumber	0	---	---	---	0	---	---
4190 forest products nec	0	---	---	0	0	---	---
Subtotal pulp and waste paper	8	---	---	---	8	---	---
4225 pulp & waste paper	8	---	---	---	8	---	---
Subtotal soil, sand, gravel, rock and stone	329	---	---	328	0	---	---
4323 gypsum	328	---	---	328	---	---	---
4331 sand & gravel	0	---	---	---	0	---	---
Subtotal iron ore and scrap	0	---	---	---	0	---	---
4420 iron & steel scrap	0	---	---	---	0	---	---
Subtotal non-ferrous ores and scrap	8	---	---	8	0	---	---
4650 aluminum ore	8	---	---	8	0	---	---
4680 non-ferrous scrap	0	---	---	---	0	---	---
Subtotal sulphur, clay and salt	320	---	---	---	320	---	---
4741 sulphur, (dry)	319	---	---	---	319	---	---
4782 clay & refrac. mat.	0	---	---	---	0	---	---
Subtotal slag	0	---	---	---	0	---	---
4860 slag	0	---	---	---	0	---	---
Subtotal other non-metal. min.	1	---	---	1	0	---	---
4900 non-metal. min. nec	1	---	---	1	0	---	---
Total primary manufactured goods	953	0	0	930	23	---	---
Subtotal paper products	2	---	0	---	2	---	---
5120 paper & paperboard	2	---	0	---	2	---	---
5190 paper products nec	0	---	0	---	0	---	---
Subtotal lime, cement and glass	145	0	0	144	0	---	---
5220 cement & concrete	144	---	---	144	---	---	---

CARQUINEZ STRAIT, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports*	Exports*	Through		Imports*	Through
				Upbound	Downbnd		Upbound
5240 glass & glass prod.	1	—	0	1	0	—	—
5290 misc. mineral prod.	0	0	—	0	0	—	—
Subtotal primary iron and steel products	806	0	0	786	20	—	—
5320 i&s primary forms	1	—	—	1	—	—	—
5330 i&s plates & sheets	755	—	0	755	—	—	—
5360 i&s bars & shapes	29	0	—	29	—	—	—
5370 i&s pipe & tube	21	—	—	1	20	—	—
Subtotal primary non-ferrous metal products	0	—	0	0	0	—	—
5422 aluminum	0	—	—	—	0	—	—
5429 smelted prod. nec	0	—	0	—	0	—	—
5480 fab. metal products	0	—	0	0	0	—	—
Subtotal primary wood products	0	—	—	—	0	—	—
5540 primary wood prod.	0	—	—	—	0	—	—
Total food and farm products	999	262	68	176	493	—	—
Subtotal grain	544	—	60	23	460	—	—
6241 wheat	71	—	—	—	71	—	—
6344 corn	18	—	—	—	18	—	—
6442 rice	432	—	60	—	372	—	—
6445 oats	23	—	—	23	—	—	—
Subtotal oilseeds	25	—	—	—	25	—	—
6521 peanuts	0	—	—	—	0	—	—
6590 oilseeds nec	25	—	—	—	25	—	—
Subtotal vegetable products	16	9	5	0	2	—	—
6653 vegetable oils	14	9	4	—	1	—	—
6654 vegetables & prod.	2	0	0	0	1	—	—
Subtotal processed grain and animal feed	1	0	—	—	1	—	—
6747 grain mill products	0	—	—	—	0	—	—
6781 hay & fodder	1	—	—	—	1	—	—
6782 animal feed, prep.	0	0	—	—	0	—	—
Subtotal other agricultural products	413	253	3	153	4	—	—
6811 meat, fresh, frozen	1	0	0	—	0	—	—
6838 tallow, animal oils	5	—	3	—	2	—	—
6839 animals & prod. nec	1	0	—	—	1	—	—
6857 fruit & nuts nec	1	—	0	—	1	—	—
6858 fruit juices	0	—	0	—	0	—	—
6861 sugar	310	253	—	57	0	—	—
6865 molasses	95	—	—	95	—	—	—
6871 coffee	0	0	—	—	—	—	—
6872 cocoa beans	0	0	—	—	—	—	—
6885 alcoholic beverages	0	0	—	0	0	—	—
6888 water & ice	0	—	—	0	—	—	—
6889 food products nec	0	—	0	—	0	—	—
6891 tobacco & products	1	—	1	—	—	—	—
6893 cotton	0	—	—	—	0	—	—
Total all manufactured equipment, machinery and products	64	17	38	0	9	—	—
7110 machinery (not elec)	6	0	0	0	6	—	—
7120 electrical machinery	0	—	0	—	0	—	—
7210 vehicles & parts	51	17	34	—	0	—	—
7220 aircraft & parts	0	—	0	—	0	—	—
7230 ships & boats	0	—	—	0	0	—	—
7300 ordnance & access.	3	—	3	—	0	—	—
7400 manufac. wood prod.	0	0	—	0	0	—	—
7500 textile products	1	0	—	0	1	—	—
7600 rubber & plastic pr.	1	—	0	—	1	—	—
7900 manufac. prod. nec	1	0	0	0	0	—	—
Total unknown or not elsewhere classified	0	—	—	0	0	—	—
9900 unknown or nec	0	—	—	0	0	—	—
Ton-miles (x1000) Foreign & Canadian	63,503	16,132	10,430	17,961	15,637	2,097	1,246

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total, all commodities	6,076	4,002	1,426	284	363
Total petroleum and petroleum products	5,899	4,002	1,414	137	346
Subtotal crude petroleum	3,471	3,261	116	72	22
2100 crude petroleum	3,471	3,261	116	72	22
Subtotal petroleum products	2,428	741	1,298	65	324
2211 gasoline	1,074	172	691	—	211
2330 distillate fuel oil	791	406	269	65	51
2340 residual fuel oil	416	122	238	—	56
2350 lube oil & greases	111	30	76	—	5
2429 naphtha & solvents	4	—	4	—	—
2430 asphalt, tar & pitch	9	9	—	—	—
2990 petro. products nec	22	3	20	—	—
Total chemicals and related products	166	—	12	147	6
Subtotal fertilizers	70	—	—	70	—
3110 nitrogenous fert.	70	—	—	70	—

CARQUINEZ STRAIT, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Subtotal other chemicals and related products	96	—	12	77	6
3220 alcohols	3	—	3	—	—
3272 sulphuric acid	0	—	—	—	0
3273 ammonia	64	—	—	64	—
3274 sodium hydroxide	18	—	—	13	5
3293 explosives	2	—	—	—	2
3298 wood & resin chem.	10	—	10	—	—
Total primary manufactured goods	11	—	—	—	11
Subtotal lime, cement and glass	11	—	—	—	11
5290 misc. mineral prod.	11	—	—	—	11
Ton-miles (x1000) Coastwise	39,397	27,022	7,841	1,990	2,544

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	4,391	2,927	163	2	184	222	618	229	46
Total petroleum and petroleum products	3,857	2,895	68	2	160	134	323	229	46
Subtotal crude petroleum	3,053	2,819	—	—	11	—	—	223	—
2100 crude petroleum	3,053	2,819	—	—	11	—	—	223	—
Subtotal petroleum products	804	76	68	2	149	134	323	6	46
2211 gasoline	129	—	—	—	46	—	84	—	—
2330 distillate fuel oil	161	24	18	—	27	49	43	—	—
2340 residual fuel oil	490	52	50	2	58	85	196	—	46
2350 lube oil & greases	18	—	—	—	18	—	—	—	—
2429 naphtha & solvents	6	—	—	—	—	—	—	6	—
Total crude materials, inedible except fuels	453	32	95	—	24	7	295	—	—
Subtotal forest products, wood and chips	0	0	—	—	—	0	—	—	—
4170 wood in the rough	0	0	—	—	—	0	—	—	—
Subtotal soil, sand, gravel, rock and stone	446	32	95	—	24	—	295	—	—
4331 sand & gravel	446	32	95	—	24	—	295	—	—
Subtotal marine shells	7	—	—	—	—	7	—	—	—
4515 marine shells	7	—	—	—	—	7	—	—	—
Total food and farm products	80	—	—	—	—	80	—	—	—
Subtotal other agricultural products	80	—	—	—	—	80	—	—	—
6865 molasses	77	—	—	—	—	77	—	—	—
6888 water & ice	3	—	—	—	—	3	—	—	—
Ton-miles Internal (x1000)	26,408	18,159	130	0	664	1,553	4,325	1,300	277

Tons All Traffic (x1000) 19,539
Ton-miles All Traffic (x1000) 129,307

*Includes 57 (x1000) tons of foreign inbound in-transits; Includes 1 (x1000) tons of foreign outbound in-transits;
Includes 59 (x1000) tons of Canadian inbound in-transits.

SUISUN BAY CHANNEL, CA

Section Included: Suisun Bay Channel from Suisun Point at west end of Benicia-Martinez Bridge to East Reach of Middleground Island thence to mouth of New York Slough. Controlling Depth: 35.0 feet from Suisun Point to Avon Wharf; 35.0 feet to Preston Point; 35.0 feet to Middle Point; 35.0 feet through East Reach Middleground Island, 38.0 feet to mouth of New York Slough, 35.0 feet thru New York Slough. Project Depth: 35 feet from Benicia-Martinez Bridge to Avon Pier, 30 feet for remainder of channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	7,508	1992	6,340	1995	7,012	1998	6,644
1990	8,156	1993	7,133	1996	7,407		
1991	7,289	1994	7,556	1997	6,752		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports	Exports	Through Upbound	Through Downbnd	Imports	Through Upbound
Total, all commodities	4,978	450	565	2,116	1,669	21	157
Total petroleum and petroleum products	1,785	375	543	234	633	---	---
Subtotal crude petroleum	582	348	---	234	---	---	---
2100 crude petroleum	582	348	---	234	---	---	---
Subtotal petroleum products	1,203	27	543	---	633	---	---
2211 gasoline	221	---	221	---	---	---	---
2221 kerosene	3	---	3	---	---	---	---
2330 distillate fuel oil	54	---	54	---	---	---	---
2340 residual fuel oil	221	---	216	---	6	---	---
2350 lube oil & greases	0	---	---	---	0	---	---
2429 naphtha & solvents	77	27	50	---	0	---	---
2540 petroleum coke	627	---	---	---	627	---	---
Total chemicals and related products	698	75	0	439	6	21	157
Subtotal fertilizers	419	---	---	419	---	---	---
3110 nitrogenous fert.	396	---	---	396	---	---	---
3190 fert. & mixes nec	23	---	---	23	---	---	---
Subtotal other chemicals and related products	278	75	0	19	6	21	157
3211 acyclic hydrocarbons	1	---	---	---	1	---	---
3219 other hydrocarbons	0	---	---	---	0	---	---
3220 alcohols	0	---	---	---	0	---	---
3230 carboxylic acids	0	---	---	0	0	---	---
3240 nitrogen func. comp.	0	---	---	---	0	---	---
3250 organo - inorg. comp.	0	---	---	---	0	---	---
3260 organic comp. nec	107	75	0	11	0	21	---
3272 sulphuric acid	0	---	---	---	0	---	---
3273 ammonia	155	---	---	---	---	---	155
3274 sodium hydroxide	2	---	---	---	---	---	2
3275 inorg. elem., oxides, & halogen salts	1	---	---	1	0	---	---
3276 metallic salts	8	---	---	8	0	---	---
3281 radioactive material	0	---	---	---	0	---	---
3282 pigments & paints	0	---	---	---	0	---	---
3284 medicines	0	---	---	---	0	---	---
3285 perfumes & cleansers	0	---	---	---	0	---	---
3286 plastics	2	---	---	0	1	---	---
3291 pesticides	0	---	---	0	0	---	---
3292 starches, gluten, glue	0	---	---	---	0	---	---
3297 chemical additives	3	---	---	---	3	---	---
3298 wood & resin chem.	0	---	---	---	0	---	---
3299 chem. products nec	0	---	---	---	0	---	---
Total crude materials, inedible except fuels	864	---	---	337	527	---	---
Subtotal forest products, wood and chips	199	---	---	0	199	---	---
4161 wood chips	184	---	---	---	184	---	---
4170 wood in the rough	14	---	---	---	14	---	---
4189 lumber	0	---	---	---	0	---	---
4190 forest products nec	0	---	---	0	0	---	---
Subtotal pulp and waste paper	8	---	---	---	8	---	---
4225 pulp & waste paper	8	---	---	---	8	---	---
Subtotal soil, sand, gravel, rock and stone	329	---	---	328	0	---	---
4323 gypsum	328	---	---	328	---	---	---
4331 sand & gravel	0	---	---	---	0	---	---
Subtotal iron ore and scrap	0	---	---	---	0	---	---
4420 iron & steel scrap	0	---	---	---	0	---	---
Subtotal non-ferrous ores and scrap	8	---	---	8	0	---	---
4650 aluminum ore	8	---	---	8	0	---	---
4680 non-ferrous scrap	0	---	---	---	0	---	---
Subtotal sulphur, clay and salt	320	---	---	---	320	---	---
4741 sulphur, (dry)	319	---	---	---	319	---	---
4782 clay & refrac. mat.	0	---	---	---	0	---	---
Subtotal slag	0	---	---	---	0	---	---
4860 slag	0	---	---	---	0	---	---
Subtotal other non-metal. min.	1	---	---	1	0	---	---
4900 non-metal. min. nec	1	---	---	1	0	---	---
Total primary manufactured goods	953	---	0	930	23	---	---
Subtotal paper products	2	---	0	---	2	---	---
5120 paper & paperboard	2	---	---	---	2	---	---
5190 paper products nec	0	---	0	---	0	---	---

SUISUN BAY CHANNEL, CA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign				Canadian	
		Imports	Exports	Through		Imports	Through
				Upbound	Downbnd		Upbound
Subtotal lime, cement and glass	145	---	---	144	0	---	---
5220 cement & concrete	144	---	---	144	---	---	---
5240 glass & glass prod.	1	---	---	1	0	---	---
5290 misc. mineral prod.	0	---	---	0	0	---	---
Subtotal primary iron and steel products	806	---	---	786	20	---	---
5320 i&s primary forms	1	---	---	1	---	---	---
5330 i&s plates & sheets	755	---	---	755	---	---	---
5360 i&s bars & shapes	29	---	---	29	---	---	---
5370 i&s pipe & tube	21	---	---	1	20	---	---
Subtotal primary non-ferrous metal products	0	---	---	0	0	---	---
5422 aluminum	0	---	---	---	0	---	---
5429 smelted prod. nec	0	---	---	---	0	---	---
5480 fab. metal products	0	---	---	0	0	---	---
Subtotal primary wood products	0	---	---	---	0	---	---
5540 primary wood prod.	0	---	---	---	0	---	---
Total food and farm products	668	---	22	176	471	---	---
Subtotal grain	484	---	22	23	439	---	---
6241 wheat	71	---	---	---	71	---	---
6344 corn	18	---	---	---	18	---	---
6442 rice	372	---	22	---	351	---	---
6445 oats	23	---	---	23	---	---	---
Subtotal oilseeds	25	---	---	---	25	---	---
6521 peanuts	0	---	---	---	0	---	---
6590 oilseeds nec	25	---	---	---	25	---	---
Subtotal vegetable products	2	---	---	0	2	---	---
6653 vegetable oils	1	---	---	---	1	---	---
6654 vegetables & prod.	1	---	---	0	1	---	---
Subtotal processed grain and animal feed	1	---	0	---	1	---	---
6747 grain mill products	0	---	0	---	0	---	---
6781 hay & fodder	1	---	---	---	1	---	---
6782 animal feed, prep.	0	---	---	---	0	---	---
Subtotal other agricultural products	157	---	---	153	4	---	---
6811 meat, fresh, frozen	0	---	---	---	0	---	---
6838 tallow, animal oils	2	---	---	---	2	---	---
6839 animals & prod. nec	1	---	---	---	1	---	---
6857 fruit & nuts nec	1	---	---	---	1	---	---
6858 fruit juices	0	---	---	---	0	---	---
6861 sugar	57	---	---	57	0	---	---
6865 molasses	95	---	---	95	---	---	---
6885 alcoholic beverages	0	---	---	0	0	---	---
6888 water & ice	0	---	---	0	---	---	---
6889 food products nec	0	---	---	---	0	---	---
6893 cotton	0	---	---	---	0	---	---
Total all manufactured equipment, machinery and products	9	---	0	0	9	---	---
7110 machinery (not elec)	6	---	---	0	6	---	---
7120 electrical machinery	0	---	---	---	0	---	---
7210 vehicles & parts	0	---	0	---	0	---	---
7220 aircraft & parts	0	---	---	---	0	---	---
7230 ships & boats	0	---	---	0	0	---	---
7300 ordnance & access.	0	---	---	---	0	---	---
7400 manufac. wood prod.	0	---	0	0	---	---	---
7500 textile products	1	---	0	0	1	---	---
7600 rubber & plastic pr.	1	---	---	---	1	---	---
7900 manufac. prod. nec	0	---	---	0	0	---	---
Total unknown or not elsewhere classified	0	---	---	0	0	---	---
9900 unknown or nec	0	---	---	0	0	---	---
Ton-miles (x1000) Foreign & Canadian	61,206	900	1,129	31,739	25,037	41	2,359

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total, all commodities	648	96	352	188	12
Total petroleum and petroleum products	483	96	346	40	---
Subtotal crude petroleum	94	72	22	---	---
2100 crude petroleum	94	72	22	---	---
Subtotal petroleum products	388	24	324	40	---
2211 gasoline	211	---	211	---	---
2330 distillate fuel oil	116	24	51	40	---
2340 residual fuel oil	56	---	56	---	---
2350 lube oil & greases	5	---	5	---	---
Total chemicals and related products	154	---	6	147	0
Subtotal fertilizers	70	---	---	70	---
3110 nitrogenous fert.	70	---	---	70	---
Subtotal other chemicals and related products	83	---	6	77	0
3272 sulphuric acid	0	---	---	---	0
3273 ammonia	64	---	---	64	---

SUISUN BAY CHANNEL, CA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
3274 sodium hydroxide	18	—	4	13	0
3293 explosives	2	—	2	—	—
Total primary manufactured goods	11	—	—	—	11
Subtotal lime, cement and glass	11	—	—	—	11
5290 misc. mineral prod.	11	—	—	—	11
Ton-miles (x1000) Coastwise	3,820	121	711	2,817	173

Commodity	Total	Internal				
		Inbound Upbound	Outbound		Through	
			Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	1,019	140	14	750	84	32
Total petroleum and petroleum products	527	137	—	391	—	—
Subtotal petroleum products	527	137	—	391	—	—
2211 gasoline	84	—	—	84	—	—
2330 distillate fuel oil	110	49	—	61	—	—
2340 residual fuel oil	334	88	—	246	—	—
Total crude materials, inedible except fuels	411	0	14	359	7	32
Subtotal forest products, wood and chips	0	0	—	—	0	—
4170 wood in the rough	0	0	—	—	0	—
Subtotal soil, sand, gravel, rock and stone	404	—	14	359	—	32
4331 sand & gravel	404	—	14	359	—	32
Subtotal marine shells	7	—	—	—	7	—
4515 marine shells	7	—	—	—	7	—
Total food and farm products	80	3	—	—	77	—
Subtotal other agricultural products	80	3	—	—	77	—
6865 molasses	77	—	—	—	77	—
6888 water & ice	3	3	—	—	—	—
Ton-miles (x1000) Internal	5,761	280	96	3,648	1,263	474
Tons All Traffic (x1000)	6,644					
Ton-miles All Traffic (x1000)	70,787					

PETALUMA RIVER, CA

Section Included: From across the flats in San Pablo Bay to the mouth of the Petaluma River a distance of 5.3 miles with a controlling depth of 7.0 feet. from the mouth of the river to Western Ave. a distance of 13 miles with a controlling depth of 8.0 feet and 270 feet above Western Ave. A controlling depth of 4.0 feet. Project Depth is 8.0 feet, except for 200 feet above Western Ave. which is 4.0 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	351	1992	315	1995	196	1998	280
1990	287	1993	208	1996	208		
1991	239	1994	232	1997	216		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Internal	
		Inbound Upbound	Outbound Downbnd
Total, all commodities	280	277	2
Total crude materials, inedible except fuels	277	277	—
Subtotal soil, sand, gravel, rock and stone	260	260	—
4331 sand & gravel	260	260	—
Subtotal marine shells	18	18	—
4515 marine shells	18	18	—
Total primary manufactured goods	2	0	2
Subtotal lime, cement and glass	2	0	2
5290 misc. mineral prod.	2	0	2
Ton-miles (x1000)	3,012	2,987	25
Tons All Traffic (x1000)	280		
Ton-miles All Traffic (x1000)	3,012		

HUMBOLDT HARBOR AND BAY, CA

Section Included: Entrance channel to bay and channels in bay between Arcata Wharf on the north and Fields Landing on the south. Controlling Depth: Bar entrance channel, 45.1 feet; channel between the jetties, 35.0 feet; channel at intersection of Fields Landing and North Bay Channel, 27.5 feet, North Bay Channel, 34.8 feet to Standard Oil Wharf at Bucksport, 34.5 feet for remainder of channel; Samoa Channel, 34.6 feet; 30.0 feet in Samoa Turning Basin; Eureka Channel, 29.3 feet to angle in channel, 11.5 feet to "D" Street, 8.9 feet to head of project; Fields Landing Channel, 26.3 feet to Buhne Point, 29.6 feet at Buhne Point; 28.0 feet to turning basin, 28.5 feet in turning basin, 19.6 feet in southeast corner of turning basin. Project Depth: Entrance channel, 40 feet; North Bay, Samoa, and lower portion of Eureka Channel 30 feet, upper portion of Eureka Channel and Fields Landing Channel, 26 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,763	1992	1,311	1995	1,220	1998	1,072
1990	1,600	1993	994	1996	1,197		
1991	2,301	1994	1,407	1997	1,175		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic		
		Imports	Exports*	Total	Coastwise	
					Receipts	Shipments
Total, all commodities	1,072	52	517	502	262	240
Total coal	51	51	---	---	---	---
1200 coal coke	51	51	---	---	---	---
Total petroleum and petroleum products	258	---	---	258	258	---
Subtotal petroleum products	258	---	---	258	258	---
2211 gasoline	250	---	---	250	250	---
2330 distillate fuel oil	7	---	---	7	7	---
Total chemicals and related products	5	0	---	5	5	---
Subtotal other chemicals and related products	5	0	---	5	5	---
3274 sodium hydroxide	5	---	---	5	5	---
3276 metallic salts	0	0	---	---	---	---
Total crude materials, inedible except fuels	722	1	481	240	---	240
Subtotal forest products, wood and chips	554	1	312	240	---	240
4161 wood chips	485	---	274	210	---	210
4170 wood in the rough	38	1	38	---	---	---
4189 lumber	31	1	0	30	---	30
Subtotal pulp and waste paper	169	---	169	---	---	---
4225 pulp & waste paper	169	---	169	---	---	---
Subtotal non-ferrous ores and scrap	0	---	0	---	---	---
4680 non-ferrous scrap	0	---	0	---	---	---
Total primary manufactured goods	0	---	0	---	---	---
Subtotal lime, cement and glass	0	---	0	---	---	---
5290 misc. mineral prod.	0	---	0	---	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---	---
5421 copper	0	---	0	---	---	---
Total food and farm products	36	---	36	---	---	---
Subtotal grain	35	---	35	---	---	---
6241 wheat	35	---	35	---	---	---
Subtotal vegetable products	0	---	0	---	---	---
6654 vegetables & prod.	0	---	0	---	---	---
Subtotal processed grain and animal feed	0	---	0	---	---	---
6782 animal feed, prep.	0	---	0	---	---	---
Subtotal other agricultural products	1	---	1	---	---	---
6857 fruit & nuts nec	1	---	1	---	---	---
6885 alcoholic beverages	0	---	0	---	---	---
Total all manufactured equipment, machinery and products	0	0	0	---	---	---
7120 electrical machinery	0	---	0	---	---	---
7210 vehicles & parts	0	---	0	---	---	---
7500 textile products	0	0	0	---	---	---
7600 rubber & plastic pr.	0	---	0	---	---	---
7900 manufac. prod. nec	0	---	0	---	---	---
Total unknown or not elsewhere classified	0	---	0	---	---	---
9900 unknown or nec	0	---	0	---	---	---

*Includes 13 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
BERKELEY, CA	5290 misc. mineral prod.	0
	Total Tons(x1000)	0
BODEGA BAY, CA	No Commerce Reported	
CRESCENT CITY HARBOR, CA	No Commerce Reported	
MONTEREY HARBOR, CA	No Commerce Reported	
MOSS LANDING HARBOR, CA	No Commerce Reported	
NAPA RIVER, CA	4331 sand & gravel	46
	Total Tons(x1000)	46
	Total Ton-miles(x1000)	91
NOYO RIVER, CA	No Commerce Reported	
PILLAR POINT HARBOR, CA	No Commerce Reported	
SAN RAFAEL CREEK, CA	No Commerce Reported	
SANTA CRUZ HARBOR, CA	No Commerce Reported	
SUISUN CHANNEL, CA	No Commerce Reported	
Non-project		
OTHER SAN FRANCISCO BAY AREA PORTS, CA (NET)	2100 crude petroleum	6,428
	2211 gasoline	45
	2221 kerosene	33
	2340 residual fuel oil	41
	2429 naphtha & solvents	31
	2540 petroleum coke	33
	4170 wood in the rough	0
	4189 lumber	0
	4331 sand & gravel	1,372
	4515 marine shells	25
	5290 misc. mineral prod.	1
	5480 fab. metal products	0
	6442 rice	16
	6590 oilseeds nec	7
	6654 vegetables & prod.	0
	6747 grain mill products	0
	6857 fruit & nuts nec	0
	6858 fruit juices	0
	6891 tobacco & products	0
	7110 machinery (not elec)	0
	7600 rubber & plastic pr.	0
	7900 manufac. prod. nec	0
	Total Tons(x1000)	8,032

HILO HARBOR, HI

Section Included: Port of Hilo. Controlling Depth: 34.0 feet. Project Depth: 35 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,569	1992	1,588	1995	1,354	1998	1,630
1990	1,690	1993	1,469	1996	1,442		
1991	1,556	1994	1,455	1997	1,489		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic		
		Imports	Exports	Total	Coastwise	
					Receipts	Shipments
Total, all commodities	1,630	103	8	1,519	1,127	392
Total coal	93	93	—	—	—	—
1100 coal lignite	93	93	—	—	—	—
Total petroleum and petroleum products	355	5	0	349	347	2
Subtotal petroleum products	355	5	0	349	347	2
2211 gasoline	95	—	—	95	95	0
2330 distillate fuel oil	88	—	—	88	87	0
2340 residual fuel oil	149	—	—	149	149	—
2350 lube oil & greases	2	—	0	2	0	2
2640 liquid natural gas	19	5	—	14	14	—
2990 petro. products nec	2	—	—	2	2	—
Total chemicals and related products	30	0	2	28	22	6
Subtotal fertilizers	25	—	—	25	19	6
3190 fert. & mixes nec	25	—	—	25	19	6
Subtotal other chemicals and related products	5	0	2	3	3	0
3219 other hydrocarbons	0	0	—	—	—	—
3220 alcohols	0	—	0	—	—	—
3230 carboxylic acids	0	—	0	—	—	—
3240 nitrogen func. comp.	0	—	0	—	—	—
3250 organo - inorg. comp.	0	—	0	—	—	—
3272 sulphuric acid	0	—	0	—	—	—
3275 inorg. elem. oxides, & halogen salts	0	—	0	—	—	—
3276 metallic salts	0	—	0	—	—	—
3279 inorganic chem. nec	0	—	0	—	—	—
3281 radioactive material	0	—	—	0	—	0
3282 pigments & paints	1	—	0	1	1	0
3284 medicines	0	—	0	0	0	—
3285 perfumes & cleansers	2	—	0	2	2	—
3286 plastics	2	—	1	0	0	—
3291 pesticides	0	—	—	0	0	—
3293 explosives	0	—	—	0	0	—
3297 chemical additives	0	—	0	—	—	—
3299 chem. products nec	0	—	0	—	—	—
Total crude materials, inedible except fuels	54	5	0	49	44	5
Subtotal forest products, wood and chips	35	—	0	35	32	3
4110 rubber & gums	0	—	—	—	—	—
4170 wood in the rough	0	—	0	—	—	—
4189 lumber	34	—	0	34	31	3
4190 forest products nec	1	—	—	1	1	—
Subtotal pulp and waste paper	0	—	0	0	0	0
4225 pulp & waste paper	0	—	0	0	0	0
Subtotal soil, sand, gravel, rock and stone	6	5	0	1	1	—
4331 sand & gravel	5	5	—	—	—	—
4338 soil & fill dirt	1	—	—	1	1	—
Subtotal iron ore and scrap	12	—	—	12	10	2
4420 iron & steel scrap	12	—	—	12	10	2
Subtotal other non-metal. min.	1	—	—	1	1	—
4900 non-metal. min. nec	1	—	—	1	1	—
Total primary manufactured goods	685	—	2	683	417	267
Subtotal paper products	19	—	2	18	18	0
5110 newsprint	0	—	—	0	0	—
5120 paper & paperboard	2	—	2	1	1	—
5190 paper products nec	17	—	0	17	17	0
Subtotal lime, cement and glass	22	—	0	22	22	—
5220 cement & concrete	18	—	—	18	18	—
5240 glass & glass prod.	0	—	0	0	0	—
5290 misc. mineral prod.	4	—	—	4	4	—
Subtotal primary iron and steel products	2	—	0	2	2	0
5360 i&s bars & shapes	1	—	0	1	1	0
5370 i&s pipe & tube	1	—	0	1	1	0
Subtotal primary non-ferrous metal products	636	—	0	636	369	267
5421 copper	0	—	0	—	—	—
5480 fab. metal products	636	—	0	636	369	267
Subtotal primary wood products	6	—	—	6	6	—
5540 primary wood prod.	6	—	—	6	6	—
Total food and farm products	151	—	3	149	109	40
Subtotal fish	0	—	—	0	0	0
6134 fish (not shellfish)	0	—	—	0	0	0
Subtotal grain	5	—	—	5	5	—
6442 rice	5	—	—	5	5	—
Subtotal vegetable products	16	—	0	16	7	9
6654 vegetables & prod.	16	—	0	16	7	9

HILO HARBOR, HI
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Domestic		
		Imports	Exports	Total	Coastwise	
					Receipts	Shipments
Subtotal processed grain and animal feed	7	---	0	7	7	---
6746 wheat flour	1	---	---	1	1	---
6747 grain mill products	0	---	0	0	0	---
6781 hay & fodder	0	---	---	0	0	---
6782 animal feed, prep.	6	---	---	6	6	---
Subtotal other agricultural products	123	---	2	120	89	31
6811 meat, fresh, frozen	7	---	---	7	7	0
6822 dairy products	4	---	---	4	4	0
6839 animals & prod. nec	7	---	---	7	1	6
6857 fruit & nuts nec	1	---	0	0	0	0
6858 fruit juices	0	---	0	0	0	0
6861 sugar	0	---	---	0	0	---
6871 coffee	0	---	---	0	0	0
6885 alcoholic beverages	9	---	---	9	9	---
6887 groceries	6	---	---	6	6	0
6889 food products nec	79	---	0	79	60	19
6893 cotton	2	---	2	---	---	---
6899 farm products nec	6	---	---	6	0	6
Total all manufactured equipment, machinery and products	262	0	1	261	188	73
7110 machinery (not elec)	7	0	0	7	3	4
7120 electrical machinery	1	---	0	1	1	0
7210 vehicles & parts	131	---	0	131	96	35
7220 aircraft & parts	0	---	---	0	0	0
7230 ships & boats	0	0	0	0	0	0
7400 manufac. wood prod.	1	---	---	1	1	0
7500 textile products	0	---	0	0	0	---
7600 rubber & plastic pr.	1	---	0	0	0	0
7900 manufac. prod. nec	121	---	0	121	88	33
Total unknown or not elsewhere classified	0	0	---	0	0	---
9900 unknown or nec	0	0	---	0	0	---

KAWAIHAE HARBOR, HI

Section Included: Port of Kawaihae. Controlling Depth: 42.0 feet in entrance channel and 36.0 feet in harbor basin. Project Depth: Harbor basin 35 feet; entrance channel 40 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	732	1992	790	1995	873	1998	886
1990	887	1993	655	1996	969		
1991	745	1994	736	1997	980		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Coastwise	
		Receipts	Shipments
Total, all commodities	886	548	338
Total petroleum and petroleum products	5	5	---
Subtotal petroleum products	5	5	---
2211 gasoline	4	4	---
2330 distillate fuel oil	0	0	---
2990 petro. products nec	0	0	---
Total chemicals and related products	7	4	3
Subtotal fertilizers	5	3	3
3190 fert. & mixes nec	5	3	3
Subtotal other chemicals and related products	1	1	---
3282 pigments & paints	0	0	---
3284 medicines	0	0	---
3285 perfumes & cleansers	0	0	---
3286 plastics	1	1	---
3291 pesticides	0	0	---
3293 explosives	0	0	---
Total crude materials, inedible except fuels	31	22	9
Subtotal forest products, wood and chips	22	14	8
4189 lumber	22	14	8
4190 forest products nec	0	0	---
Subtotal pulp and waste paper	0	0	---
4225 pulp & waste paper	0	0	---
Subtotal soil, sand, gravel, rock and stone	8	8	---
4331 sand & gravel	8	8	---
4338 soil & fill dirt	0	0	---
Subtotal iron ore and scrap	1	---	1
4420 iron & steel scrap	1	---	1
Subtotal other non-metal. min.	0	0	---
4900 non-metal. min. nec	0	0	---

KAWAIHAE HARBOR, HI
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Coastwise	
		Receipts	Shipments
Total primary manufactured goods	549	303	246
Subtotal paper products	3	3	0
5110 newsprint	0	0	—
5120 paper & paperboard	0	0	—
5190 paper products nec	2	2	0
Subtotal lime, cement and glass	31	31	—
5220 cement & concrete	25	25	—
5240 glass & glass prod.	0	0	—
5290 misc. mineral prod.	6	6	—
Subtotal primary iron and steel products	1	1	0
5360 i&s bars & shapes	1	1	0
5370 i&s pipe & tube	0	0	0
Subtotal primary non-ferrous metal products	513	268	246
5480 fab. metal products	513	268	246
Subtotal primary wood products	1	1	—
5540 primary wood prod.	1	1	—
Total food and farm products	85	72	13
Subtotal fish	0	0	—
6134 fish (not shellfish)	0	0	—
Subtotal grain	1	1	—
6442 rice	1	1	—
Subtotal vegetable products	2	2	0
6654 vegetables & prod.	2	2	0
Subtotal processed grain and animal feed	9	9	—
6746 wheat flour	0	0	—
6747 grain mill products	0	0	—
6781 hay & fodder	0	0	—
6782 animal feed, prep.	8	8	—
Subtotal other agricultural products	73	60	13
6811 meat, fresh, frozen	3	3	—
6839 animals & prod. nec	8	4	4
6857 fruit & nuts nec	0	0	—
6861 sugar	0	0	—
6871 coffee	0	0	0
6885 alcoholic beverages	10	10	—
6887 groceries	4	4	—
6889 food products nec	46	38	7
6899 farm products nec	2	1	1
Total all manufactured equipment, machinery and products	210	142	68
7110 machinery (not elec)	4	2	2
7120 electrical machinery	0	0	0
7210 vehicles & parts	121	81	41
7230 ships & boats	0	0	—
7300 ordnance & access.	0	0	—
7400 manufac. wood prod.	1	1	—
7500 textile products	0	0	—
7600 rubber & plastic pr.	0	0	—
7900 manufac. prod. nec	83	58	25

KAHULUI HARBOR, MAUI, HI

Section Included: Port of Kahului. Controlling Depth: 34.0 feet. Project Depth: 35 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,279	1992	2,357	1995	2,586	1998	2,851
1990	2,409	1993	2,216	1996	2,828		
1991	2,434	1994	2,368	1997	2,895		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign Imports	Domestic		
			Total	Coastwise	
				Receipts	Shipments
Total, all commodities	2,851	3	2,849	1,897	952
Total petroleum and petroleum products	520	3	518	511	6
Subtotal petroleum products	520	3	518	511	6
2211 gasoline	143	—	143	143	—
2330 distillate fuel oil	224	—	224	223	2
2340 residual fuel oil	135	—	135	131	5
2350 lube oil & greases	1	—	1	1	—
2640 liquid natural gas	15	3	12	12	—
2990 petro. products nec	1	—	1	1	—
Total chemicals and related products	29	—	29	29	0
Subtotal fertilizers	23	—	23	22	0
3110 nitrogenous fert.	1	—	1	1	—
3190 fert. & mixes nec	21	—	21	21	0
Subtotal other chemicals and related products	6	—	6	6	0
3274 sodium hydroxide	1	—	1	1	—
3275 inorg. elem., oxides, & halogen salts	0	—	0	0	—
3281 radioactive material	0	—	0	—	0

KAHULUI HARBOR, MAUI, HI
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign Imports	Domestic		
			Total	Coastwise	
				Receipts	Shipments
3282 pigments & paints	1	—	1	1	0
3284 medicines	0	—	0	0	—
3285 perfumes & cleansers	2	—	2	2	0
3286 plastics	1	—	1	1	—
3291 pesticides	1	—	1	1	—
3293 explosives	0	—	0	0	—
Total crude materials, inedible except fuels	111	—	111	101	10
Subtotal forest products, wood and chips	42	—	42	34	7
4189 lumber	41	—	41	34	7
4190 forest products nec	1	—	1	1	—
Subtotal pulp and waste paper	0	—	0	0	0
4225 pulp & waste paper	0	—	0	0	0
Subtotal soil, sand, gravel, rock and stone	62	—	62	62	—
4331 sand & gravel	61	—	61	61	—
4338 soil & fill dirt	1	—	1	1	—
Subtotal iron ore and scrap	6	—	6	4	3
4420 iron & steel scrap	6	—	6	4	3
Subtotal other non-metal. min.	1	—	1	1	—
4900 non-metal. min. nec	1	—	1	1	—
Total primary manufactured goods	1,381	—	1,381	800	582
Subtotal paper products	19	—	19	18	1
5110 newsprint	2	—	2	2	—
5120 paper & paperboard	2	—	2	1	1
5190 paper products nec	16	—	16	16	0
Subtotal lime, cement and glass	48	—	48	48	0
5220 cement & concrete	37	—	37	37	—
5240 glass & glass prod.	1	—	1	1	0
5290 misc. mineral prod.	11	—	11	11	—
Subtotal primary iron and steel products	5	—	5	5	0
5360 i&s bars & shapes	1	—	1	1	0
5370 i&s pipe & tube	4	—	4	4	0
Subtotal primary non-ferrous metal products	1,304	—	1,304	723	581
5429 smelted prod. nec	0	—	0	0	—
5480 fab. metal products	1,304	—	1,304	723	581
Subtotal primary wood products	5	—	5	5	—
5540 primary wood prod.	5	—	5	5	—
Total food and farm products	364	—	364	170	194
Subtotal fish	0	—	0	0	0
6134 fish (not shellfish)	0	—	0	0	0
Subtotal grain	3	—	3	3	—
6442 rice	3	—	3	3	—
Subtotal vegetable products	11	—	11	11	0
6654 vegetables & prod.	11	—	11	11	0
Subtotal processed grain and animal feed	15	—	15	15	—
6746 wheat flour	1	—	1	1	—
6747 grain mill products	0	—	0	0	—
6781 hay & fodder	1	—	1	1	—
6782 animal feed, prep.	12	—	12	12	—
Subtotal other agricultural products	335	—	335	141	194
6811 meat, fresh, frozen	10	—	10	10	0
6822 dairy products	2	—	2	2	0
6839 animals & prod. nec	5	—	5	3	2
6857 fruit & nuts nec	1	—	1	1	0
6858 fruit juices	109	—	109	0	109
6861 sugar	0	—	0	0	0
6865 molasses	76	—	76	—	76
6871 coffee	0	—	0	0	0
6885 alcoholic beverages	21	—	21	21	—
6887 groceries	9	—	9	9	—
6889 food products nec	101	—	101	94	7
6899 farm products nec	1	—	1	1	0
Total all manufactured equipment, machinery and products	445	—	445	285	160
7110 machinery (not elec)	17	—	17	9	8
7120 electrical machinery	1	—	1	1	—
7210 vehicles & parts	230	—	230	130	99
7220 aircraft & parts	0	—	0	0	0
7230 ships & boats	0	—	0	0	0
7400 manufac. wood prod.	3	—	3	2	0
7500 textile products	0	—	0	0	—
7600 rubber & plastic pr.	1	—	1	1	0
7900 manufac. prod. nec	194	—	194	141	53
Total unknown or not elsewhere classified	0	—	0	0	—
9900 unknown or nec	0	—	0	0	—

BARBERS POINT HARBOR, OAHU, HI

Section Included: Barbers Point Harbor. Controlling Depth: 42 feet in the entrance channel and 37 feet in the main access channel and basin.
 Projects Depth: 42 feet in the entrance channel; 38 feet in the deep-draft harbor main access channel and basin; 21 feet in light-draft harbor basin.
 Deep draft anchorage(foreign and pipeline).

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	7,374	1992	8,824	1995	8,233	1998	6,658
1990	8,034	1993	9,357	1996	8,745		
1991	9,002	1994	9,022	1997	8,162		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic			Internal Intra Upbound
		Imports	Exports	Total	Coastwise		
					Receipts	Shipments	
Total, all commodities	6,658	2,760	319	3,579	2,679	893	7
Total coal	289	289	---	---	---	---	---
1100 coal lignite	289	289	---	---	---	---	---
Total petroleum and petroleum products	6,078	2,316	254	3,509	2,653	848	7
Subtotal crude petroleum	4,715	2,106	---	2,609	2,609	---	---
2100 crude petroleum	4,715	2,106	---	2,609	2,609	---	---
Subtotal petroleum products	1,363	210	254	900	44	848	7
2211 gasoline	225	---	---	225	25	201	---
2221 kerosene	36	36	---	---	---	---	---
2330 distillate fuel oil	286	39	---	247	15	232	0
2340 residual fuel oil	397	---	---	397	3	389	5
2350 lube oil & greases	3	---	---	3	2	---	2
2429 naphtha & solvents	389	135	254	---	---	---	---
2640 liquid natural gas	27	---	---	27	---	27	---
Total chemicals and related products	0	0	---	---	---	---	---
Subtotal other chemicals and related products	0	0	---	---	---	---	---
3292 starches, gluten, glue	0	0	---	---	---	---	---
Total crude materials, inedible except fuels	102	12	65	26	26	---	---
Subtotal soil, sand, gravel, rock and stone	33	12	---	22	22	---	---
4322 limestone	5	---	---	5	5	---	---
4331 sand & gravel	29	12	---	17	17	---	---
Subtotal iron ore and scrap	69	---	65	4	4	---	---
4420 iron & steel scrap	69	---	65	4	4	---	---
Total primary manufactured goods	188	143	---	45	---	45	---
Subtotal lime, cement and glass	188	143	---	45	---	45	---
5220 cement & concrete	188	143	---	45	---	45	---
Total food and farm products	0	0	0	---	---	---	---
Subtotal processed grain and animal feed	0	0	---	---	---	---	---
6747 grain mill products	0	0	---	---	---	---	---
Subtotal other agricultu-ü	0	0	0	---	---	---	---
6811 meat, fresh, frozen	0	0	---	---	---	---	---
6871 coffee	0	---	0	---	---	---	---
6885 alcoholic beverages	0	0	---	---	---	---	---
6899 farm products nec	0	0	---	---	---	---	---
Total all manufactured equipment, machinery and products	0	0	---	0	0	0	0
7900 manufac. prod. nec	0	0	---	0	0	0	0

HONOLULU HARBOR, OAHU, HI

Section Included: Port of Honolulu. Controlling Depth: 45.0 feet in the entrance channel; 40.0 feet in the main harbor basin; 40.0 feet in Kapalama Basin; 40.0 feet in the connecting channel. Project Depth; 45.0 feet in the entrance channel; 40.0 feet in harbor basin, connecting channel; 23.0 feet in Kalihi Channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	10,360	1992	11,522	1995	11,545	1998	13,723
1990	11,341	1993	10,595	1996	12,010		
1991	11,208	1994	11,672	1997	12,704		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			Internal Intraport
		Imports*	Exports*	Imports	Total	Coastwise		
						Receipts	Shipments	
Total, all commodities	13,723	3,344	477	130	9,772	5,275	4,389	107
Total coal	300	300	—	—	—	—	—	—
1100 coal lignite	300	300	—	—	—	—	—	—
Total petroleum and petroleum products	3,976	2,824	326	84	741	337	306	99
Subtotal crude petroleum	2,535	2,451	—	84	—	—	—	—
2100 crude petroleum	2,535	2,451	—	84	—	—	—	—
Subtotal petroleum products	1,441	373	326	—	741	337	306	99
2211 gasoline	165	30	0	—	135	70	65	—
2221 kerosene	229	229	—	—	—	—	—	—
2330 distillate fuel oil	152	25	—	—	126	16	105	5
2340 residual fuel oil	449	—	—	—	449	231	124	94
2350 lube oil & greases	8	0	—	—	8	5	3	—
2410 petro. jelly & waxes	0	0	—	—	—	—	—	—
2429 naphtha & solvents	414	88	326	—	—	—	—	—
2540 petroleum coke	0	0	0	—	—	—	—	—
2640 liquid natural gas	7	—	0	—	7	0	6	—
2990 petro. products nec	17	—	—	—	17	14	3	—
Total chemicals and related products	243	5	1	5	231	154	77	—
Subtotal fertilizers	138	0	0	5	133	70	63	—
3110 nitrogenous fert.	6	0	—	5	0	0	—	—
3190 fert. & mixes nec	133	0	0	—	132	70	63	—
Subtotal other chemicals and related products	104	5	1	—	99	84	14	—
3211 acyclic hydrocarbons	0	—	0	—	—	—	—	—
3219 other hydrocarbons	0	0	0	—	—	—	—	—
3220 alcohols	0	—	—	—	0	0	—	—
3230 carboxylic acids	0	—	—	—	0	0	—	—
3240 nitrogen func. comp.	0	0	0	—	—	—	—	—
3250 organo - inorg. comp.	0	—	0	—	0	0	—	—
3260 organic comp. nec	0	—	0	—	0	0	—	—
3274 sodium hydroxide	6	—	—	—	6	6	—	—
3275 inorg. elem. oxides, & halogen salts	2	0	—	—	2	2	0	—
3276 metallic salts	0	0	—	—	0	—	0	—
3281 radioactive material	1	—	—	—	1	0	1	—
3282 pigments & paints	20	0	0	—	20	17	3	—
3283 coloring mat. nec	0	0	0	—	—	—	—	—
3284 medicines	7	0	0	—	7	6	0	—
3285 perfumes & cleansers	42	1	0	—	41	36	5	—
3286 plastics	10	1	1	—	9	7	2	—
3291 pesticides	3	0	0	—	3	2	1	—
3292 starches, gluten, glue	1	0	—	—	0	0	0	—
3293 explosives	5	3	—	—	2	1	0	—
3297 chemical additives	0	—	0	—	—	—	—	—
3298 wood & resin chem.	0	—	—	—	0	0	—	—
3299 chem. products nec	7	0	0	—	7	5	2	—
Total crude materials, inedible except fuels	606	6	121	—	479	187	283	9
Subtotal forest products, wood and chips	274	0	1	—	272	164	108	—
4110 rubber & gums	0	—	—	—	0	0	—	—
4150 fuel wood	0	0	—	—	0	0	—	—
4170 wood in the rough	3	0	1	—	2	2	—	—
4189 lumber	266	0	1	—	265	159	106	—
4190 forest products nec	5	0	0	—	4	3	2	—
Subtotal pulp and waste paper	34	—	31	—	2	2	0	—
4225 pulp & waste paper	34	—	31	—	2	2	0	—
Subtotal soil, sand, gravel, rock and stone	144	6	0	—	138	6	123	9
4310 building stone	0	0	—	—	0	—	0	—
4322 limestone	5	—	—	—	5	—	5	—
4323 gypsum	6	6	—	—	—	—	—	—
4331 sand & gravel	125	—	0	—	125	1	116	9
4338 soil & fill dirt	8	—	—	—	8	5	3	—
Subtotal iron ore and scrap	142	—	86	—	56	6	50	—
4420 iron & steel scrap	142	—	86	—	56	6	50	—
Subtotal marine shells	0	0	—	—	—	—	—	—
4515 marine shells	0	0	—	—	—	—	—	—

HONOLULU HARBOR, OAHU, HI
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			Internal Intraport
		Imports*	Exports*	Imports	Total	Coastwise		
						Receipts	Shipments	
Subtotal non-ferrous ores and scrap	1	0	1	---	0	0	0	---
4630 copper ore	0	---	---	---	0	0	---	---
4650 aluminum ore	0	---	0	---	---	---	---	---
4680 non-ferrous scrap	1	0	1	---	0	---	0	---
4690 non-ferrous ores nec	0	---	---	---	0	0	---	---
Subtotal sulphur, clay and salt	1	---	1	---	0	0	---	---
4741 sulphur, (dry)	1	---	1	---	---	---	---	---
4782 clay & refrac. mat.	0	---	---	---	0	0	---	---
Subtotal other non-metal. min.	11	0	---	---	11	9	2	---
4900 non-metal. min. nec	11	0	---	---	11	9	2	---
Total primary manufactured goods	3,714	111	11	9	3,583	1,704	1,879	---
Subtotal paper products	161	1	2	9	150	105	45	---
5110 newsprint	15	---	---	9	6	4	3	---
5120 paper & paperboard	39	0	0	---	39	36	3	---
5190 paper products nec	107	0	1	0	105	66	39	---
Subtotal lime, cement and glass	294	103	7	---	184	108	76	---
5220 cement & concrete	168	98	7	---	62	14	48	---
5240 glass & glass prod.	7	1	0	---	6	2	4	---
5290 misc. mineral prod.	119	3	0	---	115	91	24	---
Subtotal primary iron and steel products	34	6	0	---	28	15	13	---
5312 pig iron	0	---	---	---	0	0	---	---
5320 i&s primary forms	0	---	---	---	0	0	---	---
5330 i&s plates & sheets	0	---	---	---	0	0	---	---
5360 i&s bars & shapes	22	6	0	---	16	12	4	---
5370 i&s pipe & tube	12	0	0	---	12	3	9	---
Subtotal primary non-ferrous metal products	3,166	1	1	---	3,164	1,432	1,732	---
5421 copper	0	---	0	---	---	---	---	---
5422 aluminum	0	0	0	---	---	---	---	---
5429 smelted prod. nec	0	0	0	---	0	0	0	---
5480 fab. metal products	3,166	1	1	---	3,164	1,432	1,732	---
Subtotal primary wood products	59	1	1	---	57	44	14	---
5540 primary wood prod.	59	1	1	---	57	44	14	---
Total food and farm products	2,122	60	13	32	2,017	1,288	729	---
Subtotal fish	8	4	0	---	4	3	1	---
6134 fish (not shellfish)	6	2	0	---	4	3	1	---
6136 shellfish	2	2	0	---	---	---	---	---
Subtotal grain	90	3	0	32	54	44	11	---
6241 wheat	32	---	---	32	0	0	---	---
6344 corn	0	---	0	---	---	---	---	---
6442 rice	57	3	0	---	54	44	11	---
6443 barley & rye	0	---	---	---	0	0	---	---
6447 sorghum grains	0	---	---	---	0	0	---	---
Subtotal oilseeds	0	0	0	---	0	0	---	---
6521 peanuts	0	---	0	---	0	0	---	---
6522 soybeans	0	---	---	---	---	---	---	---
6590 oilseeds nec	0	0	---	---	---	---	---	---
Subtotal vegetable products	179	5	0	---	173	138	35	---
6653 vegetable oils	1	0	0	---	0	0	---	---
6654 vegetables & prod.	178	5	0	---	173	138	35	---
Subtotal processed grain and animal feed	141	3	3	0	135	96	39	---
6746 wheat flour	19	0	1	---	17	13	4	---
6747 grain mill products	5	2	0	0	3	2	0	---
6781 hay & fodder	6	---	0	---	6	5	2	---
6782 animal feed, prep.	110	0	1	---	109	76	33	---
Subtotal other agricultural products	1,704	45	9	0	1,650	1,006	643	---
6811 meat, fresh, frozen	137	6	1	---	130	106	24	---
6817 meat, prepared	7	0	0	---	7	7	---	---
6822 dairy products	46	1	0	---	45	37	8	---
6835 fish, prepared	2	2	0	---	0	0	---	---
6838 tallow, animal oils	0	---	---	---	0	0	---	---
6839 animals & prod. nec	45	0	0	---	45	23	22	---
6856 bananas & plantains	5	0	---	---	5	5	---	---
6857 fruit & nuts nec	64	3	0	0	61	59	2	---
6858 fruit juices	266	3	5	---	258	111	147	---
6861 sugar	2	---	---	---	2	1	0	---
6865 molasses	185	---	---	---	185	102	83	---
6871 coffee	10	0	0	---	9	6	3	---
6872 cocoa beans	0	---	---	---	0	0	---	---
6885 alcoholic beverages	219	29	0	0	190	141	49	---
6887 groceries	106	---	---	---	106	79	27	---
6888 water & ice	0	0	0	---	0	0	0	---
6889 food products nec	574	3	1	---	570	301	269	---
6891 tobacco & products	3	0	0	---	3	3	0	---
6899 farm products nec	33	0	---	---	33	23	10	---
Total all manufactured equipment, machinery and products	2,742	36	5	0	2,702	1,593	1,108	0
7110 machinery (not elec)	181	1	2	0	178	100	78	---

HONOLULU HARBOR, OAHU, HI
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic			Internal Intraport
		Imports*	Exports*	Imports	Total	Coastwise		
						Receipts	Shipments	
7120 electrical machinery	23	1	0	—	22	19	3	—
7210 vehicles & parts	939	16	1	—	922	432	489	0
7220 aircraft & parts	0	0	0	—	0	0	0	—
7230 ships & boats	2	0	0	—	2	1	1	—
7300 ordnance & access.	0	—	—	—	0	0	0	—
7400 manufac. wood prod.	20	1	0	—	19	13	6	—
7500 textile products	76	3	1	—	72	57	14	—
7600 rubber & plastic pr.	18	5	0	—	13	10	3	—
7900 manufac. prod. nec	1,484	8	1	—	1,474	961	513	—
Total unknown or not elsewhere classified	20	0	1	—	19	12	7	—
9900 unknown or nec	20	0	1	—	19	12	7	—

*Includes 0 (x1000) tons of foreign inbound in-transits; Includes 1 (x1000) tons of foreign outbound in-transits.

NAWILIWILI HARBOR, KAUAI, HI

Section Included: Port of Nawiliwili. Controlling Depth: 41.0 feet in the outer channel; 41.0 feet in the inner channel; 34.0 feet in the harbor basin.
 Project Depth: 40 feet in the channel; 35 feet in the harbor basin.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,038	1992	1,143	1995	1,130	1998	938
1990	959	1993	1,283	1996	1,203		
1991	1,005	1994	1,151	1997	1,091		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign Imports	Domestic		
			Total	Coastwise	
				Receipts	Shipments
Total, all commodities	938	2	936	637	298
Total petroleum and petroleum products	18	2	16	16	0
Subtotal petroleum products	18	2	16	16	0
2211 gasoline	8	—	8	8	—
2330 distillate fuel oil	1	—	1	1	—
2350 lube oil & greases	1	—	1	1	0
2640 liquid natural gas	8	2	6	6	—
2990 petro. products nec	0	—	0	0	—
Total chemicals and related products	20	—	20	20	0
Subtotal fertilizers	19	—	19	19	0
3190 fert. & mixes nec	19	—	19	19	0
Subtotal other chemicals and related products	1	—	1	1	—
3282 pigments & paints	0	—	0	0	—
3284 medicines	0	—	0	0	—
3285 perfumes & cleansers	1	—	1	1	—
3286 plastics	0	—	0	0	—
3291 pesticides	0	—	0	0	—
3293 explosives	0	—	0	0	—
Total crude materials, inedible except fuels	33	—	33	31	2
Subtotal forest products, wood and chips	17	—	17	15	1
4189 lumber	17	—	17	15	1
4190 forest products nec	0	—	0	0	—
Subtotal pulp and waste paper	0	—	0	0	0
4225 pulp & waste paper	0	—	0	0	0
Subtotal soil, sand, gravel, rock and stone	7	—	7	7	—
4331 sand & gravel	7	—	7	7	—
4338 soil & fill dirt	0	—	0	0	—
Subtotal iron ore and scrap	10	—	10	8	1
4420 iron & steel scrap	10	—	10	8	1
Subtotal other non-metal. min.	0	—	0	0	—
4900 non-metal. min. nec	0	—	0	0	—
Total primary manufactured goods	523	—	523	333	189
Subtotal paper products	4	—	4	4	0
5110 newsprint	1	—	1	1	—
5120 paper & paperboard	0	—	0	0	—
5190 paper products nec	3	—	3	3	0
Subtotal lime, cement and glass	14	—	14	14	—
5220 cement & concrete	11	—	11	11	—
5240 glass & glass prod.	0	—	0	0	—
5290 misc. mineral prod.	3	—	3	3	—
Subtotal primary iron and steel products	2	—	2	2	0
5360 i&s bars & shapes	1	—	1	1	0
5370 i&s pipe & tube	2	—	2	2	0
Subtotal primary non-ferrous metal products	501	—	501	312	189
5480 fab. metal products	501	—	501	312	189

NAWILIWILI HARBOR, KAUAI, HI
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign	Domestic		
		Imports	Total	Coastwise	
				Receipts	Shipments
Subtotal primary wood products	1	---	1	1	---
5540 primary wood prod.	1	---	1	1	---
Total food and farm products	114	---	114	81	33
Subtotal fish	0	---	0	0	---
6134 fish (not shellfish)	0	---	0	0	---
Subtotal grain	2	---	2	2	---
6442 rice	2	---	2	2	---
Subtotal vegetable products	4	---	4	4	0
6654 vegetables & prod.	4	---	4	4	0
Subtotal processed grain and animal feed	5	---	5	5	---
6746 wheat flour	0	---	0	0	---
6781 hay & fodder	0	---	0	0	---
6782 animal feed, prep.	4	---	4	4	---
Subtotal other agricultural products	103	---	103	71	33
6811 meat, fresh, frozen	3	---	3	3	---
6822 dairy products	1	---	1	1	---
6839 animals & prod. nec	5	---	5	3	2
6857 fruit & nuts nec	0	---	0	0	0
6861 sugar	0	---	0	0	---
6865 molasses	26	---	26	---	26
6871 coffee	2	---	2	0	2
6885 alcoholic beverages	9	---	9	9	---
6887 groceries	4	---	4	4	---
6889 food products nec	52	---	52	49	2
6899 farm products nec	1	---	1	1	0
Total all manufactured equipment, machinery and products	230	---	230	156	73
7110 machinery (not elec)	5	---	5	2	3
7120 electrical machinery	0	---	0	0	0
7210 vehicles & parts	116	---	116	73	43
7220 aircraft & parts	0	---	0	0	0
7230 ships & boats	0	---	0	0	0
7400 manufac. wood prod.	0	---	0	0	0
7500 textile products	0	---	0	0	---
7600 rubber & plastic pr.	0	---	0	0	0
7900 manufac. prod. nec	107	---	107	80	27

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
HANA HARBOR, MAUI, HI	No Commerce Reported	
KAILUA HARBOR, OAHU, HI	No Commerce Reported	
KALAUPAPA HARBOR, MOLOKAI, HI	No Commerce Reported	
KAUNAKAKAI HARBOR, MOLOKAI, HI	3190 fert. & mixes nec	0
	4189 lumber	11
	4331 sand & gravel	9
	5190 paper products nec	0
	5220 cement & concrete	2
	5240 glass & glass prod.	0
	5360 i&s bars & shapes	0
	5370 i&s pipe & tube	2
	5480 fab. metal products	93
	6839 animals & prod. nec	4
	6889 food products nec	6
	7210 vehicles & parts	38
	7230 ships & boats	1
7900 manufac. prod. nec	37	
	Total Tons(x1000)	203
PORT ALLEN HARBOR, KAUAI, HI	2211 gasoline	1
	2330 distillate fuel oil	0
	3110 nitrogenous fert.	1
	3274 sodium hydroxide	0
		Total Tons(x1000)
WAKE ISLAND HARBOR, WAKE ISLAND	2211 gasoline	0
		Total Tons(x1000)
WELLS HARBOR, MIDWAY ISLAND	No Commerce Reported	
Non-project		
PEARL HARBOR, OAHU, HI	2211 gasoline	234
	2330 distillate fuel oil	1
	2340 residual fuel oil	41
	5290 misc. mineral prod.	11
	5480 fab. metal products	0
	7110 machinery (not elec)	21
	7900 manufac. prod. nec	69
		Total Tons(x1000)

COLUMBIA RIVER AND TRIBUTARIES ABOVE McNARY LOCK AND DAM TO KENNEWICK, WA

Section Included: Columbia River and Tributaries, McNary Lock and Dam to Kennewick, WA. Controlling Depth: 20 feet. Project Depth: 14 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	6,073	1992	6,415	1995	8,582	1998	7,115
1990	6,359	1993	7,218	1996	7,705		
1991	6,772	1994	7,927	1997	7,569		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Domestic						
		Coastwise Shipments	Internal				Through	
			Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	7,115	19	58	6	22	1,209	1,593	4,208
Total petroleum and petroleum products	1,552	---	---	---	---	---	1,552	---
Subtotal petroleum products	1,552	---	---	---	---	---	1,552	---
2211 gasoline	1,041	---	---	---	---	---	1,041	---
2330 distillate fuel oil	511	---	---	---	---	---	511	---
Total chemicals and related products	128	19	43	---	22	12	24	7
Subtotal fertilizers	57	19	---	---	4	12	15	7
3110 nitrogenous fert.	37	19	---	---	1	2	12	3
3190 fert. & mixes nec	20	---	---	---	3	10	3	4
Subtotal other chemicals and related products	71	---	43	---	18	---	9	0
3273 ammonia	38	---	11	---	18	---	9	---
3274 sodium hydroxide	33	---	33	---	---	---	---	---
3286 plastics	0	---	---	---	---	---	---	0
3299 chem. products nec	0	---	0	---	---	---	---	---
Total crude materials, inedible except fuels	556	---	---	6	---	6	---	545
Subtotal forest products, wood and chips	534	---	---	6	---	6	---	523
4161 wood chips	516	---	---	6	---	6	---	505
4170 wood in the rough	18	---	---	---	---	---	---	18
Subtotal pulp and waste paper	20	---	---	---	---	0	---	19
4225 pulp & waste paper	20	---	---	---	---	0	---	19
Subtotal soil, sand, gravel, rock and stone	0	---	---	---	---	---	---	0
4331 sand & gravel	0	---	---	---	---	---	---	0
Subtotal sulphur, clay and salt	3	---	---	---	---	---	---	3
4782 clay & refrac. mat.	3	---	---	---	---	---	---	3
Total primary manufactured goods	66	---	2	---	---	---	4	61
Subtotal paper products	57	---	---	---	---	---	---	57
5190 paper products nec	57	---	---	---	---	---	---	57
Subtotal lime, cement and glass	0	---	0	---	---	---	0	---
5290 misc. mineral prod.	0	---	0	---	---	---	0	---
Subtotal primary iron and steel products	0	---	---	---	---	---	0	---
5360 i&s bars & shapes	0	---	---	---	---	---	0	---
Subtotal primary non-ferrous metal products	9	---	2	---	---	---	4	4
5422 aluminum	0	---	---	---	---	---	0	---
5480 fab. metal products	9	---	2	---	---	---	4	4
Total food and farm products	4,735	---	1	---	---	1,190	---	3,545
Subtotal grain	4,644	---	---	---	---	1,124	---	3,521
6241 wheat	4,451	---	---	---	---	1,115	---	3,336
6344 corn	2	---	---	---	---	2	---	---
6443 barley & rye	191	---	---	---	---	7	---	184
Subtotal vegetable products	34	---	---	---	---	10	---	24
6654 vegetables & prod.	34	---	---	---	---	10	---	24
Subtotal processed grain and animal feed	46	---	1	---	---	45	---	0
6747 grain mill products	0	---	---	---	---	---	---	0
6781 hay & fodder	46	---	1	---	---	45	---	---
Subtotal other agricultural products	11	---	---	---	---	11	---	---
6822 dairy products	3	---	---	---	---	3	---	---
6839 animals & prod. nec	7	---	---	---	---	7	---	---
6889 food products nec	0	---	---	---	---	0	---	---
6899 farm products nec	1	---	---	---	---	1	---	---
Total all manufactured equipment, machinery and products	76	---	12	---	---	0	13	50
7600 rubber & plastic pr.	0	---	---	---	---	---	0	---

COLUMBIA RIVER AND TRIBUTARIES ABOVE MCNARY LOCK AND DAM TO KENNEWICK, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Domestic						
		Coastwise Shipments	Internal				Through	
			Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
7800 empty containers	21	—	10	—	—	0	9	2
7900 manufac. prod. nec	55	—	2	—	—	0	4	49
Total waste and scrap nec	0	—	—	—	—	0	—	—
8900 waste and scrap nec	0	—	—	—	—	0	—	—
Ton-miles (x1000)	242,216	611	1,659	17	49	36,848	55,760	147,271
Tons All Traffic (x1000)			7,115					
Ton-miles All Traffic (x1000)			242,216					

SNAKE RIVER, OR, WA AND ID

Section Included: Mouth of Snake River to Johnson Bar Landing. Controlling Depth: 14 feet from mouth to Ice Harbor Lock Approach Channel; 14 feet in Ice Harbor Approach Channel; 14 feet within Ice Harbor pool; 14 feet in Lower Monumental approach channel; 14 feet within lower monumental pool; 14 feet in Little Goose Approach Channel; 14 feet within Little Goose Pool; 14 feet in Lower Granite Approach Channel; 14 feet within Lower Granite Pool; about 3 feet from head of Lower Granite Pool to Johnson Bar Landing. Project Depth: 14 feet from mouth to the Ice Harbor approach channel; 14 feet in Ice Harbor Channel; 14 feet within Ice Harbor pool; 14 feet in Lower Monumental Approach channel; 14 feet within Lower Monumental Pool; 14 feet in Little Goose Approach Channel; 14 feet in Little Goose channel; 14 feet within Little Goose pool; 14 feet in Lower Granite approach channel; 14 feet in Lower Granite Channel; 14 feet within Lower Granite Pool; 2 feet to Johnson Bar Landing.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	5,930	1992	4,719	1995	6,804	1998	5,840
1990	4,804	1993	5,339	1996	5,707		
1991	5,053	1994	5,929	1997	6,103		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Internal					
		Inbound Upbound	Outbound Downbnd	Through Upbound	Downbnd	Intra Upbound	Downbnd
Total, all commodities	5,840	1,599	3,204	17	1,009	9	2
Total petroleum and petroleum products	1,556	1,552	—	—	—	4	—
Subtotal petroleum products	1,556	1,552	—	—	—	4	—
2211 gasoline	1,045	1,041	—	—	—	4	—
2330 distillate fuel oil	511	511	—	—	—	—	—
Total chemicals and related products	53	46	7	—	0	—	—
Subtotal fertilizers	26	19	7	—	—	—	—
3110 nitrogenous fert.	16	14	3	—	—	—	—
3190 fert. & mixes nec	10	6	4	—	—	—	—
Subtotal other chemicals and related products	27	27	—	—	0	—	—
3273 ammonia	27	27	—	—	—	—	—
3286 plastics	0	—	—	—	0	—	—
Total crude materials, inedible except fuels	556	—	442	—	109	4	2
Subtotal forest products, wood and chips	528	—	442	—	87	—	—
4161 wood chips	510	—	423	—	87	—	—
4170 wood in the rough	18	—	18	—	—	—	—
Subtotal pulp and waste paper	19	—	—	—	19	—	—
4225 pulp & waste paper	19	—	—	—	19	—	—
Subtotal soil, sand, gravel, rock and stone	6	—	0	—	—	4	2
4331 sand & gravel	6	—	0	—	—	4	2
Subtotal sulphur, clay and salt	3	—	—	—	3	—	—
4782 clay & refrac. mat.	3	—	—	—	3	—	—
Total primary manufactured goods	67	0	—	4	61	2	—
Subtotal paper products	57	—	—	—	57	—	—
5190 paper products nec	57	—	—	—	57	—	—
Subtotal lime, cement and glass	0	—	—	0	—	—	—
5290 misc. mineral prod.	0	—	—	0	—	—	—
Subtotal primary iron and steel products	0	0	—	—	—	—	—
5360 i&s bars & shapes	0	0	—	—	—	—	—
Subtotal primary non-ferrous metal products	9	—	—	4	4	2	—
5422 aluminum	0	—	—	0	—	—	—
5480 fab. metal products	9	—	—	4	4	2	—
Total food and farm products	3,545	—	2,756	—	789	—	—
Subtotal grain	3,521	—	2,756	—	765	—	—
6241 wheat	3,336	—	2,589	—	748	—	—
6443 barley & rye	184	—	167	—	17	—	—

SNAKE RIVER, OR, WA AND ID
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Internal					
		Inbound		Outbound		Through	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Subtotal vegetable products	24	---	---	---	24	---	---
6654 vegetables & prod.	24	---	---	---	24	---	---
Subtotal processed grain and animal feed	0	---	---	---	0	---	---
6747 grain mill products	0	---	---	---	0	---	---
Total all manufactured equipment, machinery and products	63	---	---	13	50	---	---
7600 rubber & plastic pr.	0	---	---	0	---	---	---
7800 empty containers	11	---	---	9	2	---	---
7900 manufac. prod. nec	53	---	---	4	49	---	---
Ton-miles (x1000)	417,079	18,880	247,873	2,447	147,342	520	17
Tons All Traffic (x1000)	5,840						
Ton-miles All Traffic (x1000)	417,079						

TOTAL WATERBORNE COMMERCE, COLUMBIA RIVER BASIN, OR, WA, AND ID

Freight Traffic, 1998
(thousand short tons)

Locality	*Foreign/Canadian		Domestic				Total	Percent	Through Traffic
	Imports	Exports	Coastwise		Internal				
			Receipts	Shipmnts	Receipts Shipmnts	Intraport			
CHINOOK CHANNEL, WA	---	---	---	---	0	---	0	0.00	---
CLATSKANIE RIVER, OR	---	---	---	---	---	---	---	0.00	---
COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUV	5,656	23,689	3,773	496	10,874	1,746	46,235	75.62	3,308
COLUMBIA RIVER ABOVE THE DALLES DAM, WA AND OR TO	---	---	---	---	2,094	1	2,095	3.43	7,070
COLUMBIA RIVER AND TRIBUTARIES ABOVE MCNARY LOCK A	---	---	---	19	1,295	---	1,314	2.15	5,801
COLUMBIA RIVER AT BAKERS BAY, WA	---	---	---	---	9	---	9	0.01	---
COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLE	---	---	80	---	934	142	1,156	1.89	8,755
COLUMBIA RIVER BETWEEN WENATCHEE AND KETTLE FALLS	---	---	---	---	---	---	---	0.00	---
COWLITZ RIVER, WA	---	---	---	---	1	---	1	0.00	---
DEEP RIVER, WA	---	---	---	---	---	---	---	0.00	---
ELOKOMIN SLOUGH, WA	---	---	---	---	---	---	---	0.00	---
GRAYS RIVER, WA	---	---	---	---	---	---	---	0.00	---
LAKE RIVER, WA	---	---	---	---	0	1	1	0.00	---
LEWIS RIVER, WA	---	---	---	---	---	---	---	0.00	---
MULTNOMAH CHANNEL, OR	---	---	75	3	1,177	12	1,267	2.07	---
OREGON SLOUGH (NORTH PORTLAND HARBOR), OR	628	1,882	2	---	590	---	3,103	5.08	---
SKAMOKAWA (STEAMBOAT) SLOUGH, WA	---	---	---	---	0	---	0	0.00	---
SKAMOKAWA CREEK, WA	---	---	---	---	---	---	---	0.00	---
SKIPANON CHANNEL, OR	---	---	84	---	6	---	90	0.15	---
SNAKE RIVER, OR, WA AND ID	---	---	---	---	4,803	11	4,814	7.87	1,026
WESTPORT SLOUGH, OR	---	---	---	---	---	---	---	0.00	---
WILLAMETTE RIVER ABOVE PORTLAND AND YAMHILL RIVER	---	---	---	---	847	208	1,055	1.73	---
YOUNGS BAY AND YOUNGS RIVER, OR	---	---	---	---	---	---	---	0.00	---
TOTAL (UNADJUSTED)	6,284	25,571	4,014	518	22,629	2,122	61,139	---	25,960
PERCENT (UNADJUSTED)	10.28	41.82	6.57	0.85	37.01	3.47	---	100.00	---
NET VOLUME OF TONNAGE FOR THE BASIN**	6,284	25,571	4,014	518	11,854	2,122	50,364	---	---
PERCENT (ADJUSTED)	12.48	50.77	7.97	1.03	23.54	4.21	---	100.00	---

* Through traffic not credited as such to total tonnage for Basin, but credited to projects or rivers where shipped or received.
** Adjusted to net volume by excluding duplication of internal traffic moved between the separate waterways of the Basin.

COLUMBIA RIVER ENTRANCE, OR AND WA

Section Included: Columbia River at mouth, OR and WA. Controlling Depth: 56 feet left outside quarter, 58 feet left inside, 46 feet right inside, and 41 feet right outside at mlw. Sand Island range: 47 feet left outside, 54 feet left inside, 50 feet right inside, and 48 feet right outside at mlw. Project Depth: 55/48 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	41,439	1992	38,174	1995	44,041	1998	36,441
1990	38,472	1993	37,459	1996	38,799		
1991	37,000	1994	37,065	1997	38,443		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Through		Through		Total	Coastwise		Internal Through
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd	
Total, all commodities	36,441	5,500	25,444	784	127	4,586	4,014	518	53
Total coal	10	7	3	---	---	---	---	---	---
1100 coal lignite	10	7	3	---	---	---	---	---	---
1200 coal coke	0	---	0	---	---	---	---	---	---
Total petroleum and petroleum products	4,367	585	505	184	67	3,026	2,918	108	---
Subtotal crude petroleum	428	393	---	---	---	34	33	2	---
2100 crude petroleum	428	393	---	---	---	34	33	2	---
Subtotal petroleum products	3,940	192	505	184	67	2,991	2,886	106	---
2211 gasoline	1,983	59	---	65	---	1,858	1,829	29	---

COLUMBIA RIVER ENTRANCE, OR AND WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Total	Domestic		Internal Through Upbound
		Through		Through			Coastwise		
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd	
2330 distillate fuel oil	640	—	1	119	—	520	488	32	—
2340 residual fuel oil	241	—	0	—	—	241	209	32	—
2350 lube oil & greases	60	0	2	—	—	58	58	—	—
2410 petro. jelly & waxes	0	—	0	—	—	—	—	—	—
2429 naphtha & solvents	27	—	4	—	11	13	—	13	—
2430 asphalt, tar & pitch	434	133	0	—	—	301	301	—	—
2540 petroleum coke	554	—	497	—	56	—	—	—	—
2640 liquid natural gas	0	—	0	—	—	—	—	—	—
2990 petro. products nec	0	—	—	—	—	0	—	0	—
Total chemicals and related products	5,390	368	4,536	20	57	408	261	147	—
Subtotal fertilizers	2,425	235	1,985	—	—	205	140	65	—
3110 nitrogenous fert.	446	215	26	—	—	205	140	65	—
3130 potassic fert.	1,942	—	1,942	—	—	—	—	—	—
3190 fert. & mixes nec	36	20	16	—	—	—	—	—	—
Subtotal other chemicals and related products	2,965	133	2,551	20	57	204	122	82	—
3211 acyclic hydrocarbons	0	—	0	—	—	—	—	—	—
3212 benzene & toluene	84	15	—	—	—	68	68	—	—
3219 other hydrocarbons	1	0	1	—	0	—	—	—	—
3220 alcohols	143	79	3	11	—	50	27	23	—
3230 carboxylic acids	5	0	5	—	—	—	—	—	—
3240 nitrogen func. comp.	2	0	2	—	—	—	—	—	—
3250 organo - inorg. comp.	1	0	1	—	0	—	—	—	—
3260 organic comp. nec	3	0	3	—	—	—	—	—	—
3272 sulphuric acid	1	1	0	—	—	0	—	0	—
3273 ammonia	37	1	—	—	—	36	26	10	—
3274 sodium hydroxide	184	0	89	—	47	48	—	48	—
3275 inorg. elem., oxides, & halogen salts	23	15	8	—	—	—	—	—	—
3276 metallic salts	2,386	7	2,368	—	10	—	—	—	—
3279 inorganic chem. nec	2	2	0	—	—	—	—	—	—
3281 radioactive material	0	0	0	—	—	—	—	—	—
3282 pigments & paints	2	0	1	—	—	—	—	—	—
3283 coloring mat. nec	0	0	0	—	0	—	—	—	—
3284 medicines	0	0	0	—	—	—	—	—	—
3285 perfumes & cleansers	4	2	2	—	0	—	—	—	—
3286 plastics	26	7	18	—	0	1	—	1	—
3291 pesticides	0	0	0	—	—	—	—	—	—
3292 starches, gluten, glue	2	0	1	—	—	—	—	—	—
3293 explosives	1	1	0	—	—	—	—	—	—
3297 chemical additives	1	0	1	—	—	—	—	—	—
3298 wood & resin chem.	53	0	44	9	—	—	—	—	—
3299 chem. products nec	6	2	4	—	—	—	—	—	—
Total crude materials, inedible except fuels	6,198	1,992	2,567	577	0	1,062	834	227	—
Subtotal forest products, wood and chips	3,053	122	1,980	28	0	923	696	227	—
4110 rubber & gums	0	0	—	—	—	—	—	—	—
4150 fuel wood	3	—	2	1	—	—	—	—	—
4161 wood chips	475	—	1	21	—	453	453	—	—
4170 wood in the rough	2,008	24	1,730	5	—	248	243	5	—
4189 lumber	566	97	247	—	0	222	—	222	—

COLUMBIA RIVER ENTRANCE, OR AND WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Total	Domestic		Internal Through Upbound
		Through		Through			Coastwise		
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd	
4190 forest products nec	0	0	0	—	—	—	—	—	—
Subtotal pulp and waste paper	241	31	210	—	—	—	—	—	—
4225 pulp & waste paper	241	31	210	—	—	—	—	—	—
Subtotal soil, sand, gravel, rock and stone	554	0	1	549	—	4	4	—	—
4310 building stone	0	0	0	—	—	—	—	—	—
4322 limestone	549	—	—	549	—	—	—	—	—
4323 gypsum	0	—	0	—	—	—	—	—	—
4331 sand & gravel	4	0	1	—	—	4	4	—	—
Subtotal iron ore and scrap	51	—	51	—	—	—	—	—	—
4420 iron & steel scrap	51	—	51	—	—	—	—	—	—
Subtotal marine shells	0	0	—	—	—	—	—	—	—
4515 marine shells	0	0	—	—	—	—	—	—	—
Subtotal non-ferrous ores and scrap	1,473	1,396	77	—	—	—	—	—	—
4630 copper ore	6	—	6	—	—	—	—	—	—
4650 aluminum ore	1,390	1,390	1	—	—	—	—	—	—
4680 non-ferrous scrap	33	0	32	—	—	—	—	—	—
4690 non-ferrous ores nec	44	6	38	—	—	—	—	—	—
Subtotal sulphur, clay and salt	235	13	222	—	—	—	—	—	—
4782 clay & refrac. mat.	235	13	222	—	—	—	—	—	—
Subtotal slag	0	—	0	—	—	—	—	—	—
4860 slag	0	—	0	—	—	—	—	—	—
Subtotal other non-metal. min.	591	431	25	—	—	135	135	—	—
4900 non-metal. min. nec	591	431	25	—	—	135	135	—	—
Total primary manufactured goods	2,672	1,836	799	—	0	36	—	36	—
Subtotal paper products	735	8	710	—	0	18	—	18	—
5110 newsprint	404	2	402	—	—	—	—	—	—
5120 paper & paperboard	307	5	303	—	0	—	—	—	—
5190 paper products nec	24	1	6	—	—	18	—	18	—
Subtotal lime, cement and glass	528	509	13	—	0	5	—	5	—
5220 cement & concrete	482	477	0	—	—	5	—	5	—
5240 glass & glass prod.	4	2	2	—	0	0	—	0	—
5290 misc. mineral prod.	41	30	11	—	0	—	—	—	—
Subtotal primary iron and steel products	1,248	1,234	6	—	0	8	—	8	—
5312 pig iron	113	113	0	—	—	—	—	—	—
5315 ferro alloys	56	53	3	—	—	—	—	—	—
5320 i&s primary forms	195	195	0	—	—	—	—	—	—
5330 i&s plates & sheets	514	514	0	—	—	—	—	—	—
5360 i&s bars & shapes	96	90	0	—	—	6	—	6	—
5370 i&s pipe & tube	94	89	3	—	0	2	—	2	—
5390 primary i&s nec	180	180	0	—	—	—	—	—	—
Subtotal primary non-ferrous metal products	47	33	13	—	0	0	—	0	—
5421 copper	2	1	1	—	—	—	—	—	—
5422 aluminum	7	0	7	—	—	—	—	—	—
5429 smelted prod. nec	3	1	1	—	—	—	—	—	—
5480 fab. metal products	35	31	4	—	0	0	—	0	—
Subtotal primary wood products	114	52	57	—	—	5	—	5	—
5540 primary wood prod.	114	52	57	—	—	5	—	5	—

COLUMBIA RIVER ENTRANCE, OR AND WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Through		Through		Total	Coastwise		Internal
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd	Through Upbound
Total food and farm products	17,051	70	16,927	1	0	53	—	0	53
Subtotal fish	59	1	4	1	—	53	—	—	53
6134 fish (not shellfish)	55	0	4	1	—	51	—	—	51
6136 shellfish	4	1	0	—	—	3	—	—	3
Subtotal grain	15,331	2	15,329	—	—	—	—	—	—
6241 wheat	12,734	—	12,734	—	—	—	—	—	—
6344 corn	2,076	—	2,076	—	—	—	—	—	—
6442 rice	14	2	12	—	—	—	—	—	—
6443 barley & rye	441	—	441	—	—	—	—	—	—
6445 oats	0	—	0	—	—	—	—	—	—
6447 sorghum grains	67	—	67	—	—	—	—	—	—
Subtotal	189	18	171	—	—	—	—	—	—
oilseeds									
6521 peanuts	1	—	1	—	—	—	—	—	—
6522 soybeans	127	0	127	—	—	—	—	—	—
6590 oilseeds nec	62	18	44	—	—	—	—	—	—
Subtotal	293	8	285	—	0	—	—	—	—
vegetable products									
6653 vegetable oils	7	1	5	—	—	—	—	—	—
6654 vegetables & prod.	286	6	279	—	0	—	—	—	—
Subtotal	1,025	3	1,023	—	—	—	—	—	—
processed grain and animal feed									
6746 wheat flour	24	—	24	—	—	—	—	—	—
6747 grain mill products	49	0	49	—	—	—	—	—	—
6781 hay & fodder	412	—	412	—	—	—	—	—	—
6782 animal feed, prep.	540	2	538	—	—	—	—	—	—
Subtotal other agricultural products	154	38	116	—	—	0	—	0	—
6811 meat, fresh, frozen	14	0	13	—	—	—	—	—	—
6817 meat, prepared	12	—	12	—	—	—	—	—	—
6822 dairy products	9	—	9	—	—	—	—	—	—
6835 fish, prepared	6	3	3	—	—	—	—	—	—
6838 tallow, animal oils	1	—	1	—	—	—	—	—	—
6839 animals & prod. nec	18	0	18	—	—	—	—	—	—
6856 bananas & plantains	0	0	—	—	—	—	—	—	—
6857 fruit & nuts nec	7	0	7	—	—	—	—	—	—
6858 fruit juices	24	12	12	—	—	0	—	0	—
6861 sugar	0	—	0	—	—	—	—	—	—
6871 coffee	1	1	0	—	—	—	—	—	—
6872 cocoa beans	0	0	—	—	—	—	—	—	—
6885 alcoholic beverages	23	17	6	—	—	—	—	—	—
6888 water & ice	1	1	—	—	—	—	—	—	—
6889 food products nec	18	2	16	—	—	—	—	—	—
6891 tobacco & products	0	—	0	—	—	—	—	—	—
6893 cotton	2	—	2	—	—	—	—	—	—
6899 farm products nec	19	2	18	—	—	—	—	—	—
Total all manufactured equipment, machinery and products	737	638	95	0	3	1	0	0	—
7110 machinery (not elec)	48	26	19	0	2	0	0	—	—
7120 electrical machinery	44	29	15	—	0	—	—	—	—
7210 vehicles & parts	522	494	28	—	—	0	—	0	—
7220 aircraft & parts	1	0	0	—	—	—	—	—	—
7230 ships & boats	0	0	0	—	—	0	—	0	—
7300 ordnance & access.	0	0	0	—	—	—	—	—	—
7400 manufac. wood prod.	8	3	4	—	—	—	—	—	—
7500 textile products	16	12	4	—	0	—	—	—	—
7600 rubber & plastic pr.	21	16	5	—	0	—	—	—	—
7900 manufac. prod. nec	77	58	18	0	0	0	0	0	—

COLUMBIA RIVER ENTRANCE, OR AND WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Through		Through		Total	Coastwise		Internal Through Upbound
		Upbound	Downbnd	Upbound	Downbnd		Upbound	Downbnd	
Total unknown or not elsewhere classified	17	3	11	2	0	---	---	---	
9900 unknown or nec	17	3	11	2	0	---	---	---	

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)

Section Included: Mouth to International Boundary, a distance of 745 miles. Controlling Depth: 38 feet or better between mouth of Columbia River and mouth of Willamette River; 38 feet to lower turning basin, Vancouver, WA; other channel depths range from 15 to 4 feet. Project Depth: 55/48 feet across entrance bar; 40 feet from mouth of Columbia River to mouth of Willamette River; 40 feet from mouth of Willamette River to Vancouver; Other Project Depths range from 27 to 7 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	54,459	1992	51,641	1995	57,124	1998	49,076
1990	51,438	1993	51,243	1996	51,181		
1991	50,446	1994	50,912	1997	52,722		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
Total, all commodities	31,856	2,006	11,980	3,495	13,464	44	79	740	48
Total coal	10	7	3	---	0	---	---	---	---
1100 coal lignite	10	7	3	---	0	---	---	---	---
1200 coal coke	0	---	---	---	0	---	---	---	---
Total petroleum and petroleum products	1,341	81	479	504	25	5	56	179	11
Subtotal crude petroleum	393	---	---	393	---	---	---	---	---
2100 crude petroleum	393	---	---	393	---	---	---	---	---
Subtotal petroleum products	948	81	479	111	25	5	56	179	11
2211 gasoline	125	---	---	59	---	---	---	65	---
2330 distillate fuel oil	120	---	---	---	1	5	---	114	---
2340 residual fuel oil	0	---	---	---	0	---	---	---	---
2350 lube oil & greases	2	---	0	0	2	---	---	---	---
2410 petro. jelly & waxes	0	---	---	---	0	---	---	---	---
2429 naphtha & solvents	15	---	---	---	4	---	---	---	11
2430 asphalt, tar & pitch	133	81	---	51	0	---	---	---	---
2540 petroleum coke	554	---	479	---	18	---	56	---	---
2640 liquid natural gas	0	---	---	---	0	---	---	---	---
Total chemicals and related products	4,981	198	794	170	3,742	11	23	9	34
Subtotal fertilizers	2,220	163	280	73	1,705	---	---	---	---
3110 nitrogenous fert.	242	143	21	73	5	---	---	---	---
3130 potassic fert.	1,942	---	243	---	1,699	---	---	---	---
3190 fert. & mixes nec	36	20	15	---	1	---	---	---	---
Subtotal other chemicals and related products	2,761	36	514	97	2,037	11	23	9	34
3211 acyclic hydrocarbons	0	---	---	---	0	---	---	---	---
3212 benzene & toluene	15	15	---	0	---	---	---	---	---
3219 other hydrocarbons	1	---	0	0	1	---	---	---	0
3220 alcohols	92	17	---	62	3	11	---	---	---
3230 carboxylic acids	5	0	0	0	5	---	---	---	---

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
3240 nitrogen func. comp.	2	—	—	0	2	—	—	—	—
3250 organo - inorg. comp.	1	—	—	0	1	—	—	—	0
3260 organic comp. nec	3	—	—	0	3	—	—	—	—
3272 sulphuric acid	1	—	—	1	0	—	—	—	—
3273 ammonia	1	—	—	1	—	—	—	—	—
3274 sodium hydroxide	136	—	89	0	—	—	23	—	24
3275 inorg. elem., oxides, & halogen salts	23	—	—	15	8	—	—	—	—
3276 metallic salts	2,386	3	389	4	1,979	—	—	—	10
3279 inorganic chem. nec	2	—	—	2	0	—	—	—	—
3281 radioactive material	0	—	—	0	0	—	—	—	—
3282 pigments & paints	2	—	0	0	1	—	—	—	—
3283 coloring mat. nec	0	—	—	0	0	—	0	—	0
3284 medicines	0	0	0	0	0	—	—	—	—
3285 perfumes & cleansers	4	—	0	2	2	—	—	—	0
3286 plastics	25	0	1	7	18	—	—	—	0
3291 pesticides	0	—	—	0	0	—	—	—	—
3292 starches, gluten, glue	2	—	—	0	1	—	—	—	—
3293 explosives	1	—	0	1	—	—	—	—	—
3297 chemical additives	1	—	0	0	1	—	—	—	—
3298 wood & resin chem.	53	—	35	0	9	—	—	9	—
3299 chem. products nec	6	—	0	2	4	—	—	—	—
Subtotal iron ore and scrap	51	—	0	—	51	—	—	—	—
Total crude materials, inedible except fuels	5,136	1,099	1,958	893	609	25	0	552	—
Subtotal forest products, wood and chips	2,130	16	1,657	106	323	25	0	3	—
4110 rubber & gums	0	—	—	0	—	—	—	—	—
4150 fuel wood	3	—	1	—	1	1	—	—	—
4161 wood chips	22	—	0	—	0	19	—	3	—
4170 wood in the rough	1,760	1	1,619	23	111	5	—	—	—
4189 lumber	344	14	36	83	211	—	0	—	—
4190 forest products nec	0	—	—	0	0	—	—	—	—
Subtotal pulp and waste paper	241	20	72	11	138	—	—	—	—
4225 pulp & waste paper	241	20	72	11	138	—	—	—	—
Subtotal soil, sand, gravel, rock and stone	550	—	0	0	1	—	—	549	—
4310 building stone	0	—	—	0	0	—	—	—	—
4322 limestone	549	—	—	—	—	—	—	549	—
4323 gypsum	0	—	—	—	0	—	—	—	—
4331 sand & gravel	1	—	0	0	1	—	—	—	—
Subtotal iron ore and scrap	51	—	0	—	51	—	—	—	—
4420 iron & steel scrap	51	—	0	—	51	—	—	—	—
Subtotal marine shells	0	—	—	0	—	—	—	—	—
4515 marine shells	0	—	—	0	—	—	—	—	—
Subtotal non-ferrous ores and scrap	1,473	890	28	505	49	—	—	—	—
4630 copper ore	6	—	—	—	6	—	—	—	—
4650 aluminum ore	1,390	890	0	500	1	—	—	—	—
4680 non-ferrous scrap	33	0	0	0	32	—	—	—	—
4690 non-ferrous ores nec	44	0	28	6	10	—	—	—	—
Subtotal sulphur, clay and salt	235	13	180	0	41	—	—	—	—
4782 clay & refrac. mat.	235	13	180	0	41	—	—	—	—
Subtotal slag	0	—	—	—	0	—	—	—	—
4860 slag	0	—	—	—	0	—	—	—	—
Subtotal other non-metal. min.	456	160	21	270	5	—	—	—	—
4900 non-metal. min. nec	456	160	21	270	5	—	—	—	—

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
Total primary manufactured goods	2,636	500	376	1,336	423	---	---	---	0
Subtotal paper products	717	---	371	8	339	---	---	---	0
5110 newsprint	404	---	356	2	46	---	---	---	---
5120 paper & paperboard	307	---	15	5	288	---	---	---	0
5190 paper products nec	6	---	0	1	5	---	---	---	---
Subtotal lime, cement and glass	522	0	0	508	13	---	---	---	0
5220 cement & concrete	477	---	---	477	0	---	---	---	---
5240 glass & glass prod.	4	0	0	2	2	---	---	---	0
5290 misc. mineral prod.	41	0	0	30	11	---	---	---	0
Subtotal primary iron and steel products	1,240	454	0	780	6	---	---	---	0
5312 pig iron	113	---	---	113	0	---	---	---	---
5315 ferro alloys	56	21	---	32	3	---	---	---	---
5320 i&s primary forms	195	5	---	190	0	---	---	---	---
5330 i&s plates & sheets	514	340	---	174	0	---	---	---	---
5360 i&s bars & shapes	90	28	---	62	0	---	---	---	---
5370 i&s pipe & tube	92	53	---	36	3	---	---	---	0
5390 primary i&s nec	180	7	0	173	0	---	---	---	---
Subtotal primary non-ferrous metal products	47	0	0	33	13	---	---	---	0
5421 copper	2	0	---	1	1	---	---	---	---
5422 aluminum	7	---	0	0	7	---	---	---	---
5429 smelted prod. nec	3	---	0	1	1	---	---	---	---
5480 fab. metal products	34	0	0	30	4	---	---	---	0
Subtotal primary wood products	109	46	4	7	53	---	---	---	---
5540 primary wood prod.	109	46	4	7	53	---	---	---	---
Total food and farm products	16,998	18	8,365	52	8,562	0	---	0	0
Subtotal fish	6	---	0	1	4	0	---	0	---
6134 fish (not shellfish)	4	---	0	0	4	0	---	0	---
6136 shellfish	1	---	---	1	0	---	---	---	---
Subtotal grain	15,331	---	7,870	2	7,459	---	---	---	---
6241 wheat	12,734	---	5,742	---	6,992	---	---	---	---
6344 corn	2,076	---	2,006	---	70	---	---	---	---
6442 rice	14	---	---	2	12	---	---	---	---
6443 barley & rye	441	---	57	---	384	---	---	---	---
6445 oats	0	---	---	---	0	---	---	---	---
6447 sorghum grains	67	---	66	---	0	---	---	---	---
Subtotal oilseeds	189	18	145	0	26	---	---	---	---
6521 peanuts	1	---	---	---	1	---	---	---	---
6522 soybeans	127	---	115	0	11	---	---	---	---
6590 oilseeds nec	62	18	30	0	14	---	---	---	---
Subtotal vegetable products	293	0	8	8	277	---	---	---	0
6653 vegetable oils	7	---	5	1	1	---	---	---	---
6654 vegetables & prod.	286	0	3	6	276	---	---	---	0
Subtotal processed grain and animal feed	1,025	---	339	3	684	---	---	---	---
6746 wheat flour	24	---	23	---	1	---	---	---	---
6747 grain mill products	49	---	7	0	42	---	---	---	---
6781 hay & fodder	412	---	6	---	407	---	---	---	---
6782 animal feed, prep.	540	---	303	2	235	---	---	---	---
Subtotal other agricultural products	154	0	2	38	113	---	---	---	---
6811 meat, fresh, frozen	14	0	0	0	13	---	---	---	---
6817 meat, prepared	12	---	---	---	12	---	---	---	---
6822 dairy products	9	---	0	---	9	---	---	---	---

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
6835 fish, prepared	6	—	—	3	3	—	—	—	—
6838 tallow, animal oils	1	—	—	—	1	—	—	—	—
6839 animals & prod. nec	18	0	0	0	18	—	—	—	—
6856 bananas & plantains	0	—	—	0	—	—	—	—	—
6857 fruit & nuts nec	7	—	1	0	6	—	—	—	—
6858 fruit juices	24	—	0	12	12	—	—	—	—
6861 sugar	0	—	—	—	0	—	—	—	—
6871 coffee	1	—	—	1	0	—	—	—	—
6872 cocoa beans	0	—	—	0	—	—	—	—	—
6885 alcoholic beverages	23	0	0	17	5	—	—	—	—
6888 water & ice	1	—	—	1	—	—	—	—	—
6889 food products nec	18	—	0	2	16	—	—	—	—
6891 tobacco & products	0	—	—	—	0	—	—	—	—
6893 cotton	2	—	1	—	1	—	—	—	—
6899 farm products nec	19	0	0	2	17	—	—	—	—
Total all manufactured equipment, machinery and products	736	101	3	537	93	—	0	0	2
7110 machinery (not elec)	48	1	0	25	19	—	0	0	2
7120 electrical machinery	44	0	1	29	15	—	—	—	0
7210 vehicles & parts	522	99	1	395	27	—	—	—	—
7220 aircraft & parts	1	—	0	0	0	—	—	—	—
7230 ships & boats	0	0	—	0	0	—	—	—	—
7300 ordnance & access.	0	0	—	0	0	—	—	—	—
7400 manufac. wood prod.	8	1	0	3	4	—	—	—	—
7500 textile products	16	0	1	12	4	—	—	—	0
7600 rubber & plastic pr.	21	0	0	16	5	—	0	—	—
7900 manufac. prod. nec	77	0	0	58	18	—	—	0	0
Total unknown or not elsewhere classified	17	0	2	3	9	2	—	—	0
9900 unknown or nec	17	0	2	3	9	2	—	—	0
Ton-miles Foreign & Canadian (x1000)	2,880,205	163,575	960,411	344,926	1,326,970	2,020	5,008	72,577	4,718

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total, all commodities	4,532	806	301	3,208	217
Total petroleum and petroleum products	3,026	66	4	2,852	104
Subtotal crude petroleum	34	—	—	33	2
2100 crude petroleum	34	—	—	33	2
Subtotal petroleum products	2,991	66	4	2,820	102
2211 gasoline	1,858	31	—	1,798	29
2330 distillate fuel oil	520	9	4	480	28
2340 residual fuel oil	241	14	—	195	32
2350 lube oil & greases	58	—	—	58	—
2429 naphtha & solvents	13	—	—	—	13
2430 asphalt, tar & pitch	301	12	—	289	—
2990 petro. products nec	0	—	—	—	0
Total chemicals and related products	408	68	75	193	71
Subtotal fertilizers	205	—	65	140	—
3110 nitrogenous fert.	205	—	65	140	—
Subtotal other chemicals and related products	204	68	11	53	71
3212 benzene & toluene	68	68	—	—	—
3220 alcohols	50	—	—	27	23
3272 sulphuric acid	0	—	—	—	0
3273 ammonia	36	—	—	26	10
3274 sodium hydroxide	48	—	11	—	37
3286 plastics	1	—	—	—	1

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total crude materials, inedible except fuels	1,062	672	207	163	20
Subtotal forest products, wood and chips	923	537	207	159	20
4161 wood chips	453	453	—	—	—
4170 wood in the rough	248	84	—	159	5
4189 lumber	222	—	207	—	15
Subtotal soil, sand, gravel, rock and stone	4	—	—	4	—
4331 sand & gravel	4	—	—	4	—
Subtotal other non-metal. min.	135	135	—	—	—
4900 non-metal. min. nec	135	135	—	—	—
Total primary manufactured goods	36	—	15	—	21
Subtotal paper products	18	—	15	—	3
5190 paper products nec	18	—	15	—	3
Subtotal lime, cement and glass	5	—	—	—	5
5220 cement & concrete	5	—	—	—	5
5240 glass & glass prod.	0	—	—	—	0
Subtotal primary iron and steel products	8	—	0	—	8
5360 i&s bars & shapes	6	—	0	—	6
5370 i&s pipe & tube	2	—	—	—	2
Subtotal primary non-ferrous metal products	0	—	—	—	0
5480 fab. metal products	0	—	—	—	0
Subtotal primary wood products	5	—	—	—	5
5540 primary wood prod.	5	—	—	—	5
Total food and farm products	0	—	—	—	0
Subtotal other agricultural products	0	—	—	—	0
6858 fruit juices	0	—	—	—	0
Total all manufactured equipment, machinery and products	1	0	—	0	0
7110 machinery (not elec)	0	0	—	—	—
7210 vehicles & parts	0	—	—	—	0
7230 ships & boats	0	—	—	—	0
7900 manufac. prod. nec	0	—	—	0	0
Ton-miles (x1000)	401,478	47,013	26,557	306,681	21,227
Coastwise					

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	12,688	736	1,858	257	1,952	2,671	2,504	509	2,201
Total petroleum and petroleum products	2,346	570	105	45	7	1,585	27	7	—
Subtotal petroleum products	2,346	570	105	45	7	1,585	27	7	—
2211 gasoline	1,053	7	—	22	5	1,019	—	—	—
2330 distillate fuel oil	840	320	4	15	—	497	—	5	—
2340 residual fuel oil	452	242	102	8	2	70	27	2	—
2350 lube oil & greases	1	1	0	0	0	—	—	0	—
Total chemicals and related products	137	25	4	37	—	9	3	44	14
Subtotal fertilizers	66	7	4	19	—	—	3	19	14
3110 nitrogenous fert.	26	—	—	14	—	—	3	7	2
3190 fert. & mixes nec	40	7	4	6	—	—	—	11	12
Subtotal other chemicals and related products	71	18	—	18	—	9	0	26	—
3273 ammonia	38	11	—	18	—	9	—	—	—
3274 sodium hydroxide	33	7	—	—	—	—	—	26	—
3286 plastics	0	—	—	—	—	—	0	—	—
3299 chem. products nec	0	0	—	—	—	—	—	—	—
Total crude materials, inedible except fuels	3,634	27	565	101	521	1,060	3	255	1,103
Subtotal forest products, wood and chips	1,262	20	539	—	1	—	—	79	622
4150 fuel wood	3	3	—	—	—	—	—	—	—
4161 wood chips	1,066	17	521	—	—	—	—	77	452

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
4170 wood in the rough	192	0	19	—	1	—	—	2	171
4189 lumber	0	—	—	—	0	—	—	—	0
Subtotal pulp and waste paper	34	4	25	—	0	—	—	4	—
4225 pulp & waste paper	34	4	25	—	0	—	—	4	—
Subtotal soil, sand, gravel, rock and stone	2,336	2	0	101	520	1,060	—	172	481
4331 sand & gravel	2,336	2	0	101	520	1,060	—	172	481
Subtotal sulphur, clay and salt	3	—	—	—	—	—	3	—	—
4782 clay & refrac. mat.	3	—	—	—	—	—	3	—	—
Total primary manufactured goods	224	12	0	67	75	4	61	3	2
Subtotal paper products	202	0	0	67	75	—	57	3	0
5120 paper & paperboard	145	0	0	67	75	—	—	3	0
5190 paper products nec	57	—	—	—	—	—	57	—	—
Subtotal lime, cement and glass	0	0	—	—	—	0	—	—	—
5290 misc. mineral prod.	0	0	—	—	—	0	—	—	—
Subtotal primary iron and steel products	1	1	—	0	0	—	—	0	0
5360 i&s bars & shapes	1	—	—	0	0	—	—	0	0
5370 i&s pipe & tube	1	1	—	—	—	—	—	—	—
Subtotal primary non-ferrous metal products	20	11	—	—	0	4	4	—	1
5422 aluminum	0	—	—	—	—	0	—	—	—
5480 fab. metal products	20	11	—	—	0	4	4	—	1
Total food and farm products	5,850	45	1,184	7	1,210	0	2,361	8	1,035
Subtotal fish	45	44	—	—	—	0	—	—	—
6134 fish (not shellfish)	43	43	—	—	—	0	—	—	—
6136 shellfish	2	2	—	—	—	0	—	—	—
Subtotal grain	5,709	—	1,184	7	1,144	—	2,337	7	1,032
6241 wheat	5,483	—	1,175	7	1,104	—	2,161	7	1,029
6344 corn	2	—	—	—	2	—	—	—	—
6443 barley & rye	225	—	9	—	38	—	176	—	3
Subtotal vegetable products	34	—	—	—	10	—	24	—	—
6654 vegetables & prod.	34	—	—	—	10	—	24	—	—
Subtotal processed grain and animal feed	50	1	—	—	45	—	0	1	3
6747 grain mill products	5	—	—	—	—	—	0	1	3
6781 hay & fodder	46	1	—	—	45	—	—	—	—
Subtotal other agricultural products	11	—	—	—	11	—	—	—	—
6822 dairy products	3	—	—	—	3	—	—	—	—
6839 animals & prod. nec	7	—	—	—	7	—	—	—	—
6889 food products nec	0	—	—	—	0	—	—	—	—
6899 farm products nec	1	—	—	—	1	—	—	—	—
Total all manufactured equipment, machinery and products	299	57	—	—	139	13	50	1	39
7110 machinery (not elec)	0	—	—	—	—	—	—	—	0
7600 rubber & plastic pr.	0	—	—	—	—	0	—	—	—
7800 empty containers	215	26	—	—	139	9	2	1	39
7900 manufac. prod. nec	84	31	—	—	0	4	49	—	—

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY (CONSOLIDATED REPORT)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total waste and scrap nec	199	---	---	---	1	---	---	190	8
8900 waste and scrap nec	199	---	---	---	1	---	---	190	8
Ton-miles Internal (x1000)	2,008,515	80,044	406,300	17,044	235,342	356,195	549,810	47,717	316,063
Tons All Traffic (x1000)		49,076							
Ton-miles All Traffic (x1000)		5,290,198							

*Includes 152 (x1000) tons of foreign inbound in-transits; Includes 166 (x1000) tons of foreign outbound in-transits.

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR

Section Included: Columbia River from mouth to the mouth of Willamette River; Willamette River from mouth to Broadway Bridge at Portland, OR, a distance of 113 miles; Columbia River from mouth of Willamette River to Interstate Bridge, Vancouver, WA, a distance of 5 miles. Controlling Depth: Mouth of Columbia River to mouth of Willamette and up the Willamette to Broadway Bridge in Portland, 38 feet; in the reach of Columbia River from the mouth of Willamette River to the lower turning basin at Vancouver, WA, 38 feet. Project Depth: 40 feet in main channel from mouth of Columbia River to Broadway Bridge at Portland, OR; 40 feet in Columbia River from mouth of Willamette River to Railroad Bridge, Vancouver, WA; 35 feet from Railroad Bridge to Interstate Bridge, Vancouver, WA.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	54,756	1992	50,890	1995	58,446	1998	49,543
1990	51,479	1993	50,566	1996	52,559		
1991	50,622	1994	50,703	1997	53,098		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
Total, all commodities	31,856	4,884	23,574	616	1,870	772	115	13	12
Total coal	10	7	3	---	0	---	---	---	---
1100 coal lignite	10	7	3	---	0	---	---	---	---
1200 coal coke	0	---	---	---	0	---	---	---	---
Total petroleum and petroleum products	1,341	585	503	0	2	176	56	8	11
Subtotal crude petroleum	393	393	---	---	---	---	---	---	---
2100 crude petroleum	393	393	---	---	---	---	---	---	---
Subtotal petroleum products	948	192	503	0	2	176	56	8	11
2211 gasoline	125	59	---	---	---	65	---	---	---
2330 distillate fuel oil	120	---	---	---	1	111	---	8	---
2340 residual fuel oil	0	---	---	---	0	---	---	---	---
2350 lube oil & greases	2	---	2	0	0	---	---	---	---
2410 petro. jelly & waxes	0	---	0	---	0	---	---	---	---
2429 naphtha & solvents	15	---	4	---	0	---	---	---	11
2430 asphalt, tar & pitch	133	133	---	---	0	---	---	---	---
2540 petroleum coke	554	---	497	---	0	---	56	---	---
2640 liquid natural gas	0	---	0	---	0	---	---	---	---
Total chemicals and related products	4,981	342	4,385	27	152	17	57	3	0
Subtotal fertilizers	2,220	235	1,940	---	45	---	---	---	---
3110 nitrogenous fert.	242	215	26	---	0	---	---	---	---
3130 potassic fert.	1,942	---	1,898	---	44	---	---	---	---
3190 fert. & mixes nec	36	20	15	---	1	---	---	---	---
Subtotal other chemicals and related products	2,761	106	2,445	27	107	17	57	3	0
3211 acyclic hydrocarbons	0	---	0	---	---	---	---	---	---

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
3212 benzene & toluene	15	15	—	0	—	—	—	—	—
3219 other hydrocarbons	1	—	0	0	1	—	—	—	0
3220 alcohols	92	72	1	7	2	11	—	—	—
3230 carboxylic acids	5	0	0	0	4	—	—	—	—
3240 nitrogen func. comp.	2	—	0	0	1	—	—	—	—
3250 organo - inorg. comp.	1	0	0	0	0	—	—	—	0
3260 organic comp. nec	3	0	0	0	3	—	—	—	—
3272 sulphuric acid	1	0	—	1	0	—	—	—	—
3273 ammonia	1	0	—	1	—	—	—	—	—
3274 sodium hydroxide	136	—	89	0	—	—	47	—	0
3275 inorg. elem. oxides, & halogen salts	23	12	5	3	4	—	—	—	—
3276 metallic salts	2,386	6	2,306	1	62	—	10	—	—
3279 inorganic chem. nec	2	0	0	2	0	—	—	—	—
3281 radioactive material	0	—	—	0	0	—	—	—	—
3282 pigments & paints	2	—	0	0	1	—	—	—	—
3283 coloring mat. nec	0	—	—	0	0	—	0	—	0
3284 medicines	0	0	0	0	0	—	—	—	—
3285 perfumes & cleansers	4	0	0	2	2	—	—	—	0
3286 plastics	25	1	4	6	14	—	—	—	0
3291 pesticides	0	0	—	0	0	—	—	—	—
3292 starches, gluten, glue	2	0	0	0	1	—	—	—	—
3293 explosives	1	0	0	1	—	—	—	—	—
3297 chemical additives	1	—	0	0	1	—	—	—	—
3298 wood & resin chem.	53	—	37	0	7	6	—	3	—
3299 chem. products nec	6	0	0	2	4	—	—	—	—
Total crude materials, inedible except fuels	5,136	1,934	2,203	58	364	576	0	1	—
Subtotal forest products, wood and chips	2,130	72	1,799	49	181	27	0	1	—
4110 rubber & gums	0	0	—	0	—	—	—	—	—
4150 fuel wood	3	—	1	—	1	1	—	—	—
4161 wood chips	22	—	0	—	0	20	—	1	—
4170 wood in the rough	1,760	24	1,719	0	12	5	—	—	—
4189 lumber	344	48	79	49	168	—	0	—	—
4190 forest products nec	0	—	0	0	0	—	—	—	—
Subtotal pulp and waste paper	241	31	86	—	124	—	—	—	—
4225 pulp & waste paper	241	31	86	—	124	—	—	—	—
Subtotal soil, sand, gravel, rock and stone	550	0	0	0	1	549	—	—	—
4310 building stone	0	—	—	0	0	—	—	—	—
4322 limestone	549	—	—	—	—	549	—	—	—
4323 gypsum	0	—	—	—	0	—	—	—	—
4331 sand & gravel	1	0	0	—	0	—	—	—	—
Subtotal iron ore and scrap	51	—	37	—	15	—	—	—	—
4420 iron & steel scrap	51	—	37	—	15	—	—	—	—
Subtotal marine shells	0	0	—	0	—	—	—	—	—
4515 marine shells	0	0	—	0	—	—	—	—	—
Subtotal non-ferrous ores and scrap	1,473	1,396	50	0	27	—	—	—	—
4630 copper ore	6	—	6	—	0	—	—	—	—
4650 aluminum ore	1,390	1,390	0	—	0	—	—	—	—
4680 non-ferrous scrap	33	0	7	0	26	—	—	—	—
4690 non-ferrous ores nec	44	6	38	—	1	—	—	—	—
Subtotal sulphur, clay and salt	235	13	210	0	12	—	—	—	—
4782 clay & refrac. mat.	235	13	210	0	12	—	—	—	—
Subtotal slag	0	—	—	—	0	—	—	—	—
4860 slag	0	—	—	—	0	—	—	—	—

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
Subtotal other non-metal. min.	456	422	21	9	4	---	---	---	---
4900 non-metal. min. nec	456	422	21	9	4	---	---	---	---
Total primary manufactured goods	2,636	1,683	412	154	387	---	---	---	0
Subtotal paper products	717	1	392	7	318	---	---	---	0
5110 newsprint	404	---	363	2	39	---	---	---	---
5120 paper & paperboard	307	1	28	4	275	---	---	---	0
5190 paper products nec	6	0	1	1	5	---	---	---	---
Subtotal lime, cement and glass	522	482	2	27	12	---	---	---	0
5220 cement & concrete	477	477	---	0	0	---	---	---	---
5240 glass & glass prod.	4	1	0	2	2	---	---	---	0
5290 misc. mineral prod.	41	4	1	25	10	---	---	---	0
Subtotal primary iron and steel products	1,240	1,150	3	84	3	---	---	---	0
5312 pig iron	113	113	0	0	0	---	---	---	---
5315 ferro alloys	56	53	0	1	2	---	---	---	---
5320 i&s primary forms	195	138	---	57	0	---	---	---	---
5330 i&s plates & sheets	514	503	0	11	0	---	---	---	---
5360 i&s bars & shapes	90	87	0	3	0	---	---	---	---
5370 i&s pipe & tube	92	78	2	11	0	---	---	---	0
5390 primary i&s nec	180	179	0	1	0	---	---	---	---
Subtotal primary non-ferrous metal products	47	3	5	31	8	---	---	---	0
5421 copper	2	0	1	1	0	---	---	---	---
5422 aluminum	7	0	3	0	4	---	---	---	---
5429 smelted prod. nec	3	0	0	1	1	---	---	---	---
5480 fab. metal products	34	2	2	28	2	---	---	---	0
Subtotal primary wood products	109	48	10	5	47	---	---	---	---
5540 primary wood prod.	109	48	10	5	47	---	---	---	---
Subtotal iron ore and scrap	51	---	0	---	51	---	---	---	---
Total food and farm products	16,998	29	16,039	41	889	0	---	0	0
Subtotal fish	6	0	0	1	4	0	---	0	---
6134 fish (not shellfish)	4	0	0	0	4	0	---	0	---
6136 shellfish	1	0	---	1	0	---	---	---	---
Subtotal grain	15,331	---	15,269	2	60	---	---	---	---
6241 wheat	12,734	---	12,694	---	39	---	---	---	---
6344 corn	2,076	---	2,055	---	20	---	---	---	---
6442 rice	14	---	12	2	0	---	---	---	---
6443 barley & rye	441	---	441	---	---	---	---	---	---
6445 oats	0	---	---	---	0	---	---	---	---
6447 sorghum grains	67	---	67	---	---	---	---	---	---
Subtotal oilseeds	189	18	166	0	5	---	---	---	---
6521 peanuts	1	---	1	---	---	---	---	---	---
6522 soybeans	127	---	122	0	4	---	---	---	---
6590 oilseeds nec	62	18	43	0	1	---	---	---	---
Subtotal vegetable products	293	1	32	7	253	---	---	---	0
6653 vegetable oils	7	0	5	1	1	---	---	---	---
6654 vegetables & prod.	286	1	27	5	252	---	---	---	0
Subtotal processed grain and animal feed	1,025	1	552	2	471	---	---	---	---
6746 wheat flour	24	---	24	---	0	---	---	---	---
6747 grain mill products	49	0	12	0	37	---	---	---	---
6781 hay & fodder	412	---	35	---	377	---	---	---	---
6782 animal feed, prep.	540	1	482	2	56	---	---	---	---

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign				Canadian			
		Imports*	Exports*	Through		Imports	Exports	Through	
				Upbound	Downbnd			Upbound	Downbnd
Subtotal other agricultural products	154	9	19	30	96	---	---	---	---
6811 meat, fresh, frozen	14	0	2	0	12	---	---	---	---
6817 meat, prepared	12	---	4	---	8	---	---	---	---
6822 dairy products	9	---	1	---	9	---	---	---	---
6835 fish, prepared	6	0	0	3	3	---	---	---	---
6838 tallow, animal oils	1	---	---	---	1	---	---	---	---
6839 animals & prod. nec	18	0	1	0	17	---	---	---	---
6856 bananas & plantains	0	---	---	0	---	---	---	---	---
6857 fruit & nuts nec	7	0	2	0	5	---	---	---	---
6858 fruit juices	24	2	2	10	10	---	---	---	---
6861 sugar	0	---	---	---	0	---	---	---	---
6871 coffee	1	0	---	1	0	---	---	---	---
6872 cocoa beans	0	0	---	0	---	---	---	---	---
6885 alcoholic beverages	23	6	4	11	2	---	---	---	---
6888 water & ice	1	0	---	1	---	---	---	---	---
6889 food products nec	18	0	2	1	14	---	---	---	---
6891 tobacco & products	0	---	0	---	0	---	---	---	---
6893 cotton	2	---	1	---	1	---	---	---	---
6899 farm products nec	19	1	2	1	16	---	---	---	---
Total all manufactured equipment, machinery and products	736	304	27	334	69	0	2	0	0
7110 machinery (not elec)	48	2	3	24	16	---	2	0	0
7120 electrical machinery	44	2	8	27	8	---	---	---	0
7210 vehicles & parts	522	293	4	200	24	---	---	---	---
7220 aircraft & parts	1	0	0	0	0	---	---	---	---
7230 ships & boats	0	0	0	0	0	---	---	---	---
7300 ordnance & access.	0	0	---	0	0	---	---	---	---
7400 manufac. wood prod.	8	1	0	2	4	---	---	---	---
7500 textile products	16	1	2	10	2	---	---	---	0
7600 rubber & plastic pr.	21	1	3	15	2	---	0	---	---
7900 manufac. prod. nec	77	4	7	54	12	0	---	---	0
Total unknown or not elsewhere classified	17	1	3	2	8	2	0	---	---
9900 unknown or nec	17	1	3	2	8	2	0	---	---
Ton-miles Foreign & Canadian (x1000)	3,047,801	477,349	2,224,122	62,817	190,789	81,321	8,948	1,279	1,175

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total, all commodities	4,532	3,773	496	241	22
Total petroleum and petroleum products	3,026	2,916	108	2	---
Subtotal crude petroleum	34	33	2	---	---
2100 crude petroleum	34	33	2	---	---
Subtotal petroleum products	2,991	2,883	106	2	---
2211 gasoline	1,858	1,829	29	---	---
2330 distillate fuel oil	520	488	32	1	---
2340 residual fuel oil	241	207	32	2	---
2350 lube oil & greases	58	58	---	---	---
2429 naphtha & solvents	13	---	13	---	---
2430 asphalt, tar & pitch	301	301	---	---	---
2990 petro. products nec	0	---	0	---	---

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Coastwise			
		Receipts	Shipments	Through	
				Upbound	Downbnd
Total chemicals and related products	408	261	128	---	19
Subtotal fertilizers	205	140	46	---	19
3110 nitrogenous fert.	205	140	46	---	19
Subtotal other chemicals and related products	204	122	82	---	---
3212 benzene & toluene	68	68	---	---	---
3220 alcohols	50	27	23	---	---
3272 sulphuric acid	0	---	0	---	---
3273 ammonia	36	26	10	---	---
3274 sodium hydroxide	48	---	48	---	---
3286 plastics	1	---	1	---	---
Total crude materials, inedible except fuels	1,062	596	224	238	3
Subtotal forest products, wood and chips	923	458	224	238	3
4161 wood chips	453	374	---	79	---
4170 wood in the rough	248	84	2	159	3
4189 lumber	222	---	222	---	---
Subtotal soil, sand, gravel, rock and stone	4	4	---	---	---
4331 sand & gravel	4	4	---	---	---
Subtotal other non-metal. min.	135	135	---	---	---
4900 non-metal. min. nec	135	135	---	---	---
Total primary manufactured goods	36	---	36	---	---
Subtotal paper products	18	---	18	---	---
5190 paper products nec	18	---	18	---	---
Subtotal lime, cement and glass	5	---	5	---	---
5220 cement & concrete	5	---	5	---	---
5240 glass & glass prod.	0	---	0	---	---
Subtotal primary iron and steel products	8	---	8	---	---
5360 i&s bars & shapes	6	---	6	---	---
5370 i&s pipe & tube	2	---	2	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---
5480 fab. metal products	0	---	0	---	---
Subtotal primary wood products	5	---	5	---	---
5540 primary wood prod.	5	---	5	---	---
Total food and farm products	0	---	0	---	---
Subtotal other agricultural products	0	---	0	---	---
6858 fruit juices	0	---	0	---	---
Total all manufactured equipment, machinery and products	1	0	0	0	---
7110 machinery (not elec)	0	---	---	0	---
7210 vehicles & parts	0	---	0	---	---
7230 ships & boats	0	---	0	---	---
7900 manufac. prod. nec	0	0	0	---	---
Ton-miles (x1000)	422,788	360,777	43,295	16,544	2,172
Coastwise					

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	13,155	4,603	3,774	352	2,145	186	350	1,267	479
Total petroleum and petroleum products	2,649	1	---	42	1,933	---	---	567	105
Subtotal petroleum products	2,649	1	---	42	1,933	---	---	567	105
2211 gasoline	1,078	---	---	22	1,023	---	---	33	---
2330 distillate fuel oil	850	---	---	20	814	---	---	13	4
2340 residual fuel oil	714	1	---	---	96	---	---	515	102
2350 lube oil & greases	5	---	---	---	---	---	---	5	0
2990 petro. products nec	1	---	---	---	---	---	---	1	---
Total chemicals and related products	98	3	2	47	34	0	0	12	---
Subtotal fertilizers	45	3	2	21	7	---	---	12	---
3110 nitrogenous fert.	22	3	---	14	---	---	---	6	---
3190 fert. & mixes nec	23	---	2	7	7	---	---	6	---
Subtotal other chemicals and related products	53	---	---	26	27	0	0	---	---
3273 ammonia	20	---	---	---	20	---	---	---	---

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
3274 sodium hydroxide	33	—	—	26	7	—	—	—	—
3286 plastics	0	—	—	—	—	—	0	—	—
3299 chem. products nec	0	—	—	—	—	0	—	—	—
Total crude materials, inedible except fuels	3,834	1,005	1,509	70	177	99	3	601	370
Subtotal forest products, wood and chips	846	6	751	24	1	14	0	45	5
4150 fuel wood	3	—	—	—	—	3	—	—	—
4161 wood chips	710	6	625	24	—	10	—	44	—
4170 wood in the rough	132	0	126	—	1	—	0	0	5
4189 lumber	0	0	0	—	—	—	—	—	—
Subtotal pulp and waste paper	34	—	19	2	4	—	0	2	6
4225 pulp & waste paper	34	—	19	2	4	—	0	2	6
Subtotal soil, sand, gravel, rock and stone	2,952	999	739	44	172	86	—	554	359
4331 sand & gravel	2,952	999	739	44	172	86	—	554	359
Subtotal sulphur, clay and salt	3	—	—	—	—	—	3	—	—
4782 clay & refrac. mat.	3	—	—	—	—	—	3	—	—
Total primary manufactured goods	225	75	1	3	1	15	61	70	0
Subtotal paper products	205	75	0	3	0	—	57	69	0
5120 paper & paperboard	148	75	0	3	0	—	—	69	0
5190 paper products nec	57	—	—	—	—	—	57	—	—
Subtotal lime, cement and glass	0	—	—	—	—	0	—	—	—
5290 misc. mineral prod.	0	—	—	—	—	0	—	—	—
Subtotal primary iron and steel products	1	0	0	—	—	—	—	0	—
5360 i&s bars & shapes	1	0	0	—	—	—	—	0	—
5370 i&s pipe & tube	1	—	—	—	1	—	—	—	—
Subtotal primary non-ferrous metal products	19	—	0	—	0	15	4	—	—
5422 aluminum	0	—	—	—	—	0	—	—	—
5480 fab. metal products	19	—	0	—	0	15	4	—	—
Total food and farm products	5,851	3,519	2,214	—	—	2	96	16	4
Subtotal fish	45	44	—	—	—	1	—	—	—
6134 fish (not shellfish)	43	42	—	—	—	0	—	—	—
6136 shellfish	2	2	—	—	—	0	—	—	—
Subtotal grain	5,712	3,475	2,211	—	—	—	6	16	4
6241 wheat	5,485	3,262	2,200	—	—	—	4	16	4
6344 corn	2	—	—	—	—	—	2	—	—
6443 barley & rye	225	213	12	—	—	—	1	—	—
Subtotal vegetable products	34	—	—	—	—	—	34	—	—
6654 vegetables & prod.	34	—	—	—	—	—	34	—	—
Subtotal processed grain and animal feed	49	—	3	—	—	1	45	—	—
6747 grain mill products	3	—	3	—	—	—	0	—	—
6781 hay & fodder	46	—	—	—	—	1	45	—	—
Subtotal other agricultural products	11	—	—	—	—	—	11	—	—
6822 dairy products	3	—	—	—	—	—	3	—	—
6839 animals & prod. nec	7	—	—	—	—	—	7	—	—
6889 food products nec	0	—	—	—	—	—	0	—	—

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
6899 farm products nec	1	—	—	—	—	—	1	—	—
Total all manufactured equipment, machinery and products	299	—	39	0	0	69	189	—	—
7110 machinery (not elec)	0	—	0	—	—	—	—	—	—
7600 rubber & plastic pr.	0	—	—	—	—	0	—	—	—
7800 empty containers	215	—	39	0	0	35	140	—	—
7900 manufac. prod. nec	84	—	—	—	—	35	49	—	—
Total waste and scrap nec	199	—	8	190	—	—	0	1	—
8900 waste and scrap nec	199	—	8	190	—	—	0	1	—
Ton-miles Internal (x1000)	183,622	65,109	61,798	6,245	25,191	1,647	1	16,287	7,343
Tons All Traffic (x1000)					49,543				
Ton-miles All Traffic (x1000)					3,654,210				

*Includes 165 (x1000) tons of foreign inbound in-transits; Includes 925 (x1000) tons of foreign outbound in-transits.

PORT OF ASTORIA, OR

Section Included: (Statistics for that section of the port with frontage on the Columbia River are also included in statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR, and statistics for portion of port with frontage on Youngs Bay are also included in statistics for Youngs Bay and Youngs River, OR) Controlling Depth: 38 feet in Columbia River and 6 feet in Youngs Bay. Project Depth: 40 feet in Columbia River and 10 feet in Youngs Bay.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,124	1992	721	1995	985	1998	306
1990	966	1993	412	1996	324		
1991	660	1994	1,354	1997	298		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian Imports	Domestic			Internal	
		Imports*	Exports*		Total	Coastwise		Receipts	Shipments
				Receipts		Shipments			
Total, all commodities	306	6	138	17	145	66	4	66	10
Total petroleum and petroleum products	62	—	22	5	35	4	4	20	7
Subtotal petroleum products	62	—	22	5	35	4	4	20	7
2330 distillate fuel oil	12	—	—	5	7	—	4	4	—
2340 residual fuel oil	28	—	—	—	28	4	—	17	7
2350 lube oil & greases	0	—	0	—	0	—	—	0	—
2540 petroleum coke	21	—	21	—	—	—	—	—	—
Total chemicals and related products	2	2	0	—	—	—	—	—	—
Subtotal other chemicals and related products	2	2	0	—	—	—	—	—	—
3219 other hydrocarbons	0	—	0	—	—	—	—	—	—
3220 alcohols	2	2	—	—	—	—	—	—	—
3276 metallic salts	0	—	0	—	—	—	—	—	—
3282 pigments & paints	0	—	0	—	—	—	—	—	—
3286 plastics	0	—	0	—	—	—	—	—	—
3297 chemical additives	0	—	0	—	—	—	—	—	—
3299 chem. products nec	0	—	0	—	—	—	—	—	—

PORT OF ASTORIA, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments	
Total crude materials, inedible except fuels	116	3	36	11	66	62	---	1	3
Subtotal forest products, wood and chips	110	3	34	11	62	62	---	---	---
4161 wood chips	11	---	---	11	---	---	---	---	---
4170 wood in the rough	97	1	33	0	62	62	---	---	---
4189 lumber	2	1	1	---	---	---	---	---	---
Subtotal pulp and waste paper	5	---	1	---	4	---	---	1	3
4225 pulp & waste paper	5	---	1	---	4	---	---	1	3
Subtotal soil, sand, gravel, rock and stone	0	---	0	---	---	---	---	---	---
4331 sand & gravel	0	---	0	---	---	---	---	---	---
Subtotal iron ore and scrap	0	---	0	---	---	---	---	---	---
4420 iron & steel scrap	0	---	0	---	---	---	---	---	---
Subtotal non-ferrous ores and scrap	1	0	0	---	---	---	---	---	---
4650 aluminum ore	0	---	0	---	---	---	---	---	---
4680 non-ferrous scrap	0	---	0	---	---	---	---	---	---
4690 non-ferrous ores nec	0	0	---	---	---	---	---	---	---
Subtotal other non-metal. min.	0	---	0	---	---	---	---	---	---
4900 non-metal. min. nec	0	---	0	---	---	---	---	---	---
Total primary manufactured goods	4	1	3	---	---	---	---	---	---
Subtotal paper products	2	---	2	---	---	---	---	---	---
5120 paper & paperboard	2	---	2	---	---	---	---	---	---
Subtotal lime, cement and glass	0	---	0	---	---	---	---	---	---
5240 glass & glass prod.	0	---	0	---	---	---	---	---	---
5290 misc. mineral prod.	0	---	0	---	---	---	---	---	---
Subtotal primary iron and steel products	1	1	---	---	---	---	---	---	---
5330 i&s plates & sheets	1	1	---	---	---	---	---	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---	---	---	---	---
5422 aluminum	0	---	0	---	---	---	---	---	---
5429 smelted prod. nec	0	---	0	---	---	---	---	---	---
5480 fab. metal products	0	0	---	---	---	---	---	---	---
Subtotal primary wood products	0	---	0	---	---	---	---	---	---
5540 primary wood prod.	0	---	0	---	---	---	---	---	---
Total food and farm products	122	0	77	0	44	---	---	44	---
Subtotal fish	44	---	0	0	44	---	---	44	---
6134 fish (not shellfish)	43	---	0	0	42	---	---	42	---
6136 shellfish	2	---	---	---	2	---	---	2	---
Subtotal grain	66	---	66	---	---	---	---	---	---
6241 wheat	66	---	66	---	---	---	---	---	---
6344 corn	0	---	0	---	---	---	---	---	---
Subtotal vegetable products	1	---	1	---	---	---	---	---	---
6654 vegetables & prod.	1	---	1	---	---	---	---	---	---
Subtotal processed grain and animal feed	9	---	9	---	---	---	---	---	---
6747 grain mill products	0	---	0	---	---	---	---	---	---
6781 hay & fodder	4	---	4	---	---	---	---	---	---

PORT OF ASTORIA, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise		Internal	
						Receipts	Shipments	Receipts	Shipments
6782 animal feed, prep.	6	—	6	—	—	—	—	—	—
Subtotal other agricultural products	1	0	1	—	—	—	—	—	—
6811 meat, fresh, frozen	0	0	0	—	—	—	—	—	—
6822 dairy products	0	—	0	—	—	—	—	—	—
6839 animals & prod. nec	0	—	0	—	—	—	—	—	—
6857 fruit & nuts nec	0	—	0	—	—	—	—	—	—
6858 fruit juices	0	—	0	—	—	—	—	—	—
6885 alcoholic beverages	0	—	0	—	—	—	—	—	—
6889 food products nec	0	—	0	—	—	—	—	—	—
6899 farm products nec	0	—	0	—	—	—	—	—	—
Total all manufactured equipment, machinery and products	0	0	0	—	—	—	—	—	—
7110 machinery (not elec)	0	—	0	—	—	—	—	—	—
7120 electrical machinery	0	—	0	—	—	—	—	—	—
7220 aircraft & parts	0	—	0	—	—	—	—	—	—
7500 textile products	0	0	0	—	—	—	—	—	—
7600 rubber & plastic pr.	0	—	0	—	—	—	—	—	—
7900 manufac. prod. nec	0	—	0	—	—	—	—	—	—
Total unknown or not elsewhere classified	0	—	0	—	—	—	—	—	—
9900 unknown or nec	0	—	0	—	—	—	—	—	—

*Includes 0 (x1000) tons of foreign inbound in-transits; Includes 0 (x1000) tons of foreign outbound in-transits.

PORTS OTHER THAN PORTLAND, ASTORIA, ST. HELENS, LONGVIEW, VANCOUVER AND KALAMA

Section Included: (Included in statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR) Ports included: Bradwood, Wauna, Beaver Point, Rainier and Prescott, OR and Knappton, WA. Controlling Depth: 38 feet. Project Depth: 40 feet at low water in main channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	872	1992	987	1995	1,003	1998	477
1990	875	1993	945	1996	882		
1991	883	1994	901	1997	955		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign	Canadian	Domestic				
		Exports*	Imports	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments
Total, all commodities	477	18	13	447	262	2	111	71
Total petroleum and petroleum products	7	—	—	7	—	—	6	0
Subtotal petroleum products	7	—	—	7	—	—	6	0
2340 residual fuel oil	7	—	—	7	—	—	6	0
2350 lube oil & greases	0	—	—	0	—	—	0	0
Total chemicals and related products	4	—	—	4	—	2	2	—
Subtotal fertilizers	4	—	—	4	—	2	2	—
3110 nitrogenous fert.	2	—	—	2	—	2	—	—
3190 fert. & mixes nec	2	—	—	2	—	—	2	—

PORTS OTHER THAN PORTLAND, ASTORIA, ST. HELENS, LONGVIEW, VANCOUVER AND KALAMA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Exports*	Imports	Total	Coastwise		Internal		
					Receipts	Shipments	Receipts	Shipments	
Total crude materials, inedible except fuels	380	1	13	366	262	---	103	1	
Subtotal forest products, wood and chips	371	0	13	358	262	---	96	0	
4150 fuel wood	1	---	1	---	---	---	---	---	
4161 wood chips	358	---	6	352	259	---	93	---	
4170 wood in the rough	11	0	5	6	3	---	3	0	
4189 lumber	0	0	---	---	---	---	---	---	
Subtotal pulp and waste paper	8	0	---	8	---	---	7	1	
4225 pulp & waste paper	8	0	---	8	---	---	7	1	
Total primary manufactured goods	73	3	---	70	---	---	0	70	
Subtotal paper products	73	3	---	70	---	---	0	70	
5110 newsprint	3	3	---	---	---	---	---	---	
5120 paper & paperboard	70	---	---	70	---	---	0	70	
Total food and farm products	14	14	---	---	---	---	---	---	
Subtotal grain	8	8	---	---	---	---	---	---	
6344 corn	8	8	---	---	---	---	---	---	
Subtotal processed grain and animal feed	6	6	---	---	---	---	---	---	
6782 animal feed, prep.	6	6	---	---	---	---	---	---	
Total unknown or not elsewhere classified	0	0	---	---	---	---	---	---	
9900 unknown or nec	0	0	---	---	---	---	---	---	

*Includes 0 (x1000) tons of foreign outbound in-transits.

PORT OF LONGVIEW, WA

Section Included: (Included in statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR) Controlling Depth: 39 feet in channel and 39 feet in turning basin. Project Depth: 40 foot channel in Columbia River and 6,000 foot turning basin at low water.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	8,023	1992	6,309	1995	6,167	1998	4,279
1990	8,681	1993	5,476	1996	5,163		
1991	7,806	1994	6,442	1997	5,540		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports*	Imports	Exports
Total, all commodities	3,421	395	2,943	3	79
Total coal	3	---	3	---	---
1100 coal lignite	3	---	3	---	---
Total petroleum and petroleum products	591	77	458	---	56
Subtotal petroleum products	591	77	458	---	56
2430 asphalt, tar & pitch	77	77	---	---	---
2540 petroleum coke	514	---	458	---	56
Total chemicals and related products	418	73	322	---	23
Subtotal fertilizers	239	71	167	---	---
3110 nitrogenous fert.	85	71	14	---	---
3130 potassic fert.	154	---	154	---	---
Subtotal other chemicals and related products	179	2	155	---	23
3230 carboxylic acids	0	---	0	---	---
3274 sodium hydroxide	51	---	28	---	23
3276 metallic salts	128	2	127	---	---
3283 coloring mat. nec	0	---	---	---	0
3286 plastics	0	---	0	---	---
3293 explosives	0	---	0	---	---
Total crude materials, inedible except fuels	1,439	215	1,222	1	---
Subtotal forest products, wood and chips	1,169	---	1,168	1	---
4150 fuel wood	1	---	1	---	---
4161 wood chips	1	---	---	1	---
4170 wood in the rough	1,158	---	1,158	---	---
4189 lumber	9	---	9	---	---
Subtotal pulp and waste paper	6	---	6	---	---
4225 pulp & waste paper	6	---	6	---	---
Subtotal iron ore and scrap	0	---	0	---	---
4420 iron & steel scrap	0	---	0	---	---

PORT OF LONGVIEW, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports*	Imports	Exports
Subtotal non-ferrous ores and scrap	181	172	9	---	---
4650 aluminum ore	172	172	---	---	---
4680 non-ferrous scrap	0	---	0	---	---
4690 non-ferrous ores nec	9	---	9	---	---
Subtotal sulphur, clay and salt	52	13	39	---	---
4782 clay & refrac. mat.	52	13	39	---	---
Subtotal other non-metal. min.	30	30	0	---	---
4900 non-metal. min. nec	30	30	0	---	---
Total primary manufactured goods	336	11	325	---	---
Subtotal paper products	325	---	325	---	---
5110 newsprint	323	---	323	---	---
5120 paper & paperboard	2	---	2	---	---
Subtotal lime, cement and glass	0	0	0	---	---
5290 misc. mineral prod.	0	0	0	---	---
Subtotal primary iron and steel products	11	11	---	---	---
5315 ferro alloys	10	10	---	---	---
5360 i&s bars & shapes	1	1	---	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---
5422 aluminum	0	---	0	---	---
Subtotal primary wood products	0	---	0	---	---
5540 primary wood prod.	0	---	0	---	---
Total food and farm products	630	18	612	---	---
Subtotal grain	404	---	404	---	---
6241 wheat	233	---	233	---	---
6344 corn	170	---	170	---	---
Subtotal oilseeds	55	18	37	---	---
6522 soybeans	18	---	18	---	---
6590 oilseeds nec	37	18	19	---	---
Subtotal vegetable products	0	---	0	---	---
6654 vegetables & prod.	0	---	0	---	---
Subtotal processed grain and animal feed	171	---	171	---	---
6746 wheat flour	0	---	0	---	---
6781 hay & fodder	1	---	1	---	---
6782 animal feed, prep.	170	---	170	---	---
Subtotal other agricultural products	0	---	0	---	---
6811 meat, fresh, frozen	0	---	0	---	---
Total all manufactured equipment, machinery and products	0	0	0	---	0
7110 machinery (not elec)	0	---	0	---	0
7120 electrical machinery	0	0	---	---	---
7400 manufac. wood prod.	0	---	0	---	---
7500 textile products	0	0	---	---	---
7600 rubber & plastic pr.	0	---	0	---	0
7900 manufac. prod. nec	0	0	0	---	---
Total unknown or not elsewhere classified	3	---	1	2	---
9900 unknown or nec	3	---	1	2	---

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	859	156	69	631	2	1
Total petroleum and petroleum products	66	---	---	65	0	1
Subtotal petroleum products	66	---	---	65	0	1
2340 residual fuel oil	66	---	---	65	0	1
2350 lube oil & greases	0	---	---	0	---	---
Total chemicals and related products	12	---	11	---	2	---
Subtotal other chemicals and related products	12	---	11	---	2	---
3274 sodium hydroxide	12	---	11	---	2	---
Total crude materials, inedible except fuels	759	156	46	557	---	---
Subtotal forest products, wood and chips	635	32	46	557	---	---
4161 wood chips	534	32	---	502	---	---
4170 wood in the rough	55	---	---	55	---	---
4189 lumber	46	---	46	---	---	---
Subtotal other non-metal. min.	124	124	---	---	---	---
4900 non-metal. min. nec	124	124	---	---	---	---
Total primary manufactured goods	13	---	13	0	---	---
Subtotal paper products	13	---	13	---	---	---
5190 paper products nec	13	---	13	---	---	---
Subtotal primary iron and steel products	0	---	0	0	---	---
5360 i&s bars & shapes	0	---	0	0	---	---
Total food and farm products	0	---	---	0	---	---
Subtotal fish	0	---	---	0	---	---
6134 fish (not shellfish)	0	---	---	0	---	---

PORT OF LONGVIEW, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total all manufactured equipment, machinery and products	9	---	---	9	---	---
7110 machinery (not elec)	0	---	---	0	---	---
7800 empty containers	9	---	---	9	---	---

*Includes 14 (x1000) tons of foreign outbound in-transits.

PORT OF KALAMA, WA

Section Included: (Included in statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR) Controlling Depth: 37 feet. Project Depth: 40 feet at low water.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	7,013	1992	6,676	1995	11,347	1998	4,717
1990	6,255	1993	6,501	1996	8,223		
1991	5,881	1994	5,351	1997	8,301		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports*	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments
Total. all commodities	4,717	294	3,392	1,031	81	61	880	10
Total chemicals and related products	111	20	23	68	68	---	---	---
Total petroleum and petroleum products	18	---	---	18	12	---	5	0
Subtotal petroleum products	18	---	---	18	12	---	5	0
2340 residual fuel oil	5	---	---	5	---	---	5	---
2350 lube oil & greases	0	---	---	0	---	---	0	0
2430 asphalt, tar & pitch	12	---	---	12	12	---	---	---
Total chemicals and related products	111	20	23	68	68	---	---	---
Subtotal fertilizers	23	---	23	---	---	---	---	---
3130 potassic fert.	23	---	23	---	---	---	---	---
Subtotal other chemicals and related products	88	20	0	68	68	---	---	---
3212 benzene & toluene	84	15	---	68	68	---	---	---
3220 alcohols	4	4	---	---	---	---	---	---
3284 medicines	0	---	0	---	---	---	---	---
3286 plastics	0	---	0	---	---	---	---	---
3299 chem. products nec	0	---	0	---	---	---	---	---
Total crude materials, inedible except fuels	72	11	0	61	---	61	---	---
Subtotal forest products, wood and chips	69	7	0	61	---	61	---	---
4189 lumber	69	7	0	61	---	61	---	---
Subtotal pulp and waste paper	3	3	---	---	---	---	---	---
4225 pulp & waste paper	3	3	---	---	---	---	---	---
Subtotal non-ferrous ores and scrap	0	0	---	---	---	---	---	---
4680 non-ferrous scrap	0	0	---	---	---	---	---	---
Total primary manufactured goods	264	263	0	0	---	---	0	---
Subtotal paper products	0	---	0	---	---	---	---	---
5120 paper & paperboard	0	---	0	---	---	---	---	---
5190 paper products nec	0	---	0	---	---	---	---	---
Subtotal lime, cement and glass	0	---	0	---	---	---	---	---
5240 glass & glass prod.	0	---	0	---	---	---	---	---
Subtotal primary iron and steel products	263	263	0	0	---	---	0	---
5330 i&s plates & sheets	262	262	---	---	---	---	---	---
5360 i&s bars & shapes	0	0	---	0	---	---	0	---
5370 i&s pipe & tube	0	0	---	---	---	---	---	---
5390 primary i&s nec	0	0	0	---	---	---	---	---
Subtotal primary non-ferrous metal products	0	0	0	---	---	---	---	---
5421 copper	0	0	---	---	---	---	---	---
5480 fab. metal products	0	0	0	---	---	---	---	---
Subtotal primary wood products	0	0	---	---	---	---	---	---
5540 primary wood prod.	0	0	---	---	---	---	---	---

PORT OF KALAMA, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports*	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Shipments
Total food and farm products	4,252	0	3,368	884	---	---	874	10
Subtotal grain	4,133	---	3,249	884	---	---	874	10
6241 wheat	2,210	---	1,338	872	---	---	863	10
6344 corn	1,807	---	1,807	---	---	---	---	---
6443 barley & rye	50	---	39	12	---	---	12	---
6447 sorghum grains	66	---	66	---	---	---	---	---
Subtotal oilseeds	94	---	94	---	---	---	---	---
6522 soybeans	83	---	83	---	---	---	---	---
6590 oilseeds nec	11	---	11	---	---	---	---	---
Subtotal vegetable products	0	---	0	---	---	---	---	---
6654 vegetables & prod.	0	---	0	---	---	---	---	---
Subtotal processed grain and animal feed	24	---	24	---	---	---	---	---
6781 hay & fodder	0	---	0	---	---	---	---	---
6782 animal feed, prep.	24	---	24	---	---	---	---	---
Subtotal other agricultural products	0	0	0	---	---	---	---	---
6811 meat, fresh, frozen	0	---	0	---	---	---	---	---
6839 animals & prod. nec	0	0	---	---	---	---	---	---
6885 alcoholic beverages	0	0	---	---	---	---	---	---
6889 food products nec	0	---	0	---	---	---	---	---
6899 farm products nec	0	0	---	---	---	---	---	---
Total all manufactured equipment, machinery and products	1	0	0	---	---	---	---	---
7110 machinery (not elec)	0	0	0	---	---	---	---	---
7120 electrical machinery	0	0	0	---	---	---	---	---
7400 manufac. wood prod.	0	0	---	---	---	---	---	---
7500 textile products	0	0	---	---	---	---	---	---
7600 rubber & plastic pr.	0	0	0	---	---	---	---	---
7900 manufac. prod. nec	0	0	0	---	---	---	---	---
Total unknown or not elsewhere classified	0	0	---	---	---	---	---	---
9900 unknown or nec	0	0	---	---	---	---	---	---

*Includes 128 (x1000) tons of foreign inbound in-transits; Includes 38 (x1000) tons of foreign outbound in-transits.

MULTNOMAH CHANNEL, OR

Section Included: A side channel from the Willamette River near Portland, OR, to the Columbia River near St. Helens, OR, a distance of about 22 miles. Controlling Depth: 18 feet in a 300-foot channel at north end; 8 feet in a 250-foot channel at south end; 8 to 50 feet in remainder of channel. Project Depth: 25 feet deep and 5,000 feet long at the Columbia River end; 25 feet deep and 9,500 feet long at the Willamette River end.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,597	1992	1,405	1995	1,616	1998	1,267
1990	1,740	1993	1,570	1996	1,783		
1991	1,550	1994	1,360	1997	1,298		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Domestic							
		Coastwise		Internal					
		Receipts	Shipments	Inbound		Outbound		Intra	
				Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd
Total, all commodities	1,267	75	3	172	25	977	3	5	6
Total petroleum and petroleum products	25	---	---	---	25	---	---	---	---
Subtotal petroleum products	25	---	---	---	25	---	---	---	---
2340 residual fuel oil	25	---	---	---	25	---	---	---	---
Total crude materials, inedible except fuels	1,241	75	3	172	0	977	3	5	6
Subtotal forest products, wood and chips	85	75	3	---	0	---	0	---	6
4170 wood in the rough	85	75	3	---	0	---	0	---	6

MULTNOMAH CHANNEL, OR
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Domestic							
		Coastwise		Internal				Intra	
		Receipts	Shipments	Inbound		Outbound		Upbound	Downbnd
				Upbound	Downbnd	Upbound	Downbnd		
Subtotal soil, sand, gravel, rock and stone	1,156	—	—	172	—	977	2	5	—
4331 sand & gravel	1,156	—	—	172	—	977	2	5	—
Ton-miles (x1000)	25,168	1,660	30	344	608	22,461	5	5	56
Tons All Traffic (x1000)				1,267					
Ton-miles All Traffic (x1000)				25,168					

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR

Section Included: From deep water in the Columbia River to a point above the Portland Union Stock Yards, a distance of nearly 4 miles. Controlling Depth: 10 feet. Project Depth: 20 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,284	1992	2,794	1995	3,592	1998	3,103
1990	2,101	1993	3,089	1996	2,928		
1991	2,182	1994	3,730	1997	3,608		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports*	Exports*	Imports	Exports	Total	Coastwise	Internal	
								Receipts	Upbound
Total, all commodities	3,103	616	1,870	13	12	593	2	503	87
Total coal	0	—	0	—	—	—	—	—	—
1100 coal lignite	0	—	0	—	—	—	—	—	—
1200 coal coke	0	—	0	—	—	—	—	—	—
Total petroleum and petroleum products	95	0	2	8	11	75	2	71	1
Subtotal petroleum products	95	0	2	8	11	75	2	71	1
2330 distillate fuel oil	10	—	1	8	—	1	1	—	—
2340 residual fuel oil	74	—	0	—	—	74	2	71	1
2350 lube oil & greases	0	0	0	—	—	—	—	—	—
2410 petro. jelly & waxes	0	—	0	—	—	—	—	—	—
2429 naphtha & solvents	11	—	0	—	11	—	—	—	—
2430 asphalt, tar & pitch	0	—	0	—	—	—	—	—	—
2540 petroleum coke	0	—	0	—	—	—	—	—	—
2640 liquid natural gas	0	—	0	—	—	—	—	—	—
Total chemicals and related products	182	27	152	3	0	0	—	0	0
Subtotal fertilizers	45	—	45	—	—	—	—	—	—
3110 nitrogenous fert.	0	—	0	—	—	—	—	—	—
3130 potassic fert.	44	—	44	—	—	—	—	—	—
3190 fert. & mixes nec	1	—	1	—	—	—	—	—	—
Subtotal other chemicals and related products	137	27	107	3	0	0	—	0	0
3212 benzene & toluene	0	0	—	—	—	—	—	—	—
3219 other hydrocarbons	1	0	1	—	0	—	—	—	—
3220 alcohols	9	7	2	—	—	—	—	—	—
3230 carboxylic acids	5	0	4	—	—	—	—	—	—
3240 nitrogen func. comp.	2	0	1	—	—	—	—	—	—
3250 organo-inorg. comp.	0	0	0	—	0	—	—	—	—
3260 organic comp. nec	3	0	3	—	—	—	—	—	—

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports*	Exports*	Imports	Exports	Total	Coastwise Receipts	Internal	
								Inbound Upbound	Outbound Downbnd
3272 sulphuric acid	1	1	0	—	—	—	—	—	—
3273 ammonia	1	1	—	—	—	—	—	—	—
3274 sodium hydroxide	0	0	—	—	0	—	—	—	—
3275 inorg. elem. oxides, & halogen salts	7	3	4	—	—	—	—	—	—
3276 metallic salts	63	1	62	—	—	—	—	—	—
3279 inorganic chem. nec	2	2	0	—	—	—	—	—	—
3281 radioactive material	0	0	0	—	—	—	—	—	—
3282 pigments & paints	1	0	1	—	—	—	—	—	—
3283 coloring mat. nec	0	0	0	—	0	—	—	—	—
3284 medicines	0	0	0	—	—	—	—	—	—
3285 perfumes & cleansers	4	2	2	—	0	—	—	—	—
3286 plastics	20	6	14	—	0	0	—	0	—
3291 pesticides	0	0	0	—	—	—	—	—	—
3292 starches, gluten, glue	2	0	1	—	—	—	—	—	—
3293 explosives	1	1	—	—	—	—	—	—	—
3297 chemical additives	1	0	1	—	—	—	—	—	—
3298 wood & resin chem.	10	0	7	3	—	—	—	—	—
3299 chem. products nec	6	2	4	—	—	0	—	—	0
Total crude materials, inedible except fuels	509	58	364	1	—	86	—	86	—
Subtotal forest products, wood and chips	232	49	181	1	—	—	—	—	—
4110 rubber & gums	0	0	—	—	—	—	—	—	—
4150 fuel wood	1	—	1	—	—	—	—	—	—
4161 wood chips	2	—	0	1	—	—	—	—	—
4170 wood in the rough	12	0	12	—	—	—	—	—	—
4189 lumber	216	49	168	—	—	—	—	—	—
4190 forest products nec	0	0	0	—	—	—	—	—	—
Subtotal pulp and waste paper	124	—	124	—	—	0	—	0	—
4225 pulp & waste paper	124	—	124	—	—	0	—	0	—
Subtotal soil, sand, gravel, rock and stone	84	0	1	—	—	83	—	83	—
4310 building stone	0	0	0	—	—	—	—	—	—
4323 gypsum	0	—	0	—	—	—	—	—	—
4331 sand & gravel	84	—	0	—	—	83	—	83	—
Subtotal iron ore and scrap	15	—	15	—	—	—	—	—	—
4420 iron & steel scrap	15	—	15	—	—	—	—	—	—
Subtotal marine shells	0	0	—	—	—	—	—	—	—
4515 marine shells	0	0	—	—	—	—	—	—	—
Subtotal non-ferrous ores and scrap	27	0	27	—	—	—	—	—	—
4630 copper ore	0	—	0	—	—	—	—	—	—
4650 aluminum ore	0	—	0	—	—	—	—	—	—
4680 non-ferrous scrap	26	0	26	—	—	—	—	—	—
4690 non-ferrous ores nec	1	—	1	—	—	—	—	—	—
Subtotal sulphur, clay and salt	14	0	12	—	—	3	—	3	—
4782 clay & refrac. mat.	14	0	12	—	—	3	—	3	—
Subtotal slag	0	—	0	—	—	—	—	—	—
4860 slag	0	—	0	—	—	—	—	—	—
Subtotal other non-metal. min. min. nec	13	9	4	—	—	—	—	—	—
4900 non-metal. min. nec	13	9	4	—	—	—	—	—	—
Total primary manufactured goods	617	154	387	—	0	76	—	61	15
Subtotal paper products	382	7	318	—	0	57	—	57	—
5110 newsprint	41	2	39	—	—	—	—	—	—

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports*	Exports*	Imports	Exports	Total	Coastwise Receipts	Internal	
								Inbound Upbound	Outbound Downbnd
5120 paper & paperboard	279	4	275	—	0	—	—	—	—
5190 paper products nec	63	1	5	—	—	57	—	57	—
Subtotal lime, cement and glass	39	27	12	—	0	0	—	—	0
5220 cement & concrete	0	0	0	—	—	—	—	—	—
5240 glass & glass prod.	3	2	2	—	0	—	—	—	—
5290 misc. mineral prod.	36	25	10	—	0	0	—	—	0
Subtotal primary iron and steel products	87	84	3	—	0	—	—	—	—
5312 pig iron	0	0	0	—	—	—	—	—	—
5315 ferro alloys	3	1	2	—	—	—	—	—	—
5320 i&s primary forms	57	57	0	—	—	—	—	—	—
5330 i&s plates & sheets	11	11	0	—	—	—	—	—	—
5360 i&s bars & shapes	3	3	0	—	—	—	—	—	—
5370 i&s pipe & tube	11	11	0	—	0	—	—	—	—
5390 primary i&s nec	1	1	0	—	—	—	—	—	—
Subtotal primary non-ferrous metal products	57	31	8	—	0	19	—	4	15
5421 copper	1	1	0	—	—	—	—	—	—
5422 aluminum	5	0	4	—	—	0	—	—	0
5429 smelted prod. nec	2	1	1	—	—	—	—	—	—
5480 fab. metal products	49	28	2	—	0	19	—	4	15
Subtotal primary wood products	52	5	47	—	—	—	—	—	—
5540 primary wood prod.	52	5	47	—	—	—	—	—	—
Total food and farm products	1,026	41	889	0	0	97	—	96	1
Subtotal fish	5	1	4	0	—	—	—	—	—
6134 fish (not shellfish)	4	0	4	0	—	—	—	—	—
6136 shellfish	1	1	0	—	—	—	—	—	—
Subtotal grain	67	2	60	—	—	6	—	6	—
6241 wheat	43	—	39	—	—	4	—	4	—
6344 corn	22	—	20	—	—	2	—	2	—
6442 rice	2	2	0	—	—	—	—	—	—
6443 barley & rye	1	—	—	—	—	1	—	1	—
6445 oats	0	—	0	—	—	—	—	—	—
Subtotal oilseeds	5	0	5	—	—	—	—	—	—
6522 soybeans	4	0	4	—	—	—	—	—	—
6590 oilseeds nec	1	0	1	—	—	—	—	—	—
Subtotal vegetable products	294	7	253	—	0	34	—	34	—
6653 vegetable oils	2	1	1	—	—	—	—	—	—
6654 vegetables & prod.	292	5	252	—	0	34	—	34	—
Subtotal processed grain and animal feed	518	2	471	—	—	46	—	45	1
6746 wheat flour	0	—	0	—	—	—	—	—	—
6747 grain mill products	37	0	37	—	—	0	—	0	—
6781 hay & fodder	423	—	377	—	—	46	—	45	1
6782 animal feed, prep.	58	2	56	—	—	—	—	—	—
Subtotal other agricultural products	137	30	96	—	—	11	—	11	—
6811 meat, fresh, frozen	12	0	12	—	—	—	—	—	—
6817 meat, prepared	8	—	8	—	—	—	—	—	—
6822 dairy products	12	—	9	—	—	3	—	3	—
6835 fish, prepared	6	3	3	—	—	—	—	—	—
6838 tallow, animal oils	1	—	1	—	—	—	—	—	—
6839 animals & prod. nec	24	0	17	—	—	7	—	7	—
6856 bananas & plantains	0	0	—	—	—	—	—	—	—
6857 fruit & nuts nec	5	0	5	—	—	—	—	—	—

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports*	Exports*	Imports	Exports	Total	Coastwise Receipts	Internal	
								Inbound Upbound	Outbound Downbnd
6858 fruit juices	20	10	10	—	—	—	—	—	—
6861 sugar	0	—	0	—	—	—	—	—	—
6871 coffee	1	1	0	—	—	—	—	—	—
6872 cocoa beans	0	0	—	—	—	—	—	—	—
6885 alcoholic beverages	13	11	2	—	—	—	—	—	—
6888 water & ice	1	1	—	—	—	—	—	—	—
6889 food products nec	16	1	14	—	—	0	—	0	—
6891 tobacco & products	0	—	0	—	—	—	—	—	—
6893 cotton	1	—	1	—	—	—	—	—	—
6899 farm products nec	18	1	16	—	—	1	—	1	—
Total all manufactured equipment, machinery and products	662	334	69	0	0	259	—	189	69
7110 machinery (not elec)	41	24	16	0	0	—	—	—	—
7120 electrical machinery	35	27	8	—	0	—	—	—	—
7210 vehicles & parts	224	200	24	—	—	—	—	—	—
7220 aircraft & parts	1	0	0	—	—	—	—	—	—
7230 ships & boats	0	0	0	—	—	—	—	—	—
7300 ordnance & access.	0	0	0	—	—	—	—	—	—
7400 manufac. wood prod.	6	2	4	—	—	—	—	—	—
7500 textile products	13	10	2	—	0	—	—	—	—
7600 rubber & plastic pr.	18	15	2	—	—	0	—	—	0
7800 empty containers	175	—	—	—	—	175	—	140	35
7900 manufac. prod. nec	150	54	12	—	0	84	—	49	35
Total waste and scrap nec	0	—	—	—	—	0	—	0	—
8900 waste and scrap nec	0	—	—	—	—	0	—	0	—
Total unknown or not elsewhere classified	10	2	8	—	—	—	—	—	—
9900 unknown or nec	10	2	8	—	—	—	—	—	—

*Includes 4 (x1000) tons of foreign inbound in-transits; Includes 50 (x1000) tons of foreign outbound in-transits.

PORT OF VANCOUVER, WA

Section Included: (Statistics for that section of the port below Interstate Bridge are also included in the statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR, and statistics for section above Interstate Bridge are also included in statistics for Columbia River from Vancouver, WA, to the Dalles, OR). Controlling Depth: 35 feet at low water for that section of the port below Railroad Bridge and 14 feet for that section of the port above Interstate Bridge. Project Depth: 40 feet at low water in the lower turning basin and 35 feet at low water in the upper turning basin.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	3,459	1992	6,839	1995	7,535	1998	7,849
1990	7,073	1993	7,380	1996	7,704		
1991	6,485	1994	6,281	1997	7,838		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise Receipts	Receipts	Internal Shipments	Intraport
Total, all commodities	7,849	893	4,464	11	2,482	40	1,469	967	6
Total coal	7	7	—	—	—	—	—	—	—
1100 coal lignite	7	7	—	—	—	—	—	—	—

PORT OF VANCOUVER, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise Receipts	Receipts	Internal Shipments	Intraport
Total petroleum and petroleum products	195	5	—	—	191	40	101	49	1
Subtotal petroleum products	195	5	—	—	191	40	101	49	1
2211 gasoline	61	—	—	—	61	31	3	27	—
2330 distillate fuel oil	31	—	—	—	31	9	3	20	—
2340 residual fuel oil	98	—	—	—	98	—	95	2	1
2350 lube oil & greases	1	—	—	—	1	—	1	—	—
2430 asphalt, tar & pitch	5	5	—	—	—	—	—	—	—
Total chemicals and related products	443	103	297	11	32	—	12	20	—
Subtotal fertilizers	213	91	90	—	32	—	12	20	—
3110 nitrogenous fert.	99	71	8	—	20	—	6	14	—
3130 potassic fert.	67	—	67	—	—	—	—	—	—
3190 fert. & mixes nec	48	20	15	—	13	—	6	6	—
Subtotal other chemicals and related products	230	12	207	11	—	—	—	—	—
3220 alcohols	21	10	—	11	—	—	—	—	—
3230 carboxylic acids	0	0	0	—	—	—	—	—	—
3274 sodium hydroxide	61	—	61	—	—	—	—	—	—
3276 metallic salts	112	2	110	—	—	—	—	—	—
3285 perfumes & cleansers	0	—	0	—	—	—	—	—	—
3286 plastics	0	0	0	—	—	—	—	—	—
3298 wood & resin chem.	35	—	35	—	—	—	—	—	—
Total crude materials, inedible except fuels	1,446	453	270	—	724	—	20	704	0
Subtotal forest products, wood and chips	31	6	25	—	1	—	0	0	0
4161 wood chips	0	—	0	—	—	—	—	—	—
4170 wood in the rough	1	0	1	—	1	—	0	0	0
4189 lumber	29	6	24	—	0	—	0	—	—
Subtotal pulp and waste paper	99	17	63	—	19	—	19	—	—
4225 pulp & waste paper	99	17	63	—	19	—	19	—	—
Subtotal soil, sand, gravel, rock and stone	704	—	—	—	704	—	—	704	—
4331 sand & gravel	704	—	—	—	704	—	—	704	—
Subtotal non-ferrous ores and scrap	450	430	19	—	—	—	—	—	—
4650 aluminum ore	430	430	—	—	—	—	—	—	—
4690 non-ferrous ores nec	19	—	19	—	—	—	—	—	—
Subtotal sulphur, clay and salt	142	—	142	—	—	—	—	—	—
4782 clay & refrac. mat.	142	—	142	—	—	—	—	—	—
Subtotal other non-metal. min.	21	—	21	—	—	—	—	—	—
4900 non-metal. min. nec	21	—	21	—	—	—	—	—	—
Total primary manufactured goods	243	224	17	—	2	—	1	0	—
Subtotal paper products	13	—	13	—	—	—	—	—	—
5110 newsprint	2	—	2	—	—	—	—	—	—
5120 paper & paperboard	10	—	10	—	—	—	—	—	—
Subtotal lime, cement and glass	0	0	0	—	—	—	—	—	—
5240 glass & glass prod.	0	0	0	—	—	—	—	—	—

PORT OF VANCOUVER, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise	Internal		
					Receipts	Receipts	Shipments	Intraport	
5290 misc. mineral prod.	0	0	—	—	—	—	—	—	—
Subtotal	179	179	—	—	0	—	—	0	—
primary iron and steel products									
5315 ferro alloys	11	11	—	—	—	—	—	—	—
5320 i&s primary forms	5	5	—	—	—	—	—	—	—
5330 i&s plates & sheets	77	77	—	—	—	—	—	—	—
5360 i&s bars & shapes	27	27	—	—	0	—	—	0	—
5370 i&s pipe & tube	53	53	—	—	—	—	—	—	—
5390 primary i&s nec	7	7	—	—	—	—	—	—	—
Subtotal	1	0	0	—	1	—	1	—	—
primary non-ferrous metal products									
5422 aluminum	0	—	0	—	—	—	—	—	—
5480 fab. metal products	1	0	—	—	1	—	1	—	—
Subtotal	49	45	4	—	—	—	—	—	—
primary wood products									
5540 primary wood prod.	49	45	4	—	—	—	—	—	—
Total food and farm products	5,183	0	3,879	—	1,304	—	1,296	4	4
Subtotal fish	0	—	—	—	0	—	0	—	—
6134 fish (not shellfish)	0	—	—	—	0	—	0	—	—
Subtotal grain	5,118	—	3,817	—	1,301	—	1,293	4	4
6241 wheat	5,079	—	3,778	—	1,301	—	1,293	4	4
6344 corn	21	—	21	—	—	—	—	—	—
6443 barley & rye	18	—	18	—	—	—	—	—	—
Subtotal	7	—	7	—	—	—	—	—	—
oilseeds									
6522 soybeans	7	—	7	—	—	—	—	—	—
Subtotal	2	—	2	—	—	—	—	—	—
vegetable products									
6654 vegetables & prod.	2	—	2	—	—	—	—	—	—
Subtotal	55	—	52	—	3	—	3	—	—
processed grain and animal feed									
6747 grain mill products	10	—	7	—	3	—	3	—	—
6781 hay & fodder	1	—	1	—	—	—	—	—	—
6782 animal feed, prep.	44	—	44	—	—	—	—	—	—
Subtotal other agricultural products	1	0	1	—	—	—	—	—	—
6839 animals & prod. nec	0	0	—	—	—	—	—	—	—
6857 fruit & nuts nec	1	—	1	—	—	—	—	—	—
6889 food products nec	0	—	0	—	—	—	—	—	—
6899 farm products nec	0	—	0	—	—	—	—	—	—
Total all manufactured equipment, machinery and products	133	101	1	—	31	—	30	0	—
7110 machinery (not elec)	1	1	0	—	—	—	—	—	—
7120 electrical machinery	0	0	0	—	—	—	—	—	—
7210 vehicles & parts	100	99	1	—	—	—	—	—	—
7220 aircraft & parts	0	—	0	—	—	—	—	—	—
7230 ships & boats	0	0	—	—	—	—	—	—	—
7300 ordnance & access.	0	0	—	—	—	—	—	—	—
7400 manufac. wood prod.	1	1	0	—	—	—	—	—	—
7500 textile products	0	0	0	—	—	—	—	—	—
7600 rubber & plastic pr.	0	0	0	—	—	—	—	—	—
7800 empty containers	31	—	—	—	31	—	30	0	—
7900 manufac. prod. nec	0	0	0	—	—	—	—	—	—

PORT OF VANCOUVER, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Imports	Total	Coastwise Receipts	Receipts	Internal Shipments	Intraport
Total waste and scrap nec	199	---	---	---	199	---	8	190	0
8900 waste and scrap nec	199	---	---	---	199	---	8	190	0
Total unknown or not elsewhere classified	1	0	1	---	---	---	---	---	---
9900 unknown or nec	1	0	1	---	---	---	---	---	---

*Includes 24 (x1000) tons of foreign inbound in-transits; Includes 73 (x1000) tons of foreign outbound in-transits.

COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR

Section Included: Columbia River between Vancouver, WA, and the Dalles, OR, a distance of about 85 miles. Controlling Depth: 15 feet between Vancouver and the Dalles. Project Depth: 27 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	9,246	1992	10,671	1995	11,626	1998	9,910
1990	9,735	1993	10,843	1996	10,733		
1991	10,210	1994	11,277	1997	10,923		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Coastwise	
		Receipts	Through Downbnd
Total, all commodities	98	80	19
Total chemicals and related products	19	---	19
Subtotal fertilizers	19	---	19
3110 nitrogenous fert.	19	---	19
Total crude materials, inedible except fuels	79	79	---
Subtotal forest products, wood and chips	79	79	---
4161 wood chips	79	79	---
Total all manufactured equipment, machinery and products	0	0	---
7110 machinery (not elec)	0	0	---
Ton-miles (x1000) Coastwise	2,620	1,032	1,588

Commodity	Total	Internal							
		Inbound		Outbound		Through		Intra	
		Upbound	Downbnd	Downbnd	Upbound	Downbnd	Upbound	Downbnd	
Total, all commodities	9,812	94	392	447	2,235	6,501	11	131	
Total petroleum an petroleum products	1,879	---	---	---	1,879	---	---	---	
Subtotal petroleum products	1,879	---	---	---	1,879	---	---	---	
2211 gasoline	1,045	---	---	---	1,045	---	---	---	
2330 distillate fuel oil	834	---	---	---	834	---	---	---	
Total chemicals and related products	85	---	---	---	81	4	---	---	
Subtotal fertilizers	33	---	---	---	28	4	---	---	
3110 nitrogenous fert.	16	---	---	---	14	3	---	---	
3190 fert. & mixes nec	16	---	---	---	14	2	---	---	
Subtotal other chemicals and related products	53	---	---	---	53	0	---	---	
3273 ammonia	20	---	---	---	20	---	---	---	
3274 sodium hydroxide	33	---	---	---	33	---	---	---	
3286 plastics	0	---	---	---	---	0	---	---	
3299 chem. products nec	0	---	---	---	0	---	---	---	
Total crude materials, inedible except fuels	1,407	90	392	237	---	547	11	130	
Subtotal forest products, wood and chips	1,189	37	270	231	---	509	11	130	
4150 fuel wood	3	3	---	---	---	---	---	---	

COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Internal							
		Inbound		Outbound	Through		Intra		
		Upbound	Downbnd	Downbnd	Upbound	Downbnd	Upbound	Downbnd	
4161 wood chips	999	34	258	111	—	504	9	84	
4170 wood in the rough	186	—	13	120	—	6	2	46	
4189 lumber	0	—	—	0	—	—	—	—	
Subtotal pulp and waste paper	26	7	—	—	—	20	—	—	
4225 pulp & waste paper	26	7	—	—	—	20	—	—	
Subtotal soil, sand, gravel, rock and stone	190	46	122	6	—	16	—	—	
4331 sand & gravel	190	46	122	6	—	16	—	—	
Subtotal sulphur, clay and salt	3	—	—	—	—	3	—	—	
4782 clay & refrac. mat.	3	—	—	—	—	3	—	—	
Total primary manufactured goods	157	4	—	75	15	61	—	1	
Subtotal paper products	136	3	—	75	—	57	—	—	
5120 paper & paperboard	78	3	—	75	—	—	—	—	
5190 paper products nec	57	—	—	—	—	57	—	—	
Subtotal lime, cement and glass	0	—	—	—	0	—	—	—	
5290 misc. mineral prod.	0	—	—	—	0	—	—	—	
Subtotal primary iron and steel products	1	1	—	0	—	—	—	—	
5360 i&s bars & shapes	0	—	—	0	—	—	—	—	
5370 i&s pipe & tube	1	1	—	—	—	—	—	—	
Subtotal primary non-ferrous metal products	20	0	—	—	15	4	—	1	
5422 aluminum	0	—	—	—	0	—	—	—	
5480 fab. metal products	20	0	—	—	15	4	—	1	
Total food and farm products	5,786	0	—	129	1	5,657	—	—	
Subtotal fish	0	0	—	—	—	—	—	—	
6134 fish (not shellfish)	0	0	—	—	—	—	—	—	
6136 shellfish	0	0	—	—	—	—	—	—	
Subtotal grain	5,692	—	—	129	—	5,564	—	—	
6241 wheat	5,465	—	—	126	—	5,340	—	—	
6344 corn	2	—	—	—	—	2	—	—	
6443 barley & rye	225	—	—	3	—	222	—	—	
Subtotal vegetable products	34	—	—	—	—	34	—	—	
6654 vegetables & prod.	34	—	—	—	—	34	—	—	
Subtotal processed grain and animal feed	49	—	—	—	1	48	—	—	
6747 grain mill products	3	—	—	—	—	3	—	—	
6781 hay & fodder	46	—	—	—	1	45	—	—	
Subtotal other agricultural products	11	—	—	—	—	11	—	—	
6822 dairy products	3	—	—	—	—	3	—	—	
6839 animals & prod. nec	7	—	—	—	—	7	—	—	
6889 food products nec	0	—	—	—	—	0	—	—	
6899 farm products nec	1	—	—	—	—	1	—	—	
Total all manufactured equipment, machinery and products	299	0	0	5	70	224	—	—	
7110 machinery (not elec)	0	—	—	0	—	—	—	—	
7600 rubber & plastic pr.	0	—	—	—	0	—	—	—	
7800 empty containers	215	0	0	5	35	175	—	—	
7900 manufac. prod. nec	84	—	—	—	35	49	—	—	
Total waste and scrap nec	198	—	—	1	190	8	—	—	
8900 waste and scrap nec	198	—	—	1	190	8	—	—	
Ton-miles (x1000) Internal	806,873	1,183	27,869	29,712	190,012	552,565	22	5,511	
Tons All Traffic (x1000)		9,910							
Ton-miles All Traffic (x1000)		809,496							

COLUMBIA RIVER ABOVE THE DALLES DAM, WA AND OR TO McNARY LOCK AND DAM, OR AND WA

Section Included: Columbia River between the Dalles Dam and McNary Lock and Dam, a distance of about 91 miles. Controlling Depth: within the Dalles and John Day Pools, 14 feet. Project Depth: 14 feet at adopted low water.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	7,071	1992	7,580	1995	9,802	1998	9,166
1990	7,392	1993	8,469	1996	9,061		
1991	7,665	1994	9,246	1997	9,754		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Domestic						
		Coastwise Through Downbnd	Internal					
			Inbound		Outbound		Through	
		Upbound	Downbnd	Downbnd	Upbound	Downbnd	Upbound	
Total, all commodities	9,166	19	584	17	1,493	1,652	5,400	1
Total petroleum and petroleum products	1,879	---	326	---	---	1,552	---	---
Subtotal petroleum products	1,879	---	326	---	---	1,552	---	---
2211 gasoline	1,045	---	4	---	---	1,041	---	---
2330 distillate fuel oil	834	---	322	---	---	511	---	---
Total chemicals and related products	121	19	13	17	2	67	3	---
Subtotal fertilizers	68	19	13	17	2	15	3	---
3110 nitrogenous fert.	37	19	2	2	---	12	3	---
3190 fert. & mixes nec	30	---	12	14	2	3	---	---
Subtotal other chemicals and related products	53	---	---	---	---	53	0	---
3273 ammonia	20	---	---	---	---	20	---	---
3274 sodium hydroxide	33	---	---	---	---	33	---	---
3286 plastics	0	---	---	---	---	---	0	---
3299 chem. products nec	0	---	---	---	---	0	---	---
Total crude materials, inedible except fuels	940	---	---	---	389	---	551	---
Subtotal forest products, wood and chips	780	---	---	---	251	---	528	---
4161 wood chips	761	---	---	---	251	---	510	---
4170 wood in the rough	18	---	---	---	---	---	18	---
Subtotal pulp and waste paper	20	---	---	---	---	---	20	---
4225 pulp & waste paper	20	---	---	---	---	---	20	---
Subtotal soil, sand, gravel, rock and stone	138	---	---	---	138	---	0	---
4331 sand & gravel	138	---	---	---	138	---	0	---
Subtotal sulphur, clay and salt	3	---	---	---	---	---	3	---
4782 clay & refrac. mat.	3	---	---	---	---	---	3	---
Total primary manufactured goods	76	---	10	---	0	5	61	---
Subtotal paper products	57	---	---	---	---	---	57	---
5190 paper products nec	57	---	---	---	---	---	57	---
Subtotal lime, cement and glass	0	---	---	---	---	0	---	---
5290 misc. mineral prod.	0	---	0	---	---	0	---	---
Subtotal primary iron and steel products	0	---	0	---	---	0	---	---
5360 i&s bars & shapes	0	---	0	---	---	0	---	---
Subtotal primary non-ferrous metal products	19	---	10	---	0	5	4	---
5422 aluminum	0	---	---	---	---	0	---	---
5480 fab. metal products	19	---	10	---	0	5	4	---
Total food and farm products	5,659	---	---	---	922	1	4,734	1
Subtotal grain	5,564	---	---	---	919	---	4,644	---
6241 wheat	5,340	---	---	---	888	---	4,451	---
6344 corn	2	---	---	---	---	---	2	---
6443 barley & rye	222	---	---	---	31	---	191	---
Subtotal vegetable products	34	---	---	---	---	---	34	---
6654 vegetables & prod.	34	---	---	---	---	---	34	---
Subtotal processed grain and animal feed	50	---	---	---	3	1	45	1
6747 grain mill products	5	---	---	---	3	---	0	1
6781 hay & fodder	46	---	---	---	---	1	45	---
Subtotal other agricultural products	11	---	---	---	---	---	11	---
6822 dairy products	3	---	---	---	---	---	3	---
6839 animals & prod. nec	7	---	---	---	---	---	7	---
6889 food products nec	0	---	---	---	---	---	0	---
6899 farm products nec	1	---	---	---	---	---	1	---

COLUMBIA RIVER ABOVE THE DALLES DAM, WA AND OR TO MCNARY LOCK AND DAM, OR AND WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Domestic						
		Coastwise	Internal				Intra	
		Through	Inbound		Outbound			
		Downbnd	Upbound	Downbnd	Downbnd	Upbound	Downbnd	Upbound
Total all manufactured equipment, machinery and products	294	---	45	---	173	26	51	---
7600 rubber & plastic pr.	0	---	---	---	---	0	---	---
7800 empty containers	210	---	16	---	173	19	2	---
7900 manufac. prod. nec	84	---	28	---	0	6	49	---
Total waste and scrap nec	197	---	190	---	7	---	0	---
8900 waste and scrap nec	197	---	190	---	7	---	0	---
Ton-miles (x1000)	842,824	1,831	53,165	0	96,775	161,860	529,191	1

Tons All Traffic (x1000) **9,166**
Ton-miles All Traffic (x1000) **842,824**

PORT OF PORTLAND, OR

Section Included: (Statistics for that section of Portland Harbor below Ross Island Bridge are also included in statistics for Columbia and Lower Willamette Rivers below Vancouver, WA, and Portland, OR, and statistics for section above Ross Island Bridge are also included in statistics for Willamette River above Portland and Yamhill River, OR). Controlling depth: 28 feet from mouth to Broadway Bridge; 20 feet at low water above Ross Island Bridge to Lake Oswego; 9 feet to Oregon City. Project Depth: 40 feet at low water below Broadway Bridge; 30 feet from Broadway Bridge to foot of Ross Island, maintained by port of Portland; 8 feet at low water above foot of Ross Island. Statistics for section of Oregon Slough (North Portland Harbor), OR, are also included. Controlling Depth: 10 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	30,030	1992	28,227	1995	31,256	1998	29,974
1990	27,475	1993	29,804	1996	29,734		
1991	29,299	1994	30,164	1997	29,561		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Total, all commodities	17,746	3,495	13,464	740	48
Total coal	0	---	0	---	---
1100 coal lignite	0	---	0	---	---
1200 coal coke	0	---	0	---	---
Total petroleum and petroleum products	719	504	25	179	11
Subtotal crude petroleum	393	393	---	---	---
2100 crude petroleum	393	393	---	---	---
Subtotal petroleum products	326	111	25	179	11
2211 gasoline	125	59	---	65	---
2330 distillate fuel oil	115	---	1	114	---
2340 residual fuel oil	0	---	0	---	---
2350 lube oil & greases	2	0	2	---	---
2410 petro. jelly & waxes	0	---	0	---	---
2429 naphtha & solvents	15	---	4	---	11
2430 asphalt, tar & pitch	51	51	0	---	---
2540 petroleum coke	18	---	18	---	---
2640 liquid natural gas	0	---	0	---	---
Total chemicals and related products	3,955	170	3,742	9	34
Subtotal fertilizers	1,777	73	1,705	---	---
3110 nitrogenous fert.	78	73	5	---	---
3130 potassic fert.	1,699	---	1,699	---	---
3190 fert. & mixes nec	1	---	1	---	---
Subtotal other chemicals and related products	2,178	97	2,037	9	34
3211 acyclic hydrocarbons	0	---	0	---	---
3212 benzene & toluene	0	0	---	---	---
3219 other hydrocarbons	1	0	1	---	0
3220 alcohols	64	62	3	---	---
3230 carboxylic acids	5	0	5	---	---
3240 nitrogen func. comp.	2	0	2	---	---
3250 organo - inorg. comp.	1	0	1	---	0
3260 organic comp. nec	3	0	3	---	---
3272 sulphuric acid	1	1	0	---	---
3273 ammonia	1	1	---	---	---
3274 sodium hydroxide	24	0	---	---	24
3275 inorg. elem. oxides, & halogen salts	23	15	8	---	---
3276 metallic salts	1,993	4	1,979	---	10
3279 inorganic chem. nec	2	2	0	---	---
3281 radioactive material	0	0	0	---	---
3282 pigments & paints	1	0	1	---	---
3283 coloring mat. nec	0	0	0	---	0
3284 medicines	0	0	0	---	---
3285 perfumes & cleansers	4	2	2	---	0
3286 plastics	24	7	18	---	0

PORT OF PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
3291 pesticides	0	0	0	—	—
3292 starches, gluten, glue	2	0	1	—	—
3293 explosives	1	1	—	—	—
3297 chemical additives	1	0	1	—	—
3298 wood & resin chem.	18	0	9	9	—
3299 chem. products nec	6	2	4	—	—
Total crude materials, inedible except fuels	2,054	893	609	552	—
Subtotal forest products, wood and chips	432	106	323	3	—
4110 rubber & gums	0	0	—	—	—
4150 fuel wood	1	—	1	—	—
4161 wood chips	3	—	0	3	—
4170 wood in the rough	134	23	111	—	—
4189 lumber	293	83	211	—	—
4190 forest products nec	0	0	0	—	—
Subtotal pulp and waste paper	149	11	138	—	—
4225 pulp & waste paper	149	11	138	—	—
Subtotal soil, sand, gravel, rock and stone	550	0	1	549	—
4310 building stone	0	0	0	—	—
4322 limestone	549	—	—	549	—
4323 gypsum	0	—	0	—	—
4331 sand & gravel	1	0	1	—	—
Subtotal iron ore and scrap	51	—	51	—	—
4420 iron & steel scrap	51	—	51	—	—
Subtotal marine shells	0	0	—	—	—
4515 marine shells	0	0	—	—	—
Subtotal non-ferrous ores and scrap	554	505	49	—	—
4630 copper ore	6	—	6	—	—
4650 aluminum ore	500	500	1	—	—
4680 non-ferrous scrap	32	0	32	—	—
4690 non-ferrous ores nec	16	6	10	—	—
Subtotal sulphur, clay and salt	41	0	41	—	—
4782 clay & refrac. mat.	41	0	41	—	—
Subtotal slag	0	—	0	—	—
4860 slag	0	—	0	—	—
Subtotal other non-metal. min.	275	270	5	—	—
4900 non-metal. min. nec	275	270	5	—	—
Total primary manufactured goods	1,760	1,336	423	—	0
Subtotal paper products	347	8	339	—	0
5110 newsprint	48	2	46	—	—
5120 paper & paperboard	293	5	288	—	0
5190 paper products nec	6	1	5	—	—
Subtotal lime, cement and glass	522	508	13	—	0
5220 cement & concrete	477	477	0	—	—
5240 glass & glass prod.	4	2	2	—	0
5290 misc. mineral prod.	41	30	11	—	0
Subtotal primary iron and steel products	786	780	6	—	0
5312 pig iron	113	113	0	—	—
5315 ferro alloys	35	32	3	—	—
5320 i&s primary forms	190	190	0	—	—
5330 i&s plates & sheets	174	174	0	—	—
5360 i&s bars & shapes	62	62	0	—	—
5370 i&s pipe & tube	39	36	3	—	0
5390 primary i&s nec	173	173	0	—	—
Subtotal primary non-ferrous metal products	46	33	13	—	0
5421 copper	2	1	1	—	—
5422 aluminum	7	0	7	—	—
5429 smelted prod. nec	3	1	1	—	—
5480 fab. metal products	34	30	4	—	0
Subtotal primary wood products	59	7	53	—	—
5540 primary wood prod.	59	7	53	—	—
Total food and farm products	8,614	52	8,562	0	0
Subtotal fish	5	1	4	0	—
6134 fish (not shellfish)	4	0	4	0	—
6136 shellfish	1	1	0	—	—
Subtotal grain	7,461	2	7,459	—	—
6241 wheat	6,992	—	6,992	—	—
6344 corn	70	—	70	—	—
6442 rice	14	2	12	—	—
6443 barley & rye	384	—	384	—	—
6445 oats	0	—	0	—	—
6447 sorghum grains	0	—	0	—	—
Subtotal oilseeds	26	0	26	—	—
6521 peanuts	1	—	1	—	—
6522 soybeans	11	0	11	—	—
6590 oilseeds nec	14	0	14	—	—
Subtotal vegetable products	284	8	277	—	0
6653 vegetable oils	2	1	1	—	—
6654 vegetables & prod.	282	6	276	—	0
Subtotal oilseeds	26	0	26	—	—
Subtotal processed grain and animal feed	687	3	684	—	—
6746 wheat flour	1	—	1	—	—
6747 grain mill products	42	0	42	—	—
6781 hay & fodder	407	—	407	—	—
6782 animal feed, prep.	237	2	235	—	—
Subtotal other agricultural products	152	38	113	—	—
6811 meat, fresh, frozen	13	0	13	—	—
6817 meat, prepared	12	—	12	—	—
6822 dairy products	9	—	9	—	—
6835 fish, prepared	6	3	3	—	—
6838 tallow, animal oils	1	—	1	—	—

PORT OF PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
6839 animals & prod. nec	18	0	18	—	—
6856 bananas & plantains	0	0	—	—	—
6857 fruit & nuts nec	6	0	6	—	—
6858 fruit juices	24	12	12	—	—
6861 sugar	0	—	0	—	—
6871 coffee	1	1	0	—	—
6872 cocoa beans	0	0	—	—	—
6885 alcoholic beverages	22	17	5	—	—
6888 water & ice	1	1	—	—	—
6889 food products nec	18	2	16	—	—
6891 tobacco & products	0	—	0	—	—
6893 cotton	1	—	1	—	—
6899 farm products nec	19	2	17	—	—
Total all manufactured equipment, machinery and products	632	537	93	0	2
7110 machinery (not elec)	47	25	19	0	2
7120 electrical machinery	43	29	15	—	0
7210 vehicles & parts	422	395	27	—	—
7220 aircraft & parts	1	0	0	—	—
7230 ships & boats	0	0	0	—	—
7300 ordnance & access.	0	0	0	—	—
7400 manufac. wood prod.	7	3	4	—	—
7500 textile products	15	12	4	—	0
7600 rubber & plastic pr.	21	16	5	—	—
7900 manufac. prod. nec	76	58	18	0	0
Total unknown or not elsewhere classified	12	3	9	—	0
9900 unknown or nec	12	3	9	—	0

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	12,227	3,049	214	5,415	2,347	1,201
Total petroleum and petroleum products	5,561	2,852	104	14	2,216	374
Subtotal crude petroleum	34	33	2	—	—	—
2100 crude petroleum	34	33	2	—	—	—
Subtotal petroleum products	5,526	2,820	102	14	2,216	374
2211 gasoline	2,883	1,798	29	5	1,026	25
2330 distillate fuel oil	1,339	480	28	—	820	10
2340 residual fuel oil	940	195	32	10	369	334
2350 lube oil & greases	63	58	—	0	1	4
2429 naphtha & solvents	13	—	13	—	—	—
2430 asphalt, tar & pitch	289	289	—	—	—	—
2990 petro. products nec	1	—	0	—	—	1
Total chemicals and related products	301	193	71	3	34	—
Subtotal fertilizers	149	140	—	3	7	—
3110 nitrogenous fert.	142	140	—	3	—	—
3190 fert. & mixes nec	7	—	—	—	7	—
Subtotal other chemicals and related products	152	53	71	0	27	—
3220 alcohols	50	27	23	—	—	—
3272 sulphuric acid	0	—	0	—	—	—
3273 ammonia	56	26	10	—	20	—
3274 sodium hydroxide	44	—	37	—	7	—
3286 plastics	1	—	1	0	—	—
3299 chem. products nec	0	—	—	—	0	—
Total crude materials, inedible except fuels	2,281	4	17	1,428	11	822
Subtotal forest products, wood and chips	18	—	17	0	0	—
4170 wood in the rough	3	—	2	0	0	—
4189 lumber	15	—	15	0	—	—
Subtotal pulp and waste paper	10	—	—	0	10	—
4225 pulp & waste paper	10	—	—	0	10	—
Subtotal soil, sand, gravel, rock and stone	2,251	4	—	1,425	—	822
4331 sand & gravel	2,251	4	—	1,425	—	822
Subtotal sulphur, clay and salt	3	—	—	3	—	—
4782 clay & refrac. mat.	3	—	—	3	—	—
Total primary manufactured goods	242	—	21	203	16	3
Subtotal paper products	204	—	3	199	0	3
5120 paper & paperboard	144	—	—	141	0	3
5190 paper products nec	60	—	3	57	—	—
Subtotal lime, cement and glass	6	—	5	—	0	—
5220 cement & concrete	5	—	5	—	—	—
5240 glass & glass prod.	0	—	0	—	—	—
5290 misc. mineral prod.	0	—	—	—	0	—
Subtotal primary iron and steel products	9	—	8	0	1	—
5360 i&s bars & shapes	7	—	6	0	—	—
5370 i&s pipe & tube	2	—	2	—	1	—
Subtotal primary non-ferrous metal products	19	—	0	4	15	—
5422 aluminum	0	—	—	—	0	—
5480 fab. metal products	19	—	0	4	15	—
Subtotal primary wood products	5	—	5	—	—	—
5540 primary wood prod.	5	—	5	—	—	—

PORT OF PORTLAND, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total food and farm products	3,582	—	0	3,578	1	3
Subtotal grain	3,491	—	—	3,488	—	3
6241 wheat	3,275	—	—	3,273	—	3
6344 corn	2	—	—	2	—	—
6443 barley & rye	214	—	—	214	—	—
Subtotal vegetable products	34	—	—	34	—	—
6654 vegetables & prod.	34	—	—	34	—	—
Subtotal processed grain and animal feed	46	—	—	45	1	—
6747 grain mill products	0	—	—	0	—	—
6781 hay & fodder	46	—	—	45	1	—
Subtotal other agricultural products	11	—	0	11	—	—
6822 dairy products	3	—	—	3	—	—
6839 animals & prod. nec	7	—	—	7	—	—
6858 fruit juices	0	—	0	—	—	—
6889 food products nec	0	—	—	0	—	—
6899 farm products nec	1	—	—	1	—	—
Total all manufactured equipment, machinery and products	259	0	0	189	70	—
7210 vehicles & parts	0	—	0	—	—	—
7230 ships & boats	0	—	0	—	—	—
7600 rubber & plastic pr.	0	—	—	—	0	—
7800 empty containers	176	—	—	140	35	—
7900 manufac. prod. nec	84	0	0	49	35	—
Total waste and scrap nec	1	—	—	1	—	—
8900 waste and scrap nec	1	—	—	1	—	—

*Includes 17 (x1000) tons of foreign inbound in-transits; Includes 808 (x1000) tons of foreign outbound in-transits.

WILLAMETTE RIVER ABOVE PORTLAND AND YAMHILL RIVER, OR

Section Included: Willamette River from Portland to Harrisburg, OR, a distance of 159 miles, and Yamhill River from mouth to mile 4.0. Controlling Depth: 8 feet from Portland to Oregon City; 3 feet to Corvallis; 4 feet on Yamhill River from mouth to mile 4.0. Project Depth: Willamette River, 8 feet from Portland to Oregon City; 6 feet from Oregon City to mouth of Santiam River; 5 feet from mouth of Santiam River to Albany; 2.5 feet to 3.5 feet from Albany to Corvallis; no depths prescribed from Corvallis to Harrisburg; Yamhill River, 4 feet from mouth to mile 4.0.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,981	1992	1,448	1995	1,486	1998	1,055
1990	2,224	1993	1,375	1996	1,360		
1991	1,575	1994	1,481	1997	1,353		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Internal		
		Outbound	Intra	
		Downbnd	Upbound	Downbnd
Total, all commodities	1,055	847	112	96
Total crude materials, inedible except fuels	1,055	847	112	96
Subtotal forest products, wood and chips	24	24	—	—
4150 fuel wood	3	3	—	—
4161 wood chips	21	21	—	—
4170 wood in the rough	0	0	—	—
Subtotal soil, sand, gravel, rock and stone	1,030	822	112	96
4331 sand & gravel	1,030	822	112	96
Ton-miles (x1000)	2,261	146	733	1,382
Tons All Traffic (x1000)	1,055			
Ton-miles All Traffic (x1000)	2,261			

COOS BAY, OR

Section Included: From sea to Millington, a distance of 17 miles. (Same section and statistics apply to Port of Coos Bay). Controlling Depth: 39 feet in entrance channel: 30 feet in inner channel to mile 15; 20 feet in Isthmus Slough to Millington. Project Depth: 45/35 feet on bar and 35 feet from entrance to mile 15; turning basins of same depth opposite Coalbank Slough and at the city of North Bend: Anchorage basins 27 feet at mile 3.5 and near mile 7; a channel 22 feet deep from Smith's Mill (mile 15) to Millington; mooring basin for small boats at Charleston, with a connecting channel 16 feet deep to deep water in Coos Bay.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	6,986	1992	4,458	1995	3,628	1998	2,773
1990	6,069	1993	5,413	1996	3,322		
1991	5,523	1994	3,744	1997	3,164		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Intraport
Total, all commodities	2,773	16	2,250	508	397	85	7	18
Total petroleum and petroleum products	82	---	13	69	57	---	---	11
Subtotal crude petroleum	4	---	---	4	4	---	---	---
2100 crude petroleum	4	---	---	4	4	---	---	---
Subtotal petroleum products	78	---	13	65	54	---	---	11
2330 distillate fuel oil	39	---	---	39	39	---	---	---
2340 residual fuel oil	26	---	---	26	14	---	---	11
2540 petroleum coke	13	---	13	---	---	---	---	---
Total chemicals and related products	0	---	0	---	---	---	---	---
Subtotal other chemicals and related products	0	---	0	---	---	---	---	---
3284 medicines	0	---	0	---	---	---	---	---
3286 plastics	0	---	0	---	---	---	---	---
Total crude materials, inedible except fuels	2,639	15	2,197	427	340	80	---	7
Subtotal forest products, wood and chips	2,628	11	2,190	427	340	80	---	7
4161 wood chips	1,953	---	1,953	---	---	---	---	---
4170 wood in the rough	543	---	185	358	340	11	---	7
4189 lumber	132	11	52	69	---	69	---	---
Subtotal pulp and waste paper	7	---	7	---	---	---	---	---
4225 pulp & waste paper	7	---	7	---	---	---	---	---
Subtotal non-ferrous ores and scrap	4	3	0	---	---	---	---	---
4680 non-ferrous scrap	0	---	0	---	---	---	---	---
4690 non-ferrous ores nec	3	3	---	---	---	---	---	---
Total primary manufactured goods	30	0	25	5	---	5	---	---
Subtotal paper products	22	0	22	0	---	0	---	---
5120 paper & paperboard	22	---	22	---	---	---	---	---
5190 paper products nec	0	0	---	0	---	0	---	---
Subtotal lime, cement and glass	1	---	0	1	---	1	---	---
5290 misc. mineral prod.	1	---	0	1	---	1	---	---
Subtotal primary iron and steel products	1	---	---	1	---	1	---	---
5360 i&s bars & shapes	1	---	---	1	---	1	---	---
Subtotal primary non-ferrous metal products	0	---	0	---	---	---	---	---
5480 fab. metal products	0	---	0	---	---	---	---	---
Subtotal primary wood products	6	0	2	4	---	4	---	---
5540 primary wood prod.	6	0	2	4	---	4	---	---
Total food and farm products	7	---	0	7	---	---	7	---
Subtotal fish	7	---	---	7	---	---	7	---
6134 fish (not shellfish)	6	---	---	6	---	---	6	---
6136 shellfish	1	---	---	1	---	---	1	---
Subtotal processed grain and animal feed	0	---	0	---	---	---	---	---
6782 animal feed, prep.	0	---	0	---	---	---	---	---
Subtotal other agricultural products	0	---	0	---	---	---	---	---
6811 meat, fresh, frozen	0	---	0	---	---	---	---	---
Total all manufactured equipment, machinery and products	4	0	4	0	0	0	---	---
7110 machinery (not elec)	0	0	0	0	0	---	---	---
7210 vehicles & parts	0	---	---	0	---	0	---	---
7400 manufac. wood prod.	4	---	4	0	---	---	---	---
7500 textile products	0	---	0	---	---	---	---	---

COOS BAY, OR
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Domestic				
		Imports	Exports*	Total	Coastwise		Internal	
					Receipts	Shipments	Receipts	Intraport
7600 rubber & plastic pr.	0	—	0	—	—	—	—	—
7900 manufac. prod. nec	0	—	0	—	—	—	—	—
Total unknown or not elsewhere classified	11	1	10	—	—	—	—	—
9900 unknown or nec	11	1	10	—	—	—	—	—

*Includes 3 (x1000) tons of foreign outbound in-transits.

UMPQUA RIVER, OR

Section Included: Entrance to Reedsport, a distance of about 12 miles. (Same section and statistics apply to port of Umpqua.) Controlling Depth: 23 feet on the bar, 23 feet from entrance to mile 3, 19 feet mile 3 to 8, 18 feet mile 8 to 12 and 22 feet in turning basin. Project Depth: entrance 26 feet and 22 feet from mouth to Reedsport with a turning basin at Reedsport; a side channel and mooring and turning basin 12 feet deep at Winchester Bay; a channel 22 feet deep with turning basin at Gardiner.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	319	1992	422	1995	212	1998	327
1990	225	1993	207	1996	189		
1991	191	1994	232	1997	214		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Internal	
		Intra	
		Upbound	Downbnd
Total, all commodities	327	29	298
Total crude materials, inedible except fuels	327	29	298
Subtotal soil, sand, gravel, rock and stone	327	29	298
4331 sand & gravel	327	29	298
Ton-miles (x1000)	3,597	324	3,273
Tons All Traffic (x1000)	327		
Ton-miles All Traffic (x1000)	3,597		

COLUMBIA RIVER SYSTEM

Section Included: Main channels and all navigable tributaries of the Columbia, Willamette and Snake Rivers.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	0	1992	53,427	1995	60,092	1998	50,435
1990	53,229	1993	53,558	1996	54,023		
1991	52,376	1994	52,607	1997	54,257		

*Not compiled prior to 1990.

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Total, all commodities	31,856	5,500	25,444	784	127
Total coal	10	7	3	—	—
1100 coal lignite	10	7	3	—	—
1200 coal coke	0	—	0	—	—
Total petroleum and petroleum products	1,341	585	505	184	67
Subtotal crude petroleum	393	393	—	—	—
2100 crude petroleum	393	393	—	—	—
Subtotal petroleum products	948	192	505	184	67
2211 gasoline	125	59	—	65	—
2330 distillate fuel oil	120	—	1	119	—
2340 residual fuel oil	0	—	0	—	—
2350 lube oil & greases	2	0	2	—	—
2410 petro. jelly & waxes	0	—	0	—	—
2429 naphtha & solvents	15	—	4	—	11
2430 asphalt, tar & pitch	133	133	0	—	—
2540 petroleum coke	554	—	497	—	56
2640 liquid natural gas	0	—	0	—	—

COLUMBIA RIVER SYSTEM
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Total chemicals and related products	4,981	368	4,536	20	57
Subtotal fertilizers	2,220	235	1,985	—	—
3110 nitrogenous fert.	242	215	26	—	—
3130 potassic fert.	1,942	—	1,942	—	—
3190 fert. & mixes nec	36	20	16	—	—
Subtotal other chemicals and related products	2,761	133	2,551	20	57
3211 acyclic hydrocarbons	0	—	0	—	—
3212 benzene & toluene	15	15	—	—	—
3219 other hydrocarbons	1	0	1	—	0
3220 alcohols	92	79	3	11	—
3230 carboxylic acids	5	0	5	—	—
3240 nitrogen func. comp.	2	0	2	—	—
3250 organo - inorg. comp.	1	0	1	—	0
3260 organic comp. nec	3	0	3	—	—
3272 sulphuric acid	1	1	0	—	—
3273 ammonia	1	1	—	—	—
3274 sodium hydroxide	136	0	89	—	47
3275 inorg. elem., oxides, & halogen salts	23	15	8	—	—
3276 metallic salts	2,386	7	2,368	—	10
3279 inorganic chem. nec	2	2	0	—	—
3281 radioactive material	0	0	0	—	—
3282 pigments & paints	2	0	1	—	—
3283 coloring mat. nec	0	0	0	—	0
3284 medicines	0	0	0	—	—
3285 perfumes & cleansers	4	2	2	—	0
3286 plastics	25	7	18	—	0
3291 pesticides	0	0	0	—	—
3292 starches, gluten, glue	2	0	1	—	—
3293 explosives	1	1	0	—	—
3297 chemical additives	1	0	1	—	—
3298 wood & resin chem.	53	0	44	9	—
3299 chem. products nec	6	2	4	—	—
Subtotal marine shells	0	0	—	—	—
Total crude materials, inedible except fuels	5,136	1,992	2,567	577	0
Subtotal forest products, wood and chips	2,130	122	1,980	28	0
4110 rubber & gums	0	0	—	—	—
4150 fuel wood	3	—	2	1	—
4161 wood chips	22	—	1	21	—
4170 wood in the rough	1,760	24	1,730	5	—
4189 lumber	344	97	247	—	0
4190 forest products nec	0	0	0	—	—
Subtotal pulp and waste paper	241	31	210	—	—
4225 pulp & waste paper	241	31	210	—	—
Subtotal soil, sand, gravel, rock and stone	550	0	1	549	—
4310 building stone	0	0	0	—	—
4322 limestone	549	—	—	549	—
4323 gypsum	0	—	0	—	—
4331 sand & gravel	1	0	1	—	—
Subtotal iron ore and scrap	51	—	51	—	—
4420 iron & steel scrap	51	—	51	—	—
Subtotal marine shells	0	0	—	—	—
4515 marine shells	0	0	—	—	—
Subtotal non-ferrous ores and scrap	1,473	1,396	77	—	—
4630 copper ore	6	—	6	—	—
4650 aluminum ore	1,390	1,390	1	—	—
4680 non-ferrous scrap	33	0	32	—	—
4690 non-ferrous ores nec	44	6	38	—	—
Subtotal sulphur, clay and salt	235	13	222	—	—
4782 clay & refrac. mat.	235	13	222	—	—
Subtotal slag	0	—	0	—	—
4860 slag	0	—	0	—	—
Subtotal other non-metal. min.	456	431	25	—	—
4900 non-metal. min. nec	456	431	25	—	—
Total primary manufactured goods	2,636	1,836	799	—	0
Subtotal paper products	717	8	710	—	0
5110 newsprint	404	2	402	—	—
5120 paper & paperboard	307	5	303	—	0
5190 paper products nec	6	1	6	—	—
Subtotal lime, cement and glass	522	509	13	—	0
5220 cement & concrete	477	477	0	—	—
5240 glass & glass prod.	4	2	2	—	0
5290 misc. mineral prod.	41	30	11	—	0
Subtotal primary iron and steel products	1,240	1,234	6	—	0
5312 pig iron	113	113	0	—	—
5315 ferro alloys	56	53	3	—	—
5320 i&s primary forms	195	195	0	—	—
5330 i&s plates & sheets	514	514	0	—	—
5360 i&s bars & shapes	90	90	0	—	—
5370 i&s pipe & tube	92	89	3	—	0
5390 primary i&s nec	180	180	0	—	—
Subtotal primary non-ferrous metal products	47	33	13	—	0
5421 copper	2	1	1	—	—
5422 aluminum	7	0	7	—	—
5429 smelted prod. nec	3	1	1	—	—
5480 fab. metal products	34	31	4	—	0
Subtotal primary wood products	109	52	57	—	—
5540 primary wood prod.	109	52	57	—	—

COLUMBIA RIVER SYSTEM
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Subtotal other agricultural products	154	38	116	---	---
Total food and farm products	16,998	70	16,927	1	0
Subtotal fish	6	1	4	1	---
6134 fish (not shellfish)	4	0	4	1	---
6136 shellfish	1	1	0	---	---
Subtotal grain	15,331	2	15,329	---	---
6241 wheat	---	---	12,734	---	---
6344 corn	2,076	---	2,076	---	---
6442 rice	14	2	12	---	---
6443 barley & rye	441	---	441	---	---
6445 oats	0	---	0	---	---
6447 sorghum grains	67	---	67	---	---
Subtotal oilseeds	189	18	171	---	---
6521 peanuts	1	---	1	---	---
6522 soybeans	127	0	127	---	---
6590 oilseeds nec	62	18	44	---	---
Subtotal vegetable products	293	8	285	---	0
6653 vegetable oils	7	1	5	---	---
6654 vegetables & prod.	286	6	279	---	0
Subtotal processed grain and animal feed	1,025	3	1,023	---	---
6746 wheat flour	24	---	24	---	---
6747 grain mill products	49	0	49	---	---
6781 hay & fodder	412	---	412	---	---
6782 animal feed, prep.	540	2	538	---	---
Subtotal other agricultural products	154	38	116	---	---
6811 meat, fresh, frozen	14	0	13	---	---
6817 meat, prepared	12	---	12	---	---
6822 dairy products	9	---	9	---	---
6835 fish, prepared	6	3	3	---	---
6838 tallow, animal oils	1	---	1	---	---
6839 animals & prod. nec	18	0	18	---	---
6856 bananas & plantains	0	0	---	---	---
6857 fruit & nuts nec	7	0	7	---	---
6858 fruit juices	24	12	12	---	---
6861 sugar	0	---	0	---	---
6871 coffee	1	1	0	---	---
6872 cocoa beans	0	0	---	---	---
6885 alcoholic beverages	23	17	6	---	---
6888 water & ice	1	1	---	---	---
6889 food products nec	18	2	16	---	---
6891 tobacco & products	0	---	0	---	---
6893 cotton	2	---	2	---	---
6899 farm products nec	19	2	18	---	---
Total all manufactured equipment, machinery and products	736	638	95	0	3
7110 machinery (not elec)	48	26	19	0	2
7120 electrical machinery	44	29	15	---	0
7210 vehicles & parts	522	494	28	---	---
7220 aircraft & parts	1	0	0	---	---
7230 ships & boats	0	0	0	---	---
7300 ordnance & access.	0	0	0	---	---
7400 manufac. wood prod.	8	3	4	---	---
7500 textile products	16	12	4	---	0
7600 rubber & plastic pr.	21	16	5	---	0
7900 manufac. prod. nec	77	58	18	0	0
Total unknown or not elsewhere classified	17	3	11	2	0
9900 unknown or nec	17	3	11	2	0
Ton-miles (x1000) Foreign & Canadian	1,298,610	195,240	1,087,941	10,023	5,405

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Outbound Upbound	Intra Upbound	Downbnd
Total, all commodities	18,579	4,014	518	71	9,048	4,928
Total petroleum and petroleum products	5,678	2,918	108	---	2,522	130
Subtotal crude petroleum	34	33	2	---	---	---
2100 crude petroleum	34	33	2	---	---	---
Subtotal petroleum products	5,644	2,886	106	---	2,522	130
2211 gasoline	2,940	1,829	29	---	1,082	---
2330 distillate fuel oil	1,371	488	32	---	847	4
2340 residual fuel oil	956	209	32	---	588	127
2350 lube oil & greases	63	58	---	---	5	0
2429 naphtha & solvents	13	---	13	---	---	---
2430 asphalt, tar & pitch	301	301	---	---	---	---
2990 petro. products nec	1	---	0	---	1	---
Total chemicals and related products	545	261	147	---	119	18
Subtotal fertilizers	271	140	65	---	48	18
3110 nitrogenous fert.	230	140	65	---	24	2
3190 fert. & mixes nec	41	---	---	---	24	16
Subtotal other chemicals and related products	274	122	82	---	71	---
3212 benzene & toluene	68	68	---	---	---	---

COLUMBIA RIVER SYSTEM
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Outbound Upbound	Intra Upbound	Downbnd
3220 alcohols	50	27	23	—	—	—
3272 sulphuric acid	0	—	0	—	—	—
3273 ammonia	74	26	10	—	38	—
3274 sodium hydroxide	80	—	48	—	33	—
3286 plastics	1	—	1	—	0	—
3299 chem. products nec	0	—	—	—	0	—
Total crude materials, inedible except fuels	5,660	834	227	—	2,087	2,512
Subtotal forest products, wood and chips	2,191	696	227	—	100	1,168
4150 fuel wood	3	—	—	—	3	—
4161 wood chips	1,519	453	—	—	94	972
4170 wood in the rough	447	243	5	—	3	196
4189 lumber	222	—	222	—	0	0
Subtotal pulp and waste paper	34	—	—	—	9	25
4225 pulp & waste paper	34	—	—	—	9	25
Subtotal soil, sand, gravel, rock and stone	3,297	4	—	—	1,976	1,318
4331 sand & gravel	3,297	4	—	—	1,976	1,318
Subtotal sulphur, clay and salt	3	—	—	—	3	—
4782 clay & refrac. mat.	3	—	—	—	3	—
Subtotal other non-metal. min.	135	135	—	—	—	—
4900 non-metal. min. nec	135	135	—	—	—	—
Total primary manufactured goods	264	—	36	—	226	2
Subtotal paper products	223	—	18	—	205	0
5120 paper & paperboard	148	—	—	—	147	0
5190 paper products nec	75	—	18	—	57	—
Subtotal lime, cement and glass	6	—	5	—	0	—
5220 cement & concrete	5	—	5	—	—	—
5240 glass & glass prod.	0	—	0	—	—	—
5290 misc. mineral prod.	0	—	—	—	0	—
Subtotal primary iron and steel products	9	—	8	—	1	0
5360 i&s bars & shapes	7	—	6	—	0	0
5370 i&s pipe & tube	2	—	2	—	1	—
Subtotal primary non-ferrous metal products	22	—	0	—	21	1
5422 aluminum	0	—	—	—	0	—
5480 fab. metal products	22	—	0	—	21	1
Subtotal primary wood products	5	—	5	—	—	—
5540 primary wood prod.	5	—	5	—	—	—
Total food and farm products	5,932	—	0	71	3,643	2,218
Subtotal fish	124	—	—	71	53	—
6134 fish (not shellfish)	116	—	—	66	51	—
6136 shellfish	8	—	—	5	3	—
Subtotal grain	5,712	—	—	—	3,497	2,215
6241 wheat	5,485	—	—	—	3,282	2,204
6344 corn	2	—	—	—	2	—
6443 barley & rye	225	—	—	—	214	12
Subtotal vegetable products	34	—	—	—	34	—
6654 vegetables & prod.	34	—	—	—	34	—
Subtotal processed grain and animal feed	50	—	—	—	47	3
6747 grain mill products	5	—	—	—	2	3
6781 hay & fodder	46	—	—	—	46	—
Subtotal other agricultural products	11	—	0	—	11	—
6822 dairy products	3	—	—	—	3	—
6839 animals & prod. nec	7	—	—	—	7	—
6858 fruit juices	0	—	0	—	—	—
6889 food products nec	0	—	—	—	0	—
6899 farm products nec	1	—	—	—	1	—
Total all manufactured equipment, machinery and products	300	0	0	—	260	39
7110 machinery (not elec)	0	0	—	—	—	0
7210 vehicles & parts	0	—	0	—	0	0
7230 ships & boats	0	—	0	—	—	—
7600 rubber & plastic pr.	0	—	—	—	0	—
7800 empty containers	215	—	—	—	176	39
7900 manufac. prod. nec	84	0	0	—	84	—
Total waste and scrap nec	199	—	—	—	191	8
8900 waste and scrap nec	199	—	—	—	191	8
Ton-miles (x1000)	780,759	65,033	22,957	71	393,031	299,667
Domestic						
Tons All Traffic (x1000)	50,435					
Ton-miles All Traffic (x1000)	2,079,369					

*Includes 169 (x1000) tons of foreign inbound in-transits; Includes 975 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
ALSEA BAY AND RIVER, OR	No Commerce Reported	
CHETCO RIVER, OR	6134 fish (not shellfish) 6136 shellfish	2 1
	Total Tons(x1000)	3
	Total Ton-miles(x1000)	3
CHINOOK CHANNEL, WA	6134 fish (not shellfish) 6136 shellfish	0 0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	0
CLATSKANIE RIVER, OR	No Commerce Reported	
COLUMBIA RIVER AT BAKERS BAY, WA	6134 fish (not shellfish) 6136 shellfish	8 1
	Total Tons(x1000)	9
	Total Ton-miles(x1000)	9
COLUMBIA SLOUGH, OR	No Commerce Reported	
COOS AND MILLICOMA RIVERS, OR	No Commerce Reported	
COQUILLE RIVER, OR	6134 fish (not shellfish) 6136 shellfish	0 0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	0
COWLITZ RIVER, WA	4170 wood in the rough	1
	Total Tons(x1000)	1
	Total Ton-miles(x1000)	3
DEEP RIVER, WA	No Commerce Reported	
DEPOE BAY, OR	6134 fish (not shellfish) 6136 shellfish	0 0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	0
ELOKOMIN SLOUGH, WA	No Commerce Reported	
GRAYS RIVER, WA	No Commerce Reported	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway	Commodity	Thousand Short Tons
LAKE RIVER, WA	3190 fert. & mixes nec	1
	6134 fish (not shellfish)	0
	6136 shellfish	0
	7210 vehicles & parts	0
	Total Tons(x1000)	1
	Total Ton-miles(x1000)	1
LEWIS RIVER, WA	No Commerce Reported	
PORT OF ST. HELENS, OR	No Commerce Reported	
PORT ORFORD, OR	6134 fish (not shellfish)	0
	6136 shellfish	0
	Total Tons(x1000)	1
ROGUE RIVER, OR	6134 fish (not shellfish)	0
	6136 shellfish	0
	7900 manufac. prod. nec	0
	9900 unknown or nec	0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	1
SIUSLAW RIVER, OR	6134 fish (not shellfish)	0
	6136 shellfish	0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	1
SKAMOKAWA (STEAMBOAT) SLOUGH, WA	2340 residual fuel oil	0
	Total Tons(x1000)	0
	Total Ton-miles(x1000)	0
SKAMOKAWA CREEK, WA	No Commerce Reported	
SKIPANON CHANNEL, OR	4161 wood chips	6
	4170 wood in the rough	84
	Total Tons(x1000)	90
	Total Ton-miles(x1000)	123
SMITH RIVER, OR	No Commerce Reported	
TILLAMOOK BAY AND BAR, OR	6134 fish (not shellfish)	0
	6136 shellfish	0
	Total Tons(x1000)	1
WESTPORT SLOUGH, OR	No Commerce Reported	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
YAQUINA BAY AND HARBOR, OR	4161 wood chips 6134 fish (not shellfish) 6136 shellfish 6811 meat, fresh, frozen	6 57 2 0
	Total Tons(x1000)	65
	Total Ton-miles(x1000)	124
YAQUINA RIVER, OR	No Commerce Reported	
YOUNGS BAY AND YOUNGS RIVER, OR	No Commerce Reported	

GRAYS HARBOR AND CHEHALIS RIVER, WA

Section Included: Grays Harbor bar channel and Chehalis River to Cosmopolis and extending to Simpson Avenue bridge on the Hoquiam River and the Schafer Bros. wharf at Montesano on the Chehalis River. Controlling Depth: Bar channel, 37.1 feet; 25.5 feet from deep water in Lower Harbor to Upper Cross-Over; 27.0 feet from Upper Cross-Over to Cow Point; 25.6 feet from Cow Point to Cosmopolis; turning basin just downstream of Cow Point, 29.0 feet; turning basin near Elliott Slough, 25.5 feet. 5.5 feet from Cosmopolis to Montesano; Bay City channel, 9.1 feet; Westhaven Channel, 13.9 feet north entrance, 13.0 feet south entrance. Project Depth: 30 feet extending through the bar channel to Cosmopolis; Bay 16 feet to Montesano; Bay City channel, 14 feet; Westhaven channel, 16 feet. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	5,351	1992	6,953	1995	1,566	1998	1,488
1990	12,825	1993	4,383	1996	1,990		
1991	4,488	1994	1,654	1997	1,486		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic		
		Imports*	Exports*		Imports	Total	Coastwise Shipments
Total, all commodities	1,488	39	740	305	404	374	30
Total chemicals and related products	0	0	---	---	---	---	---
Subtotal other chemicals and related products	0	0	---	---	---	---	---
3299 chem. products nec	0	0	---	---	---	---	---
Total crude materials, inedible except fuels	1,471	25	738	303	404	374	29
Subtotal forest products, wood and chips	1,089	---	714	---	374	374	---
4161 wood chips	251	---	---	---	251	251	---
4170 wood in the rough	696	---	677	---	19	19	---
4189 lumber	142	---	37	---	104	104	---
Subtotal pulp and waste paper	49	25	24	---	---	---	---
4225 pulp & waste paper	49	25	24	---	---	---	---
Subtotal soil, sand, gravel, rock and stone	333	---	---	303	29	---	29
4322 limestone	303	---	---	303	---	---	---
4331 sand & gravel	29	---	---	---	29	---	29
Total primary manufactured goods	14	14	0	---	---	---	---
Subtotal primary iron and steel products	14	14	0	---	---	---	---
5330 i&s plates & sheets	0	---	0	---	---	---	---
5360 i&s bars & shapes	14	14	0	---	---	---	---
Total food and farm products	2	0	1	1	0	---	0
Subtotal fish	2	---	1	1	0	---	0
6134 fish (not shellfish)	2	---	1	1	0	---	0
6136 shellfish	0	---	---	---	0	---	0
Subtotal other agricultural products	0	0	---	---	---	---	---
6857 fruit & nuts nec	0	0	---	---	---	---	---
6858 fruit juices	0	0	---	---	---	---	---
Total all manufactured equipment, machinery and products	1	0	0	---	---	---	---
7110 machinery (not elec)	0	0	0	---	---	---	---
7120 electrical machinery	0	0	0	---	---	---	---
7210 vehicles & parts	0	0	0	---	---	---	---
7220 aircraft & parts	0	0	---	---	---	---	---
7900 manufac. prod. nec	0	0	---	---	---	---	---
Total unknown or not elsewhere classified	0	0	---	0	---	---	---
9900 unknown or nec	0	0	---	0	---	---	---

*Includes 0 (x1000) tons of foreign inbound in-transits; Includes 0 (x1000) tons of foreign outbound in-transits.

PORT ANGELES HARBOR, WA

Section Included: Entire harbor from Rayonier, Inc. Wharf westward. Controlling Depth: Unlimited except for 25 feet near Rayonier, Inc. Wharf. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,837	1992	2,336	1995	1,911	1998	2,417
1990	3,072	1993	1,987	1996	2,780		
1991	2,680	1994	1,695	1997	2,377		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports
Total, all commodities	955	124	518	248	64
Total petroleum and petroleum products	285	124	1	108	52
Subtotal crude petroleum	130	124	—	6	—
2100 crude petroleum	130	124	—	6	—
Subtotal petroleum products	155	—	1	102	52
2211 gasoline	8	—	—	8	—
2330 distillate fuel oil	95	—	0	94	—
2340 residual fuel oil	20	—	—	—	20
2350 lube oil & greases	0	—	0	—	—
2429 naphtha & solvents	32	—	—	—	32
2430 asphalt, tar & pitch	0	—	0	—	—
2540 petroleum coke	0	—	0	—	—
Total chemicals and related products	12	—	12	0	—
Subtotal other chemicals and related products	12	—	12	0	—
3211 acyclic hydrocarbons	9	—	9	—	—
3219 other hydrocarbons	0	—	0	—	—
3220 alcohols	1	—	1	—	—
3230 carboxylic acids	0	—	0	—	—
3240 nitrogen func. comp.	0	—	0	—	—
3260 organic comp. nec	0	—	0	—	—
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—
3279 inorganic chem. nec	0	—	—	0	—
3282 pigments & paints	0	—	0	—	—
3283 coloring mat. nec	0	—	0	—	—
3285 perfumes & cleansers	0	—	0	—	—
3286 plastics	1	—	1	—	—
3292 starches, gluten, glue	0	—	0	—	—
3298 wood & resin chem.	0	—	0	—	—
3299 chem. products nec	0	—	0	—	—
Total crude materials, inedible except fuels	561	—	420	128	12
Subtotal forest products, wood and chips	475	—	417	48	11
4150 fuel wood	0	—	—	0	—
4161 wood chips	215	—	184	21	11
4170 wood in the rough	258	—	232	26	—
4189 lumber	2	—	1	1	—
4190 forest products nec	0	—	0	—	—
Subtotal pulp and waste paper	10	—	2	7	1
4225 pulp & waste paper	10	—	2	7	1
Subtotal soil, sand, gravel, rock and stone	73	—	—	73	—
4331 sand & gravel	73	—	—	73	—
Subtotal iron ore and scrap	1	—	1	0	—
4420 iron & steel scrap	1	—	1	0	—
Subtotal marine shells	0	—	0	—	—
4515 marine shells	0	—	0	—	—
Subtotal non-ferrous ores and scrap	0	—	0	0	—
4680 non-ferrous scrap	0	—	0	0	—
Subtotal sulphur, clay and salt	0	—	0	—	—
4782 clay & refrac. mat.	0	—	0	—	—
Subtotal other non-metal. min.	0	—	0	—	—
4900 non-metal. min. nec	0	—	0	—	—
Total primary manufactured goods	14	0	3	11	—
Subtotal paper products	11	—	1	10	—
5110 newsprint	2	—	—	2	—
5120 paper & paperboard	9	—	0	8	—
5190 paper products nec	0	—	0	—	—
Subtotal lime, cement and glass	0	—	0	—	—
5240 glass & glass prod.	0	—	0	—	—
5290 misc. mineral prod.	0	—	0	—	—
Subtotal primary iron and steel products	0	—	0	—	—
5330 i&s plates & sheets	0	—	0	—	—
Subtotal primary non-ferrous metal products	0	0	0	0	—
5421 copper	0	—	0	—	—
5422 aluminum	0	—	0	—	—
5480 fab. metal products	0	0	0	0	—
Subtotal primary wood products	3	—	2	1	—
5540 primary wood prod.	3	—	2	1	—
Subtotal oilseeds	9	—	9	0	—
Total food and farm products	82	—	81	1	—
Subtotal fish	6	—	6	0	—
6134 fish (not shellfish)	6	—	6	0	—
6136 shellfish	0	—	—	0	—
Subtotal grain	57	—	57	—	—
6344 corn	57	—	57	—	—

PORT ANGELES HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports
Subtotal oilseeds	9	---	9	0	---
6522 soybeans	9	---	9	---	---
6534 flaxseed	0	---	---	0	---
6590 oilseeds nec	0	---	0	---	---
Subtotal vegetable products	3	---	3	---	---
6653 vegetable oils	0	---	0	---	---
6654 vegetables & prod.	3	---	3	---	---
Subtotal processed grain and animal feed	3	---	3	---	---
6746 wheat flour	0	---	0	---	---
6747 grain mill products	0	---	0	---	---
6781 hay & fodder	3	---	3	---	---
6782 animal feed, prep.	0	---	0	---	---
Subtotal other agricultural products	4	---	4	0	---
6811 meat, fresh, frozen	1	---	1	---	---
6817 meat, prepared	0	---	0	---	---
6822 dairy products	0	---	0	---	---
6835 fish, prepared	0	---	0	---	---
6839 animals & prod. nec	1	---	1	---	---
6857 fruit & nuts nec	1	---	1	---	---
6858 fruit juices	0	---	0	---	---
6871 coffee	0	---	0	---	---
6885 alcoholic beverages	0	---	0	---	---
6889 food products nec	0	---	0	---	---
6891 tobacco & products	0	---	0	---	---
6899 farm products nec	0	---	---	0	---
Total all manufactured equipment, machinery and products	1	---	1	0	0
7110 machinery (not elec)	0	---	0	0	---
7120 electrical machinery	0	---	0	---	---
7210 vehicles & parts	0	---	0	---	---
7230 ships & boats	0	---	---	0	0
7300 ordnance & access.	0	---	0	---	---
7400 manufac. wood prod.	0	---	0	0	---
7500 textile products	0	---	0	---	---
7600 rubber & plastic pr.	0	---	0	---	0
7900 manufac. prod. nec	0	---	0	0	---
Total unknown or not elsewhere classified	0	---	0	0	---
9900 unknown or nec	0	---	0	0	---

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	1,462	45	358	311	491	257
Total petroleum and petroleum products	611	36	6	242	70	257
Subtotal petroleum products	611	36	6	242	70	257
2330 distillate fuel oil	28	---	---	17	10	1
2340 residual fuel oil	562	16	6	225	60	256
2350 lube oil & greases	0	---	---	0	---	0
2430 asphalt, tar & pitch	20	20	---	---	---	---
Total crude materials, inedible except fuels	850	9	352	68	421	---
Subtotal forest products, wood and chips	844	9	352	68	415	---
4161 wood chips	64	---	---	---	64	---
4170 wood in the rough	781	9	352	68	351	---
Subtotal iron ore and scrap	6	---	---	---	6	---
4420 iron & steel scrap	6	---	---	---	6	---
Total food and farm products	1	---	---	1	---	---
Subtotal fish	1	---	---	1	---	---
6134 fish (not shellfish)	1	---	---	1	---	---
6136 shellfish	0	---	---	0	---	---

PORT TOWNSEND HARBOR, WA

Section Included: Point Wilson on the north to Irondale on the south. Controlling Depth: Channel from deep water to boat basin, 10.7 feet; outer portion of entrance channel in boat basin, 12.9 feet; inner portion of entrance channel in boat basin, 12.2 feet. Project Depth: 10 and 12 feet mllw in the inner and outer sections of the mooring basin, respectively.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	536	1992	325	1995	362	1998	456
1990	427	1993	201	1996	464		
1991	546	1994	402	1997	412		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Canadian		Domestic			
		Imports	Exports	Total	Internal		Shipments
					Coastwise Receipts	Receipts	
Total, all commodities	456	2	26	428	2	361	65
Total petroleum and petroleum products	36	—	—	36	2	29	5
Subtotal petroleum products	36	—	—	36	2	29	5
2330 distillate fuel oil	2	—	—	2	2	—	—
2340 residual fuel oil	34	—	—	34	—	29	5
Total crude materials, inedible except fuels	419	2	26	391	—	331	60
Subtotal forest products, wood and chips	387	2	15	369	—	321	48
4150 fuel wood	3	0	—	3	—	3	—
4161 wood chips	291	2	15	273	—	271	2
4170 wood in the rough	93	—	—	93	—	48	45
Subtotal pulp and waste paper	19	—	—	19	—	7	12
4225 pulp & waste paper	19	—	—	19	—	7	12
Subtotal soil, sand, gravel, rock and stone	11	—	11	—	—	—	—
4331 sand & gravel	11	—	11	—	—	—	—
Subtotal sulphur, clay and salt	3	—	—	3	—	3	—
4782 clay & refrac. mat.	3	—	—	3	—	3	—
Total food and farm products	1	—	—	1	—	1	—
Subtotal fish	1	—	—	1	—	1	—
6134 fish (not shellfish)	0	—	—	0	—	0	—
6136 shellfish	1	—	—	1	—	1	—

HAMMERSLEY INLET, WA

Section Included: Inlet connecting Puget Sound with Shelton Harbor, a distance of about 7 miles. Controlling Depth: 8.8 feet. Project Depth: 13 feet. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	420	1992	312	1995	872	1998	635
1990	325	1993	384	1996	1,037		
1991	343	1994	500	1997	633		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Internal		
		Inbound Upbound	Outbound Downbnd	Intra Upbound
Total, all commodities	635	158	472	4
Total crude materials, inedible except fuels	633	157	472	4
Subtotal forest products, wood and chips	633	157	472	4
4161 wood chips	190	—	190	—
4170 wood in the rough	444	157	283	4
Total food and farm products	1	1	—	—
Subtotal fish	1	1	—	—
6134 fish (not shellfish)	0	0	—	—
6136 shellfish	1	1	—	—
Total all manufactured equipment, machinery and products	0	—	0	—
7400 manufac. wood prod.	0	—	0	—
Ton-miles (x1000)	6,314	1,585	4,725	4
Tons All Traffic (x1000)	635			
Ton-miles All Traffic (x1000)	6,314			

OLYMPIA HARBOR, WA

Section Included: That portion of Budd Inlet south and west of Priest Point and generally within the city limits of Olympia. Controlling Depth: 29.4 feet in outer channel, 29.4 feet in entrance channel and 27.7 feet in turning basin. Project Depth: 30 feet. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,196	1992	714	1995	2,166	1998	1,423
1990	1,265	1993	924	1996	1,893		
1991	945	1994	1,514	1997	1,997		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Exports	Total	Coastwise Receipts	Internal		
							Receipts	Shipments	Intraport
Total, all commodities	1,423	11	90	1	1,321	39	347	355	580
Total petroleum and petroleum products	0	---	0	---	---	---	---	---	---
Subtotal petroleum products	0	---	0	---	---	---	---	---	---
2330 distillate fuel oil	0	---	0	---	---	---	---	---	---
2350 lube oil & greases	0	---	0	---	---	---	---	---	---
2640 liquid natural gas	0	---	0	---	---	---	---	---	---
Total chemicals and related products	0	0	0	---	---	---	---	---	---
Subtotal other chemicals and related products	0	0	0	---	---	---	---	---	---
3275 inorg. elem., oxides, & halogen salts	0	---	0	---	---	---	---	---	---
3276 metallic salts	0	0	---	---	---	---	---	---	---
3282 pigments & paints	0	---	0	---	---	---	---	---	---
3285 perfumes & cleansers	0	---	0	---	---	---	---	---	---
3286 plastics	0	0	0	---	---	---	---	---	---
3292 starches, gluten, glue	0	---	0	---	---	---	---	---	---
3297 chemical additives	0	---	0	---	---	---	---	---	---
Total crude materials, inedible except fuels	1,374	1	54	1	1,317	39	343	355	580
Subtotal forest products, wood and chips	1,372	0	54	1	1,317	39	343	355	580
4161 wood chips	157	---	---	1	156	---	---	156	---
4170 wood in the rough	1,214	0	53	---	1,161	39	343	199	580
4189 lumber	1	0	1	---	---	---	---	---	---
4190 forest products nec	0	---	0	---	---	---	---	---	---
Subtotal soil, sand, gravel, rock and stone	0	---	0	---	0	---	---	0	---
4323 gypsum	0	---	0	---	---	---	---	---	---
Subtotal iron ore and scrap	0	---	---	---	0	---	---	0	---
4420 iron & steel scrap	0	---	---	---	0	---	---	0	---
Subtotal non-ferrous ores and scrap	1	1	---	---	---	---	---	---	---
4690 non-ferrous ores nec	1	1	---	---	---	---	---	---	---
Subtotal other non-metal. min.	0	---	0	---	---	---	---	---	---
4900 non-metal. min. nec	0	---	0	---	---	---	---	---	---
Total primary manufactured goods	7	2	1	---	4	---	4	---	---
Subtotal paper products	0	---	0	---	---	---	---	---	---
5120 paper & paperboard	0	---	0	---	---	---	---	---	---

OLYMPIA HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Exports	Total	Coastwise Receipts	Receipts	Internal Shipments	Intraport
Subtotal lime, cement and glass	4	---	0	---	4	---	4	---	---
5240 glass & glass prod.	0	---	0	---	---	---	---	---	---
5290 misc. mineral prod.	4	---	0	---	4	---	4	---	---
Subtotal	1	0	0	---	---	---	---	---	---
primary iron and steel products									
5330 i&s plates & sheets	0	0	0	---	---	---	---	---	---
5360 i&s bars & shapes	0	0	0	---	---	---	---	---	---
5370 i&s pipe & tube	0	---	0	---	---	---	---	---	---
5390 primary i&s nec	0	0	---	---	---	---	---	---	---
Subtotal	2	1	1	---	---	---	---	---	---
primary non-ferrous metal products									
5421 copper	0	---	0	---	---	---	---	---	---
5422 aluminum	0	0	---	---	---	---	---	---	---
5429 smelted prod. nec	0	0	---	---	---	---	---	---	---
5480 fab. metal products	1	1	1	---	---	---	---	---	---
Subtotal	0	0	0	---	---	---	---	---	---
primary wood products									
5540 primary wood prod.	0	0	0	---	---	---	---	---	---
Total food and farm products	36	4	31	---	0	---	0	---	---
Subtotal fish	4	4	---	---	0	---	0	---	---
6134 fish (not shellfish)	3	3	---	---	0	---	0	---	---
6136 shellfish	1	1	---	---	0	---	0	---	---
Subtotal grain	3	---	3	---	---	---	---	---	---
6241 wheat	2	---	2	---	---	---	---	---	---
6344 corn	1	---	1	---	---	---	---	---	---
Subtotal	3	---	3	---	---	---	---	---	---
vegetable products									
6653 vegetable oils	0	---	0	---	---	---	---	---	---
6654 vegetables & prod.	3	---	3	---	---	---	---	---	---
Subtotal	4	0	3	---	---	---	---	---	---
processed grain and animal feed									
6746 wheat flour	3	---	3	---	---	---	---	---	---
6747 grain mill products	0	---	0	---	---	---	---	---	---
6782 animal feed, prep.	0	0	0	---	---	---	---	---	---
Subtotal other agricultural products	22	0	22	---	---	---	---	---	---
6811 meat, fresh, frozen	11	0	11	---	---	---	---	---	---
6817 meat, prepared	4	---	4	---	---	---	---	---	---
6822 dairy products	0	---	0	---	---	---	---	---	---
6835 fish, prepared	0	0	---	---	---	---	---	---	---
6838 tallow, animal oils	0	---	0	---	---	---	---	---	---
6839 animals & prod. nec	0	---	0	---	---	---	---	---	---
6856 bananas & plantains	1	---	1	---	---	---	---	---	---
6857 fruit & nuts nec	5	---	5	---	---	---	---	---	---
6858 fruit juices	0	---	0	---	---	---	---	---	---
6871 coffee	0	---	0	---	---	---	---	---	---
6888 water & ice	0	---	0	---	---	---	---	---	---
6889 food products nec	0	---	0	---	---	---	---	---	---
6899 farm products nec	0	---	0	---	---	---	---	---	---
Total all manufactured equipment, machinery and products	6	4	2	---	---	---	---	---	---
7110 machinery (not elec)	3	2	1	---	---	---	---	---	---
7120 electrical machinery	0	---	0	---	---	---	---	---	---
7210 vehicles & parts	1	0	0	---	---	---	---	---	---

OLYMPIA HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian	Domestic				
		Imports*	Exports*	Exports	Total	Coastwise Receipts	Receipts	Internal Shipments	Intraport
7220 aircraft & parts	0	—	0	—	—	—	—	—	—
7230 ships & boats	0	—	0	—	—	—	—	—	—
7400 manufac. wood prod.	1	0	0	—	—	—	—	—	—
7500 textile products	0	0	0	—	—	—	—	—	—
7600 rubber & plastic pr.	1	1	0	—	—	—	—	—	—
7900 manufac. prod. nec	1	0	0	—	—	—	—	—	—
Total unknown or not elsewhere classified	1	0	0	—	—	—	—	—	—
9900 unknown or nec	1	0	0	—	—	—	—	—	—

*Includes 2 (x1000) tons of foreign inbound in-transits; Includes 4 (x1000) tons of foreign outbound in-transits.

TACOMA HARBOR, WA

Section Included: All of Commencement Bay and tributary waterways east of a line extending from Brown Point to and including the wharves of the Tacoma Smelter. Controlling Depth: City Waterway, 28.9 to 16.2 feet; Hylebos Waterway, 23.4 feet; least depth in turning basin 27.1 feet; Blair (Port Industrial Waterway), 32.8 feet. Project Depth: City Waterway, 29 to 19 feet; Hylebos Waterway, 30 feet; Blair (Port Industrial Waterway), 30 to 35 feet. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	22,451	1992	20,116	1995	20,879	1998	17,400
1990	21,433	1993	18,652	1996	21,491		
1991	19,544	1994	17,616	1997	20,683		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports*
Total, all commodities	9,933	3,389	5,884	485	175
Total coal	11	—	1	11	—
1100 coal lignite	11	—	1	11	—
Total petroleum and petroleum products	202	1	52	143	6
Subtotal crude petroleum	120	—	—	120	—
2100 crude petroleum	120	—	—	120	—
Subtotal petroleum products	82	1	52	23	6
2211 gasoline	0	—	0	—	0
2221 kerosene	0	—	0	—	—
2330 distillate fuel oil	16	—	0	15	—
2340 residual fuel oil	56	—	42	8	6
2350 lube oil & greases	7	0	7	—	—
2410 petro. jelly & waxes	0	0	0	—	—
2429 naphtha & solvents	0	0	0	—	—
2430 asphalt, tar & pitch	0	0	0	—	—
2540 petroleum coke	0	—	0	—	—
2640 liquid natural gas	3	1	2	—	—
Total chemicals and related products	420	119	232	0	70
Subtotal fertilizers	12	1	11	—	0
3110 nitrogenous fert.	5	1	4	—	—
3130 potassic fert.	0	0	0	—	—
3190 fert. & mixes nec	7	—	7	—	0
Subtotal other chemicals and related products	409	118	221	0	70
3211 acyclic hydrocarbons	0	0	0	—	—
3212 benzene & toluene	0	0	—	—	—
3219 other hydrocarbons	2	1	2	—	—
3220 alcohols	34	25	8	—	—
3230 carboxylic acids	21	6	15	—	—
3240 nitrogen func. comp.	25	4	22	—	—
3250 organo - inorg. comp.	6	4	2	—	0
3260 organic comp. nec	3	2	2	—	—
3272 sulphuric acid	0	—	0	—	—
3274 sodium hydroxide	40	0	11	—	29
3275 inorg. elem., oxides, & halogen salts	13	6	7	—	0
3276 metallic salts	53	5	8	—	41
3279 inorganic chem. nec	2	1	1	—	—
3281 radioactive material	0	0	0	—	—
3282 pigments & paints	7	3	5	0	—
3283 coloring mat. nec	5	4	1	—	—
3284 medicines	7	4	4	—	—
3285 perfumes & cleansers	14	1	13	0	—
3286 plastics	119	36	83	—	0
3291 pesticides	1	1	0	—	—

TACOMA HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports*
3292 starches, gluten, glue	19	10	10	—	—
3293 explosives	2	2	0	—	—
3297 chemical additives	4	0	4	—	—
3298 wood & resin chem.	11	0	11	—	—
3299 chem. products nec	16	4	12	—	—
Total crude materials, inedible except fuels	3,925	1,346	2,175	322	82
Subtotal forest products, wood and chips	1,824	39	1,721	19	45
4110 rubber & gums	31	31	0	—	—
4150 fuel wood	1	—	1	—	—
4161 wood chips	659	—	601	13	45
4170 wood in the rough	960	0	954	6	—
4189 lumber	171	6	165	0	0
4190 forest products nec	2	2	0	—	—
Subtotal pulp and waste paper	210	8	201	1	—
4225 pulp & waste paper	210	8	201	1	—
Subtotal soil, sand, gravel, rock and stone	585	352	1	207	25
4310 building stone	2	0	0	2	—
4322 limestone	202	—	0	202	—
4323 gypsum	366	352	1	—	14
4331 sand & gravel	14	0	0	2	11
Subtotal iron ore and scrap	290	—	194	96	—
4420 iron & steel scrap	290	—	194	96	—
Subtotal marine shells	0	0	0	—	—
4515 marine shells	0	0	0	—	—
Subtotal non-ferrous ores and scrap	617	586	31	1	—
4630 copper ore	0	—	0	—	—
4650 aluminum ore	584	582	1	—	—
4680 non-ferrous scrap	30	0	29	1	—
4690 non-ferrous ores nec	4	3	1	—	—
Subtotal sulphur, clay and salt	21	1	20	—	—
4741 sulphur, (dry)	0	—	0	—	—
4782 clay & refrac. mat.	21	1	20	—	—
Subtotal slag	0	—	0	—	—
4860 slag	0	—	0	—	—
Subtotal other non-metal. min.	378	360	6	—	12
4900 non-metal. min. nec	378	360	6	—	12
Total primary manufactured goods	742	385	348	8	0
Subtotal paper products	261	25	235	1	—
5110 newsprint	17	1	16	0	—
5120 paper & paperboard	215	17	197	1	—
5190 paper products nec	29	7	22	—	—
Subtotal lime, cement and glass	103	85	18	—	—
5220 cement & concrete	0	—	0	—	—
5240 glass & glass prod.	16	11	5	—	—
5290 misc. mineral prod.	87	74	13	—	—
Subtotal primary iron and steel products	64	51	12	—	0
5312 pig iron	5	0	4	—	—
5315 ferro alloys	1	1	0	—	—
5320 i&s primary forms	1	0	1	—	—
5330 i&s plates & sheets	17	13	4	—	0
5360 i&s bars & shapes	24	23	1	—	0
5370 i&s pipe & tube	9	8	1	—	—
5390 primary i&s nec	7	6	1	—	—
Subtotal primary non-ferrous metal products	272	215	57	0	—
5421 copper	26	5	21	—	—
5422 aluminum	15	3	12	—	—
5429 smelted prod. nec	15	2	12	—	—
5480 fab. metal products	216	204	12	0	—
Subtotal primary wood products	41	8	26	7	—
5540 primary wood prod.	41	8	26	7	—
Total food and farm products	3,032	117	2,915	0	0
Subtotal fish	37	12	24	0	0
6134 fish (not shellfish)	29	7	22	0	0
6136 shellfish	8	6	2	—	—
Subtotal grain	1,521	5	1,515	—	—
6241 wheat	15	0	15	—	—
6344 corn	1,441	0	1,441	—	—
6442 rice	5	5	0	—	—
6443 barley & rye	1	—	1	—	—
6445 oats	1	—	1	—	—
6447 sorghum grains	58	—	58	—	—
Subtotal oilseeds	216	0	215	—	—
6521 peanuts	0	0	0	—	—
6522 soybeans	212	0	212	—	—
6534 flaxseed	0	—	0	—	—
6590 oilseeds nec	3	0	3	—	—
Subtotal vegetable products	238	17	220	0	0
6653 vegetable oils	13	0	12	—	—
6654 vegetables & prod.	225	17	208	0	0
Subtotal processed grain and animal feed	412	2	410	—	—
6746 wheat flour	11	0	11	—	—
6747 grain mill products	15	1	14	—	—
6781 hay & fodder	274	0	274	—	—
6782 animal feed, prep.	113	1	112	—	—
Subtotal other agricultural products	609	80	529	0	0
6811 meat, fresh, frozen	201	1	200	—	—
6817 meat, prepared	10	0	10	—	—
6822 dairy products	15	0	15	—	—
6835 fish, prepared	5	4	1	—	—
6838 tallow, animal oils	66	0	66	—	—
6839 animals & prod. nec	27	1	26	—	—

TACOMA HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports*
6856 bananas & plantains	1	0	1	—	—
6857 fruit & nuts nec	127	9	119	—	—
6858 fruit juices	65	49	16	—	0
6861 sugar	0	—	0	—	—
6871 coffee	4	4	0	—	—
6872 cocoa beans	1	1	0	—	—
6885 alcoholic beverages	22	2	20	—	—
6888 water & ice	3	0	3	—	—
6889 food products nec	42	5	37	—	0
6891 tobacco & products	13	2	11	—	—
6893 cotton	3	0	3	—	—
6894 natural fibers nec	1	1	0	—	—
6899 farm products nec	3	1	2	0	—
Total all manufactured equipment, machinery and products	1,571	1,404	151	0	16
7110 machinery (not elec)	308	260	46	0	1
7120 electrical machinery	222	208	13	0	0
7210 vehicles & parts	278	258	20	0	—
7220 aircraft & parts	5	5	0	—	—
7230 ships & boats	16	0	1	0	15
7300 ordnance & access.	0	0	0	—	—
7400 manufac. wood prod.	26	20	5	—	—
7500 textile products	123	106	17	—	0
7600 rubber & plastic pr.	110	98	11	—	—
7900 manufac. prod. nec	485	448	37	—	0
Total unknown or not elsewhere classified	29	18	11	0	—
9900 unknown or nec	29	18	11	0	—

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	7,468	2,128	2,278	1,938	570	555
Total petroleum and petroleum products	3,871	1,755	430	837	317	531
Subtotal crude petroleum	1,719	1,719	—	—	—	—
2100 crude petroleum	1,719	1,719	—	—	—	—
Subtotal petroleum products	2,153	37	430	837	317	531
2211 gasoline	211	6	—	190	9	6
2330 distillate fuel oil	514	1	366	88	37	21
2340 residual fuel oil	1,384	8	42	559	271	504
2350 lube oil & greases	15	—	14	0	—	—
2429 naphtha & solvents	7	—	7	—	—	—
2430 asphalt, tar & pitch	21	21	—	—	—	—
2540 petroleum coke	0	—	0	—	—	—
2640 liquid natural gas	0	—	0	—	—	—
Total chemicals and related products	274	30	223	—	18	4
Subtotal fertilizers	1	—	1	—	—	—
3110 nitrogenous fert.	1	—	1	—	—	—
3190 fert. & mixes nec	0	—	0	—	—	—
Subtotal other chemicals and related products	273	30	222	—	18	4
3220 alcohols	5	5	0	—	—	—
3260 organic comp. nec	0	—	0	—	—	—
3274 sodium hydroxide	229	14	203	—	9	4
3275 inorg. elem., oxides, & halogen salts	9	—	—	—	9	—
3282 pigments & paints	0	—	0	—	—	—
3285 perfumes & cleansers	0	—	0	—	—	—
3286 plastics	0	—	0	—	—	—
3292 starches, gluten, glue	0	—	0	—	—	—
3298 wood & resin chem.	0	—	0	—	—	—
3299 chem. products nec	29	11	18	—	—	—
Total crude materials, inedible except fuels	1,350	13	24	1,089	207	17
Subtotal forest products, wood and chips	1,091	—	23	899	165	5
4161 wood chips	171	—	—	167	—	4
4170 wood in the rough	898	—	—	732	165	1
4189 lumber	23	—	23	0	—	—
Subtotal pulp and waste paper	3	—	1	2	—	—
4225 pulp & waste paper	3	—	1	2	—	—
Subtotal soil, sand, gravel, rock and stone	188	—	0	174	1	13
4331 sand & gravel	182	—	0	167	1	13
4335 waterway improv. mat	6	—	—	6	—	—
Subtotal iron ore and scrap	68	13	—	14	41	—
4420 iron & steel scrap	68	13	—	14	41	—
Subtotal non-ferrous ores and scrap	0	0	—	—	—	—
4680 non-ferrous scrap	0	0	—	—	—	—
Subtotal primary iron and steel products	1	—	1	—	—	—
Total primary manufactured goods	114	5	78	8	22	1
Subtotal paper products	13	—	13	—	—	—
5110 newsprint	0	—	0	—	—	—
5120 paper & paperboard	2	—	2	—	—	—
5190 paper products nec	11	—	11	—	—	—
Subtotal lime, cement and glass	37	—	18	1	17	1
5220 cement & concrete	0	—	0	—	0	—
5240 glass & glass prod.	0	—	0	—	—	—
5290 misc. mineral prod.	37	—	18	1	17	1

TACOMA HARBOR, WA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Subtotal primary iron and steel products	1	---	1	---	---	---
5320 i&s primary forms	0	---	0	---	---	---
5330 i&s plates & sheets	0	---	0	---	---	---
5360 i&s bars & shapes	1	---	1	---	---	---
5370 i&s pipe & tube	0	---	0	---	---	---
Subtotal primary non-ferrous metal products	63	5	46	7	5	---
5480 fab. metal products	63	5	46	7	5	---
Subtotal primary wood products	0	---	0	---	---	---
5540 primary wood prod.	0	---	0	---	---	---
Total food and farm products	611	36	574	1	---	---
Subtotal fish	35	34	0	1	---	---
6134 fish (not shellfish)	35	34	0	1	---	---
6136 shellfish	1	---	---	1	---	---
Subtotal grain	0	---	0	---	---	---
6443 barley & rye	0	---	0	---	---	---
6447 sorghum grains	0	---	0	---	---	---
Subtotal vegetable products	1	---	1	---	---	---
6653 vegetable oils	0	---	0	---	---	---
6654 vegetables & prod.	1	---	1	---	---	---
Subtotal processed grain and animal feed	5	---	5	---	---	---
6746 wheat flour	0	---	0	---	---	---
6747 grain mill products	0	---	0	---	---	---
6781 hay & fodder	1	---	1	---	---	---
6782 animal feed, prep.	3	---	3	---	---	---
Subtotal other agricultural products	571	2	569	---	---	---
6811 meat, fresh, frozen	0	---	0	---	---	---
6817 meat, prepared	2	---	2	---	---	---
6835 fish, prepared	1	1	---	---	---	---
6839 animals & prod. nec	211	1	210	---	---	---
6857 fruit & nuts nec	8	---	8	---	---	---
6858 fruit juices	0	---	0	---	---	---
6871 coffee	0	---	0	---	---	---
6872 cocoa beans	0	---	0	---	---	---
6885 alcoholic beverages	1	---	1	---	---	---
6887 groceries	346	---	346	---	---	---
6889 food products nec	1	---	1	---	---	---
6891 tobacco & products	0	---	0	---	---	---
6899 farm products nec	1	---	1	---	---	---
Total all manufactured equipment, machinery and products	1,221	284	929	2	7	0
7110 machinery (not elec)	2	---	0	---	2	---
7120 electrical machinery	0	---	0	---	---	---
7210 vehicles & parts	61	16	45	---	---	---
7230 ships & boats	0	---	0	---	---	---
7300 ordnance & access.	0	0	---	---	---	---
7400 manufac. wood prod.	19	---	19	0	---	---
7500 textile products	15	1	15	---	---	---
7600 rubber & plastic pr.	0	---	0	---	---	---
7900 manufac. prod. nec	1,124	267	850	2	5	0
Total unknown or not elsewhere classified	25	5	20	---	---	---
9900 unknown or nec	25	5	20	---	---	---

*Includes 276 (x1000) tons of foreign inbound in-transits; Includes 184 (x1000) tons of foreign outbound in-transits;
 Includes 17 (x1000) tons of Canadian outbound in-transits.

SEATTLE HARBOR, WA

Section Included: From Union Oil dock near Edmonds on the North to Fauntleroy Ferry Slip on the south, including Elliott Bay, East, West, and Duwamish Waterway, Lake Washington Ship Canal, Salmon Bay, Lake Union, Lake Washington, and Kenmore Navigation Channel. Controlling Depth: Elliott Bay, unlimited; West Waterway, 28.0 feet; East Waterway, 31.2 feet; Duwamish Waterway, 18.2 feet from head of West Waterway to 1st Avenue So., 11.0 feet from 1st Avenue So. 14th Avenue So. 8.5 feet from 14th Avenue So. to head of waterway; Lake Washington Ship Canal, 29.2 feet below locks; above the locks 26.1 feet, Kenmore Navigation Channel; 13.6 feet. Project Depth: Elliot Bay, unlimited; East and West Waterways, 34 feet; Duwamish Waterway, 30 feet to First Avenue South; 20 feet to 8th Avenue South; and 15 feet from 8th Avenue South to head of waterway; Lake Washington Ship Canal, 34 feet below locks; 30 feet at lower pool level, Kenmore Navigation Channel; 15 feet. All depths refer to mllw except inside Lake Washington Ship Canal which reflects low lake level.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	21,763	1992	21,883	1995	26,180	1998	22,594
1990	21,570	1993	21,693	1996	23,547		
1991	20,897	1994	22,336	1997	26,564		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Total, all commodities	15,467	5,098	6,743	3,471	156
Total coal	124	2	1	121	—
1100 coal lignite	121	—	1	121	—
1200 coal coke	2	2	—	—	—
Total petroleum and petroleum products	119	38	16	7	58
Subtotal crude petroleum	36	36	—	—	—
2100 crude petroleum	36	36	—	—	—
Subtotal petroleum products	83	2	16	7	58
2211 gasoline	9	—	—	—	9
2221 kerosene	3	—	0	—	3
2330 distillate fuel oil	11	—	1	5	5
2340 residual fuel oil	7	—	3	—	4
2350 lube oil & greases	12	1	8	—	3
2410 petro. jelly & waxes	1	1	1	—	—
2429 naphtha & solvents	33	—	0	—	33
2430 asphalt, tar & pitch	1	0	1	—	—
2540 petroleum coke	2	0	2	—	—
2640 liquid natural gas	3	0	1	2	—
Total chemicals and related products	648	240	394	5	10
Subtotal fertilizers	9	0	7	1	—
3110 nitrogenous fert.	2	0	0	1	—
3120 phosphatic fert.	0	—	0	—	—
3130 potassic fert.	1	—	1	—	—
3190 fert. & mixes nec	6	0	6	—	—
Subtotal other chemicals and related products	640	239	387	3	10
3211 acyclic hydrocarbons	0	0	0	—	—
3212 benzene & toluene	0	0	—	—	—
3219 other hydrocarbons	2	1	2	—	—
3220 alcohols	22	13	9	—	—
3230 carboxylic acids	25	11	13	1	—
3240 nitrogen func. comp.	38	27	11	—	0
3250 organo - inorg. comp.	15	7	8	0	0
3260 organic comp. nec	10	2	8	—	—
3271 sulphur (liquid)	0	0	—	—	—
3272 sulphuric acid	0	0	0	—	—
3273 ammonia	1	0	1	—	—
3274 sodium hydroxide	2	0	1	—	1
3275 inorg. elem., oxides, & halogen salts	28	10	17	0	0
3276 metallic salts	32	16	7	0	8
3279 inorganic chem. nec	4	1	1	1	—
3281 radioactive material	2	1	1	—	—
3282 pigments & paints	17	5	12	0	0
3283 coloring mat. nec	9	8	1	0	—
3284 medicines	5	3	2	—	—
3285 perfumes & cleansers	25	5	20	—	0
3286 plastics	260	101	159	0	0
3291 pesticides	2	1	2	—	—
3292 starches, gluten, glue	36	14	21	0	0
3293 explosives	2	2	0	—	—
3297 chemical additives	10	1	9	—	0
3298 wood & resin chem.	58	0	58	—	—
3299 chem. products nec	35	10	24	—	0
Total crude materials, inedible except fuels	4,137	745	822	2,505	64
Subtotal forest products, wood and chips	652	96	296	222	37
4110 rubber & gums	50	49	0	—	—
4150 fuel wood	1	0	1	—	—
4161 wood chips	105	—	67	8	29
4170 wood in the rough	52	0	38	5	8
4189 lumber	439	42	188	209	—
4190 forest products nec	7	5	1	—	0
Subtotal pulp and waste paper	355	2	338	15	—
4225 pulp & waste paper	355	2	338	15	—
Subtotal soil, sand, gravel, rock and stone	2,748	624	12	2,085	27
4310 building stone	1	1	1	—	—
4322 limestone	1,619	—	0	1,619	—
4323 gypsum	726	620	10	84	13
4327 phosphate rock	0	0	0	—	—
4331 sand & gravel	401	3	2	383	14

SEATTLE HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
Subtotal iron ore and scrap	232	0	58	174	---
4420 iron & steel scrap	232	0	58	174	---
Subtotal marine shells	0	0	0	---	---
4515 marine shells	0	0	0	---	---
Subtotal non-ferrous ores and scrap	44	7	37	---	0
4630 copper ore	1	---	1	---	---
4650 aluminum ore	3	1	1	---	---
4670 manganese ore	2	0	1	---	---
4680 non-ferrous scrap	33	5	28	---	0
4690 non-ferrous ores nec	6	1	5	---	---
Subtotal sulphur, clay and salt	54	2	51	0	---
4741 sulphur, (dry)	1	---	1	---	---
4782 clay & refrac. mat.	52	2	50	0	---
Subtotal slag	0	---	0	---	---
4860 slag	0	---	0	---	---
Subtotal other non-metal. min.	52	14	29	9	---
4900 non-metal. min. nec	52	14	29	9	---
Total primary manufactured goods	2,681	1,159	698	823	1
Subtotal paper products	699	67	469	163	1
5110 newsprint	134	7	25	102	---
5120 paper & paperboard	500	38	400	61	1
5190 paper products nec	66	22	44	---	---
Subtotal lime, cement and glass	976	467	76	433	0
5210 lime	0	0	---	---	---
5220 cement & concrete	721	292	2	428	0
5240 glass & glass prod.	68	46	22	0	0
5290 misc. mineral prod.	187	130	52	5	0
Subtotal primary iron and steel products	196	177	19	0	0
5312 pig iron	20	19	2	---	---
5315 ferro alloys	2	1	1	---	---
5320 i&s primary forms	2	1	2	---	---
5330 i&s plates & sheets	42	34	8	---	0
5360 i&s bars & shapes	36	34	2	---	0
5370 i&s pipe & tube	62	59	4	---	0
5390 primary i&s nec	32	31	1	0	---
Subtotal primary non-ferrous metal products	538	427	109	1	0
5421 copper	30	16	15	---	---
5422 aluminum	75	18	58	---	0
5429 smelted prod. nec	10	3	7	0	---
5480 fab. metal products	422	391	30	0	0
Subtotal primary wood products	272	20	25	226	0
5540 primary wood prod.	272	20	25	226	0
Total food and farm products	4,700	260	4,429	2	9
Subtotal fish	90	35	54	0	1
6134 fish (not shellfish)	69	16	52	0	1
6136 shellfish	21	19	2	---	0
Subtotal grain	1,366	16	1,350	---	0
6241 wheat	52	---	52	---	---
6344 corn	1,273	0	1,273	---	---
6442 rice	18	16	2	---	0
6443 barley & rye	0	---	0	---	---
6445 oats	4	---	4	---	---
6447 sorghum grains	19	---	19	---	---
Subtotal oilseeds	494	1	492	0	0
6521 peanuts	0	0	0	---	---
6522 soybeans	453	0	452	---	0
6534 flaxseed	0	0	---	---	---
6590 oilseeds nec	40	1	39	0	0
Subtotal vegetable products	468	19	449	0	1
6653 vegetable oils	8	1	7	---	0
6654 vegetables & prod.	460	18	442	0	1
Subtotal processed grain and animal feed	981	11	969	1	0
6746 wheat flour	3	0	3	---	---
6747 grain mill products	27	2	25	---	0
6781 hay & fodder	670	7	669	1	---
6782 animal feed, prep.	280	7	273	0	---
Subtotal other agricultural products	1,302	179	1,114	1	7
6811 meat, fresh, frozen	386	4	382	---	0
6817 meat, prepared	9	0	9	---	0
6822 dairy products	53	2	52	---	---
6835 fish, prepared	31	10	21	0	---
6838 tallow, animal oils	24	0	24	---	---
6839 animals & prod. nec	176	10	166	---	---
6856 bananas & plantains	0	0	---	---	---
6857 fruit & nuts nec	273	39	233	0	0
6858 fruit juices	76	31	45	0	0
6861 sugar	1	0	1	---	---
6865 molasses	13	13	---	---	---
6871 coffee	35	33	1	---	1
6872 cocoa beans	3	2	0	---	---
6885 alcoholic beverages	55	13	41	0	---
6888 water & ice	2	0	2	---	---
6889 food products nec	86	15	71	0	0
6891 tobacco & products	20	1	19	0	---
6893 cotton	14	0	9	---	5
6894 natural fibers nec	1	1	0	---	---
6899 farm products nec	42	4	38	0	0
Total all manufactured equipment, machinery and products	3,010	2,638	350	7	14
7110 machinery (not elec)	491	403	82	1	6
7120 electrical machinery	505	466	38	1	0
7210 vehicles & parts	343	303	40	0	0
7220 aircraft & parts	9	8	0	0	---

SEATTLE HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports*	Exports*
7230 ships & boats	11	1	3	0	6
7300 ordnance & access.	3	1	2	0	—
7400 manufac. wood prod.	52	27	20	5	—
7500 textile products	338	309	29	0	0
7600 rubber & plastic pr.	227	196	31	0	0
7900 manufac. prod. nec	1,030	923	105	1	2
Total unknown or not elsewhere classified	48	15	33	1	0
9900 unknown or nec	48	15	33	1	0

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	7,126	489	1,084	3,527	932	1,095
Total coal	1	—	—	0	1	—
1100 coal lignite	1	—	—	0	1	—
Total petroleum and petroleum products	3,037	52	22	1,381	557	1,025
Subtotal crude petroleum	20	6	14	—	—	—
2100 crude petroleum	20	6	14	—	—	—
Subtotal petroleum products	3,017	47	8	1,381	557	1,025
2211 gasoline	65	30	1	25	9	1
2221 kerosene	0	—	0	—	—	—
2330 distillate fuel oil	239	5	4	113	61	56
2340 residual fuel oil	2,629	12	—	1,172	477	967
2350 lube oil & greases	10	0	0	6	3	0
2429 naphtha & solvents	3	—	0	—	3	—
2430 asphalt, tar & pitch	59	—	—	58	1	—
2540 petroleum coke	8	—	1	7	0	0
2640 liquid natural gas	3	0	1	0	2	—
2990 petro. products nec	1	0	0	0	1	—
Total chemicals and related products	83	14	54	1	14	—
Subtotal fertilizers	50	—	44	—	5	—
3110 nitrogenous fert.	7	—	2	—	5	—
3120 phosphatic fert.	0	—	0	—	—	—
3190 fert. & mixes nec	43	—	43	—	0	—
Subtotal other chemicals and related products	33	14	9	1	9	—
3211 acyclic hydrocarbons	0	—	0	—	—	—
3219 other hydrocarbons	0	0	—	—	—	—
3220 alcohols	14	13	0	—	—	—
3260 organic comp. nec	0	—	0	—	—	—
3272 sulphuric acid	0	—	0	—	—	—
3273 ammonia	0	—	0	—	—	—
3275 inorg. elem., oxides, & halogen salts	0	0	0	—	0	—
3276 metallic salts	0	—	0	—	0	—
3281 radioactive material	0	0	—	—	—	—
3282 pigments & paints	5	—	1	0	4	—
3284 medicines	0	0	—	—	—	—
3285 perfumes & cleansers	0	—	0	—	—	—
3286 plastics	5	—	0	—	0	—
3291 pesticides	0	—	0	—	—	—
3293 explosives	1	—	1	—	—	—
3299 chem. products nec	8	0	2	1	4	—
Total crude materials, inedible except fuels	2,228	11	136	1,993	44	44
Subtotal forest products, wood and chips	171	1	121	29	19	1
4110 rubber & gums	0	—	—	0	0	—
4150 fuel wood	0	—	—	0	0	—
4161 wood chips	0	—	—	—	0	—
4170 wood in the rough	12	0	1	6	5	0
4189 lumber	156	1	119	24	13	0
4190 forest products nec	2	—	2	0	1	—
Subtotal pulp and waste paper	13	0	0	7	6	—
4225 pulp & waste paper	13	0	0	7	6	—
Subtotal soil, sand, gravel, rock and stone	1,907	—	5	1,844	17	40
4322 limestone	1	—	—	—	1	—
4323 gypsum	0	—	0	—	0	—
4331 sand & gravel	1,895	—	1	1,844	9	40
4335 waterway improv. mat	7	—	—	—	7	—
4338 soil & fill dirt	4	—	4	—	0	—
Subtotal iron ore and scrap	54	10	—	44	0	—
4420 iron & steel scrap	54	10	—	44	0	—
Subtotal non-ferrous ores and scrap	0	0	—	0	—	—
4680 non-ferrous scrap	0	0	—	0	—	—
Subtotal sulphur, clay and salt	71	—	0	68	0	3
4782 clay & refrac. mat.	71	—	0	68	0	3
Subtotal slag	0	—	0	—	—	—
4860 slag	0	—	0	—	—	—
Subtotal other non-metal. min.	12	0	10	0	2	—
4900 non-metal. min. nec	12	0	10	0	2	—
Total primary manufactured goods	341	37	223	22	58	1
Subtotal paper products	46	1	38	0	6	—
5110 newsprint	4	—	4	—	0	—
5120 paper & paperboard	9	1	8	—	—	—
5190 paper products nec	33	0	26	0	6	—

SEATTLE HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Subtotal lime, cement and glass	127	6	86	13	22	0
5220 cement & concrete	34	6	18	0	9	—
5240 glass & glass prod.	9	0	2	0	7	—
5290 misc. mineral prod.	84	0	66	12	6	0
Subtotal primary iron and steel products	14	8	5	0	1	0
5330 i&s plates & sheets	0	—	0	—	—	—
5360 i&s bars & shapes	9	8	1	—	—	0
5370 i&s pipe & tube	3	—	1	0	1	0
5390 primary i&s nec	2	—	2	—	—	—
Subtotal primary non-ferrous metal products	111	23	51	9	28	1
5421 copper	0	—	0	—	—	—
5422 aluminum	0	0	0	—	0	—
5480 fab. metal products	111	23	51	9	28	1
Subtotal primary wood products	44	—	43	0	0	—
5540 primary wood prod.	44	—	43	0	0	—
Total food and farm products	461	114	167	65	91	24
Subtotal fish	72	40	6	24	1	—
6134 fish (not shellfish)	53	29	6	16	1	—
6136 shellfish	19	11	0	8	—	—
Subtotal grain	0	—	0	—	—	—
6442 rice	0	—	0	—	—	—
Subtotal oilseeds	10	—	—	10	—	—
6590 oilseeds nec	10	—	—	10	—	—
Subtotal vegetable products	39	1	38	0	0	—
6654 vegetables & prod.	39	1	38	0	0	—
Subtotal processed grain and animal feed	58	0	58	0	0	—
6746 wheat flour	2	—	2	—	—	—
6747 grain mill products	1	—	1	0	—	—
6781 hay & fodder	1	—	1	—	0	—
6782 animal feed, prep.	54	0	54	0	0	—
Subtotal other agricultural products	283	73	66	31	89	24
6811 meat, fresh, frozen	4	0	4	0	0	—
6822 dairy products	1	—	1	—	—	—
6835 fish, prepared	39	21	—	18	—	—
6839 animals & prod. nec	2	1	0	—	—	—
6857 fruit & nuts nec	3	—	3	—	—	—
6858 fruit juices	17	16	1	0	0	—
6861 sugar	0	—	0	—	—	—
6865 molasses	46	22	—	—	—	24
6871 coffee	0	0	0	—	—	—
6872 cocoa beans	0	0	—	—	—	—
6885 alcoholic beverages	29	—	11	4	13	—
6887 groceries	36	0	5	0	31	—
6888 water & ice	3	—	—	3	0	—
6889 food products nec	98	11	38	6	44	—
6894 natural fibers nec	0	—	0	—	—	—
6899 farm products nec	3	1	3	—	0	—
Total all manufactured equipment, machinery and products	975	260	481	65	167	2
7110 machinery (not elec)	52	16	25	5	6	—
7120 electrical machinery	11	0	3	0	8	—
7210 vehicles & parts	38	10	13	5	10	—
7220 aircraft & parts	0	0	0	—	—	—
7230 ships & boats	2	0	0	0	1	—
7400 manufac. wood prod.	61	0	15	28	17	0
7500 textile products	9	4	0	0	5	—
7600 rubber & plastic pr.	5	0	1	0	3	—
7900 manufac. prod. nec	797	229	424	27	116	1
Total waste and scrap nec	0	—	—	0	—	—
8900 waste and scrap nec	0	—	—	0	—	—

*Includes 300 (x1000) tons of foreign inbound in-transits; Includes 131 (x1000) tons of foreign outbound in-transits;
Includes 12 (x1000) tons of Canadian inbound in-transits; Includes 12 (x1000) tons of Canadian outbound in-transits.

LAKE WASHINGTON SHIP CANAL, WA (INCLUDED IN TRAFFIC OF SEATTLE HARBOR, WA)

Section Included: As described under Seattle Harbor, WA.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,566	1992	1,614	1995	1,555	1998	1,679
1990	1,724	1993	1,919	1996	1,316		
1991	1,437	1994	1,365	1997	1,496		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Total, all commodities	169	1	97	70	1
Total coal	5	—	—	5	—
1100 coal lignite	5	—	—	5	—
Total petroleum and petroleum products	5	—	0	5	—
Subtotal petroleum products	5	—	0	5	—
2330 distillate fuel oil	5	—	—	5	—
2350 lube oil & greases	0	—	0	—	—
Total chemicals and related products	6	0	5	—	1
Subtotal other chemicals and related products	6	0	5	—	1
3220 alcohols	0	—	0	—	—
3230 carboxylic acids	1	0	0	—	—
3240 nitrogen func. comp.	0	—	0	—	—
3250 organo - inorg. comp.	0	0	—	—	—
3260 organic comp. nec	0	—	0	—	—
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—
3276 metallic salts	1	—	0	—	1
3279 inorganic chem. nec	0	—	0	—	—
3282 pigments & paints	0	—	0	—	—
3283 coloring mat. nec	0	—	0	—	—
3284 medicines	0	—	0	—	—
3285 perfumes & cleansers	0	—	0	—	—
3286 plastics	2	—	2	—	—
3291 pesticides	0	—	0	—	—
3292 starches, gluten, glue	0	—	0	—	—
3297 chemical additives	0	—	0	—	—
3298 wood & resin chem.	1	—	1	—	—
3299 chem. products nec	0	—	0	—	—
Total crude materials, inedible except fuels	63	0	41	22	—
Subtotal forest products, wood and chips	6	—	3	3	—
4110 rubber & gums	0	—	0	—	—
4189 lumber	6	—	3	3	—
4190 forest products nec	0	—	0	—	—
Subtotal pulp and waste paper	2	—	2	—	—
4225 pulp & waste paper	2	—	2	—	—
Subtotal soil, sand, gravel, rock and stone	15	0	0	15	—
4322 limestone	7	—	—	7	—
4323 gypsum	0	—	0	—	—
4331 sand & gravel	9	0	—	9	—
Subtotal iron ore and scrap	39	—	35	3	—
4420 iron & steel scrap	39	—	35	3	—
Subtotal non-ferrous ores and scrap	0	0	0	—	—
4650 aluminum ore	0	—	0	—	—
4680 non-ferrous scrap	0	0	0	—	—
Subtotal other non-metal. min.	0	—	0	—	—
4900 non-metal. min. nec	0	—	0	—	—
Total primary manufactured goods	51	—	12	39	0
Subtotal paper products	9	—	7	1	—
5110 newsprint	1	—	—	1	—
5120 paper & paperboard	7	—	7	—	—
5190 paper products nec	1	—	1	—	—
Subtotal lime, cement and glass	38	—	1	37	0
5220 cement & concrete	37	—	—	37	—
5240 glass & glass prod.	1	—	1	—	—
5290 misc. mineral prod.	1	—	1	—	0
Subtotal primary iron and steel products	0	—	0	—	—
5315 ferro alloys	0	—	0	—	—
5330 i&s plates & sheets	0	—	0	—	—
5370 i&s pipe & tube	0	—	0	—	—
Subtotal primary non-ferrous metal products	3	—	3	—	—
5421 copper	0	—	0	—	—
5422 aluminum	1	—	1	—	—
5429 smelted prod. nec	0	—	0	—	—
5480 fab. metal products	1	—	1	—	—
Subtotal primary wood products	1	—	1	—	—
5540 primary wood prod.	1	—	1	—	—
Total food and farm products	32	1	32	—	0
Subtotal fish	1	0	0	—	—
6134 fish (not shellfish)	0	—	0	—	—
6136 shellfish	0	0	0	—	—
Subtotal grain	3	—	3	—	—
6241 wheat	3	—	3	—	—
6344 corn	0	—	0	—	—
Subtotal oilseeds	0	—	0	—	—
6522 soybeans	0	—	0	—	—

LAKE WASHINGTON SHIP CANAL, WA (INCLUDED IN TRAFFIC OF SEATTLE HARBOR, WA)
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
6590 oilseeds nec	0	—	0	—	—
Subtotal vegetable products	4	0	4	—	—
6653 vegetable oils	0	—	0	—	—
6654 vegetables & prod.	4	0	4	—	—
Subtotal processed grain and animal feed	8	—	8	—	—
6746 wheat flour	1	—	1	—	—
6747 grain mill products	0	—	0	—	—
6781 hay & fodder	6	—	6	—	—
6782 animal feed, prep.	1	—	1	—	—
Subtotal other agricultural products	16	0	16	—	0
6811 meat, fresh, frozen	4	0	4	—	—
6817 meat, prepared	0	—	0	—	—
6822 dairy products	0	—	0	—	—
6835 fish, prepared	0	—	0	—	—
6838 tallow, animal oils	1	—	1	—	—
6839 animals & prod. nec	2	—	2	—	—
6857 fruit & nuts nec	5	—	5	—	—
6858 fruit juices	0	—	0	—	—
6885 alcoholic beverages	2	—	2	—	—
6889 food products nec	2	0	2	—	0
6891 tobacco & products	0	—	0	—	—
6899 farm products nec	0	—	0	—	—
Total all manufactured equipment, machinery and products	7	0	7	—	0
7110 machinery (not elec)	2	—	2	—	—
7120 electrical machinery	1	—	1	—	—
7210 vehicles & parts	0	0	0	—	—
7220 aircraft & parts	0	0	—	—	—
7230 ships & boats	0	—	0	—	—
7300 ordnance & access.	0	—	0	—	—
7400 manufac. wood prod.	0	0	0	—	—
7500 textile products	1	0	1	—	—
7600 rubber & plastic pr.	0	—	0	—	—
7900 manufac. prod. nec	2	0	2	—	0
Total unknown or not elsewhere classified	0	0	0	—	—
9900 unknown or nec	0	0	0	—	—

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Inbound Upbound	Outbound Downbnd
Total, all commodities	1,510	51	145	1,229	85
Total petroleum and petroleum products	84	0	1	56	27
Subtotal petroleum products	84	0	1	56	27
2211 gasoline	0	0	0	—	—
2330 distillate fuel oil	59	0	0	56	3
2340 residual fuel oil	23	—	—	1	23
2350 lube oil & greases	0	—	0	—	0
2640 liquid natural gas	1	0	0	—	1
2990 petro. products nec	0	—	0	—	0
Total chemicals and related products	4	0	3	0	0
Subtotal fertilizers	2	—	2	—	0
3110 nitrogenous fert.	2	—	2	—	0
3120 phosphatic fert.	0	—	0	—	—
3190 fert. & mixes nec	0	—	0	—	0
Subtotal other chemicals and related products	2	0	2	0	0
3211 acyclic hydrocarbons	0	—	0	—	—
3219 other hydrocarbons	0	0	—	—	—
3220 alcohols	0	—	0	—	—
3273 ammonia	0	—	0	—	—
3275 inorg. elem., oxides, & halogen salts	0	0	—	—	0
3276 metallic salts	0	—	0	—	—
3282 pigments & paints	0	—	0	—	0
3286 plastics	1	—	1	—	0
3293 explosives	0	—	0	—	—
3299 chem. products nec	0	0	0	0	—
Total crude materials, inedible except fuels	1,172	1	26	1,134	12
Subtotal forest products, wood and chips	35	0	20	6	9
4150 fuel wood	0	—	—	0	0
4161 wood chips	0	—	—	—	0
4170 wood in the rough	10	—	0	5	5
4189 lumber	24	0	19	0	4
4190 forest products nec	1	—	0	—	0
Subtotal pulp and waste paper	0	0	—	0	—
4225 pulp & waste paper	0	0	—	0	—
Subtotal soil, sand, gravel, rock and stone	1,129	—	1	1,127	2
4322 limestone	0	—	—	—	0
4323 gypsum	0	—	0	—	0
4331 sand & gravel	1,129	—	0	1,127	2
4338 soil & fill dirt	0	—	—	—	0
Subtotal iron ore and scrap	2	1	—	1	—
4420 iron & steel scrap	2	1	—	1	—
Subtotal non-ferrous ores and scrap	0	0	—	0	—
4680 non-ferrous scrap	0	0	—	0	—

LAKE WASHINGTON SHIP CANAL, WA (INCLUDED IN TRAFFIC OF SEATTLE HARBOR, WA)
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Inbound Upbound	Outbound Downbnd
Subtotal slag	0	---	0	---	---
4860 slag	0	---	0	---	---
Subtotal other non-metal. min.	6	0	5	0	0
4900 non-metal. min. nec	6	0	5	0	0
Total primary manufactured goods	65	2	54	0	10
Subtotal paper products	5	0	4	0	1
5110 newsprint	0	---	---	---	0
5190 paper products nec	5	0	4	0	1
Subtotal lime, cement and glass	24	0	18	0	6
5220 cement & concrete	1	---	1	---	1
5240 glass & glass prod.	3	0	2	0	1
5290 misc. mineral prod.	20	0	16	0	4
Subtotal primary iron and steel products	4	---	4	---	0
5330 i&s plates & sheets	0	---	0	---	---
5360 i&s bars & shapes	1	---	1	---	---
5370 i&s pipe & tube	1	---	1	---	0
5390 primary i&s nec	2	---	2	---	---
Subtotal primary non-ferrous metal products	21	1	17	0	2
5422 aluminum	0	0	0	---	0
5480 fab. metal products	21	1	17	0	2
Subtotal primary wood products	10	---	10	0	0
5540 primary wood prod.	10	---	10	0	0
Total food and farm products	110	46	10	36	19
Subtotal fish	59	40	5	15	0
6134 fish (not shellfish)	41	29	4	8	0
6136 shellfish	18	11	0	7	---
Subtotal vegetable products	1	0	0	0	0
6654 vegetables & prod.	1	0	0	0	0
Subtotal processed grain and animal feed	1	---	0	0	0
6747 grain mill products	0	---	---	0	---
6781 hay & fodder	0	---	0	---	0
6782 animal feed, prep.	1	---	0	0	0
Subtotal other agricultural products	49	6	4	21	18
6811 meat, fresh, frozen	1	0	1	0	0
6835 fish, prepared	20	6	---	14	---
6858 fruit juices	0	0	0	0	0
6872 cocoa beans	0	0	---	---	---
6885 alcoholic beverages	8	---	1	4	3
6887 groceries	17	---	2	0	15
6888 water & ice	3	---	---	3	---
6889 food products nec	0	---	0	---	0
6899 farm products nec	0	---	---	---	0
Total all manufactured equipment, machinery and products	75	2	52	3	18
7110 machinery (not elec)	10	0	7	1	1
7120 electrical machinery	2	0	2	0	0
7210 vehicles & parts	7	0	6	0	1
7220 aircraft & parts	0	0	0	---	---
7230 ships & boats	1	0	0	0	0
7400 manufac. wood prod.	8	0	5	0	3
7500 textile products	0	0	0	0	0
7600 rubber & plastic pr.	1	0	0	0	0
7900 manufac. prod. nec	46	2	32	1	11
Total waste and scrap nec	0	---	---	0	---
8900 waste and scrap nec	0	---	---	0	---

*Includes 0 (x1000) tons of foreign inbound in-transits; Includes 1 (x1000) tons of foreign outbound in-transits.

EVERETT HARBOR AND SNOHOMISH RIVER, WA

Section Included: Port Gardner Bay from the Weyerhaeuser Company Thermo-Mechanical Mill, on the south to Preston Point on the north and including the Snohomish River and Tributary Waters. Controlling Depth: East Waterway, 33.3 feet; 14.0 feet in Port Gardner Bay to the settling basin; 8.8 feet in the settling basin; 6.1 feet from the settling basin to Burlington Northern Railroad; 4.8 feet from Burlington Northern Railroad to head of waterway at Steamboat Slough. Project Depth: East Waterway, 30 feet; deep water in Port Gardner Bay to settling basin, 15 feet; settling basin, 20 feet; from the settling basin to the gap, 8 feet; from the gap to the upstream settling basin, 8 feet; 40 feet in upstream settling basin; 8 feet to head of waterway. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	6,036	1992	6,010	1995	4,441	1998	3,321
1990	6,580	1993	4,714	1996	4,007		
1991	5,453	1994	4,192	1997	3,640		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports*
Total, all commodities	828	362	316	70	81
Total chemicals and related products	3	—	0	—	3
Subtotal other chemicals and related products	3	—	0	—	3
3274 sodium hydroxide	0	—	—	—	0
3276 metallic salts	3	—	—	—	3
3286 plastics	0	—	0	—	—
Total crude materials, inedible except fuels	816	362	310	67	77
Subtotal forest products, wood and chips	446	—	310	58	77
4150 fuel wood	2	—	—	2	—
4161 wood chips	86	—	—	9	77
4170 wood in the rough	357	—	310	47	—
4189 lumber	0	—	0	0	—
Subtotal soil, sand, gravel, rock and stone	9	—	—	9	—
4310 building stone	2	—	—	2	—
4331 sand & gravel	7	—	—	7	—
Subtotal non-ferrous ores and scrap	362	362	—	—	—
4650 aluminum ore	362	362	—	—	—
Total primary manufactured goods	3	—	0	3	—
Subtotal paper products	3	—	—	3	—
5110 newsprint	2	—	—	2	—
5120 paper & paperboard	1	—	—	1	—
Subtotal lime, cement and glass	0	—	0	—	—
5290 misc. mineral prod.	0	—	—	—	—
Subtotal primary non-ferrous metal products	0	—	0	—	—
5480 fab. metal products	0	—	—	—	—
Subtotal primary wood products	0	—	0	—	—
5540 primary wood prod.	0	—	—	—	—
Total food and farm products	6	—	6	—	—
Subtotal vegetable products	0	—	0	—	—
6654 vegetables & prod.	0	—	—	—	—
Subtotal processed grain and animal feed	1	—	1	—	—
6747 grain mill products	1	—	—	—	—
Subtotal other agricultural products	5	—	5	—	—
6839 animals & prod. nec	0	—	—	—	—
6857 fruit & nuts nec	5	—	—	—	—
Total all manufactured equipment, machinery and products	0	0	0	—	—
7110 machinery (not elec)	0	—	—	—	—
7120 electrical machinery	0	0	—	—	—
7500 textile products	0	0	—	—	—
7900 manufac. prod. nec	0	—	0	—	—

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	
Total, all commodities	2,492	6	19	1,469	881	117
Total petroleum and petroleum products	70	—	—	43	27	0
Subtotal petroleum products	70	—	—	43	27	0
2330 distillate fuel oil	0	—	—	0	—	0
2340 residual fuel oil	70	—	—	43	27	—
Total chemicals and related products	18	—	—	18	—	—
Subtotal other chemicals and related products	18	—	—	18	—	—
3274 sodium hydroxide	9	—	—	9	—	—
3275 inorg. elem., oxides, & halogen salts	9	—	—	9	—	—
Total crude materials, inedible except fuels	2,381	5	19	1,394	846	116
Subtotal forest products, wood and chips	2,119	5	19	1,133	846	116
4150 fuel wood	7	—	—	4	3	—
4161 wood chips	163	—	—	54	109	—
4170 wood in the rough	1,949	5	19	1,075	735	116

EVERETT HARBOR AND SNOHOMISH RIVER, WA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
4189 lumber	0	—	—	—	0	—
Subtotal soil, sand, gravel, rock and stone	261	—	—	261	—	—
4331 sand & gravel	259	—	—	259	—	—
4338 soil & fill dirt	2	—	—	2	—	—
Total primary manufactured goods	1	—	—	0	0	—
Subtotal lime, cement and glass	0	—	—	—	0	—
5290 misc. mineral prod.	0	—	—	—	0	—
Subtotal primary non-ferrous metal products	0	—	—	0	—	—
5480 fab. metal products	0	—	—	0	—	—
Total food and farm products	1	—	—	1	—	—
Subtotal fish	1	—	—	1	—	—
6134 fish (not shellfish)	1	—	—	1	—	—
6136 shellfish	0	—	—	0	—	—
Total all manufactured equipment, machinery and products	22	1	—	13	7	1
7110 machinery (not elec)	1	1	—	—	—	—
7400 manufac. wood prod.	0	—	—	—	0	—
7900 manufac. prod. nec	21	—	—	13	7	1
Total unknown or not elsewhere classified	1	—	—	0	1	—
9900 unknown or nec	1	—	—	0	1	—

*Includes 2 (x1000) tons of Canadian outbound in-transits.

ANACORTES HARBOR, WA

Section Included: Water front of Fidalgo Island from Burrows Bay to and including the oil refinery wharves on Fidalgo Bay. Controlling Depth: Main harbor on Guemes Channel, 33 feet; CapSante Waterway, Outer Waterway 11.4 feet, Inner Waterway 11.8 feet, Anacortes Navigation Channel, 16.2 feet. Project Depth: No project for main harbor; Ca Sante Waterway, 12 feet Anacortes Navigation Channel, 18 feet. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	13,169	1992	15,260	1995	13,110	1998	11,948
1990	15,438	1993	13,124	1996	13,844		
1991	14,481	1994	12,950	1997	13,904		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports*
Total, all commodities	1,940	830	439	286	385
Total petroleum and petroleum products	1,646	829	410	36	370
Subtotal crude petroleum	829	829	—	—	—
2100 crude petroleum	829	829	—	—	—
Subtotal petroleum products	817	—	410	36	370
2211 gasoline	74	—	47	—	27
2221 kerosene	28	—	—	—	28
2330 distillate fuel oil	107	—	63	34	10
2340 residual fuel oil	149	—	143	2	4
2350 lube oil & greases	0	—	0	—	—
2429 naphtha & solvents	198	—	157	—	40
2540 petroleum coke	262	—	—	—	262
Total chemicals and related products	2	0	2	—	—
Subtotal other chemicals and related products	2	0	2	—	—
3230 carboxylic acids	0	—	0	—	—
3283 coloring mat. nec	0	0	—	—	—
3284 medicines	0	—	0	—	—
3285 perfumes & cleansers	0	—	0	—	—
3286 plastics	1	—	1	—	—
3299 chem. products nec	0	—	0	—	—
Total crude materials, inedible except fuels	272	—	25	234	14
Subtotal forest products, wood and chips	272	—	25	234	14
4170 wood in the rough	272	—	25	234	14
Subtotal vegetable products	0	0	0	—	—
Total food and farm products	1	0	1	—	—
Total primary manufactured goods	0	0	0	0	—
Subtotal lime, cement and glass	0	0	0	—	—
5240 glass & glass prod.	0	0	0	—	—
5290 misc. mineral prod.	0	0	—	—	—
Subtotal primary non-ferrous metal products	0	0	0	0	—
5421 copper	0	—	0	—	—
5480 fab. metal products	0	0	0	0	—

ANACORTES HARBOR, WA
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports*
Total food and farm products	1	0	1	—	—
Subtotal vegetable products	0	0	0	—	—
6654 vegetables & prod.	0	0	0	—	—
Subtotal other agricultural products	1	0	0	—	—
6811 meat, fresh, frozen	0	—	0	—	—
6857 fruit & nuts nec	0	—	0	—	—
6885 alcoholic beverages	0	—	0	—	—
6889 food products nec	0	0	0	—	—
Total all manufactured equipment, machinery and products	2	0	2	0	0
7110 machinery (not elec)	0	0	0	—	—
7120 electrical machinery	0	0	—	—	—
7210 vehicles & parts	1	0	1	—	—
7230 ships & boats	0	—	—	0	0
7400 manufac. wood prod.	0	—	—	—	0
7500 textile products	1	—	1	—	—
7600 rubber & plastic pr.	0	0	0	—	—
7900 manufac. prod. nec	0	0	0	—	—
Total unknown or not elsewhere classified	16	—	—	16	—
9900 unknown or nec	16	—	—	16	—

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	10,008	7,473	1,100	304	1,078	54
Total petroleum and petroleum products	9,855	7,473	1,100	228	1,001	54
Subtotal crude petroleum	7,378	7,326	39	—	12	—
2100 crude petroleum	7,378	7,326	39	—	12	—
Subtotal petroleum products	2,477	147	1,061	228	988	54
2211 gasoline	647	19	549	7	71	0
2330 distillate fuel oil	763	119	372	53	198	22
2340 residual fuel oil	1,054	9	133	168	713	31
2350 lube oil & greases	13	—	7	0	6	—
Total crude materials, inedible except fuels	151	—	—	75	76	—
Subtotal forest products, wood and chips	148	—	—	72	76	—
4170 wood in the rough	148	—	—	72	76	—
4189 lumber	0	—	—	—	0	—
Subtotal sulphur, clay and salt	3	—	—	3	—	—
4782 clay & refrac. mat.	3	—	—	3	—	—
Total primary manufactured goods	0	—	—	—	0	—
Subtotal lime, cement and glass	0	—	—	—	0	—
5290 misc. mineral prod.	0	—	—	—	0	—
Total food and farm products	1	—	—	1	0	—
Subtotal fish	1	—	—	1	0	—
6134 fish (not shellfish)	1	—	—	0	0	—
6136 shellfish	1	—	—	1	—	—
Total all manufactured equipment, machinery and products	1	—	—	—	1	—
7210 vehicles & parts	1	—	—	—	1	—
7400 manufac. wood prod.	0	—	—	—	0	—

*Includes 38 (x1000) tons of Canadian outbound in-transits.

BELLINGHAM BAY AND HARBOR, WA

Section Included: Bellingham Bay and Chuckanut Bay from the wharf of the Olympic Portland Cement Company on the north to and including Chuckanut Inter-Island Ferry Slip on the south. Controlling Depth: Whatcom Creek Waterway, 8.9 to 25.8 feet; Squalicum Creek Waterway, 23.2 feet, from deep water to turning basin, 19.7 feet in turning basin, 11.8 feet from sta. 16 + 00 to 5 + 40; I & J St. Waterway, 11.0 ft. Project Depth: Whatcom Creek Waterway, 18 to 30 feet; Squalicum Creek Waterway, 26 feet over the entire waterway. I & J Street Waterway 18 feet over the entire waterway. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	1,769	1992	1,383	1995	1,291	1998	1,244
1990	1,303	1993	1,223	1996	1,419		
1991	1,482	1994	1,343	1997	1,555		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
Total, all commodities	529	108	203	166	52
Total petroleum and petroleum products	115	34	20	25	35
Subtotal crude petroleum	34	34	—	—	—
2100 crude petroleum	34	34	—	—	—
Subtotal petroleum products	81	—	20	25	35
2211 gasoline	6	—	—	6	—
2330 distillate fuel oil	48	—	—	20	28
2340 residual fuel oil	7	—	—	—	7
2350 lube oil & greases	20	—	0	—	—
2640 liquid natural gas	20	—	20	—	—
Total chemicals and related products	50	0	45	3	2
Subtotal fertilizers	0	0	—	—	—
3110 nitrogenous fert.	0	0	—	—	—
Subtotal other chemicals and related products	50	0	45	3	2
3219 other hydrocarbons	0	—	0	—	—
3230 carboxylic acids	2	—	—	—	—
3240 nitrogen func. comp.	0	0	0	—	—
3260 organic comp. nec	0	—	0	—	—
3274 sodium hydroxide	2	—	—	—	2
3275 inorg. elem., oxides, & halogen salts	0	—	0	—	—
3276 metallic salts	0	—	0	—	—
3282 pigments & paints	0	—	0	—	—
3283 coloring mat. nec	0	0	0	—	—
3284 medicines	0	0	0	—	—
3285 perfumes & cleansers	6	0	6	—	—
3286 plastics	2	0	2	—	—
3291 pesticides	0	—	0	—	—
3292 starches, gluten, glue	0	0	0	—	—
3297 chemical additives	0	—	0	—	—
3298 wood & resin chem.	36	—	33	3	—
3299 chem. products nec	0	—	0	—	—
Total crude materials, inedible except fuels	255	65	42	133	15
Subtotal forest products, wood and chips	52	0	0	41	11
4110 rubber & gums	0	—	0	—	—
4150 fuel wood	0	—	—	0	—
4161 wood chips	52	—	—	41	11
4189 lumber	0	0	0	—	—
4190 forest products nec	0	—	0	—	—
Subtotal pulp and waste paper	42	—	42	—	—
4225 pulp & waste paper	42	—	42	—	—
Subtotal soil, sand, gravel, rock and stone	95	—	0	91	4
4322 limestone	44	—	—	44	—
4323 gypsum	10	—	0	10	—
4331 sand & gravel	41	—	—	37	4
Subtotal iron ore and scrap	1	—	0	1	—
4420 iron & steel scrap	1	—	0	1	—
Subtotal non-ferrous ores and scrap	65	65	0	—	—
4650 aluminum ore	65	65	0	—	—
4680 non-ferrous scrap	0	—	0	—	—
Subtotal sulphur, clay and salt	0	—	0	—	—
4782 clay & refrac. mat.	0	—	0	—	—
Subtotal other non-metal. min.	0	—	0	—	—
4900 non-metal. min. nec	0	—	0	—	—
Total primary manufactured goods	54	1	53	—	—
Subtotal paper products	7	0	7	—	—
5110 newsprint	1	—	1	—	—
5120 paper & paperboard	5	0	5	—	—
5190 paper products nec	1	0	1	—	—
Subtotal lime, cement and glass	2	0	2	—	—
5240 glass & glass prod.	0	0	0	—	—
5290 misc. mineral prod.	1	0	1	—	—
Subtotal primary iron and steel products	0	0	0	—	—
5312 pig iron	0	—	0	—	—
5330 i&s plates & sheets	0	—	0	—	—
5360 i&s bars & shapes	0	0	—	—	—
5370 i&s pipe & tube	0	0	0	—	—
5390 primary i&s nec	0	—	0	—	—
Subtotal primary non-ferrous metal products	45	1	44	—	—
5421 copper	0	0	0	—	—
5422 aluminum	44	0	44	—	—
5429 smelted prod. nec	0	—	0	—	—

BELLINGHAM BAY AND HARBOR, WA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports*	Exports*	Imports	Exports
5480 fab. metal products	1	1	0	—	—
Subtotal primary wood products	0	—	0	—	—
5540 primary wood prod.	0	—	0	—	—
Total food and farm products	47	3	40	4	—
Subtotal fish	16	3	9	4	—
6134 fish (not shellfish)	13	—	9	4	—
6136 shellfish	3	3	0	—	—
Subtotal grain	0	0	0	—	—
6344 corn	0	—	0	—	—
6442 rice	0	0	—	—	—
Subtotal vegetable products	2	0	2	—	—
6653 vegetable oils	0	—	0	—	—
6654 vegetables & prod.	2	0	2	—	—
Subtotal processed grain and animal feed	2	—	2	—	—
6747 grain mill products	0	—	0	—	—
6781 hay & fodder	1	—	1	—	—
6782 animal feed, prep.	1	—	1	—	—
Subtotal other agricultural products	26	0	26	—	—
6811 meat, fresh, frozen	15	—	15	—	—
6817 meat, prepared	1	—	1	—	—
6822 dairy products	0	—	0	—	—
6835 fish, prepared	0	0	0	—	—
6838 tallow, animal oils	7	—	7	—	—
6839 animals & prod. nec	0	—	0	—	—
6857 fruit & nuts nec	2	0	2	—	—
6858 fruit juices	0	—	0	—	—
6861 sugar	0	—	0	—	—
6871 coffee	0	0	0	—	—
6885 alcoholic beverages	0	—	0	—	—
6889 food products nec	1	—	1	—	—
6899 farm products nec	0	—	0	—	—
Total all manufactured equipment, machinery and products	7	5	2	0	0
7110 machinery (not elec)	1	0	1	—	—
7120 electrical machinery	2	1	0	—	—
7210 vehicles & parts	0	0	0	—	—
7220 aircraft & parts	0	—	0	—	—
7230 ships & boats	0	0	—	0	0
7300 ordnance & access.	0	—	0	—	—
7400 manufac. wood prod.	0	0	0	—	—
7500 textile products	1	1	0	—	—
7600 rubber & plastic pr.	1	0	0	—	—
7900 manufac. prod. nec	3	2	0	0	—
Total unknown or not elsewhere classified	1	0	0	0	—
9900 unknown or nec	1	0	0	0	—

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
Total, all commodities	715	260	114	225	116
Total petroleum and petroleum products	35	—	9	6	20
Subtotal petroleum products	35	—	9	6	20
2330 distillate fuel oil	6	—	—	6	—
2340 residual fuel oil	29	—	9	—	20
Total chemicals and related products	104	—	104	—	—
Subtotal other chemicals and related products	104	—	104	—	—
3274 sodium hydroxide	48	—	48	—	—
3298 wood & resin chem.	57	—	57	—	—
Total crude materials, inedible except fuels	562	260	—	207	95
Subtotal forest products, wood and chips	316	126	—	95	94
4150 fuel wood	28	12	—	16	—
4161 wood chips	186	114	—	72	—
4170 wood in the rough	102	—	—	8	94
4189 lumber	0	—	—	—	0
Subtotal pulp and waste paper	5	—	—	4	1
4225 pulp & waste paper	5	—	—	4	1
Subtotal soil, sand, gravel, rock and stone	108	—	—	108	—
4331 sand & gravel	108	—	—	108	—
Subtotal other non-metal. min.	133	133	—	—	—
4900 non-metal. min. nec	133	133	—	—	—
Total primary manufactured goods	1	—	0	0	0
Subtotal lime, cement and glass	0	—	—	0	0
5290 misc. mineral prod.	0	—	—	0	0
Subtotal primary non-ferrous metal products	0	—	0	—	0
5480 fab. metal products	0	—	0	—	0
Total food and farm products	12	1	0	12	—
Subtotal fish	12	1	0	12	—
6134 fish (not shellfish)	10	—	—	10	—
6136 shellfish	2	1	0	1	—

BELLINGHAM BAY AND HARBOR, WA
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
Total all manufactured equipment, machinery and products	1	---	1	---	0
7110 machinery (not elec)	1	---	1	---	---
7400 manufac. wood prod.	0	---	---	---	0
7900 manufac. prod. nec	0	---	0	---	---

*Includes 0 (x1000) tons of foreign inbound in-transits; Includes 9 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons
BLAINE HARBOR, WA	3274 sodium hydroxide	3
	5480 fab. metal products	0
	Total Tons(x1000)	3
COLUMBIA RIVER BETWEEN WENATCHEE AND KETTLE FALLS, WA	No Commerce Reported	
FLATHEAD LAKE, MT	No Commerce Reported	
HOQUIAM RIVER, WA	4170 wood in the rough	95
	4331 sand & gravel	29
	Total Tons(x1000)	124
	Total Ton-miles(x1000)	124
KOOTENAI RIVER, ID AND MT	No Commerce Reported	
NEAH BAY, WA	4161 wood chips	12
	4170 wood in the rough	108
	4310 building stone	4
	6134 fish (not shellfish)	2
	6136 shellfish	0
	Total Tons(x1000)	127
PORT GAMBLE HARBOR, WA	4150 fuel wood	4
	4161 wood chips	33
	4170 wood in the rough	149
	Total Tons(x1000)	186
QUILLAYUTE RIVER, WA	6134 fish (not shellfish)	14
	6136 shellfish	4
	Total Tons(x1000)	18
	Total Ton-miles(x1000)	18
SKAGIT RIVER, WA	4170 wood in the rough	1
	6134 fish (not shellfish)	0
	Total Tons(x1000)	1
	Total Ton-miles(x1000)	16
STILLAGUAMISH RIVER, WA	No Commerce Reported	
SWINOMISH CHANNEL, WA	2430 asphalt, tar & pitch	1
	4170 wood in the rough	164
	4331 sand & gravel	25
	4338 soil & fill dirt	3
	6134 fish (not shellfish)	5
	6136 shellfish	2
	Total Tons(x1000)	200
Total Ton-miles(x1000)	564	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
WATERWAY CONNECTING PORT TOWNSEND BAY AND OAK BAY, WA	4170 wood in the rough	32
	Total Tons(x1000)	32
	Total Ton-miles(x1000)	160
WILLAPA RIVER AND HARBOR, AND NASELLE RIVER, WA	4170 wood in the rough	6
	4331 sand & gravel	44
	6134 fish (not shellfish)	0
	6136 shellfish	1
	Total Tons(x1000)	50
Non-project		
COEUR D ALENE LAKE AND ST. JOE RIVER, ID	4170 wood in the rough	625
	Total Tons(x1000)	625
	Total Ton-miles(x1000)	14,969
OTHER PUGET SOUND AREA PORTS, WA (NET)	2100 crude petroleum	14,609
	2211 gasoline	1,960
	2221 kerosene	57
	2330 distillate fuel oil	1,783
	2340 residual fuel oil	1,499
	2350 lube oil & greases	35
	2429 naphtha & solvents	336
	2430 asphalt, tar & pitch	76
	2540 petroleum coke	7
	2640 liquid natural gas	120
	2990 petro. products nec	40
	3211 acyclic hydrocarbons	8
	3212 benzene & toluene	46
	3230 carboxylic acids	0
	3240 nitrogen func. comp.	0
	3250 organo - inorg. comp.	0
	3282 pigments & paints	0
	3283 coloring mat. nec	0
	3284 medicines	0
	3285 perfumes & cleansers	0
	3286 plastics	0
	3298 wood & resin chem.	4
	3299 chem. products nec	0
	4170 wood in the rough	616
	4189 lumber	0
	4225 pulp & waste paper	1
	4310 building stone	4
	4322 limestone	154
	4331 sand & gravel	2,987
	4335 waterway improv. mat	1
	4338 soil & fill dirt	9
	4420 iron & steel scrap	5
	4650 aluminum ore	180
	4690 non-ferrous ores nec	11
	4782 clay & refrac. mat.	75
	4900 non-metal. min. nec	0
	5190 paper products nec	0
	5220 cement & concrete	60
	5290 misc. mineral prod.	1
	5320 i&s primary forms	0
	5360 i&s bars & shapes	0
	5480 fab. metal products	8
6134 fish (not shellfish)	1	
6136 shellfish	2	
6590 oilseeds nec	10	
6654 vegetables & prod.	0	
6747 grain mill products	0	
6781 hay & fodder	0	
6782 animal feed, prep.	0	
6811 meat, fresh, frozen	3	
6817 meat, prepared	1	
6839 animals & prod. nec	1	
6857 fruit & nuts nec	2	
6858 fruit juices	0	
6885 alcoholic beverages	0	
6893 cotton	0	
7110 machinery (not elec)	0	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons
OTHER PUGET SOUND AREA PORTS, WA (NET) - continued	7120 electrical machinery	0
	7210 vehicles & parts	1
	7230 ships & boats	0
	7400 manufac. wood prod.	2
	7500 textile products	0
	7600 rubber & plastic pr.	0
	7900 manufac. prod. nec	0
	8900 waste and scrap nec	0
	9900 unknown or nec	1
	Total Tons(x1000)	<hr/> 24,720

KETCHIKAN HARBOR, AK

Section Included: Tongass Narrows from Point Higgins on the north to Mountain Point on the south and including Herring Bay on George Inlet.
 Controlling Depth: Main Harbor, adequate; small boat basins, Ketchikan Creek, 10.0 feet; Bar Point, 15 feet. Project Depth: No project depth for Main Harbor; small boat basins, 10 and 15 feet. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,294	1992	1,986	1995	1,821	1998	937
1990	1,947	1993	1,564	1996	1,341		
1991	1,568	1994	1,759	1997	1,241		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Exports*	Imports	Exports	Imports
Total, all commodities	303	158	37	108	
Total petroleum and petroleum products	29	—	29	—	
Subtotal petroleum products	29	—	29	—	
2211 gasoline	8	—	8	—	
2330 distillate fuel oil	19	—	19	—	
2640 liquid natural gas	2	—	2	—	
Total chemicals and related products	0	—	0	—	
Subtotal other chemicals and related products	0	—	0	—	
3293 explosives	0	—	0	—	
Total crude materials, inedible except fuels	241	158	7	76	
Subtotal forest products, wood and chips	234	158	—	76	
4161 wood chips	35	—	—	35	
4170 wood in the rough	187	146	—	41	
4189 lumber	12	12	—	—	
Subtotal soil, sand, gravel, rock and stone	7	—	7	—	
4331 sand & gravel	7	—	7	—	
Total food and farm products	32	—	—	32	
Subtotal fish	32	—	—	32	
6134 fish (not shellfish)	32	—	—	32	
6136 shellfish	0	—	—	0	
Total all manufactured equipment, machinery and products	0	0	0	0	
7110 machinery (not elec)	0	—	0	0	
7120 electrical machinery	0	—	0	—	
7230 ships & boats	0	—	0	—	
7600 rubber & plastic pr.	0	0	0	—	
7900 manufac. prod. nec	0	—	0	—	
Total unknown or not elsewhere classified	0	0	0	—	
9900 unknown or nec	0	0	0	—	

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	633	50	45	280	246	12
Total coal	1	—	—	1	0	—
1100 coal lignite	1	—	—	1	0	—
Total petroleum and petroleum products	239	50	14	49	118	8
Subtotal petroleum products	239	50	14	49	118	8
2211 gasoline	91	23	5	20	41	2
2330 distillate fuel oil	141	24	6	29	77	5
2340 residual fuel oil	6	3	3	—	0	—
2350 lube oil & greases	0	—	—	0	0	—
2430 asphalt, tar & pitch	0	—	—	0	0	—
2540 petroleum coke	0	—	—	0	0	—
2640 liquid natural gas	0	—	—	0	0	—
2990 petro. products nec	1	—	—	1	0	—
Total chemicals and related products	5	—	—	4	1	—
Subtotal fertilizers	1	—	—	1	0	—
3110 nitrogenous fert.	1	—	—	1	0	—
Subtotal other chemicals and related products	4	—	—	3	1	—
3282 pigments & paints	0	—	—	0	0	—
3286 plastics	0	—	—	0	—	—
3293 explosives	0	—	—	0	0	—
3299 chem. products nec	4	—	—	3	1	—
Total crude materials, inedible except fuels	196	—	28	119	49	—
Subtotal forest products, wood and chips	188	—	27	118	43	—
4110 rubber & gums	0	—	—	0	0	—
4150 fuel wood	19	—	1	3	16	—
4161 wood chips	36	—	26	—	10	—
4170 wood in the rough	111	—	—	111	—	—
4189 lumber	21	—	0	4	17	—
4190 forest products nec	0	—	—	0	0	—

KETCHIKAN HARBOR, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic				
		Coastwise		Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Subtotal pulp and waste paper	0	---	---	0	0	---
4225 pulp & waste paper	0	---	---	0	0	---
Subtotal soil, sand, gravel, rock and stone	4	---	---	0	4	---
4323 gypsum	0	---	---	0	---	---
4331 sand & gravel	4	---	---	0	4	---
Subtotal iron ore and scrap	3	---	1	0	2	---
4420 iron & steel scrap	3	---	1	0	2	---
Subtotal other non-metal. min.	0	---	---	0	0	---
4900 non-metal. min. nec	0	---	---	0	0	---
Total primary manufactured goods	20	---	0	16	3	---
Subtotal paper products	1	---	---	1	0	---
5190 paper products nec	1	---	---	1	0	---
Subtotal lime, cement and glass	7	---	0	6	1	---
5220 cement & concrete	4	---	---	3	0	---
5240 glass & glass prod.	2	---	---	2	0	---
5290 misc. mineral prod.	1	---	0	1	0	---
Subtotal primary iron and steel products	0	---	---	0	0	---
5370 i&s pipe & tube	0	---	---	0	0	---
Subtotal primary non-ferrous metal products	12	---	---	9	2	---
5480 fab. metal products	12	---	---	9	2	---
Total food and farm products	67	---	0	37	29	---
Subtotal fish	15	---	0	3	12	---
6134 fish (not shellfish)	8	---	0	2	6	---
6136 shellfish	7	---	---	1	5	---
Subtotal vegetable products	0	---	---	0	0	---
6654 vegetables & prod.	0	---	---	0	0	---
Subtotal processed grain and animal feed	0	---	---	---	0	---
6782 animal feed, prep.	0	---	---	---	0	---
Subtotal other agricultural products	51	---	---	34	18	---
6811 meat, fresh, frozen	0	---	---	0	0	---
6835 fish, prepared	11	---	---	---	11	---
6858 fruit juices	0	---	---	0	0	---
6885 alcoholic beverages	4	---	---	4	1	---
6887 groceries	11	---	---	8	3	---
6888 water & ice	1	---	---	0	0	---
6889 food products nec	25	---	---	22	3	---
6899 farm products nec	0	---	---	0	0	---
Total all manufactured equipment, machinery and products	105	1	2	53	45	4
7110 machinery (not elec)	15	1	2	8	4	0
7120 electrical machinery	2	---	---	2	0	---
7210 vehicles & parts	6	---	0	3	2	---
7230 ships & boats	1	0	---	0	0	---
7400 manufac. wood prod.	24	---	0	5	19	---
7500 textile products	0	---	---	0	0	---
7600 rubber & plastic pr.	2	---	---	2	0	---
7900 manufac. prod. nec	55	0	0	32	19	4
Total waste and scrap nec	0	---	---	0	0	---
8900 waste and scrap nec	0	---	---	0	0	---

*Includes 0 (x1000) tons of foreign outbound in-transits.

WRANGELL NARROWS, AK

Section Included: Entire 24 mile long waterway. Controlling Depth: 26 feet in the anchorage basin and 24 feet in the authorized channel with exception of the area near Colorado Reef where a depth of 21.6 feet exists. Project Depth: 27 feet through Petersburg Bar; 26 feet in anchorage basin, vicinity of mile 14; all other, 24 feet. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	939	1992	718	1995	544	1998	432
1990	858	1993	569	1996	473		
1991	714	1994	547	1997	496		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Coastwise		
		Receipts	Through	
			Upbound	Downbnd
Total, all commodities	48	2	32	14
Total petroleum and petroleum products	32	2	17	14
Subtotal petroleum products	32	2	17	14
2211 gasoline	13	0	6	7
2330 distillate fuel oil	19	2	11	7
2350 lube oil & greases	0	---	0	---

WRANGELL NARROWS, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Coastwise		
		Receipts	Through	
			Upbound	Downbnd
Total chemicals and related products	2	—	2	0
Subtotal other chemicals and related products	2	—	2	0
3282 pigments & paints	0	—	0	—
3293 explosives	0	—	0	—
3299 chem. products nec	2	—	2	0
Total crude materials, inedible except fuels	0	—	0	—
Subtotal forest products, wood and chips	0	—	0	—
4170 wood in the rough	0	—	0	—
4189 lumber	0	—	0	—
Total primary manufactured goods	2	—	2	—
Subtotal paper products	0	—	0	—
5190 paper products nec	0	—	0	—
Subtotal lime, cement and glass	1	—	1	—
5220 cement & concrete	1	—	1	—
5290 misc. mineral prod.	0	—	0	—
Subtotal primary non-ferrous metal products	1	—	1	—
5480 fab. metal products	1	—	1	—
Total food and farm products	1	—	1	—
Subtotal fish	0	—	0	—
6134 fish (not shellfish)	0	—	0	—
Subtotal other agricultural products	0	—	0	—
6885 alcoholic beverages	0	—	0	—
6887 groceries	0	—	0	—
6889 food products nec	0	—	0	—
Total all manufactured equipment, machinery and products	10	—	9	1
7110 machinery (not elec)	1	—	1	—
7120 electrical machinery	0	—	0	—
7210 vehicles & parts	1	—	0	0
7400 manufac. wood prod.	0	—	0	—
7500 textile products	0	—	0	—
7600 rubber & plastic pr.	0	—	0	—
7900 manufac. prod. nec	7	—	7	0
Ton-miles (x1000)	1,002	10	635	357
Coastwise				

Commodity	Total	Internal						
		Inbound		Outbound		Through		Intra
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound
Total, all commodities	384	45	3	2	10	265	58	1
Total petroleum and petroleum products	96	18	2	0	0	72	3	1
Subtotal petroleum products	96	18	2	0	0	72	3	1
2211 gasoline	34	6	1	—	0	26	1	0
2330 distillate fuel oil	58	12	1	—	0	42	2	0
2350 lube oil & greases	2	0	—	0	—	2	0	—
2430 asphalt, tar & pitch	0	—	—	—	—	0	0	—
2640 liquid natural gas	2	0	—	—	—	1	—	—
2990 petro. products nec	0	0	—	0	—	0	—	—
Total chemicals and related products	9	2	0	—	0	7	0	—
Subtotal fertilizers	4	1	—	—	—	3	—	—
3110 nitrogenous fert.	4	1	—	—	—	3	—	—
3190 fert. & mixes nec	0	—	—	—	—	0	—	—
Subtotal other chemicals and related products	6	1	0	—	0	4	0	—
3275 inorg. elem. oxides, & halogen salts	0	—	—	—	—	0	—	—
3276 metallic salts	0	—	—	—	—	0	—	—
3282 pigments & paints	4	1	0	—	—	3	0	—
3286 plastics	0	0	—	—	—	0	—	—
3293 explosives	0	0	—	—	—	0	0	—
3299 chem. products nec	1	0	—	—	0	1	0	—
Total crude materials, inedible except fuels	32	5	0	0	—	10	16	—
Subtotal forest products, wood and chips	21	0	0	0	—	9	12	—
4150 fuel wood	0	—	—	—	—	0	0	—
4161 wood chips	0	—	—	—	—	0	—	—
4170 wood in the rough	12	0	0	—	—	0	11	—
4189 lumber	9	0	0	0	—	8	0	—
4190 forest products nec	0	—	—	—	—	0	—	—
Subtotal pulp and waste paper	0	—	—	—	—	—	0	—
4225 pulp & waste paper	0	—	—	—	—	—	0	—
Subtotal soil, sand, gravel, rock and stone	5	4	—	—	—	1	0	—
4322 limestone	1	—	—	—	—	1	—	—

WRANGELL NARROWS, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Internal						
		Inbound		Outbound		Through		Intra
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound
4331 sand & gravel	4	4	—	—	—	0	0	—
4338 soil & fill dirt	0	—	—	—	—	0	—	—
Subtotal iron ore and scrap	4	—	—	—	—	—	4	—
4420 iron & steel scrap	4	—	—	—	—	—	4	—
Subtotal non-ferrous ores and scrap	0	—	—	—	—	—	0	—
4680 non-ferrous scrap	0	—	—	—	—	—	0	—
Subtotal sulphur, clay and salt	0	—	—	—	—	0	—	—
4782 clay & refrac. mat.	0	—	—	—	—	0	—	—
Subtotal other non-metal. min.	2	1	—	—	—	1	—	—
4900 non-metal. min. nec	2	1	—	—	—	1	—	—
Total primary manufactured goods	37	4	0	0	0	32	1	—
Subtotal paper products	5	1	0	0	0	4	0	—
5110 newsprint	0	—	—	—	—	0	—	—
5190 paper products nec	5	1	0	0	0	4	0	—
Subtotal lime, cement and glass	14	0	0	0	—	13	0	—
5220 cement & concrete	5	0	—	0	—	5	—	—
5240 glass & glass prod.	4	0	—	—	—	4	0	—
5290 misc. mineral prod.	4	0	0	0	—	4	0	—
Subtotal primary iron and steel products	1	—	—	—	—	1	0	—
5370 i&s pipe & tube	1	—	—	—	—	1	0	—
Subtotal primary non-ferrous metal products	17	3	0	0	0	13	1	—
5480 fab. metal products	17	3	0	0	0	13	1	—
Subtotal primary wood products	0	—	—	—	—	0	0	—
5540 primary wood prod.	0	—	—	—	—	0	0	—
Total food and farm products	79	5	1	1	8	48	17	—
Subtotal fish	12	0	1	—	3	0	8	—
6134 fish (not shellfish)	9	0	1	—	1	0	7	—
6136 shellfish	3	—	0	—	2	—	1	—
Subtotal vegetable products	0	0	—	—	—	0	0	—
6654 vegetables & prod.	0	0	—	—	—	0	0	—
Subtotal processed grain and animal feed	0	—	—	—	—	—	0	—
6747 grain mill products	0	—	—	—	—	—	0	—
6781 hay & fodder	0	—	—	—	—	0	—	—
6782 animal feed, prep.	0	—	—	—	—	0	0	—
Subtotal other agricultural products	67	5	0	1	5	48	9	—
6811 meat, fresh, frozen	0	0	—	—	—	0	—	—
6835 fish, prepared	7	—	—	—	5	—	2	—
6858 fruit juices	0	0	—	—	—	0	—	—
6885 alcoholic beverages	13	1	0	—	—	9	4	—
6887 groceries	26	2	0	1	0	23	0	—
6888 water & ice	2	0	0	—	—	0	2	—
6889 food products nec	18	2	0	—	0	15	0	—
6899 farm products nec	0	—	—	—	—	0	—	—
Total all manufactured equipment, machinery and products	130	11	1	1	2	95	20	—
7110 machinery (not elec)	8	0	0	0	0	3	3	—
7120 electrical machinery	5	0	—	—	—	4	0	—
7210 vehicles & parts	9	1	0	0	0	5	3	—
7230 ships & boats	1	0	0	0	0	0	0	—
7400 manufac. wood prod.	10	1	—	0	—	9	0	—
7500 textile products	4	1	—	—	—	3	0	—
7600 rubber & plastic pr.	2	0	—	—	—	1	0	—
7900 manufac. prod. nec	91	7	0	1	2	69	13	—
Total waste and scrap nec	0	—	—	—	—	—	0	—
8900 waste and scrap nec	0	—	—	—	—	—	0	—
Ton-miles (x1000)	9,332	1,037	10	9	218	6,614	1,444	1
Internal								
Tons All Traffic (x1000)		432						
Ton-miles All Traffic (x1000)		10,335						

JUNEAU HARBOR, AK

Section Included: The northside of Gastineau Channel including Theaurora Basin small boat harbor. The city dock facility has a 200 foot sea plane and medium draft dock and a 500 foot commercial dock with a 40 foot depth. Three area small boat harbors accomodate 2,700 small boats and have water depths of 12 & 14 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	210	1992	163	1995	192	1998	320
1990	157	1993	193	1996	465		
1991	179	1994	222	1997	583		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign	Canadian		Domestic			Internal	
		Exports*	Imports	Exports	Total	Coastwise		Inbound Upbound	Outbound Downbnd
						Receipts	Shipments		
Total, all commodities	320	118	9	7	185	36	3	118	28
Total petroleum and petroleum products	73	---	---	---	73	36	3	31	3
Subtotal petroleum products	73	---	---	---	73	36	3	31	3
2211 gasoline	36	---	---	---	36	15	1	18	1
2330 distillate fuel oil	33	---	---	---	33	17	2	11	3
2340 residual fuel oil	3	---	---	---	3	3	---	---	---
2350 lube oil & greases	0	---	---	---	0	---	0	0	0
2540 petroleum coke	0	---	---	---	0	---	---	0	---
2640 liquid natural gas	1	---	---	---	1	---	---	1	---
2990 petro. products nec	0	---	---	---	0	---	---	0	---
Total chemicals and related products	3	---	---	---	3	---	---	3	0
Subtotal fertilizers	1	---	---	---	1	---	---	1	---
3110 nitrogenous fert.	0	---	---	---	0	---	---	0	---
3190 fert. & mixes nec	0	---	---	---	0	---	---	0	---
Subtotal other chemicals and related products	3	---	---	---	3	---	---	3	0
3275 inorg. elem., oxides, & halogen salts	0	---	---	---	0	---	---	0	---
3282 pigments & paints	3	---	---	---	3	---	---	3	0
3293 explosives	0	---	---	---	0	---	---	0	---
3299 chem. products nec	0	---	---	---	0	---	---	---	0
Total crude materials, inedible except fuels	140	118	9	7	6	---	0	4	1
Subtotal forest products, wood and chips	101	96	---	---	4	---	0	4	0
4150 fuel wood	0	---	---	---	0	---	---	0	0
4161 wood chips	0	---	---	---	0	---	---	0	---
4170 wood in the rough	96	96	---	---	0	---	---	---	0
4189 lumber	4	---	---	---	4	---	0	4	0
4190 forest products nec	0	---	---	---	0	---	---	0	---
Subtotal pulp and waste paper	0	---	---	---	0	---	---	---	0
4225 pulp & waste paper	0	---	---	---	0	---	---	---	0
Subtotal soil, sand, gravel, rock and stone	9	---	9	---	0	---	---	0	0
4322 limestone	0	---	---	---	0	---	---	0	---
4331 sand & gravel	9	---	9	---	0	---	---	0	0
4338 soil & fill dirt	0	---	---	---	0	---	---	0	---
Subtotal iron ore and scrap	1	---	---	---	1	---	---	---	1
4420 iron & steel scrap	1	---	---	---	1	---	---	---	1

JUNEAU HARBOR, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign	Canadian		Domestic				
		Exports*	Imports	Exports	Total	Coastwise		Internal	
						Receipts	Shipments	Inbound Upbound	Outbound Downbnd
Subtotal non-ferrous ores and scrap	29	22	---	7	0	---	---	---	0
4680 non-ferrous scrap	0	---	---	---	0	---	---	---	0
4690 non-ferrous ores nec	29	22	---	7	---	---	---	---	---
Subtotal other non-metal, min. min. nec	0	---	---	---	0	---	---	0	---
4900 non-metal min. nec	0	---	---	---	0	---	---	0	---
Total primary manufactured goods	16	---	---	---	16	---	0	15	1
Subtotal paper products	2	---	---	---	2	---	---	2	0
5110 newsprint	0	---	---	---	0	---	---	0	---
5190 paper products nec	2	---	---	---	2	---	---	2	0
Subtotal lime, cement and glass	8	---	---	---	8	---	---	8	0
5220 cement & concrete	1	---	---	---	1	---	---	0	0
5240 glass & glass prod.	4	---	---	---	4	---	---	4	0
5290 misc. mineral prod.	4	---	---	---	4	---	---	3	0
Subtotal primary iron and steel products	0	---	---	---	0	---	---	0	---
5370 i&s pipe & tube	0	---	---	---	0	---	---	0	---
Subtotal primary non-ferrous metal products	4	---	---	---	4	---	0	4	0
5480 fab. metal products	4	---	---	---	4	---	0	4	0
Subtotal primary wood products	0	---	---	---	0	---	---	0	0
5540 primary wood prod.	0	---	---	---	0	---	---	0	0
Total food and farm products	33	0	---	---	33	---	0	25	8
Subtotal fish	0	0	---	---	0	---	---	0	0
6134 fish (not shellfish)	0	0	---	---	0	---	---	0	0
Subtotal vegetable products	0	---	---	---	0	---	---	---	0
6654 vegetables & prod.	0	---	---	---	0	---	---	---	0
Subtotal processed grain and animal feed	0	---	---	---	0	---	---	0	0
6747 grain mill products	0	---	---	---	0	---	---	---	0
6781 hay & fodder	0	---	---	---	0	---	---	0	---
6782 animal feed, prep.	0	---	---	---	0	---	---	0	0
Subtotal other agricultural products	32	---	---	---	32	---	0	25	7
6835 fish, prepared	0	---	---	---	0	---	---	---	0
6885 alcoholic beverages	8	---	---	---	8	---	---	5	4
6887 groceries	11	---	---	---	11	---	0	11	0
6888 water & ice	2	---	---	---	2	---	---	---	2
6889 food products nec	10	---	---	---	10	---	0	9	1
6899 farm products nec	0	---	---	---	0	---	---	0	---
Total all manufactured equipment, machinery and products	54	---	0	---	54	0	0	39	14
7110 machinery (not elec)	3	---	---	---	3	---	---	2	1
7120 electrical machinery	3	---	---	---	3	---	---	3	---
7210 vehicles & parts	6	---	---	---	6	0	0	4	3
7230 ships & boats	1	---	0	---	0	0	---	0	0
7400 manufac. wood prod.	5	---	---	---	5	---	---	4	0

JUNEAU HARBOR, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Exports*	Imports	Exports	Total	Coastwise		Internal	
						Receipts	Shipments	Inbound Upbound	Outbound Downbnd
7500 textile products	2	—	—	—	2	—	—	2	0
7600 rubber & plastic pr.	0	—	—	—	0	—	—	0	0
7900 manufac. prod. nec	34	—	—	—	34	0	0	23	10
Total waste and scrap nec	0	—	—	—	0	—	—	—	0
8900 waste and scrap nec	0	—	—	—	0	—	—	—	0

*Includes 0 (x1000) tons of foreign outbound in-transits.

VALDEZ HARBOR, AK

Section Included: Entire waterfront from Point of Land west of Ferry Terminal easterly to Alaska Hydrotrain Dock. Eastern part of Port Valdez from the Ferry Terminal on the north to the Trans-Alaska Pipeline Terminal on the south. Controlling Depth: 12 feet in the small basin. Project Depth: 12 feet, except 20 feet at Ferry Terminal, 50 feet off the City Dock, 75 feet off the Valdez Dock, and 0.0 at Sontag & Alaska Hydrotrain Facilities. All depths refer to mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	95,436	1992	93,737	1995	80,955	1998	61,946
1990	95,953	1993	85,722	1996	77,116		
1991	99,616	1994	85,096	1997	73,647		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic			
		Imports	Exports	Total	Coastwise		Internal Shipments
					Receipts	Shipments	
Total, all commodities	61,946	2	3,080	58,865	50	58,808	7
Total petroleum and petroleum products	61,940	—	3,080	58,861	48	58,806	7
Subtotal crude petroleum	61,649	—	3,080	58,569	—	58,569	—
2100 crude petroleum	61,649	—	3,080	58,569	—	58,569	—
Subtotal petroleum products	292	—	—	292	48	237	7
2211 gasoline	136	—	—	136	21	114	1
2330 distillate fuel oil	156	—	—	156	27	123	5
2340 residual fuel oil	0	—	—	0	—	0	—
Total chemicals and related products	2	—	—	2	2	—	—
Subtotal other chemicals and related products	2	—	—	2	2	—	—
3293 explosives	2	—	—	2	2	—	—
Total crude materials, inedible except fuels	0	—	—	0	—	—	0
Subtotal forest products, wood and chips	0	—	—	0	—	—	0
4189 lumber	0	—	—	0	—	—	0
Total primary manufactured goods	0	—	—	0	0	0	—
Subtotal primary non-ferrous metal products	0	—	—	0	0	0	—
5480 fab. metal products	0	—	—	0	0	0	—
Total food and farm products	2	—	—	2	—	2	—
Subtotal other agricultural products	2	—	—	2	—	2	—
6835 fish, prepared	2	—	—	2	—	2	—
Total all manufactured equipment, machinery and products	0	—	—	0	0	—	—
7900 manufac. prod. nec	0	—	—	0	0	—	—
Total unknown or not elsewhere classified	2	2	—	—	—	—	—
9900 unknown or nec	2	2	—	—	—	—	—

SEWARD HARBOR, AK

Section Included: Alaska Railroad Dock, the Seward Boat Basin including the City Dock, and the Dry Bulk Terminal. Controlling Depth: 35 feet below mllw at the Railroad Dock; 15 feet in the 200 foot entrance channel to the boat basin and at the City Dock; 12.5 feet in the boat mooring area. The Dry Bulk Terminal has controlling depth of 58 feet mllw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	703	1992	686	1995	928	1998	380
1990	846	1993	862	1996	877		
1991	1,181	1994	961	1997	842		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Domestic		
		Imports	Exports*	Total	Coastwise	
					Receipts	Shipments
Total, all commodities	380	28	342	10	6	4
Total coal	313	---	313	---	---	---
1100 coal lignite	313	---	313	---	---	---
Total petroleum and petroleum products	2	---	---	2	2	---
Subtotal petroleum products	2	---	---	2	2	---
2211 gasoline	2	---	---	2	2	---
2340 residual fuel oil	0	---	---	0	0	---
2350 lube oil & greases	0	---	---	0	0	---
Total chemicals and related products	0	---	0	---	---	---
Subtotal other chemicals and related products	0	---	0	---	---	---
3286 plastics	0	---	0	---	---	---
Total crude materials, inedible except fuels	26	---	21	4	1	4
Subtotal forest products, wood and chips	22	---	21	1	1	---
4170 wood in the rough	21	---	21	---	---	---
4189 lumber	1	---	---	1	1	---
4190 forest products nec	0	---	---	0	0	---
Subtotal soil, sand, gravel, rock and stone	4	---	---	4	---	4
4331 sand & gravel	4	---	---	4	---	4
Subtotal other non-metal. min.	0	---	---	0	0	---
4900 non-metal. min. nec	0	---	---	0	0	---
Total primary manufactured goods	30	28	---	2	2	0
Subtotal lime, cement and glass	1	---	---	1	1	---
5240 glass & glass prod.	0	---	---	0	0	---
5290 misc. mineral prod.	1	---	---	1	1	---
Subtotal primary iron and steel products	28	28	---	---	---	---
5330 i&s plates & sheets	1	1	---	---	---	---
5370 i&s pipe & tube	28	28	---	---	---	---
Subtotal primary non-ferrous metal products	0	---	---	0	0	0
5480 fab. metal products	0	---	---	0	0	0
Subtotal primary wood products	0	---	---	0	0	---
5540 primary wood prod.	0	---	---	0	0	---
Total food and farm products	7	---	7	0	0	---
Subtotal fish	7	---	7	---	---	---
6134 fish (not shellfish)	7	---	7	---	---	---
Subtotal processed grain and animal feed	0	---	---	0	0	---
6782 animal feed, prep.	0	---	---	0	0	---
Subtotal other agricultural products	0	---	0	---	---	---
6835 fish, prepared	0	---	0	---	---	---
Total all manufactured equipment, machinery and products	2	---	---	2	2	0
7110 machinery (not elec)	1	---	---	1	0	0
7210 vehicles & parts	0	---	---	0	0	0
7230 ships & boats	0	---	---	0	0	---
7400 manufac. wood prod.	0	---	---	0	0	---
7900 manufac. prod. nec	1	---	---	1	1	0
Total unknown or not elsewhere classified	0	---	0	---	---	---
9900 unknown or nec	0	---	0	---	---	---

*Includes 0 (x1000) tons of foreign outbound in-transits.

HOMER, AK

Section Included: The northside of Kachemak Bay including the entire Homer Spit and small boat harbor. The commercial dock facility provides 300 feet of dock space with water depth ranging from 20 to 40 feet. The 750 boat small boat harbor has a depth ranging from 20 feet to 15 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	243	1992	287	1995	501	1998	338
1990	119	1993	472	1996	397		
1991	82	1994	377	1997	302		

Freight Traffic, 1998 (thousand short tons)

Commodity	Total	Foreign		Canadian	
		Imports	Exports	Imports	Exports
Total, all commodities	301	66	192	16	28
Total petroleum and petroleum products	136	65	55	16	—
Subtotal crude petroleum	15	15	—	—	—
2100 crude petroleum	15	15	—	—	—
Subtotal petroleum products	122	51	55	16	—
2221 kerosene	64	48	—	16	—
2330 distillate fuel oil	3	3	—	—	—
2340 residual fuel oil	55	—	55	—	—
Total chemicals and related products	12	—	12	—	—
Subtotal fertilizers	12	—	12	—	—
3110 nitrogenous fert.	12	—	12	—	—
Total crude materials, inedible except fuels	150	—	122	—	28
Subtotal forest products, wood and chips	150	—	122	—	28
4150 fuel wood	31	—	31	—	—
4161 wood chips	91	—	91	—	—
4170 wood in the rough	28	—	—	—	28
Total food and farm products	3	—	3	—	—
Subtotal fish	3	—	3	—	—
6134 fish (not shellfish)	3	—	3	—	—
Total all manufactured equipment, machinery and products	0	0	—	—	—
7110 machinery (not elec)	0	0	—	—	—

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
Total, all commodities	38	4	1	31	2
Total petroleum and petroleum products	31	1	—	30	0
Subtotal petroleum products	31	1	—	30	0
2211 gasoline	14	1	—	13	0
2330 distillate fuel oil	16	1	—	15	0
2340 residual fuel oil	1	—	—	1	—
Total chemicals and related products	0	—	—	0	0
Subtotal other chemicals and related products	0	—	—	0	0
3293 explosives	0	—	—	—	0
3299 chem. products nec	0	—	—	0	—
Total crude materials, inedible except fuels	0	—	0	—	0
Subtotal forest products, wood and chips	0	—	0	—	0
4170 wood in the rough	0	—	—	—	0
4189 lumber	0	—	0	—	0
Subtotal soil, sand, gravel, rock and stone	0	—	—	—	0
4331 sand & gravel	0	—	—	—	0
Total primary manufactured goods	0	0	0	0	0
Subtotal lime, cement and glass	0	0	0	—	0
5220 cement & concrete	0	—	0	—	0
5290 misc. mineral prod.	0	0	0	—	0
Subtotal primary iron and steel products	0	—	—	—	0
5370 i&s pipe & tube	0	—	—	—	0
Subtotal primary non-ferrous metal products	0	0	0	0	0
5480 fab. metal products	0	0	0	0	0
Total food and farm products	0	0	—	—	0
Subtotal fish	0	—	—	—	0
6134 fish (not shellfish)	0	—	—	—	0
Subtotal processed grain and animal feed	0	0	—	—	—
6782 animal feed, prep.	0	0	—	—	—
Subtotal other agricultural products	0	—	—	—	0
6835 fish, prepared	0	—	—	—	0
Total all manufactured equipment, machinery and products	6	2	1	1	1
7110 machinery (not elec)	3	1	1	1	1
7120 electrical machinery	0	—	—	—	0

HOMER, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Total	Domestic			
		Coastwise		Internal	
		Receipts	Shipments	Receipts	Shipments
7210 vehicles & parts	0	0	0	0	0
7220 aircraft & parts	0	—	—	0	—
7230 ships & boats	0	0	0	0	0
7400 manufac. wood prod.	1	—	0	0	1
7600 rubber & plastic pr.	0	—	—	0	0
7900 manufac. prod. nec	2	1	1	0	0
Total waste and scrap nec	0	—	—	—	0
8900 waste and scrap nec	0	—	—	—	0

ANCHORAGE, AK

Section Included: Knik Arm from the Municipal Terminal on the north to and including terminal facilities on Ship Creek. Controlling Depth: 35 feet off the face of the City Dock; the approach channel north of Fire Island, to Point Woronzof, 28.5 feet. Project Depth: 35 feet. All depths refer to mlw.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	2,253	1992	2,540	1995	3,222	1998	3,589
1990	1,706	1993	2,470	1996	3,401		
1991	2,309	1994	2,559	1997	3,424		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports	Exports*	Imports	Exports	Total	Coastwise		Internal Shipments
							Receipts	Shipments	
Total, all commodities	3,589	465	742	66	106	2,209	1,783	411	15
Total petroleum and petroleum products	1,375	373	476	17	—	509	254	240	15
Subtotal crude petroleum	15	15	—	—	—	—	—	—	—
2100 crude petroleum	15	15	—	—	—	—	—	—	—
Subtotal petroleum products	1,359	357	476	17	—	509	254	240	15
2211 gasoline	376	—	35	—	—	341	226	108	7
2221 kerosene	357	357	—	—	—	—	—	—	—
2330 distillate fuel oil	169	—	35	11	—	123	13	103	7
2340 residual fuel oil	11	—	—	—	—	11	—	10	1
2350 lube oil & greases	14	—	—	—	—	14	14	0	—
2429 naphtha & solvents	218	—	199	—	—	19	—	19	—
2430 asphalt, tar & pitch	1	—	—	1	—	—	—	—	—
2640 liquid natural gas	212	—	207	5	—	—	—	—	—
2990 petro. products nec	0	—	—	—	—	0	0	0	—
Total chemicals and related products	97	0	42	18	—	37	28	10	—
Subtotal fertilizers	50	—	42	6	—	2	2	0	—
3110 nitrogenous fert.	44	—	42	1	—	2	2	—	—
3120 phosphatic fert.	0	—	—	—	—	0	0	—	—
3130 potassic fert.	5	—	—	5	—	—	—	—	—
3190 fert. & mixes nec	0	—	—	—	—	0	0	0	—
Subtotal other chemicals and related products	47	0	0	12	—	35	26	10	—
3220 alcohols	21	—	—	11	—	9	9	0	—
3230 carboxylic acids	0	0	—	—	—	—	—	—	—
3240 nitrogen func. comp.	0	0	—	—	—	0	0	0	—
3276 metallic salts	0	0	—	—	—	0	0	0	—
3286 plastics	1	0	—	0	—	1	1	0	—
3291 pesticides	0	—	0	—	—	—	—	—	—
3293 explosives	0	—	—	—	—	0	0	—	—
3299 chem. products nec	25	—	—	—	—	25	15	10	—

ANCHORAGE, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			Internal Shipments
		Imports	Exports*	Imports	Exports	Total	Coastwise		
							Receipts	Shipments	
Total crude materials, inedible except fuels	328	1	161	10	106	52	38	14	---
Subtotal forest products, wood and chips	182	---	129	6	10	37	36	1	---
4150 fuel wood	2	---	2	---	---	---	---	---	---
4161 wood chips	22	---	22	---	---	---	---	---	---
4170 wood in the rough	115	---	105	0	10	0	0	---	---
4189 lumber	43	---	0	6	---	37	36	1	---
4190 forest products nec	0	---	---	---	---	0	0	0	---
Subtotal soil, sand, gravel, rock and stone	7	1	1	---	5	1	1	0	---
4323 gypsum	5	---	0	---	5	0	0	---	---
4331 sand & gravel	2	1	1	---	---	0	0	0	---
Subtotal iron ore and scrap	13	---	---	---	---	13	---	13	---
4420 iron & steel scrap	13	---	---	---	---	13	---	13	---
Subtotal non-ferrous ores and scrap	122	---	30	---	91	---	---	---	---
4690 non-ferrous ores nec	122	---	30	---	91	---	---	---	---
Subtotal slag	0	---	---	---	---	0	0	---	---
4860 slag	0	---	---	---	---	0	0	---	---
Subtotal other non-metal. min.	4	0	---	4	---	1	1	0	---
4900 non-metal. min. nec	4	0	---	4	---	1	1	0	---
Total primary manufactured goods	240	91	0	19	---	129	122	7	---
Subtotal paper products	11	0	---	---	---	11	11	---	---
5190 paper products nec	11	0	---	---	---	11	11	---	---
Subtotal lime, cement and glass	140	86	0	6	---	48	46	1	---
5210 lime	6	---	---	6	---	---	---	---	---
5220 cement & concrete	101	86	---	---	---	15	14	1	---
5240 glass & glass prod.	2	---	0	---	---	1	1	0	---
5290 misc. mineral prod.	31	---	---	---	---	31	31	1	---
Subtotal primary iron and steel products	9	5	0	0	---	3	3	0	---
5315 ferro alloys	0	---	0	---	---	---	---	---	---
5330 i&s plates & sheets	1	---	0	0	---	---	---	---	---
5360 i&s bars & shapes	0	---	---	---	---	0	0	0	---
5370 i&s pipe & tube	6	5	---	---	---	1	1	0	---
5390 primary i&s nec	2	---	---	---	---	2	2	0	---
Subtotal primary non-ferrous metal products	59	0	---	0	---	59	53	5	---
5480 fab. metal products	59	0	---	0	---	59	53	5	---
Subtotal primary wood products	22	---	---	13	---	9	9	0	---
5540 primary wood prod.	22	---	---	13	---	9	9	0	---
Total food and farm products	615	0	63	2	---	550	531	19	---
Subtotal fish	70	0	52	0	---	18	0	18	---
6134 fish (not shellfish)	70	---	52	0	---	18	0	18	---
6136 shellfish	1	0	0	---	---	---	---	---	---
Subtotal vegetable products	0	---	0	---	---	---	---	---	---
6653 vegetable oils	0	---	0	---	---	---	---	---	---
Subtotal processed grain and animal feed	10	---	8	2	---	0	0	---	---
6746 wheat flour	1	---	---	1	---	---	---	---	---
6781 hay & fodder	0	---	---	0	---	0	0	---	---

ANCHORAGE, AK
Freight Traffic, 1998 - continued
(thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports	Exports*	Imports	Exports	Total	Coastwise		Internal Shipments
							Receipts	Shipments	
6782 animal feed, prep.	9	—	8	0	—	0	0	—	—
Subtotal other agricultural products	534	—	2	—	—	532	531	1	—
6835 fish, prepared	3	—	1	—	—	1	—	1	—
6838 tallow, animal oils	0	—	0	—	—	—	—	—	—
6839 animals & prod. nec	185	—	0	—	—	184	184	0	—
6887 groceries	346	—	—	—	—	346	346	—	—
6889 food products nec	0	—	0	—	—	—	—	—	—
Total all manufactured equipment, machinery and products	908	0	0	0	—	907	791	116	—
7110 machinery (not elec)	13	0	0	0	—	12	7	5	—
7120 electrical machinery	2	0	0	—	—	2	2	0	—
7210 vehicles & parts	64	0	—	—	—	64	47	17	—
7220 aircraft & parts	0	—	—	—	—	0	0	0	—
7230 ships & boats	0	—	0	—	—	0	0	0	—
7400 manufac. wood prod.	23	—	—	—	—	23	22	1	—
7500 textile products	0	0	0	—	—	0	—	0	—
7600 rubber & plastic pr.	0	0	—	—	—	0	0	—	—
7900 manufac. prod. nec	807	0	—	—	—	807	713	94	—
Total unknown or not elsewhere classified	25	—	0	0	—	25	19	6	—
9900 unknown or nec	25	—	0	0	—	25	19	6	—

*Includes 0 (x1000) tons of foreign outbound in-transits.

UNALASKA BAY AND ISLAND, AK

Section Included: Entire harbor. Controlling Depth: 25 feet in entrance channel at mean lower low water. Project Depth: 25 feet at mean lower low water.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1989	735	1992	1,179	1995	743	1998	895
1990	945	1993	1,035	1996	939		
1991	1,205	1994	861	1997	1,275		

Freight Traffic, 1998 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports	Exports*	Imports	Exports	Total	Coastwise		Internal Intraport
							Receipts	Shipments	
Total, all commodities	895	2	347	29	1	516	283	208	24
Total petroleum and petroleum products	289	1	—	17	—	271	225	22	24
Subtotal petroleum products	289	1	—	17	—	271	225	22	24
2211 gasoline	27	—	—	0	—	27	21	4	2
2221 kerosene	1	1	—	1	—	1	—	—	—
2330 distillate fuel oil	246	—	—	14	—	231	203	13	16
2340 residual fuel oil	12	—	—	—	—	12	2	4	6
2350 lube oil & greases	0	—	—	—	—	0	0	—	—
2430 asphalt, tar & pitch	0	—	—	0	—	—	—	—	—
2640 liquid natural gas	2	—	—	2	—	—	—	—	—
2990 petro. products nec	1	—	—	—	—	1	—	1	—

UNALASKA BAY AND ISLAND, AK
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			
		Imports	Exports*	Imports	Exports	Total	Coastwise		Internal Intraport
							Receipts	Shipments	
Total chemicals and related products	5	0	0	5	---	0	0	0	---
Subtotal fertilizers	2	0	---	2	---	---	---	---	---
3130 potassic fert.	2	0	---	2	---	---	---	---	---
Subtotal other chemicals and related products	4	0	0	4	---	0	0	0	---
3220 alcohols	4	---	---	4	---	0	0	---	---
3240 nitrogen func. comp.	0	0	---	---	---	---	---	---	---
3250 organo - inorg. comp.	0	---	0	---	---	---	---	---	---
3276 metallic salts	0	0	---	---	---	---	---	---	---
3284 medicines	0	0	---	---	---	---	---	---	---
3286 plastics	0	0	---	---	---	---	---	---	---
3293 explosives	0	---	---	0	---	---	---	---	---
3299 chem. products nec	0	---	---	---	---	0	0	0	---
Total crude materials, inedible except fuels	14	0	9	2	---	3	3	0	0
Subtotal forest products, wood and chips	10	---	9	2	---	0	0	---	---
4170 wood in the rough	8	---	8	---	---	---	---	---	---
4189 lumber	2	---	0	2	---	0	0	---	---
Subtotal non-ferrous ores and scrap	0	---	0	---	---	---	---	---	---
4650 aluminum ore	0	---	0	---	---	---	---	---	---
4680 non-ferrous scrap	0	---	0	---	---	---	---	---	---
Subtotal other non-metal. min.	4	0	---	1	---	3	3	0	0
4900 non-metal. min. nec	4	0	---	1	---	3	3	0	0
Total primary manufactured goods	11	0	0	4	---	6	4	3	0
Subtotal paper products	2	0	0	---	---	2	2	0	0
5120 paper & paperboard	0	---	0	---	---	---	---	---	---
5190 paper products nec	2	0	---	---	---	2	2	0	0
Subtotal lime, cement and glass	1	---	---	1	---	---	---	---	---
5210 lime	1	---	---	1	---	---	---	---	---
Subtotal primary iron and steel products	0	---	---	0	---	0	0	---	---
5330 i&s plates & sheets	0	---	---	0	---	0	0	---	---
5390 primary i&s nec	0	---	---	0	---	---	---	---	---
Subtotal primary non-ferrous metal products	4	0	---	0	---	4	2	2	0
5480 fab. metal products	4	0	---	0	---	4	2	2	0
Subtotal primary wood products	2	---	---	2	---	---	---	---	---
5540 primary wood prod.	2	---	---	2	---	---	---	---	---
Total food and farm products	409	1	338	0	1	69	24	45	0
Subtotal fish	343	1	292	---	1	50	5	44	0
6134 fish (not shellfish)	314	0	274	---	1	39	4	34	0
6136 shellfish	29	1	17	---	---	11	1	10	---
Subtotal grain	0	---	0	---	---	---	---	---	---
6344 corn	0	---	0	---	---	---	---	---	---
Subtotal vegetable products	0	---	0	---	---	0	0	0	---
6654 vegetables & prod.	0	---	0	---	---	0	0	0	---

UNALASKA BAY AND ISLAND, AK
 Freight Traffic, 1998 - continued
 (thousand short tons)

Commodity	Grand Total	Foreign		Canadian		Domestic			Internal Intraport
		Imports	Exports*	Imports	Exports	Total	Coastwise		
							Receipts	Shipments	
Subtotal processed grain and animal feed	33	---	33	0	---	0	0	---	---
6746 wheat flour	0	---	---	0	---	---	---	---	---
6782 animal feed, prep.	33	---	33	---	---	0	0	---	---
Subtotal other agricultural products	33	0	13	---	---	20	19	1	---
6811 meat, fresh, frozen	0	---	0	---	---	0	0	0	---
6835 fish, prepared	8	---	8	---	---	---	---	---	---
6838 tallow, animal oils	1	---	1	---	---	---	---	---	---
6839 animals & prod. nec	19	---	2	---	---	18	17	1	---
6857 fruit & nuts nec	0	---	0	---	---	---	---	---	---
6858 fruit juices	0	---	---	---	---	0	0	0	---
6872 cocoa beans	0	---	---	---	---	0	---	0	---
6885 alcoholic beverages	0	---	---	---	---	0	0	---	---
6887 groceries	1	---	---	---	---	1	1	0	---
6889 food products nec	3	0	3	---	---	0	0	---	---
Total all manufactured equipment, machinery and products	166	0	0	0	---	165	27	138	0
7110 machinery (not elec)	1	0	0	0	---	0	0	0	---
7120 electrical machinery	0	0	0	---	---	0	0	0	---
7210 vehicles & parts	0	---	---	---	---	0	0	0	---
7230 ships & boats	0	---	0	---	---	0	---	0	---
7400 manufac. wood prod.	0	---	0	---	---	---	---	---	---
7500 textile products	0	0	0	---	---	---	---	---	---
7600 rubber & plastic pr.	0	0	0	---	---	0	0	---	---
7900 manufac. prod. nec	165	0	0	---	---	165	27	138	0
Total unknown or not elsewhere classified	1	---	0	0	---	1	1	---	---
9900 unknown or nec	1	---	0	0	---	1	1	---	---

*Includes 0 (x1000) tons of foreign outbound in-transits.

Other Harbors and Waterways 1998

Harbor or Waterway Project	Commodity	Thousand Short Tons	
BETHEL HARBOR, AK	2211 gasoline	29	
	2330 distillate fuel oil	10	
	2340 residual fuel oil	4	
	2350 lube oil & greases	0	
	2640 liquid natural gas	0	
	2990 petro. products nec	0	
	3110 nitrogenous fert.	0	
	3275 inorg. elem.,oxides, & halogen salts	0	
	3285 perfumes & cleansers	0	
	3286 plastics	0	
	4170 wood in the rough	0	
	4189 lumber	5	
	4190 forest products nec	0	
	4225 pulp & waste paper	0	
	4331 sand & gravel	124	
	4420 iron & steel scrap	0	
	4782 clay & refrac. mat.	0	
	4900 non-metal. min. nec	0	
	5190 paper products nec	0	
	5220 cement & concrete	0	
	5240 glass & glass prod.	0	
	5290 misc. mineral prod.	3	
	5330 i&s plates & sheets	0	
	5360 i&s bars & shapes	0	
	5370 i&s pipe & tube	0	
	5390 primary i&s nec	0	
	5421 copper	0	
	5422 aluminum	0	
	5480 fab. metal products	2	
	5540 primary wood prod.	1	
	6134 fish (not shellfish)	0	
	6782 animal feed, prep.	0	
	6822 dairy products	0	
	6887 groceries	1	
	7110 machinery (not elec)	15	
	7120 electrical machinery	0	
	7210 vehicles & parts	0	
	7230 ships & boats	0	
	7400 manufac. wood prod.	2	
	7500 textile products	0	
	7600 rubber & plastic pr.	0	
	7900 manufac. prod. nec	2	
		Total Tons(x1000)	200
	CORDOVA HARBOR, AK	2211 gasoline	6
		2330 distillate fuel oil	11
		2340 residual fuel oil	1
		6134 fish (not shellfish)	3
		6835 fish, prepared	2
		6887 groceries	1
7110 machinery (not elec)		0	
7900 manufac. prod. nec		3	
9900 unknown or nec		0	
	Total Tons(x1000)	27	
CRAIG HARBOR, AK	2211 gasoline	6	
	2330 distillate fuel oil	5	
	5480 fab. metal products	0	
	7900 manufac. prod. nec	1	
	Total Tons(x1000)	12	
DILLINGHAM HARBOR, AK	2211 gasoline	11	
	2330 distillate fuel oil	12	
	2350 lube oil & greases	0	
	2540 petroleum coke	1	
	2640 liquid natural gas	0	
	2990 petro. products nec	0	
	3110 nitrogenous fert.	0	
	3272 sulphuric acid	0	
	3275 inorg. elem.,oxides, & halogen salts	0	
	3276 metallic salts	0	
	3282 pigments & paints	0	
	3299 chem. products nec	0	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
DILLINGHAM HARBOR, AK - continued	4170 wood in the rough 4189 lumber 4190 forest products nec 4680 non-ferrous scrap 4900 non-metal. min. nec 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5360 i&s bars & shapes 5370 i&s pipe & tube 5480 fab. metal products 5540 primary wood prod. 6134 fish (not shellfish) 6654 vegetables & prod. 6811 meat, fresh, frozen 6835 fish, prepared 6858 fruit juices 6885 alcoholic beverages 6887 groceries 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7230 ships & boats 7400 manufac. wood prod. 7500 textile products 7600 rubber & plastic pr. 7900 manufac. prod. nec	0 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 2 0 0 0 0 1 0 0 0 0 0 0 3
	Total Tons(x1000)	35
DOUGLAS HARBOR, AK	2211 gasoline 2330 distillate fuel oil	0 0
	Total Tons(x1000)	0
DRY PASS, AK	No Commerce Reported	
EGEGIK RIVER, AK	2211 gasoline 2330 distillate fuel oil 3211 acyclic hydrocarbons 3275 inorg. elem.,oxides, & halogen salts 4189 lumber 4900 non-metal. min. nec 5190 paper products nec 5290 misc. mineral prod. 5422 aluminum 5480 fab. metal products 6835 fish, prepared 6885 alcoholic beverages 6887 groceries 7110 machinery (not elec) 7210 vehicles & parts 7400 manufac. wood prod. 7900 manufac. prod. nec	0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
	Total Tons(x1000)	3
ELFIN COVE HARBOR, AK	2211 gasoline 2330 distillate fuel oil	0 0
	Total Tons(x1000)	0
GASTINEAU CHANNEL, AK	No Commerce Reported	
HOONAH HARBOR, AK	2211 gasoline 2330 distillate fuel oil 2340 residual fuel oil 2350 lube oil & greases 3110 nitrogenous fert.	1 4 0 0 0

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
HOONAH HARBOR, AK - continued	3282 pigments & paints	0
	3293 explosives	0
	4170 wood in the rough	89
	4900 non-metal. min. nec	0
	5190 paper products nec	0
	5240 glass & glass prod.	0
	5370 i&s pipe & tube	0
	5480 fab. metal products	0
	6134 fish (not shellfish)	2
	6654 vegetables & prod.	0
	6811 meat, fresh, frozen	0
	6858 fruit juices	0
	6887 groceries	0
	6889 food products nec	0
	7110 machinery (not elec)	1
	7400 manufac. wood prod.	0
	7900 manufac. prod. nec	3
	Total Tons(x1000)	101
HUMBOLDT HARBOR, AK	2211 gasoline	2
	2330 distillate fuel oil	53
	2350 lube oil & greases	0
	2990 petro. products nec	1
	4189 lumber	0
	4900 non-metal. min. nec	0
	5190 paper products nec	0
	5480 fab. metal products	1
	6134 fish (not shellfish)	0
	6654 vegetables & prod.	0
	6811 meat, fresh, frozen	0
	6839 animals & prod. nec	0
	6858 fruit juices	0
	6887 groceries	0
	7110 machinery (not elec)	0
	7900 manufac. prod. nec	1
		Total Tons(x1000)
KAKE HARBOR, AK	2211 gasoline	2
	2330 distillate fuel oil	3
	2430 asphalt, tar & pitch	0
	2640 liquid natural gas	0
	3110 nitrogenous fert.	0
	3282 pigments & paints	0
	3286 plastics	0
	3293 explosives	0
	3299 chem. products nec	0
	4170 wood in the rough	4
	4189 lumber	0
	5190 paper products nec	0
	5220 cement & concrete	0
	5290 misc. mineral prod.	0
	5370 i&s pipe & tube	0
	5480 fab. metal products	2
	6134 fish (not shellfish)	2
	6782 animal feed, prep.	0
	6885 alcoholic beverages	0
	6887 groceries	0
	6888 water & ice	0
	6889 food products nec	1
	7110 machinery (not elec)	2
	7120 electrical machinery	0
	7210 vehicles & parts	0
	7230 ships & boats	0
7400 manufac. wood prod.	0	
7600 rubber & plastic pr.	0	
7900 manufac. prod. nec	2	
	Total Tons(x1000)	18
KING COVE LAGOON, AK	2211 gasoline	0
	2330 distillate fuel oil	5
	3286 plastics	0
	4189 lumber	0
	4900 non-metal. min. nec	0
	5190 paper products nec	0

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
KING COVE LAGOON, AK - continued	5330 i&s plates & sheets	0
	5480 fab. metal products	1
	6134 fish (not shellfish)	0
	6136 shellfish	0
	6654 vegetables & prod.	0
	6811 meat, fresh, frozen	0
	6858 fruit juices	0
	6885 alcoholic beverages	0
	6887 groceries	0
	7110 machinery (not elec)	0
	7120 electrical machinery	0
	7900 manufac. prod. nec	1
	Total Tons(x1000)	9
KODIAK HARBOR, AK	2211 gasoline	29
	2330 distillate fuel oil	59
	2340 residual fuel oil	8
	2990 petro. products nec	0
	3275 inorg. elem., oxides, & halogen salts	0
	3293 explosives	0
	3299 chem. products nec	1
	4170 wood in the rough	0
	4189 lumber	0
	4190 forest products nec	0
	4331 sand & gravel	0
	4900 non-metal. min. nec	0
	5190 paper products nec	0
	5240 glass & glass prod.	0
	5290 misc. mineral prod.	0
	5370 i&s pipe & tube	0
	5480 fab. metal products	3
	5540 primary wood prod.	0
	6134 fish (not shellfish)	7
	6653 vegetable oils	0
	6654 vegetables & prod.	0
	6781 hay & fodder	0
	6782 animal feed, prep.	1
	6811 meat, fresh, frozen	0
	6835 fish, prepared	6
	6839 animals & prod. nec	8
	6858 fruit juices	0
	6887 groceries	0
	7110 machinery (not elec)	0
	7120 electrical machinery	0
	7210 vehicles & parts	0
	7400 manufac. wood prod.	0
	7600 rubber & plastic pr.	0
7900 manufac. prod. nec	81	
9900 unknown or nec	1	
Total Tons(x1000)	207	
METLAKATLA HARBOR, AK	1100 coal lignite	0
	2211 gasoline	1
	2330 distillate fuel oil	2
	2340 residual fuel oil	0
	2540 petroleum coke	0
	2990 petro. products nec	0
	3299 chem. products nec	0
	4110 rubber & gums	0
	4150 fuel wood	5
	4161 wood chips	9
	4170 wood in the rough	116
	4189 lumber	11
	4190 forest products nec	0
	4225 pulp & waste paper	0
	4420 iron & steel scrap	0
	5190 paper products nec	0
	5220 cement & concrete	0
	5240 glass & glass prod.	0
	5480 fab. metal products	1
	6889 food products nec	3
	7110 machinery (not elec)	0
	7120 electrical machinery	0
	7210 vehicles & parts	0
7400 manufac. wood prod.	5	
7500 textile products	0	
7600 rubber & plastic pr.	0	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
METLAKATLA HARBOR, AK - continued	7900 manufac. prod. nec	3
	Total Tons(x1000)	156
NAKNEK RIVER, AK	2211 gasoline	2
	2330 distillate fuel oil	4
	2350 lube oil & greases	0
	2640 liquid natural gas	0
	2990 petro. products nec	3
	3110 nitrogenous fert.	0
	3220 alcohols	0
	3260 organic comp. nec	0
	3275 inorg. elem.,oxides, & halogen salts	0
	3276 metallic salts	0
	3285 perfumes & cleansers	0
	3286 plastics	0
	3299 chem. products nec	0
	4189 lumber	1
	4331 sand & gravel	0
	4420 iron & steel scrap	0
	4900 non-metal. min. nec	1
	5190 paper products nec	1
	5220 cement & concrete	0
	5240 glass & glass prod.	0
	5290 misc. mineral prod.	0
	5330 i&s plates & sheets	0
	5360 i&s bars & shapes	0
	5370 i&s pipe & tube	0
	5390 primary i&s nec	0
	5422 aluminum	0
	5480 fab. metal products	2
	5540 primary wood prod.	0
	6134 fish (not shellfish)	0
	6654 vegetables & prod.	0
	6811 meat, fresh, frozen	0
	6835 fish, prepared	2
	6858 fruit juices	0
	6885 alcoholic beverages	0
	6887 groceries	0
	6889 food products nec	0
	7110 machinery (not elec)	1
	7120 electrical machinery	0
	7210 vehicles & parts	0
	7230 ships & boats	0
	7400 manufac. wood prod.	1
	7500 textile products	0
	7600 rubber & plastic pr.	0
	7900 manufac. prod. nec	9
	Total Tons(x1000)	29
	Total Ton-miles(x1000)	55
NINILCHIK HARBOR, AK	2330 distillate fuel oil	0
	3282 pigments & paints	0
	4189 lumber	0
	5290 misc. mineral prod.	0
	7110 machinery (not elec)	0
	7210 vehicles & parts	0
	7400 manufac. wood prod.	0
	Total Tons(x1000)	0
NOME, AK	2211 gasoline	35
	2330 distillate fuel oil	4
	2350 lube oil & greases	0
	2429 naphtha & solvents	0
	2640 liquid natural gas	0
	2990 petro. products nec	7
	3110 nitrogenous fert.	0
	3190 fert. & mixes nec	0
	3219 other hydrocarbons	0
	3220 alcohols	0
	3276 metallic salts	0
	3282 pigments & paints	0
	3286 plastics	0
	3299 chem. products nec	0
	4170 wood in the rough	0

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
NOME, AK - continued	4189 lumber 4190 forest products nec 4331 sand & gravel 4900 non-metal. min. nec 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec 5480 fab. metal products 5540 primary wood prod. 6781 hay & fodder 6782 animal feed, prep. 6822 dairy products 6885 alcoholic beverages 6887 groceries 6899 farm products nec 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7230 ships & boats 7400 manufac. wood prod. 7500 textile products 7600 rubber & plastic pr. 7900 manufac. prod. nec	2 0 40 0 0 0 0 1 1 0 0 3 1 0 0 1 0 0 2 0 0 0 1 0 0 0 2
	Total Tons(x1000)	101
OLD HARBOR, AK	2211 gasoline 2330 distillate fuel oil 4189 lumber 4900 non-metal. min. nec 5190 paper products nec 5480 fab. metal products 6654 vegetables & prod. 6811 meat, fresh, frozen 6858 fruit juices 6887 groceries 7120 electrical machinery 7900 manufac. prod. nec	0 0 0 0 0 0 0 0 0 0 0 0
	Total Tons(x1000)	1
PELICAN HARBOR, AK	2211 gasoline 2330 distillate fuel oil 7900 manufac. prod. nec	0 0 0
	Total Tons(x1000)	1
PETERSBURG HARBOR, AK	2211 gasoline 2330 distillate fuel oil 2350 lube oil & greases 2640 liquid natural gas 2990 petro. products nec 3110 nitrogenous fert. 3282 pigments & paints 3286 plastics 3293 explosives 3299 chem. products nec 4170 wood in the rough 4189 lumber 4331 sand & gravel 4900 non-metal. min. nec 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5480 fab. metal products 6134 fish (not shellfish) 6136 shellfish 6654 vegetables & prod. 6811 meat, fresh, frozen 6835 fish, prepared 6858 fruit juices	7 15 0 0 0 1 1 0 0 0 0 0 0 3 2 2 0 0 0 0 0 0 5 0

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons
PETERSBURG HARBOR, AK - continued	6885 alcoholic beverages	1
	6887 groceries	3
	6888 water & ice	0
	6889 food products nec	2
	7110 machinery (not elec)	1
	7120 electrical machinery	1
	7210 vehicles & parts	1
	7230 ships & boats	0
	7400 manufac. wood prod.	1
	7500 textile products	1
	7600 rubber & plastic pr.	0
	7900 manufac. prod. nec	9
	Total Tons(x1000)	62
PORT ALEXANDER, AK	No Commerce Reported	
SELDOVIA HARBOR, AK	2211 gasoline	0
	2330 distillate fuel oil	1
	3299 chem. products nec	0
	5480 fab. metal products	0
	6134 fish (not shellfish)	0
	7110 machinery (not elec)	0
	7210 vehicles & parts	0
	7900 manufac. prod. nec	0
		Total Tons(x1000)
SERGIUS AND WHITESTONE NARROWS, AK	2211 gasoline	13
	2330 distillate fuel oil	18
	2340 residual fuel oil	0
	2350 lube oil & greases	2
	2430 asphalt, tar & pitch	0
	2640 liquid natural gas	0
	2990 petro. products nec	0
	3110 nitrogenous fert.	2
	3190 fert. & mixes nec	0
	3276 metallic salts	0
	3282 pigments & paints	2
	3293 explosives	0
	3299 chem. products nec	2
	4170 wood in the rough	0
	4189 lumber	4
	4322 limestone	0
	4331 sand & gravel	0
	4420 iron & steel scrap	0
	4782 clay & refrac. mat.	0
	4900 non-metal. min. nec	1
	5190 paper products nec	4
	5220 cement & concrete	4
	5240 glass & glass prod.	3
	5290 misc. mineral prod.	1
	5370 i&s pipe & tube	1
	5480 fab. metal products	11
	6134 fish (not shellfish)	2
	6136 shellfish	2
	6654 vegetables & prod.	0
	6782 animal feed, prep.	0
	6885 alcoholic beverages	6
	6887 groceries	14
	6888 water & ice	0
	6889 food products nec	13
6899 farm products nec	0	
7110 machinery (not elec)	3	
7120 electrical machinery	4	
7210 vehicles & parts	5	
7230 ships & boats	0	
7400 manufac. wood prod.	6	
7500 textile products	3	
7600 rubber & plastic pr.	1	
7900 manufac. prod. nec	62	
	Total Tons(x1000)	193
	Total Ton-miles(x1000)	1,415

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons	
SITKA HARBOR, AK	2211 gasoline	8	
	2330 distillate fuel oil	11	
	2340 residual fuel oil	1	
	2350 lube oil & greases	1	
	2640 liquid natural gas	0	
	2990 petro. products nec	0	
	3282 pigments & paints	0	
	3293 explosives	0	
	4170 wood in the rough	2	
	4189 lumber	1	
	4331 sand & gravel	13	
	4420 iron & steel scrap	0	
	4900 non-metal. min. nec	0	
	5190 paper products nec	1	
	5220 cement & concrete	0	
	5290 misc. mineral prod.	1	
	5370 i&s pipe & tube	0	
	5480 fab. metal products	3	
	6134 fish (not shellfish)	3	
	6136 shellfish	2	
	6654 vegetables & prod.	0	
	6811 meat, fresh, frozen	0	
	6858 fruit juices	0	
	6885 alcoholic beverages	0	
	6887 groceries	6	
	6888 water & ice	0	
	6889 food products nec	2	
	6899 farm products nec	0	
	7110 machinery (not elec)	2	
	7120 electrical machinery	0	
	7210 vehicles & parts	2	
	7230 ships & boats	0	
	7400 manufac. wood prod.	2	
	7500 textile products	1	
	7600 rubber & plastic pr.	1	
	7900 manufac. prod. nec	11	
	Total Tons(x1000)	74	
	SKAGWAY HARBOR, AK	2211 gasoline	28
		2221 kerosene	4
		2330 distillate fuel oil	44
		2350 lube oil & greases	0
		3110 nitrogenous fert.	1
		3282 pigments & paints	0
		3293 explosives	0
		3299 chem. products nec	1
4170 wood in the rough		0	
4189 lumber		1	
4322 limestone		0	
4420 iron & steel scrap		3	
4690 non-ferrous ores nec		99	
4782 clay & refrac. mat.		0	
4900 non-metal. min. nec		0	
5190 paper products nec		0	
5220 cement & concrete		0	
5240 glass & glass prod.		0	
5290 misc. mineral prod.		0	
5480 fab. metal products		2	
6134 fish (not shellfish)		0	
6885 alcoholic beverages		2	
6887 groceries		1	
6889 food products nec		2	
7110 machinery (not elec)		0	
7120 electrical machinery		0	
7210 vehicles & parts		0	
7230 ships & boats		0	
7400 manufac. wood prod.		1	
7500 textile products		0	
7600 rubber & plastic pr.		1	
7900 manufac. prod. nec		6	
Total Tons(x1000)		197	
STIKINE RIVER, AK		No Commerce Reported	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Project	Commodity	Thousand Short Tons	
WRANGELL HARBOR, AK	1100 coal lignite	0	
	2211 gasoline	2	
	2330 distillate fuel oil	6	
	2350 lube oil & greases	0	
	2540 petroleum coke	0	
	2640 liquid natural gas	0	
	2990 petro. products nec	0	
	3110 nitrogenous fert.	0	
	3190 fert. & mixes nec	0	
	3276 metallic salts	0	
	3282 pigments & paints	0	
	3286 plastics	0	
	3293 explosives	0	
	3299 chem. products nec	0	
	4110 rubber & gums	0	
	4150 fuel wood	3	
	4161 wood chips	4	
	4170 wood in the rough	11	
	4189 lumber	3	
	4190 forest products nec	0	
	4225 pulp & waste paper	0	
	4331 sand & gravel	0	
	4420 iron & steel scrap	0	
	4900 non-metal. min. nec	0	
	5190 paper products nec	0	
	5220 cement & concrete	1	
	5240 glass & glass prod.	1	
	5290 misc. mineral prod.	0	
	5370 i&s pipe & tube	0	
	5422 aluminum	0	
	5480 fab. metal products	1	
	6134 fish (not shellfish)	0	
	6136 shellfish	1	
	6654 vegetables & prod.	0	
	6782 animal feed, prep.	0	
	6811 meat, fresh, frozen	0	
	6835 fish, prepared	1	
	6858 fruit juices	0	
	6885 alcoholic beverages	0	
	6887 groceries	1	
	6888 water & ice	0	
	6889 food products nec	3	
	7110 machinery (not elec)	1	
	7120 electrical machinery	0	
	7210 vehicles & parts	1	
	7230 ships & boats	0	
	7400 manufac. wood prod.	3	
	7500 textile products	0	
	7600 rubber & plastic pr.	0	
	7900 manufac. prod. nec	7	
		Total Tons(x1000)	52
	Non-project		
	CHATHAM STRAIT, AK	2211 gasoline	19
		2330 distillate fuel oil	42
		2340 residual fuel oil	2
		2350 lube oil & greases	1
		2640 liquid natural gas	0
2990 petro. products nec		0	
3120 phosphatic fert.		0	
3190 fert. & mixes nec		0	
3211 acyclic hydrocarbons		0	
3219 other hydrocarbons		0	
3220 alcohols		0	
3275 inorg. elem., oxides, & halogen salts		0	
3276 metallic salts		0	
3282 pigments & paints		0	
3286 plastics		1	
3293 explosives		1	
3299 chem. products nec		0	
4170 wood in the rough	164		
4189 lumber	20		
4190 forest products nec	0		
4225 pulp & waste paper	0		
4322 limestone	0		
4323 gypsum	0		
4331 sand & gravel	10		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons
CHATHAM STRAIT, AK - continued	4420 iron & steel scrap 4680 non-ferrous scrap 4690 non-ferrous ores nec 4860 slag 4900 non-metal. min. nec 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec 5422 aluminum 5480 fab. metal products 5540 primary wood prod. 6134 fish (not shellfish) 6136 shellfish 6654 vegetables & prod. 6781 hay & fodder 6782 animal feed, prep. 6811 meat, fresh, frozen 6835 fish, prepared 6858 fruit juices 6885 alcoholic beverages 6887 groceries 6888 water & ice 6889 food products nec 6899 farm products nec 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7220 aircraft & parts 7230 ships & boats 7400 manufac. wood prod. 7500 textile products 7600 rubber & plastic pr. 7900 manufac. prod. nec	3 0 70 0 1 2 5 2 17 1 1 2 0 16 10 4 11 0 0 0 0 0 5 0 1 7 0 2 0 0 7 1 5 0 1 7 1 1 56
	Total Tons(x1000)	498
	Total Ton-miles(x1000)	30,188
CLARENCE STRAIT, AK	1100 coal lignite 2211 gasoline 2330 distillate fuel oil 2350 lube oil & greases 2430 asphalt, tar & pitch 2540 petroleum coke 2640 liquid natural gas 2990 petro. products nec 3110 nitrogenous fert. 3120 phosphatic fert. 3190 fert. & mixes nec 3211 acyclic hydrocarbons 3219 other hydrocarbons 3220 alcohols 3275 inorg. elem.,oxides, & halogen salts 3276 metallic salts 3282 pigments & paints 3286 plastics 3293 explosives 3299 chem. products nec 4110 rubber & gums 4150 fuel wood 4161 wood chips 4170 wood in the rough 4189 lumber 4190 forest products nec 4225 pulp & waste paper 4322 limestone 4323 gypsum 4331 sand & gravel 4338 soil & fill dirt 4420 iron & steel scrap 4680 non-ferrous scrap 4782 clay & refrac. mat. 4860 slag 4900 non-metal. min. nec 5110 newsprint 5190 paper products nec	0 49 87 3 1 0 2 1 4 0 0 0 0 0 0 0 0 5 1 1 4 0 3 7 603 36 1 0 1 0 5 0 0 4 0 0 0 3 0 7

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons	
CLARENCE STRAIT, AK - continued	5220 cement & concrete	7	
	5240 glass & glass prod.	7	
	5290 misc. mineral prod.	20	
	5360 i&s bars & shapes	1	
	5370 i&s pipe & tube	2	
	5390 primary i&s nec	2	
	5422 aluminum	0	
	5480 fab. metal products	31	
	5540 primary wood prod.	10	
	6134 fish (not shellfish)	10	
	6136 shellfish	13	
	6654 vegetables & prod.	0	
	6747 grain mill products	0	
	6781 hay & fodder	0	
	6782 animal feed, prep.	0	
	6811 meat, fresh, frozen	0	
	6835 fish, prepared	12	
	6858 fruit juices	0	
	6885 alcoholic beverages	15	
	6887 groceries	28	
	6888 water & ice	3	
	6889 food products nec	22	
	6899 farm products nec	0	
	7110 machinery (not elec)	16	
	7120 electrical machinery	6	
	7210 vehicles & parts	14	
	7220 aircraft & parts	0	
	7230 ships & boats	1	
	7400 manufac. wood prod.	20	
	7500 textile products	4	
	7600 rubber & plastic pr.	3	
	7900 manufac. prod. nec	128	
	8900 waste and scrap nec	0	
		Total Tons(x1000)	1,205
		Total Ton-miles(x1000)	67,565
	FREDERICK SOUND, AK	2211 gasoline	43
		2330 distillate fuel oil	69
		2340 residual fuel oil	2
		2350 lube oil & greases	2
		2430 asphalt, tar & pitch	0
		2640 liquid natural gas	1
2990 petro. products nec		0	
3110 nitrogenous fert.		3	
3190 fert. & mixes nec		0	
3275 inorg. elem.,oxides, & halogen salts		0	
3276 metallic salts		0	
3282 pigments & paints		3	
3286 plastics		0	
3293 explosives		1	
3299 chem. products nec		3	
4150 fuel wood		0	
4161 wood chips		0	
4170 wood in the rough		126	
4189 lumber		9	
4190 forest products nec		0	
4225 pulp & waste paper		0	
4322 limestone		1	
4331 sand & gravel		9	
4338 soil & fill dirt		0	
4420 iron & steel scrap		4	
4680 non-ferrous scrap		0	
4690 non-ferrous ores nec		29	
4782 clay & refrac. mat.		0	
4900 non-metal. min. nec		1	
5110 newsprint		0	
5190 paper products nec		4	
5220 cement & concrete		5	
5240 glass & glass prod.		4	
5290 misc. mineral prod.		5	
5370 i&s pipe & tube	1		
5480 fab. metal products	16		
5540 primary wood prod.	0		
6134 fish (not shellfish)	9		
6136 shellfish	2		
6654 vegetables & prod.	0		
6747 grain mill products	0		
6781 hay & fodder	0		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons	
FREDERICK SOUND, AK - continued	6782 animal feed, prep.	0	
	6811 meat, fresh, frozen	0	
	6835 fish, prepared	2	
	6858 fruit juices	0	
	6885 alcoholic beverages	13	
	6887 groceries	24	
	6888 water & ice	2	
	6889 food products nec	16	
	6899 farm products nec	0	
	7110 machinery (not elec)	10	
	7120 electrical machinery	4	
	7210 vehicles & parts	9	
	7230 ships & boats	1	
	7400 manufac. wood prod.	9	
	7500 textile products	3	
	7600 rubber & plastic pr.	2	
	7900 manufac. prod. nec	90	
	8900 waste and scrap nec	0	
		Total Tons(x1000)	541
		Total Ton-miles(x1000)	26,247
	ICY STRAIT, AK	2211 gasoline	51
		2221 kerosene	4
		2330 distillate fuel oil	68
		2340 residual fuel oil	3
		2350 lube oil & greases	2
2640 liquid natural gas		0	
2990 petro. products nec		0	
3110 nitrogenous fert.		1	
3120 phosphatic fert.		0	
3190 fert. & mixes nec		0	
3211 acyclic hydrocarbons		0	
3219 other hydrocarbons		0	
3220 alcohols		0	
3275 inorg. elem., oxides, & halogen salts		0	
3276 metallic salts		0	
3282 pigments & paints		0	
3286 plastics		1	
3293 explosives		0	
3299 chem. products nec		2	
4170 wood in the rough		98	
4189 lumber		19	
4190 forest products nec		0	
4225 pulp & waste paper		0	
4323 gypsum		0	
4331 sand & gravel		0	
4420 iron & steel scrap		0	
4680 non-ferrous scrap		0	
4690 non-ferrous ores nec		131	
4860 slag		0	
4900 non-metal. min. nec		2	
5190 paper products nec		2	
5220 cement & concrete		2	
5240 glass & glass prod.		2	
5290 misc. mineral prod.		16	
5360 i&s bars & shapes		1	
5370 i&s pipe & tube		1	
5390 primary i&s nec		2	
5422 aluminum		0	
5480 fab. metal products		14	
5540 primary wood prod.		10	
6134 fish (not shellfish)		6	
6136 shellfish		10	
6654 vegetables & prod.		0	
6781 hay & fodder		0	
6782 animal feed, prep.		0	
6811 meat, fresh, frozen		0	
6835 fish, prepared		7	
6858 fruit juices		0	
6885 alcoholic beverages		1	
6887 groceries		2	
6889 food products nec		1	
7110 machinery (not elec)		6	
7120 electrical machinery		0	
7210 vehicles & parts		4	
7220 aircraft & parts		0	
7230 ships & boats	0		
7400 manufac. wood prod.	5		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons
ICY STRAIT, AK - continued	7500 textile products	0
	7600 rubber & plastic pr.	1
	7900 manufac. prod. nec	21
	Total Tons(x1000)	498
	Total Ton-miles(x1000)	23,426
KIVILINA, AK	2211 gasoline	21
	2330 distillate fuel oil	12
	3293 explosives	0
	3299 chem. products nec	2
	4170 wood in the rough	14
	4189 lumber	0
	4331 sand & gravel	7
	4690 non-ferrous ores nec	668
	5220 cement & concrete	1
	5429 smelted prod. nec	1,074
	5480 fab. metal products	1
	7210 vehicles & parts	0
	7230 ships & boats	0
	7400 manufac. wood prod.	0
	7900 manufac. prod. nec	1
Total Tons(x1000)	1,800	
KLAWOCK, AK	2211 gasoline	1
	2330 distillate fuel oil	1
	4150 fuel wood	11
	4161 wood chips	66
	4170 wood in the rough	1,394
	7110 machinery (not elec)	1
	7900 manufac. prod. nec	0
	Total Tons(x1000)	1,474
LYNN CANAL, AK	2211 gasoline	61
	2221 kerosene	4
	2330 distillate fuel oil	70
	2340 residual fuel oil	3
	2350 lube oil & greases	2
	2430 asphalt, tar & pitch	0
	2540 petroleum coke	0
	2640 liquid natural gas	0
	2990 petro. products nec	0
	3110 nitrogenous fert.	2
	3276 metallic salts	0
	3282 pigments & paints	0
	3293 explosives	1
	3299 chem. products nec	3
	4170 wood in the rough	9
	4189 lumber	3
	4190 forest products nec	0
	4322 limestone	0
	4331 sand & gravel	0
	4420 iron & steel scrap	3
	4690 non-ferrous ores nec	99
	4782 clay & refrac. mat.	0
	4900 non-metal. min. nec	1
	5190 paper products nec	1
	5220 cement & concrete	4
	5240 glass & glass prod.	0
	5290 misc. mineral prod.	0
	5370 i&s pipe & tube	1
	5480 fab. metal products	6
	5540 primary wood prod.	0
	6134 fish (not shellfish)	6
	6835 fish, prepared	2
6885 alcoholic beverages	5	
6887 groceries	8	
6889 food products nec	6	
7110 machinery (not elec)	5	
7120 electrical machinery	1	
7210 vehicles & parts	2	
7230 ships & boats	0	
7400 manufac. wood prod.	2	
7500 textile products	0	
7600 rubber & plastic pr.	1	

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons	
LYNN CANAL, AK - continued	7900 manufac. prod. nec	47	
	Total Tons(x1000)	357	
	Total Ton-miles(x1000)	20,312	
NIKISHKA, AK	2100 crude petroleum	2,191	
	2211 gasoline	255	
	2221 kerosene	74	
	2330 distillate fuel oil	1,044	
	2340 residual fuel oil	19	
	2430 asphalt, tar & pitch	579	
	2640 liquid natural gas	1,200	
	2990 petro. products nec	11	
	3110 nitrogenous fert.	794	
	3272 sulphuric acid	0	
	3273 ammonia	749	
	3274 sodium hydroxide	0	
	3286 plastics	0	
	3292 starches, gluten, glue	0	
	3299 chem. products nec	0	
	4161 wood chips	13	
	4170 wood in the rough	7	
	5480 fab. metal products	0	
	6136 shellfish	0	
	6747 grain mill products	0	
	6838 tallow, animal oils	0	
	7110 machinery (not elec)	0	
	7120 electrical machinery	0	
	7210 vehicles & parts	0	
	7500 textile products	0	
	7900 manufac. prod. nec	0	
	9900 unknown or nec	0	
		Total Tons(x1000)	6,939
	PRINCE OF WALES IS. WEST SIDE, AK	2211 gasoline	0
		2330 distillate fuel oil	2
		2340 residual fuel oil	0
		4170 wood in the rough	1,321
		4189 lumber	0
5480 fab. metal products		0	
7110 machinery (not elec)		2	
7120 electrical machinery		0	
7210 vehicles & parts		0	
7230 ships & boats		0	
7900 manufac. prod. nec		4	
8900 waste and scrap nec		0	
		Total Tons(x1000)	1,329
REVILLAGIGADO CHANNEL, AK	1100 coal lignite	1	
	2211 gasoline	57	
	2330 distillate fuel oil	81	
	2340 residual fuel oil	6	
	2350 lube oil & greases	3	
	2430 asphalt, tar & pitch	1	
	2540 petroleum coke	0	
	2640 liquid natural gas	4	
	2990 petro. products nec	1	
	3110 nitrogenous fert.	5	
	3120 phosphatic fert.	0	
	3190 fert. & mixes nec	0	
	3211 acyclic hydrocarbons	0	
	3219 other hydrocarbons	0	
	3220 alcohols	0	
	3275 inorg. elem., oxides, & halogen salts	0	
	3276 metallic salts	0	
	3282 pigments & paints	5	
	3286 plastics	1	
	3293 explosives	1	
	3299 chem. products nec	7	
	4110 rubber & gums	0	
	4150 fuel wood	16	
	4161 wood chips	83	
	4170 wood in the rough	292	
	4189 lumber	67	
4190 forest products nec	1		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons	
REVILLAGIGADO CHANNEL, AK - continued	4225 pulp & waste paper	0	
	4322 limestone	1	
	4323 gypsum	0	
	4331 sand & gravel	8	
	4338 soil & fill dirt	0	
	4420 iron & steel scrap	7	
	4680 non-ferrous scrap	0	
	4782 clay & refrac. mat.	0	
	4860 slag	0	
	4900 non-metal. min. nec	3	
	5110 newsprint	0	
	5190 paper products nec	8	
	5220 cement & concrete	11	
	5240 glass & glass prod.	9	
	5290 misc. mineral prod.	21	
	5360 i&s bars & shapes	1	
	5370 i&s pipe & tube	2	
	5390 primary i&s nec	2	
	5422 aluminum	0	
	5480 fab. metal products	43	
	5540 primary wood prod.	10	
	6134 fish (not shellfish)	49	
	6136 shellfish	18	
	6654 vegetables & prod.	0	
	6747 grain mill products	0	
	6781 hay & fodder	0	
	6782 animal feed, prep.	1	
	6811 meat, fresh, frozen	0	
	6835 fish, prepared	23	
	6858 fruit juices	0	
	6885 alcoholic beverages	19	
	6887 groceries	32	
	6888 water & ice	3	
	6889 food products nec	50	
	6899 farm products nec	0	
	7110 machinery (not elec)	18	
	7120 electrical machinery	9	
	7210 vehicles & parts	19	
	7220 aircraft & parts	0	
	7230 ships & boats	2	
	7400 manufac. wood prod.	48	
	7500 textile products	5	
	7600 rubber & plastic pr.	4	
	7900 manufac. prod. nec	141	
	8900 waste and scrap nec	0	
	9900 unknown or nec	0	
		Total Tons(x1000)	1,199
		Total Ton-miles(x1000)	50,945
	STEPHENS PASSAGE, AK	2211 gasoline	48
		2330 distillate fuel oil	49
		2340 residual fuel oil	3
		2350 lube oil & greases	2
		2430 asphalt, tar & pitch	0
2540 petroleum coke		0	
2640 liquid natural gas		1	
2990 petro. products nec		0	
3110 nitrogenous fert.		3	
3190 fert. & mixes nec		0	
3275 inorg. elem.,oxides, & halogen salts		0	
3276 metallic salts		0	
3282 pigments & paints		3	
3293 explosives		1	
3299 chem. products nec		3	
4150 fuel wood		0	
4161 wood chips		0	
4170 wood in the rough		111	
4189 lumber		7	
4190 forest products nec		0	
4225 pulp & waste paper		0	
4322 limestone		1	
4331 sand & gravel		9	
4338 soil & fill dirt	0		
4420 iron & steel scrap	1		
4680 non-ferrous scrap	0		
4690 non-ferrous ores nec	29		
4782 clay & refrac. mat.	0		
4900 non-metal. min. nec	1		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons
STEPHENS PASSAGE, AK - continued	5110 newsprint 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5370 i&s pipe & tube 5480 fab. metal products 5540 primary wood prod. 6134 fish (not shellfish) 6654 vegetables & prod. 6747 grain mill products 6781 hay & fodder 6782 animal feed, prep. 6835 fish, prepared 6885 alcoholic beverages 6887 groceries 6888 water & ice 6889 food products nec 6899 farm products nec 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7230 ships & boats 7400 manufac. wood prod. 7500 textile products 7600 rubber & plastic pr. 7900 manufac. prod. nec 8900 waste and scrap nec	0 3 5 4 4 1 10 0 6 0 0 0 2 13 19 2 14 0 6 4 8 1 7 2 1 75 0
	Total Tons(x1000)	462
	Total Ton-miles(x1000)	31,254
SUMNER STRAIT, AK	1100 coal lignite 2211 gasoline 2330 distillate fuel oil 2350 lube oil & greases 2430 asphalt, tar & pitch 2540 petroleum coke 2640 liquid natural gas 2990 petro. products nec 3110 nitrogenous fert. 3120 phosphatic fert. 3190 fert. & mixes nec 3211 acyclic hydrocarbons 3219 other hydrocarbons 3220 alcohols 3275 inorg. elem., oxides, & halogen salts 3276 metallic salts 3282 pigments & paints 3286 plastics 3293 explosives 3299 chem. products nec 4110 rubber & gums 4150 fuel wood 4161 wood chips 4170 wood in the rough 4189 lumber 4190 forest products nec 4225 pulp & waste paper 4322 limestone 4323 gypsum 4331 sand & gravel 4338 soil & fill dirt 4420 iron & steel scrap 4680 non-ferrous scrap 4782 clay & refrac. mat. 4860 slag 4900 non-metal. min. nec 5110 newsprint 5190 paper products nec 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec 5422 aluminum 5480 fab. metal products 5540 primary wood prod.	0 48 80 3 0 0 2 1 4 0 0 0 0 0 0 0 4 1 1 3 0 3 4 4 12 30 1 0 1 0 5 0 4 0 0 0 2 0 7 7 7 20 1 2 2 0 30 10

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons	
SUMNER STRAIT, AK - continued	6134 fish (not shellfish)	9	
	6136 shellfish	13	
	6654 vegetables & prod.	0	
	6747 grain mill products	0	
	6781 hay & fodder	0	
	6782 animal feed, prep.	0	
	6811 meat, fresh, frozen	0	
	6835 fish, prepared	12	
	6858 fruit juices	0	
	6885 alcoholic beverages	15	
	6887 groceries	27	
	6888 water & ice	2	
	6889 food products nec	21	
	6899 farm products nec	0	
	7110 machinery (not elec)	15	
	7120 electrical machinery	6	
	7210 vehicles & parts	14	
	7220 aircraft & parts	0	
	7230 ships & boats	1	
	7400 manufac. wood prod.	19	
	7500 textile products	4	
	7600 rubber & plastic pr.	3	
	7900 manufac. prod. nec	113	
	8900 waste and scrap nec	0	
		Total Tons(x1000)	571
	TONGASS NARROWS, AK	1100 coal lignite	0
		2211 gasoline	49
2330 distillate fuel oil		86	
2350 lube oil & greases		3	
2430 asphalt, tar & pitch		1	
2540 petroleum coke		0	
2640 liquid natural gas		2	
2990 petro. products nec		1	
3110 nitrogenous fert.		4	
3120 phosphatic fert.		0	
3190 fert. & mixes nec		0	
3211 acyclic hydrocarbons		0	
3219 other hydrocarbons		0	
3220 alcohols		0	
3275 inorg. elem., oxides, & halogen salts		0	
3276 metallic salts		0	
3282 pigments & paints		5	
3286 plastics		1	
3293 explosives		1	
3299 chem. products nec		4	
4110 rubber & gums		0	
4150 fuel wood		2	
4161 wood chips		6	
4170 wood in the rough		231	
4189 lumber		30	
4190 forest products nec		1	
4225 pulp & waste paper		0	
4322 limestone		1	
4323 gypsum		0	
4331 sand & gravel		5	
4338 soil & fill dirt		0	
4420 iron & steel scrap		4	
4680 non-ferrous scrap		0	
4782 clay & refrac. mat.		0	
4860 slag		0	
4900 non-metal. min. nec		2	
5110 newsprint		0	
5190 paper products nec		7	
5220 cement & concrete		7	
5240 glass & glass prod.		7	
5290 misc. mineral prod.		20	
5360 i&s bars & shapes	1		
5370 i&s pipe & tube	2		
5390 primary i&s nec	2		
5422 aluminum	0		
5480 fab. metal products	31		
5540 primary wood prod.	10		
6134 fish (not shellfish)	10		
6136 shellfish	13		
6654 vegetables & prod.	0		
6747 grain mill products	0		

Other Harbors and Waterways 1998 - continued

Harbor or Waterway Non-project	Commodity	Thousand Short Tons
TONGASS NARROWS, AK - continued	6781 hay & fodder	0
	6782 animal feed, prep.	0
	6811 meat, fresh, frozen	0
	6835 fish, prepared	12
	6858 fruit juices	0
	6885 alcoholic beverages	15
	6887 groceries	28
	6888 water & ice	3
	6889 food products nec	22
	6899 farm products nec	0
	7110 machinery (not elec)	15
	7120 electrical machinery	6
	7210 vehicles & parts	14
	7220 aircraft & parts	0
	7230 ships & boats	1
	7400 manufac. wood prod.	20
	7500 textile products	4
	7600 rubber & plastic pr.	3
	7900 manufac. prod. nec	123
	8900 waste and scrap nec	0
Total Tons(x1000)	818	
Total Ton-miles(x1000)	11,234	
WHITTIER HARBOR, AK	3110 nitrogenous fert.	18
	3130 potassic fert.	1
	3220 alcohols	4
	4189 lumber	1
	4900 non-metal. min. nec	14
	5480 fab. metal products	17
	5540 primary wood prod.	1
	6134 fish (not shellfish)	3
	6136 shellfish	0
	6887 groceries	1
	7110 machinery (not elec)	0
	7210 vehicles & parts	0
	7900 manufac. prod. nec	247
	9900 unknown or nec	0
Total Tons(x1000)	307	

Section 2

Trips and Drafts of Vessels

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SAN DIEGO HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	15,155	14,289	21	806	38	1	15,113	14,236	18	821	37	1
FOREIGN												
Total	453	424	5	19	5	—	429	402	3	17	7	—
38	—	—	—	—	—	—	2	2	—	—	—	—
37	1	1	—	—	—	—	2	2	—	—	—	—
36	2	2	—	—	—	—	—	—	—	—	—	—
35	3	3	—	—	—	—	1	1	—	—	—	—
34	3	3	—	—	—	—	6	6	—	—	—	—
33	4	4	—	—	—	—	2	2	—	—	—	—
32	—	—	—	—	—	—	5	5	—	—	—	—
31	2	2	—	—	—	—	1	1	—	—	—	—
30	6	5	1	—	—	—	6	5	1	—	—	—
29	5	5	—	—	—	—	4	4	—	—	—	—
28	25	25	—	—	—	—	8	8	—	—	—	—
27	27	27	—	—	—	—	21	21	—	—	—	—
26	23	23	—	—	—	—	27	27	—	—	—	—
25	29	29	—	—	—	—	19	19	—	—	—	—
24	13	13	—	—	—	—	12	12	—	—	—	—
23	58	58	—	—	—	—	80	80	—	—	—	—
22	5	5	—	—	—	—	12	12	—	—	—	—
21	2	1	—	1	—	—	7	6	—	—	—	—
20	6	6	—	—	—	—	6	5	—	—	—	—
19	5	5	—	—	—	—	3	3	—	—	—	—
18	234	207	4	18	5	—	205	181	2	15	7	—
DOMESTIC												
Total	14,702	13,865	16	787	33	1	14,684	13,834	15	804	30	1
36	9	—	9	—	—	—	—	—	—	—	—	—
35	2	—	2	—	—	—	—	—	—	—	—	—
32	1	—	1	—	—	—	—	—	—	—	—	—
31	1	—	1	—	—	—	—	—	—	—	—	—
30	1	—	1	—	—	—	—	—	—	—	—	—
28	—	—	—	—	—	—	1	—	1	—	—	—
27	1	—	1	—	—	—	—	—	—	—	—	—
25	1	—	1	—	—	—	—	—	—	—	—	—
19	5	—	—	5	—	—	5	—	—	5	—	—
18	14,681	13,865	—	782	33	1	14,678	13,834	14	799	30	1
											Total trips:	30,268
LONG BEACH HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	25,412	10,691	520	11,086	2,444	671	25,291	10,786	483	10,990	2,400	632
FOREIGN												
Total	2,199	1,801	269	69	60	—	2,268	1,896	256	56	59	1
57	1	—	1	—	—	—	—	—	—	—	—	—
56	2	—	2	—	—	—	—	—	—	—	—	—
55	1	—	1	—	—	—	—	—	—	—	—	—
53	4	—	4	—	—	—	—	—	—	—	—	—
52	5	—	5	—	—	—	—	—	—	—	—	—
51	2	—	2	—	—	—	—	—	—	—	—	—
50	3	—	3	—	—	—	1	—	1	—	—	—
49	3	—	3	—	—	—	1	1	—	—	—	—
48	3	—	3	—	—	—	1	—	1	—	—	—
47	2	—	2	—	—	—	6	4	2	—	—	—
46	5	1	4	—	—	—	2	—	2	—	—	—
45	1	—	1	—	—	—	3	2	1	—	—	—
44	4	—	4	—	—	—	1	1	—	—	—	—
43	12	8	4	—	—	—	10	7	3	—	—	—
42	12	9	3	—	—	—	7	4	3	—	—	—
41	37	23	14	—	—	—	14	13	1	—	—	—
40	74	61	13	—	—	—	40	39	1	—	—	—
39	134	121	13	—	—	—	100	97	3	—	—	—
38	151	123	28	—	—	—	70	66	4	—	—	—
37	150	134	16	—	—	—	95	93	2	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

LONG BEACH HARBOR, CA - continued

Inbound

Outbound

FOREIGN

36	139	118	21	—	—	—	102	97	5	—	—	—
35	129	116	13	—	—	—	120	114	6	—	—	—
34	119	109	10	—	—	—	136	129	7	—	—	—
33	91	73	18	—	—	—	157	141	16	—	—	—
32	52	46	6	—	—	—	117	101	16	—	—	—
31	52	45	7	—	—	—	82	66	16	—	—	—
30	71	60	11	—	—	—	79	59	20	—	—	—
29	79	71	8	—	—	—	139	114	25	—	—	—
28	113	108	5	—	—	—	113	86	27	—	—	—
27	110	100	9	—	1	—	113	93	20	—	—	—
26	110	101	8	1	—	—	97	80	17	—	—	—
25	85	77	6	1	1	—	99	86	11	1	1	—
24	81	78	3	—	—	—	107	98	8	—	1	—
23	48	44	3	—	1	—	73	63	10	—	—	—
22	53	50	3	—	—	—	71	63	7	—	1	—
21	31	29	2	—	—	—	52	44	8	—	—	—
20	36	33	3	—	—	—	44	39	5	—	—	—
19	24	20	3	1	—	—	33	29	3	1	—	—
18	170	43	4	66	57	—	183	67	5	54	56	1

DOMESTIC

Total	23,213	8,890	251	11,017	2,384	671	23,023	8,890	227	10,934	2,341	631
59	1	—	1	—	—	—	—	—	—	—	—	—
58	9	—	9	—	—	—	—	—	—	—	—	—
57	39	—	39	—	—	—	—	—	—	—	—	—
56	9	—	9	—	—	—	—	—	—	—	—	—
54	2	—	2	—	—	—	—	—	—	—	—	—
53	1	—	1	—	—	—	—	—	—	—	—	—
51	1	—	1	—	—	—	—	—	—	—	—	—
50	1	—	1	—	—	—	—	—	—	—	—	—
49	1	—	1	—	—	—	—	—	—	—	—	—
48	2	—	2	—	—	—	—	—	—	—	—	—
47	2	—	2	—	—	—	1	—	1	—	—	—
45	1	—	1	—	—	—	1	—	1	—	—	—
43	2	—	2	—	—	—	—	—	—	—	—	—
42	2	—	2	—	—	—	4	—	4	—	—	—
41	3	—	3	—	—	—	2	—	2	—	—	—
40	7	—	7	—	—	—	4	—	4	—	—	—
39	4	—	4	—	—	—	4	—	4	—	—	—
38	8	—	8	—	—	—	6	—	6	—	—	—
37	12	—	12	—	—	—	7	—	7	—	—	—
36	10	—	10	—	—	—	20	—	20	—	—	—
35	8	—	8	—	—	—	20	—	20	—	—	—
34	9	—	9	—	—	—	12	1	11	—	—	—
33	1	—	1	—	—	—	5	1	4	—	—	—
32	5	—	5	—	—	—	9	5	4	—	—	—
31	1	—	1	—	—	—	14	9	5	—	—	—
30	6	2	4	—	—	—	20	9	11	—	—	—
29	7	2	5	—	—	—	14	5	9	—	—	—
28	5	3	2	—	—	—	21	1	20	—	—	—
27	36	35	1	—	—	—	73	68	5	—	—	—
26	13	9	4	—	—	—	3	—	3	—	—	—
25	11	9	2	—	—	—	3	—	3	—	—	—
24	8	6	2	—	—	—	2	—	2	—	—	—
23	3	1	2	—	—	—	2	—	2	—	—	—
22	2	—	—	—	2	—	1	—	1	—	—	—
21	4	—	—	—	—	4	8	—	7	—	—	1
20	24	—	2	18	—	4	28	—	10	17	—	1
19	20	—	1	11	—	8	17	—	—	11	1	5
18	22,933	8,823	85	10,988	2,382	655	22,722	8,791	61	10,906	2,340	624

Total trips: 50,703

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
LOS ANGELES HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	18,151	9,122	375	6,033	1,583	1,038	18,335	9,145	423	6,112	1,610	1,045
FOREIGN												
Total	2,336	2,196	130	8	1	1	2,344	2,175	148	12	7	2
52	2	—	2	—	—	—	—	—	—	—	—	—
51	1	—	1	—	—	—	—	—	—	—	—	—
48	1	—	1	—	—	—	—	—	—	—	—	—
47	1	1	—	—	—	—	—	—	—	—	—	—
46	—	—	—	—	—	—	3	2	1	—	—	—
45	3	2	1	—	—	—	4	1	3	—	—	—
44	3	2	1	—	—	—	4	3	1	—	—	—
43	15	11	4	—	—	—	5	5	—	—	—	—
42	17	17	—	—	—	—	12	11	1	—	—	—
41	31	29	2	—	—	—	14	14	—	—	—	—
40	60	55	5	—	—	—	23	21	2	—	—	—
39	87	82	5	—	—	—	39	38	1	—	—	—
38	121	113	8	—	—	—	57	55	2	—	—	—
37	121	113	8	—	—	—	75	72	3	—	—	—
36	127	119	8	—	—	—	96	94	2	—	—	—
35	114	106	8	—	—	—	111	106	5	—	—	—
34	97	93	4	—	—	—	120	120	—	—	—	—
33	89	85	4	—	—	—	219	212	7	—	—	—
32	97	90	7	—	—	—	139	136	3	—	—	—
31	65	61	4	—	—	—	104	93	9	—	2	—
30	93	90	3	—	—	—	84	72	12	—	—	—
29	95	89	6	—	—	—	108	90	18	—	—	—
28	106	96	10	—	—	—	97	84	13	—	—	—
27	122	112	10	—	—	—	94	85	9	—	—	—
26	213	208	5	—	—	—	225	212	12	1	—	—
25	162	156	6	—	—	—	164	155	9	—	—	—
24	200	198	2	—	—	—	208	198	10	—	—	—
23	118	117	1	—	—	—	129	122	6	—	1	—
22	175	151	14	8	1	1	210	174	19	11	4	2
DOMESTIC												
Total	15,815	6,926	245	6,025	1,582	1,037	15,991	6,970	275	6,100	1,603	1,043
53	1	—	1	—	—	—	—	—	—	—	—	—
49	2	—	2	—	—	—	—	—	—	—	—	—
47	2	—	2	—	—	—	—	—	—	—	—	—
42	1	—	1	—	—	—	—	—	—	—	—	—
41	—	—	—	—	—	—	1	—	1	—	—	—
40	4	—	4	—	—	—	2	—	2	—	—	—
39	4	—	4	—	—	—	1	—	1	—	—	—
38	5	2	3	—	—	—	5	5	—	—	—	—
37	3	1	2	—	—	—	3	—	3	—	—	—
36	3	—	3	—	—	—	4	3	1	—	—	—
35	10	6	4	—	—	—	8	3	5	—	—	—
34	18	8	10	—	—	—	19	8	11	—	—	—
33	11	3	8	—	—	—	22	21	1	—	—	—
32	25	4	21	—	—	—	42	33	9	—	—	—
31	13	5	8	—	—	—	27	20	7	—	—	—
30	17	10	7	—	—	—	34	25	9	—	—	—
29	36	20	16	—	—	—	15	9	6	—	—	—
28	27	18	9	—	—	—	14	9	5	—	—	—
27	33	31	2	—	—	—	24	15	9	—	—	—
26	41	38	3	—	—	—	20	10	10	—	—	—
25	33	27	6	—	—	—	29	18	11	—	—	—
24	20	19	1	—	—	—	13	11	2	—	—	—
23	6	5	1	—	—	—	7	3	4	—	—	—
22	15,500	6,729	127	6,025	1,582	1,037	15,701	6,777	178	6,100	1,603	1,043
										Total trips:		36,486

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT HUENEME, CA

Inbound

Outbound

Grand

Total	2,443	2,417	3	7	—	16	2,447	2,423	2	6	—	16
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FOREIGN

Total	253	250	3	—	—	—	255	253	2	—	—	—
35	1	1	—	—	—	—	—	—	—	—	—	—
34	1	—	1	—	—	—	—	—	—	—	—	—
33	1	1	—	—	—	—	1	1	—	—	—	—
32	7	6	1	—	—	—	1	1	—	—	—	—
31	3	3	—	—	—	—	2	2	—	—	—	—
30	8	8	—	—	—	—	5	5	—	—	—	—
29	12	12	—	—	—	—	6	6	—	—	—	—
28	18	18	—	—	—	—	11	11	—	—	—	—
27	35	35	—	—	—	—	34	34	—	—	—	—
26	28	28	—	—	—	—	42	42	—	—	—	—
25	50	50	—	—	—	—	25	23	2	—	—	—
24	39	39	—	—	—	—	29	29	—	—	—	—
23	22	22	—	—	—	—	16	16	—	—	—	—
22	10	10	—	—	—	—	15	15	—	—	—	—
21	7	7	—	—	—	—	5	5	—	—	—	—
20	3	3	—	—	—	—	10	10	—	—	—	—
19	—	—	—	—	—	—	21	21	—	—	—	—
18	8	7	1	—	—	—	32	32	—	—	—	—

DOMESTIC

Total	2,190	2,167	—	7	—	16	2,192	2,170	—	6	—	16
21	—	—	—	—	—	—	1	—	—	—	—	1
20	1	—	—	1	—	—	1	—	—	1	—	—
19	—	—	—	—	—	—	1	—	—	—	—	1
18	2,189	2,167	—	6	—	16	2,189	2,170	—	5	—	14

Total trips: 4,890

MISSION BAY, CA
(6 feet and less)

Inbound

Outbound

Grand

Total	2	—	—	2	—	—	2	—	—	2	—	—
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Total trips: 4

MORRO BAY HARBOR, CA
(10 feet and less)

Inbound

Outbound

Grand

Total	530	2	354	116	58	—	530	2	353	116	59	—
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Total trips: 1,060

NEWPORT BAY HARBOR, CA
(15 feet and less)

Inbound

Outbound

Grand

Total	319	296	1	4	18	—	319	297	1	3	18	—
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Total trips: 638

REDONDO BEACH, CA
(11 feet and less)

Inbound

Outbound

Grand

Total	327	191	—	127	9	—	326	191	—	127	8	—
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Total trips: 653

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SANTA BARBARA HARBOR, CA
(8 feet and less)

	Inbound						Outbound					
Grand												
Total	1	1	—	—	—	—	1	1	—	—	—	—
											Total trips:	2

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SACRAMENTO RIVER, CA

Upbound

Downbound

Grand

Total	1,173	1,076	9	50	38	---	1,178	1,079	9	51	39	---
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FOREIGN

Total	50	44	6	---	---	---	55	47	6	1	1	---
33	2	2	---	---	---	---	1	1	---	---	---	---
32	---	---	---	---	---	---	2	1	1	---	---	---
31	5	5	---	---	---	---	7	7	---	---	---	---
30	6	6	---	---	---	---	5	5	---	---	---	---
29	6	4	2	---	---	---	9	7	---	1	1	---
28	7	5	2	---	---	---	5	5	---	---	---	---
27	2	2	---	---	---	---	4	4	---	---	---	---
26	4	4	---	---	---	---	4	3	1	---	---	---
25	1	1	---	---	---	---	1	1	---	---	---	---
24	---	---	---	---	---	---	3	3	---	---	---	---
23	---	---	---	---	---	---	4	4	---	---	---	---
22	1	1	---	---	---	---	4	2	2	---	---	---
21	4	2	2	---	---	---	1	---	1	---	---	---
20	4	4	---	---	---	---	1	1	---	---	---	---
19	5	5	---	---	---	---	2	2	---	---	---	---
17	1	1	---	---	---	---	---	---	---	---	---	---
16	1	1	---	---	---	---	1	---	1	---	---	---
15	1	1	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	1	1	---	---	---	---

DOMESTIC

Total	1,123	1,032	3	50	38	---	1,123	1,032	3	50	38	---
31	2	---	2	---	---	---	---	---	---	---	---	---
29	1	---	1	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	2	---	2	---	---	---
21	---	---	---	---	---	---	1	---	1	---	---	---
20	1	---	---	---	1	---	---	---	---	---	---	---
18	1	---	---	1	---	---	1	---	---	1	---	---
13	2	---	---	2	---	---	2	---	---	2	---	---
12	1	---	---	---	1	---	---	---	---	---	---	---
11	5	---	---	---	5	---	1	---	---	---	1	---
10	4	---	---	---	4	---	---	---	---	---	---	---
9	47	28	---	19	---	---	47	28	---	19	---	---
6	1,059	1,004	---	28	27	---	1,069	1,004	---	28	37	---

Total trips: 2,351

SACRAMENTO RIVER DEEPWATER SHIP CHANNEL, CA

Upbound

Downbound

Grand

Total	56	44	9	1	2	---	61	47	9	2	3	---
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FOREIGN

Total	50	44	6	---	---	---	55	47	6	1	1	---
33	2	2	---	---	---	---	1	1	---	---	---	---
32	---	---	---	---	---	---	2	1	1	---	---	---
31	5	5	---	---	---	---	7	7	---	---	---	---
30	6	6	---	---	---	---	5	5	---	---	---	---
29	6	4	2	---	---	---	9	7	---	1	1	---
28	7	5	2	---	---	---	5	5	---	---	---	---
27	2	2	---	---	---	---	4	4	---	---	---	---
26	4	4	---	---	---	---	4	3	1	---	---	---
25	1	1	---	---	---	---	1	1	---	---	---	---
24	---	---	---	---	---	---	3	3	---	---	---	---
23	---	---	---	---	---	---	4	4	---	---	---	---
22	1	1	---	---	---	---	4	2	2	---	---	---
21	4	2	2	---	---	---	1	---	1	---	---	---
20	4	4	---	---	---	---	1	1	---	---	---	---
19	5	5	---	---	---	---	2	2	---	---	---	---
17	1	1	---	---	---	---	---	---	---	---	---	---
16	1	1	---	---	---	---	1	---	1	---	---	---
15	1	1	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	1	1	---	---	---	---

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SACRAMENTO RIVER DEEPWATER SHIP CHANNEL, CA - continued
Upbound

Downbound

DOMESTIC

Total	6	---	3	1	2	---	6	---	3	1	2	---
31	2	---	2	---	---	---	1	---	1	---	---	---
29	1	---	1	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	1	---	1	---	---	---
21	---	---	---	---	---	---	1	---	1	---	---	---
20	1	---	---	---	1	---	---	---	---	---	---	---
18	1	---	---	1	---	---	1	---	---	1	---	---
12	1	---	---	---	1	---	---	---	---	---	---	---
11	---	---	---	---	---	---	1	---	---	---	1	---
6	---	---	---	---	---	---	1	---	---	---	1	---
Total trips:											117	

SACRAMENTO, CA

Inbound

Outbound

Grand Total	1,087	1,075	9	1	2	---	1,092	1,078	9	2	3	---
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FOREIGN

Total	50	44	6	---	---	---	55	47	6	1	1	---
33	2	2	---	---	---	---	1	1	---	---	---	---
32	---	---	---	---	---	---	2	1	1	---	---	---
31	5	5	---	---	---	---	7	7	---	---	---	---
30	6	6	---	---	---	---	5	5	---	---	---	---
29	6	4	2	---	---	---	9	7	---	1	1	---
28	7	5	2	---	---	---	5	5	---	---	---	---
27	2	2	---	---	---	---	4	4	---	---	---	---
26	4	4	---	---	---	---	4	3	1	---	---	---
25	1	1	---	---	---	---	1	1	---	---	---	---
24	---	---	---	---	---	---	3	3	---	---	---	---
23	---	---	---	---	---	---	4	4	---	---	---	---
22	1	1	---	---	---	---	4	2	2	---	---	---
21	4	2	2	---	---	---	1	---	1	---	---	---
20	4	4	---	---	---	---	1	1	---	---	---	---
19	5	5	---	---	---	---	2	2	---	---	---	---
17	1	1	---	---	---	---	---	---	---	---	---	---
16	1	1	---	---	---	---	1	---	1	---	---	---
15	1	1	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	1	1	---	---	---	---

DOMESTIC

Total	1,037	1,031	3	1	2	---	1,037	1,031	3	1	2	---
31	2	---	2	---	---	---	1	---	1	---	---	---
29	1	---	1	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	1	---	1	---	---	---
21	---	---	---	---	---	---	1	---	1	---	---	---
20	1	---	---	---	1	---	---	---	---	---	---	---
18	1	---	---	1	---	---	1	---	---	1	---	---
12	1	---	---	---	1	---	---	---	---	---	---	---
11	---	---	---	---	---	---	1	---	---	---	1	---
9	28	28	---	---	---	---	28	28	---	---	---	---
6	1,003	1,003	---	---	---	---	1,004	1,003	---	---	1	---
Total trips:											2,179	

SAN JOAQUIN RIVER, CA

Upbound

Downbound

Grand Total	732	136	25	333	201	37	684	109	24	322	205	24
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FOREIGN

Total	121	98	23	---	---	---	126	104	22	---	---	---
33	3	3	---	---	---	---	4	4	---	---	---	---
32	21	12	9	---	---	---	10	9	1	---	---	---

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SAN JOAQUIN RIVER, CA - continued

Upbound

Downbound

FOREIGN

31	27	22	5	—	—	—	5	4	1	—	—	—
30	5	3	2	—	—	—	12	12	—	—	—	—
29	6	5	1	—	—	—	10	9	1	—	—	—
28	6	6	—	—	—	—	13	9	4	—	—	—
27	6	4	2	—	—	—	9	8	1	—	—	—
26	3	2	1	—	—	—	10	7	3	—	—	—
25	7	6	1	—	—	—	20	18	2	—	—	—
24	6	6	—	—	—	—	8	6	2	—	—	—
23	6	5	1	—	—	—	6	5	1	—	—	—
22	7	6	1	—	—	—	5	3	2	—	—	—
21	6	6	—	—	—	—	3	2	1	—	—	—
20	3	3	—	—	—	—	2	2	—	—	—	—
19	3	3	—	—	—	—	2	2	—	—	—	—
18	1	1	—	—	—	—	5	4	1	—	—	—
17	1	1	—	—	—	—	1	—	1	—	—	—
16	3	3	—	—	—	—	1	—	1	—	—	—
12	1	1	—	—	—	—	—	—	—	—	—	—

DOMESTIC

Total	611	38	2	333	201	37	558	5	2	322	205	24
32	1	—	1	—	—	—	1	—	1	—	—	—
25	1	—	1	—	—	—	—	—	—	—	—	—
18	2	—	—	—	—	2	—	—	—	—	—	—
17	38	—	—	38	—	—	27	—	—	27	—	—
15	14	—	—	11	—	3	11	—	—	11	—	—
14	13	—	—	—	—	13	—	—	—	—	—	—
13	4	—	—	1	—	3	3	—	1	1	1	—
12	538	38	—	283	201	16	516	5	—	283	204	24

Total trips: 1,416

STOCKTON, CA

Inbound

Outbound

Grand

Total	143	60	22	27	—	34	129	60	21	27	—	21
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FOREIGN

Total	72	51	21	—	—	—	71	51	20	—	—	—
32	14	5	9	—	—	—	10	9	1	—	—	—
31	11	6	5	—	—	—	4	3	1	—	—	—
30	5	3	2	—	—	—	5	5	—	—	—	—
29	5	4	1	—	—	—	6	5	1	—	—	—
28	4	4	—	—	—	—	8	4	4	—	—	—
27	5	3	2	—	—	—	4	3	1	—	—	—
26	1	1	—	—	—	—	3	1	2	—	—	—
25	4	3	1	—	—	—	3	1	2	—	—	—
24	3	3	—	—	—	—	6	5	1	—	—	—
23	2	2	—	—	—	—	5	4	1	—	—	—
22	6	5	1	—	—	—	4	2	2	—	—	—
21	4	4	—	—	—	—	3	2	1	—	—	—
20	2	2	—	—	—	—	2	2	—	—	—	—
19	3	3	—	—	—	—	2	2	—	—	—	—
18	3	3	—	—	—	—	6	3	3	—	—	—

DOMESTIC

Total	71	9	1	27	—	34	58	9	1	27	—	21
25	1	—	1	—	—	—	—	—	—	—	—	—
18	70	9	—	27	—	34	58	9	1	27	—	21

Total trips: 272

MIDDLE RIVER, CA
No Vessel Trips Reported

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels		
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	
MOKELUMNE RIVER, CA (6 feet and less)													
	Upbound						Downbound						
Grand													
Total	2	2	—	—	—	—	1	1	—	—	—	—	
												Total trips:	3

OLD RIVER, CA
No Vessel Trips Reported

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SAN FRANCISCO BAY ENTRANCE, CA

Upbound

Downbound

Grand

Total	3,652	2,265	704	418	41	224	3,623	2,245	679	437	48	214
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FOREIGN

Total	2,325	1,919	383	13	6	4	2,331	1,910	398	13	10	—
45	1	—	1	—	—	—	—	—	—	—	—	—
44	2	—	2	—	—	—	—	—	—	—	—	—
43	2	—	2	—	—	—	—	—	—	—	—	—
42	1	—	1	—	—	—	—	—	—	—	—	—
41	2	—	2	—	—	—	1	—	1	—	—	—
40	2	—	2	—	—	—	—	—	—	—	—	—
39	7	1	6	—	—	—	4	1	3	—	—	—
38	106	97	9	—	—	—	97	89	8	—	—	—
37	107	70	37	—	—	—	87	65	22	—	—	—
36	106	68	36	1	1	—	92	80	12	—	—	—
35	116	103	13	—	—	—	142	117	25	—	—	—
34	165	152	13	—	—	—	169	154	15	—	—	—
33	184	174	10	—	—	—	244	225	19	—	—	—
32	194	169	25	—	—	—	204	179	25	—	—	—
31	183	162	21	—	—	—	168	150	18	—	—	—
30	193	169	24	—	—	—	161	131	30	—	—	—
29	143	116	27	—	—	—	127	102	23	1	1	—
28	132	98	34	—	—	—	124	90	34	—	—	—
27	106	78	28	—	—	—	108	78	30	—	—	—
26	90	73	17	—	—	—	104	72	30	—	2	—
25	90	68	19	—	3	—	104	70	33	—	1	—
24	54	45	9	—	—	—	79	61	18	—	—	—
23	72	60	12	—	—	—	83	76	7	—	—	—
22	49	45	4	—	—	—	51	41	10	—	—	—
21	53	44	9	—	—	—	44	34	9	1	—	—
20	49	44	4	—	—	1	47	32	15	—	—	—
19	32	29	2	—	1	—	24	21	2	1	—	—
18	84	54	14	12	1	3	67	42	9	10	6	—

DOMESTIC

Total	1,327	346	321	405	35	220	1,292	335	281	424	38	214
45	1	—	1	—	—	—	—	—	—	—	—	—
44	2	—	2	—	—	—	—	—	—	—	—	—
43	17	—	17	—	—	—	—	—	—	—	—	—
42	29	—	29	—	—	—	—	—	—	—	—	—
41	6	—	6	—	—	—	—	—	—	—	—	—
40	5	—	5	—	—	—	—	—	—	—	—	—
39	4	—	4	—	—	—	1	—	1	—	—	—
38	53	6	47	—	—	—	7	6	1	—	—	—
37	25	1	24	—	—	—	10	4	6	—	—	—
36	16	4	12	—	—	—	15	3	12	—	—	—
35	16	3	13	—	—	—	41	15	26	—	—	—
34	27	14	13	—	—	—	41	30	11	—	—	—
33	32	20	12	—	—	—	41	34	7	—	—	—
32	52	44	8	—	—	—	38	26	12	—	—	—
31	31	13	18	—	—	—	34	24	10	—	—	—
30	33	20	12	—	—	1	23	14	9	—	—	—
29	31	27	4	—	—	—	23	12	11	—	—	—
28	24	20	4	—	—	—	12	5	7	—	—	—
27	90	83	7	—	—	—	71	66	5	—	—	—
26	52	39	13	—	—	—	13	11	2	—	—	—
25	42	17	25	—	—	—	54	16	38	—	—	—
24	19	15	4	—	—	—	28	18	10	—	—	—
23	11	5	6	—	—	—	25	5	20	—	—	—
22	5	1	2	1	1	—	7	1	1	—	5	—
21	19	—	1	—	—	18	17	1	1	—	—	15
20	65	—	16	33	1	15	98	30	17	35	—	16
19	37	—	1	13	—	23	41	—	—	14	—	27
18	583	14	15	358	33	163	652	14	74	375	33	156

Total trips: 7,275

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SAN FRANCISCO HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	43,788	42,153	35	1,293	277	30	43,729	42,140	34	1,251	275	29
FOREIGN												
Total	180	144	35	1	—	—	171	135	34	1	1	—
45	1	—	1	—	—	—	—	—	—	—	—	—
44	2	—	2	—	—	—	—	—	—	—	—	—
39	—	—	—	—	—	—	1	—	1	—	—	—
37	2	—	2	—	—	—	1	—	1	—	—	—
36	1	—	1	—	—	—	1	—	1	—	—	—
35	1	1	—	—	—	—	3	1	2	—	—	—
34	2	1	1	—	—	—	1	1	—	—	—	—
33	6	4	2	—	—	—	3	2	1	—	—	—
32	6	3	3	—	—	—	3	1	2	—	—	—
31	7	4	3	—	—	—	4	4	—	—	—	—
30	11	9	2	—	—	—	8	7	1	—	—	—
29	15	12	3	—	—	—	18	14	4	—	—	—
28	17	16	1	—	—	—	14	13	1	—	—	—
27	11	10	1	—	—	—	10	8	2	—	—	—
26	12	11	1	—	—	—	16	13	3	—	—	—
25	11	10	1	—	—	—	15	11	4	—	—	—
24	9	9	—	—	—	—	13	11	2	—	—	—
23	9	8	1	—	—	—	10	9	1	—	—	—
22	57	46	10	1	—	—	50	40	8	1	1	—
DOMESTIC												
Total	43,608	42,009	—	1,292	277	30	43,558	42,005	—	1,250	274	29
22	43,608	42,009	—	1,292	277	30	43,558	42,005	—	1,250	274	29
Total trips:											87,517	
REDWOOD CITY HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	339	26	—	188	110	15	319	26	—	161	112	20
FOREIGN												
Total	25	23	—	1	1	—	27	23	—	2	2	—
33	2	2	—	—	—	—	5	5	—	—	—	—
32	1	1	—	—	—	—	3	3	—	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
28	2	2	—	—	—	—	—	—	—	—	—	—
27	3	3	—	—	—	—	2	2	—	—	—	—
26	4	4	—	—	—	—	7	6	—	—	1	—
25	—	—	—	—	—	—	2	1	—	—	1	—
23	1	1	—	—	—	—	—	—	—	—	—	—
22	12	10	—	1	1	—	7	5	—	2	—	—
DOMESTIC												
Total	314	3	—	187	109	15	292	3	—	159	110	20
22	314	3	—	187	109	15	292	3	—	159	110	20
Total trips:											658	
OAKLAND HARBOR, CA												
	Inbound						Outbound					
Grand												
Total	12,811	10,708	5	1,709	309	80	12,883	10,743	10	1,737	312	81
FOREIGN												
Total	1,406	1,401	5	—	—	—	1,427	1,414	10	2	1	—
38	95	94	1	—	—	—	90	89	1	—	—	—
37	63	63	—	—	—	—	63	63	—	—	—	—
36	64	63	1	—	—	—	76	76	—	—	—	—
35	100	100	—	—	—	—	116	115	1	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

OAKLAND HARBOR, CA - continued

Inbound

Outbound

FOREIGN

34	146	146	—	—	—	—	151	151	—	—	—	—
33	160	160	—	—	—	—	211	210	1	—	—	—
32	149	149	—	—	—	—	159	159	—	—	—	—
31	123	122	1	—	—	—	124	124	—	—	—	—
30	147	147	—	—	—	—	96	95	1	—	—	—
29	80	80	—	—	—	—	68	66	2	—	—	—
28	57	57	—	—	—	—	48	48	—	—	—	—
27	42	41	1	—	—	—	37	36	1	—	—	—
26	32	31	1	—	—	—	24	23	1	—	—	—
25	43	43	—	—	—	—	23	23	—	—	—	—
24	17	17	—	—	—	—	30	30	—	—	—	—
23	29	29	—	—	—	—	43	42	1	—	—	—
22	59	59	—	—	—	—	68	64	1	2	1	—

DOMESTIC

Total	11,405	9,307	—	1,709	309	80	11,456	9,329	—	1,735	311	81
38	7	7	—	—	—	—	7	7	—	—	—	—
37	1	1	—	—	—	—	7	7	—	—	—	—
36	6	6	—	—	—	—	7	7	—	—	—	—
35	2	2	—	—	—	—	20	20	—	—	—	—
34	21	21	—	—	—	—	43	43	—	—	—	—
33	31	31	—	—	—	—	26	26	—	—	—	—
32	40	40	—	—	—	—	22	22	—	—	—	—
31	12	12	—	—	—	—	19	19	—	—	—	—
30	18	18	—	—	—	—	20	20	—	—	—	—
29	21	21	—	—	—	—	8	8	—	—	—	—
28	20	20	—	—	—	—	7	7	—	—	—	—
27	98	98	—	—	—	—	92	92	—	—	—	—
26	31	31	—	—	—	—	10	10	—	—	—	—
25	14	14	—	—	—	—	9	9	—	—	—	—
24	9	9	—	—	—	—	17	17	—	—	—	—
23	4	4	—	—	—	—	2	2	—	—	—	—
22	11,070	8,972	—	1,709	309	80	11,140	9,013	—	1,735	311	81
										Total trips:		25,694

RICHMOND HARBOR, CA

Inbound

Outbound

Grand

Total	3,332	95	359	2,656	55	167	3,311	95	337	2,662	54	163
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FOREIGN

Total	249	95	141	7	3	3	251	95	149	4	3	—
43	1	—	1	—	—	—	—	—	—	—	—	—
42	1	—	1	—	—	—	—	—	—	—	—	—
41	1	—	1	—	—	—	1	—	1	—	—	—
40	2	—	2	—	—	—	—	—	—	—	—	—
39	4	—	4	—	—	—	1	—	1	—	—	—
38	4	1	3	—	—	—	4	—	4	—	—	—
37	16	7	9	—	—	—	7	1	6	—	—	—
36	14	4	10	—	—	—	9	3	6	—	—	—
35	7	2	5	—	—	—	12	1	11	—	—	—
34	6	2	4	—	—	—	10	2	8	—	—	—
33	6	1	5	—	—	—	14	3	11	—	—	—
32	6	2	4	—	—	—	10	1	9	—	—	—
31	11	4	7	—	—	—	11	3	8	—	—	—
30	13	3	10	—	—	—	15	3	12	—	—	—
29	17	8	9	—	—	—	9	3	6	—	—	—
28	16	5	11	—	—	—	17	5	12	—	—	—
27	20	6	14	—	—	—	16	7	9	—	—	—
26	14	9	5	—	—	—	26	13	12	—	1	—
25	14	3	9	—	2	—	16	8	8	—	—	—
24	14	6	8	—	—	—	16	7	9	—	—	—
23	13	9	4	—	—	—	13	12	1	—	—	—
22	49	23	15	7	1	3	44	23	15	4	2	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
RICHMOND HARBOR, CA - continued												
	Inbound						Outbound					
DOMESTIC												
Total	3,083	—	218	2,649	52	164	3,060	—	188	2,658	51	163
49	1	—	1	—	—	—	—	—	—	—	—	—
44	2	—	2	—	—	—	1	—	1	—	—	—
43	17	—	17	—	—	—	—	—	—	—	—	—
42	29	—	29	—	—	—	—	—	—	—	—	—
41	6	—	6	—	—	—	—	—	—	—	—	—
40	5	—	5	—	—	—	—	—	—	—	—	—
39	4	—	4	—	—	—	1	—	1	—	—	—
38	10	—	10	—	—	—	1	—	1	—	—	—
37	18	—	18	—	—	—	8	—	8	—	—	—
36	9	—	9	—	—	—	7	—	7	—	—	—
35	9	—	9	—	—	—	24	—	24	—	—	—
34	13	—	13	—	—	—	9	—	9	—	—	—
33	9	—	9	—	—	—	4	—	4	—	—	—
32	6	—	6	—	—	—	8	—	8	—	—	—
31	7	—	7	—	—	—	10	—	10	—	—	—
30	8	—	8	—	—	—	7	—	7	—	—	—
29	7	—	7	—	—	—	7	—	7	—	—	—
28	4	—	4	—	—	—	5	—	5	—	—	—
27	5	—	5	—	—	—	4	—	4	—	—	—
26	11	—	11	—	—	—	2	—	2	—	—	—
25	21	—	21	—	—	—	5	—	5	—	—	—
24	1	—	1	—	—	—	—	—	—	—	—	—
23	5	—	5	—	—	—	4	—	4	—	—	—
22	2,876	—	11	2,649	52	164	2,953	—	81	2,658	51	163
										Total trips:		6,643

SAN PABLO BAY AND MARE ISLAND STRAIT, CA

Draft	Upbound						Downbound					
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
FOREIGN												
Grand Total	6,196	3,897	411	1,125	434	329	6,303	3,973	406	1,162	441	321
Total	413	224	182	4	2	1	426	231	188	4	3	—
43	1	—	1	—	—	—	—	—	—	—	—	—
41	1	—	1	—	—	—	—	—	—	—	—	—
39	3	1	2	—	—	—	2	1	1	—	—	—
38	6	1	5	—	—	—	3	—	3	—	—	—
37	23	—	23	—	—	—	16	1	15	—	—	—
36	23	1	20	1	1	—	6	1	5	—	—	—
35	7	—	7	—	—	—	10	—	10	—	—	—
34	10	2	8	—	—	—	6	—	6	—	—	—
33	10	7	3	—	—	—	9	5	4	—	—	—
32	31	14	17	—	—	—	28	15	13	—	—	—
31	40	31	9	—	—	—	26	17	9	—	—	—
30	19	9	10	—	—	—	37	24	13	—	—	—
29	26	12	14	—	—	—	30	17	11	1	1	—
28	37	18	19	—	—	—	43	22	21	—	—	—
27	28	17	11	—	—	—	42	25	17	—	—	—
26	27	18	9	—	—	—	28	16	12	—	—	—
25	20	11	8	—	1	—	45	26	19	—	—	—
24	13	12	1	—	—	—	19	12	7	—	—	—
23	16	9	7	—	—	—	15	13	2	—	—	—
22	72	61	7	3	—	1	61	36	20	3	2	—
DOMESTIC												
Total	5,783	3,673	229	1,121	432	328	5,877	3,742	218	1,158	438	321
45	1	—	1	—	—	—	—	—	—	—	—	—
38	4	—	4	—	—	—	5	—	5	—	—	—
37	4	—	4	—	—	—	1	—	1	—	—	—
36	5	—	5	—	—	—	6	—	6	—	—	—
35	6	—	6	—	—	—	3	—	3	—	—	—
34	8	—	8	—	—	—	3	—	3	—	—	—
33	7	—	7	—	—	—	6	—	6	—	—	—
32	34	—	34	—	—	—	6	—	6	—	—	—
31	21	—	21	—	—	—	8	—	8	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SAN PABLO BAY AND MARE ISLAND STRAIT, CA - continued

Upbound

Downbound

DOMESTIC

30	70	—	69	—	—	1	6	—	6	—	—	—
29	9	—	9	—	—	—	5	—	5	—	—	—
28	6	—	6	—	—	—	5	—	5	—	—	—
27	6	—	6	—	—	—	4	—	4	—	—	—
26	5	—	5	—	—	—	2	—	2	—	—	—
25	8	—	8	—	—	—	22	—	22	—	—	—
24	3	—	3	—	—	—	5	—	5	—	—	—
23	5	—	5	—	—	—	11	—	11	—	—	—
22	5,581	3,673	28	1,121	432	327	5,779	3,742	120	1,158	438	321
Total trips:											12,499	

CARQUINEZ STRAIT, CA

Upbound

Downbound

Grand

Total	2,160	254	402	959	237	308	2,090	262	398	903	242	285
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FOREIGN

Total	388	223	160	3	2	—	406	231	168	4	3	—
43	1	—	1	—	—	—	—	—	—	—	—	—
41	1	—	1	—	—	—	—	—	—	—	—	—
39	3	1	2	—	—	—	2	1	1	—	—	—
38	5	1	4	—	—	—	3	—	3	—	—	—
37	15	—	15	—	—	—	15	1	14	—	—	—
36	19	—	17	1	1	—	6	1	5	—	—	—
35	5	—	5	—	—	—	10	—	10	—	—	—
34	10	2	8	—	—	—	6	—	6	—	—	—
33	10	7	3	—	—	—	9	5	4	—	—	—
32	30	14	16	—	—	—	27	15	12	—	—	—
31	40	31	9	—	—	—	26	17	9	—	—	—
30	18	9	9	—	—	—	35	24	11	—	—	—
29	22	12	10	—	—	—	28	17	9	1	1	—
28	36	18	18	—	—	—	41	22	19	—	—	—
27	27	17	10	—	—	—	40	25	15	—	—	—
26	27	18	9	—	—	—	27	16	11	—	—	—
25	20	11	8	—	1	—	40	26	14	—	—	—
24	13	12	1	—	—	—	18	12	6	—	—	—
23	16	9	7	—	—	—	15	13	2	—	—	—
22	70	61	7	2	—	—	58	36	17	3	2	—

DOMESTIC

Total	1,772	31	242	956	235	308	1,684	31	230	899	239	285
45	1	—	1	—	—	—	—	—	—	—	—	—
38	4	—	4	—	—	—	5	—	5	—	—	—
37	4	—	4	—	—	—	1	—	1	—	—	—
36	6	—	6	—	—	—	8	—	8	—	—	—
35	7	—	7	—	—	—	4	—	4	—	—	—
34	9	—	9	—	—	—	3	—	3	—	—	—
33	8	—	8	—	—	—	9	—	9	—	—	—
32	36	—	36	—	—	—	5	—	5	—	—	—
31	27	—	27	—	—	—	6	—	6	—	—	—
30	67	—	66	—	—	1	6	—	6	—	—	—
29	10	—	10	—	—	—	5	—	4	—	—	1
28	8	—	8	—	—	—	5	—	5	—	—	—
27	6	—	6	—	—	—	4	—	4	—	—	—
26	9	—	9	—	—	—	3	—	3	—	—	—
25	7	—	7	—	—	—	20	—	20	—	—	—
24	3	—	3	—	—	—	6	—	6	—	—	—
23	6	—	6	—	—	—	11	—	11	—	—	—
22	1,554	31	25	956	235	307	1,583	31	130	899	239	284
Total trips:											4,250	

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SUISUN BAY CHANNEL, CA

	Upbound						Downbound					
Grand												
Total	1,465	177	67	640	418	163	1,461	185	67	637	416	156

FOREIGN

Total	201	146	54	1	—	—	213	154	56	2	1	—
39	1	—	1	—	—	—	—	—	—	—	—	—
38	1	—	1	—	—	—	1	—	1	—	—	—
37	2	—	2	—	—	—	6	—	6	—	—	—
36	2	—	2	—	—	—	5	1	4	—	—	—
35	—	—	—	—	—	—	5	—	5	—	—	—
34	1	—	1	—	—	—	2	—	2	—	—	—
33	5	5	—	—	—	—	6	5	1	—	—	—
32	21	12	9	—	—	—	15	10	5	—	—	—
31	33	27	6	—	—	—	12	11	1	—	—	—
30	15	9	6	—	—	—	19	17	2	—	—	—
29	15	9	6	—	—	—	19	16	1	1	1	—
28	17	12	5	—	—	—	19	14	5	—	—	—
27	10	7	3	—	—	—	14	13	1	—	—	—
26	9	6	3	—	—	—	14	10	4	—	—	—
25	10	7	3	—	—	—	23	20	3	—	—	—
24	7	6	1	—	—	—	12	9	3	—	—	—
23	7	5	2	—	—	—	10	9	1	—	—	—
22	8	7	1	—	—	—	9	5	4	—	—	—
21	10	8	2	—	—	—	5	2	3	—	—	—
20	7	7	—	—	—	—	3	3	—	—	—	—
19	8	8	—	—	—	—	4	4	—	—	—	—
18	12	11	—	1	—	—	10	5	4	1	—	—

DOMESTIC

Total	1,264	31	13	639	418	163	1,248	31	11	635	415	156
37	1	—	1	—	—	—	—	—	—	—	—	—
34	1	—	1	—	—	—	—	—	—	—	—	—
32	1	—	1	—	—	—	1	—	1	—	—	—
31	2	—	2	—	—	—	1	—	1	—	—	—
30	—	—	—	—	—	—	1	—	1	—	—	—
29	2	—	2	—	—	—	1	—	1	—	—	—
28	—	—	—	—	—	—	1	—	1	—	—	—
27	2	—	2	—	—	—	—	—	—	—	—	—
25	—	—	—	—	—	—	1	—	1	—	—	—
24	—	—	—	—	—	—	1	—	1	—	—	—
23	1	—	1	—	—	—	—	—	—	—	—	—
22	1	—	1	—	—	—	—	—	—	—	—	—
21	—	—	—	—	—	—	5	—	1	—	—	4
20	16	—	1	13	1	1	19	—	—	13	—	6
19	25	—	—	1	—	24	38	—	—	1	—	37
18	1,212	31	1	625	417	138	1,179	31	3	621	415	109

Total trips: 2,926

PETALUMA RIVER, CA

	Upbound						Downbound					
Grand												
Total	653	4	—	318	331	—	648	—	—	317	331	—

DOMESTIC

Total	653	4	—	318	331	—	648	—	—	317	331	—
13	101	—	—	—	101	—	—	—	—	—	—	—
12	15	—	—	—	15	—	—	—	—	—	—	—
11	7	—	—	—	7	—	—	—	—	—	—	—
10	11	—	—	—	11	—	—	—	—	—	—	—
9	126	—	—	126	—	—	125	—	—	125	—	—
7	150	—	—	150	—	—	150	—	—	150	—	—
6	46	4	—	42	—	—	42	—	—	42	—	—
5	32	—	—	—	32	—	1	—	—	—	1	—
4	159	—	—	—	159	—	152	—	—	—	152	—
3	2	—	—	—	2	—	177	—	—	—	177	—
2	4	—	—	—	4	—	1	—	—	—	1	—

Total trips: 1,301

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

HUMBOLDT HARBOR AND BAY, CA

Inbound

Outbound

Grand

Total	311	53	1	208	14	35	397	55	---	252	49	41
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FOREIGN

Total	54	53	1	---	---	---	55	55	---	---	---	---
36	---	---	---	---	---	---	1	1	---	---	---	---
35	---	---	---	---	---	---	1	1	---	---	---	---
34	1	1	---	---	---	---	1	1	---	---	---	---
33	---	---	---	---	---	---	3	3	---	---	---	---
32	1	1	---	---	---	---	4	4	---	---	---	---
31	2	2	---	---	---	---	2	2	---	---	---	---
30	---	---	---	---	---	---	1	1	---	---	---	---
29	1	1	---	---	---	---	4	4	---	---	---	---
28	3	3	---	---	---	---	4	4	---	---	---	---
27	5	5	---	---	---	---	3	3	---	---	---	---
26	6	6	---	---	---	---	5	5	---	---	---	---
25	2	2	---	---	---	---	4	4	---	---	---	---
24	10	10	---	---	---	---	8	8	---	---	---	---
23	4	4	---	---	---	---	2	2	---	---	---	---
22	4	4	---	---	---	---	6	6	---	---	---	---
21	2	2	---	---	---	---	1	1	---	---	---	---
20	3	3	---	---	---	---	2	2	---	---	---	---
19	1	1	---	---	---	---	---	---	---	---	---	---
18	9	8	1	---	---	---	3	3	---	---	---	---

DOMESTIC

Total	257	---	---	208	14	35	342	---	---	252	49	41
19	2	---	---	2	---	---	2	---	---	2	---	---
18	255	---	---	206	14	35	340	---	---	250	49	41

Total trips: 708

BERKELEY, CA
(7 feet and less)

Inbound

Outbound

Grand

Total	769	768	---	---	1	---	770	769	---	---	1	---
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Total trips: 1,539

BODEGA BAY, CA
(9 feet and less)

Inbound

Outbound

Grand

Total	3	---	---	3	---	---	2	---	---	2	---	---
--------------	---	-----	-----	---	-----	-----	---	-----	-----	---	-----	-----

Total trips: 5

CRESCENT CITY HARBOR, CA
No Vessel Trips Reported

MONTEREY HARBOR, CA
(6 feet and less)

Inbound

Outbound

Grand

Total	6	6	---	---	---	---	6	6	---	---	---	---
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Total trips: 12

MOSS LANDING HARBOR, CA
No Vessel Trips Reported

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
NAPA RIVER, CA (13 feet and less)												
				Upbound							Downbound	
Grand												
Total	40	—	—	20	20	—	40	—	—	20	20	—
										Total trips:		80
NOYO RIVER, CA No Vessel Trips Reported												
PILLAR POINT HARBOR, CA (6 feet and less)												
				Inbound							Outbound	
Grand												
Total	3	3	—	—	—	—	3	3	—	—	—	—
										Total trips:		6
SAN RAFAEL CREEK, CA No Vessel Trips Reported												
SANTA CRUZ HARBOR, CA (10 feet and less)												
				Inbound							Outbound	
Grand												
Total	401	401	—	—	—	—	402	402	—	—	—	—
										Total trips:		803
SUISUN CHANNEL, CA No Vessel Trips Reported												
OTHER SAN FRANCISCO BAY AREA PORTS, CA (39 feet and less)												
				Inbound							Outbound	
Grand												
Total	24,186	21,321	186	1,702	951	26	24,106	21,229	187	1,713	949	28
										Total trips:		48,292

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

HILO HARBOR, HI

	Inbound						Outbound					
Grand												
Total	934	88	5	417	331	93	885	55	3	410	331	86

FOREIGN

Total	93	88	5	---	---	---	58	55	3	---	---	---
37	1	1	---	---	---	---	1	1	---	---	---	---
32	2	2	---	---	---	---	---	---	---	---	---	---
29	1	1	---	---	---	---	2	2	---	---	---	---
28	1	1	---	---	---	---	2	2	---	---	---	---
27	2	2	---	---	---	---	---	---	---	---	---	---
26	8	8	---	---	---	---	7	7	---	---	---	---
25	4	4	---	---	---	---	6	6	---	---	---	---
24	5	4	1	---	---	---	9	9	---	---	---	---
23	5	4	1	---	---	---	4	3	1	---	---	---
22	1	1	---	---	---	---	1	---	1	---	---	---
19	1	1	---	---	---	---	2	2	---	---	---	---
18	62	59	3	---	---	---	24	23	1	---	---	---

DOMESTIC

Total	841	---	---	417	331	93	827	---	---	410	331	86
19	28	---	---	---	---	28	11	---	---	---	---	11
18	813	---	---	417	331	65	816	---	---	410	331	75

Total trips: 1,819

KAWAIHAE HARBOR, HI

	Inbound						Outbound					
Grand												
Total	650	---	---	279	367	4	644	---	---	278	363	3

DOMESTIC

Total	650	---	---	279	367	4	644	---	---	278	363	3
19	3	---	---	---	---	3	1	---	---	---	---	1
18	647	---	---	279	367	1	643	---	---	278	363	2

Total trips: 1,294

KAHULUI HARBOR, MAUI, HI

	Inbound						Outbound					
Grand												
Total	1,351	45	3	584	618	101	1,349	45	2	582	626	94

FOREIGN

Total	48	45	3	---	---	---	47	45	2	---	---	---
36	1	1	---	---	---	---	---	---	---	---	---	---
28	1	1	---	---	---	---	1	1	---	---	---	---
27	2	2	---	---	---	---	2	2	---	---	---	---
26	7	7	---	---	---	---	5	5	---	---	---	---
25	3	3	---	---	---	---	4	4	---	---	---	---
24	9	9	---	---	---	---	9	9	---	---	---	---
23	2	2	---	---	---	---	2	2	---	---	---	---
22	1	---	1	---	---	---	1	---	1	---	---	---
20	1	---	1	---	---	---	1	---	1	---	---	---
18	21	20	1	---	---	---	22	22	---	---	---	---

DOMESTIC

Total	1,303	---	---	584	618	101	1,302	---	---	582	626	94
21	136	---	---	---	136	---	123	---	---	---	123	---
19	36	---	---	---	---	36	15	---	---	---	---	15
18	1,131	---	---	584	482	65	1,164	---	---	582	503	79

Total trips: 2,700

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
BARBERS POINT HARBOR, OAHU, HI												
	Inbound						Outbound					
Grand												
Total	1,740	169	82	1,194	50	245	1,736	172	70	1,193	45	256
FOREIGN												
Total	71	22	48	—	1	—	69	23	46	—	—	—
52	5	—	5	—	—	—	—	—	—	—	—	—
50	3	—	3	—	—	—	—	—	—	—	—	—
49	4	—	4	—	—	—	—	—	—	—	—	—
47	4	—	4	—	—	—	—	—	—	—	—	—
46	3	—	3	—	—	—	—	—	—	—	—	—
44	2	—	2	—	—	—	—	—	—	—	—	—
42	1	—	1	—	—	—	3	—	3	—	—	—
40	2	—	2	—	—	—	—	—	—	—	—	—
39	2	—	2	—	—	—	1	—	1	—	—	—
38	—	—	—	—	—	—	5	—	5	—	—	—
37	—	—	—	—	—	—	1	1	—	—	—	—
36	7	6	1	—	—	—	4	1	3	—	—	—
35	3	2	1	—	—	—	1	—	1	—	—	—
34	1	—	—	—	1	—	3	2	1	—	—	—
33	—	—	—	—	—	—	5	—	5	—	—	—
32	3	2	1	—	—	—	5	3	2	—	—	—
31	1	1	—	—	—	—	1	1	—	—	—	—
30	1	—	1	—	—	—	2	1	1	—	—	—
29	2	1	1	—	—	—	1	1	—	—	—	—
28	—	—	—	—	—	—	8	4	4	—	—	—
27	1	—	1	—	—	—	2	—	2	—	—	—
26	1	1	—	—	—	—	3	1	2	—	—	—
25	4	1	3	—	—	—	2	—	2	—	—	—
24	2	—	2	—	—	—	2	1	1	—	—	—
23	2	1	1	—	—	—	1	—	1	—	—	—
22	4	2	2	—	—	—	8	2	6	—	—	—
21	1	—	1	—	—	—	1	—	1	—	—	—
20	1	—	1	—	—	—	5	4	1	—	—	—
19	3	1	2	—	—	—	1	—	1	—	—	—
18	2	1	1	—	—	—	—	—	—	—	—	—
17	1	—	1	—	—	—	2	—	2	—	—	—
16	1	1	—	—	—	—	1	1	—	—	—	—
14	2	—	2	—	—	—	—	—	—	—	—	—
12	2	2	—	—	—	—	1	—	1	—	—	—
DOMESTIC												
Total	1,669	147	34	1,194	49	245	1,667	149	24	1,193	45	256
53	1	—	1	—	—	—	—	—	—	—	—	—
52	3	—	3	—	—	—	—	—	—	—	—	—
49	9	—	9	—	—	—	—	—	—	—	—	—
48	4	—	4	—	—	—	—	—	—	—	—	—
47	1	—	1	—	—	—	—	—	—	—	—	—
44	5	—	5	—	—	—	—	—	—	—	—	—
43	4	—	4	—	—	—	—	—	—	—	—	—
42	1	—	1	—	—	—	—	—	—	—	—	—
40	1	—	1	—	—	—	—	—	—	—	—	—
39	2	—	2	—	—	—	—	—	—	—	—	—
35	1	—	1	—	—	—	—	—	—	—	—	—
34	—	—	—	—	—	—	1	—	1	—	—	—
30	—	—	—	—	—	—	3	—	3	—	—	—
29	—	—	—	—	—	—	1	—	1	—	—	—
25	—	—	—	—	—	—	6	—	6	—	—	—
23	—	—	—	—	—	—	1	—	1	—	—	—
21	—	—	—	—	—	—	1	—	1	—	—	—
19	23	—	—	—	—	23	56	—	—	—	—	56
18	—	—	—	—	—	—	2	—	2	—	—	—
17	19	—	—	—	—	19	49	—	—	—	—	49
16	2	—	—	2	—	—	1	—	—	1	—	—
15	16	—	—	1	—	15	31	—	—	1	—	30
14	1	—	—	1	—	—	1	—	—	—	—	1
13	80	—	—	80	—	—	81	—	—	81	—	—
12	1,496	147	2	1,110	49	188	1,433	149	9	1,110	45	120
										Total trips:		3,476

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

HONOLULU HARBOR, OAHU, HI

Inbound

Outbound

Grand

Total	8,843	3,267	71	2,948	2,149	408	8,810	3,258	80	2,957	2,110	405
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FOREIGN

Total	595	475	67	29	22	2	586	476	76	13	19	2
40	23	4	19	—	—	—	5	3	2	—	—	—
39	3	1	2	—	—	—	2	1	1	—	—	—
38	—	—	—	—	—	—	1	1	—	—	—	—
37	4	1	3	—	—	—	2	2	—	—	—	—
36	7	5	2	—	—	—	6	3	3	—	—	—
35	13	9	4	—	—	—	13	10	3	—	—	—
34	19	18	1	—	—	—	25	19	6	—	—	—
33	20	15	5	—	—	—	14	13	1	—	—	—
32	11	10	1	—	—	—	12	7	5	—	—	—
31	5	5	—	—	—	—	6	5	1	—	—	—
30	6	6	—	—	—	—	9	6	3	—	—	—
29	11	10	1	—	—	—	9	8	1	—	—	—
28	20	20	—	—	—	—	33	23	10	—	—	—
27	18	18	—	—	—	—	24	20	4	—	—	—
26	23	21	2	—	—	—	23	20	3	—	—	—
25	17	13	4	—	—	—	27	23	4	—	—	—
24	23	23	—	—	—	—	20	20	—	—	—	—
23	12	8	4	—	—	—	14	10	4	—	—	—
22	16	14	2	—	—	—	25	17	8	—	—	—
21	11	9	2	—	—	—	15	10	5	—	—	—
20	16	14	2	—	—	—	22	21	1	—	—	—
19	26	25	1	—	—	—	26	25	1	—	—	—
18	291	226	12	29	22	2	253	209	10	13	19	2

DOMESTIC

Total	8,248	2,792	4	2,919	2,127	406	8,224	2,782	4	2,944	2,091	403
37	2	2	—	—	—	—	—	—	—	—	—	—
36	1	1	—	—	—	—	—	—	—	—	—	—
35	2	2	—	—	—	—	—	—	—	—	—	—
34	15	15	—	—	—	—	2	2	—	—	—	—
33	34	34	—	—	—	—	1	1	—	—	—	—
32	31	31	—	—	—	—	7	7	—	—	—	—
31	38	38	—	—	—	—	5	5	—	—	—	—
30	93	93	—	—	—	—	59	59	—	—	—	—
29	18	18	—	—	—	—	32	31	1	—	—	—
28	6	6	—	—	—	—	34	34	—	—	—	—
27	71	71	—	—	—	—	85	84	1	—	—	—
26	2	2	—	—	—	—	62	61	1	—	—	—
25	—	—	—	—	—	—	18	18	—	—	—	—
24	5	5	—	—	—	—	13	13	—	—	—	—
23	—	—	—	—	—	—	9	9	—	—	—	—
22	—	—	—	—	—	—	1	1	—	—	—	—
21	204	—	—	—	204	—	122	—	—	—	122	—
20	2	2	—	—	—	—	—	—	—	—	—	—
19	1,094	1,080	—	3	—	11	1,105	1,080	—	3	—	22
18	6,630	1,392	4	2,916	1,923	395	6,669	1,377	1	2,941	1,969	381

Total trips: 17,653

NAWILIWILI HARBOR, KAUAI, HI

Inbound

Outbound

Grand

Total	645	42	2	265	318	18	646	42	2	270	314	18
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FOREIGN

Total	46	42	2	1	1	—	44	42	2	—	—	—
28	1	1	—	—	—	—	—	—	—	—	—	—
27	3	3	—	—	—	—	5	5	—	—	—	—
26	4	4	—	—	—	—	3	3	—	—	—	—
25	5	5	—	—	—	—	4	4	—	—	—	—
24	11	11	—	—	—	—	12	12	—	—	—	—
23	5	4	—	—	1	—	4	4	—	—	—	—
22	1	—	1	—	—	—	—	—	—	—	—	—
20	1	—	1	—	—	—	2	—	2	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels			Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker		Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
NAWILIWILI HARBOR, KAUAI, HI - continued													
	Inbound							Outbound					
FOREIGN													
19	2	1	—	1	—	—	1	1	—	—	—	—	—
18	13	13	—	—	—	—	13	13	—	—	—	—	—
DOMESTIC													
Total	599	—	—	264	317	18	602	—	—	270	314	18	
19	9	—	—	—	—	9	5	—	—	—	—	5	
18	590	—	—	264	317	9	597	—	—	270	314	13	
Total trips:												1,291	
HANA HARBOR, MAUI, HI													
No Vessel Trips Reported													
KAILUA HARBOR, OAHU, HI													
No Vessel Trips Reported													
KALAUPAPA HARBOR, MOLOKAI, HI													
(14 feet and less)													
	Inbound							Outbound					
Grand													
Total	6	—	—	3	3	—	5	—	—	2	3	—	
Total trips:												11	
KAUNAKAKAI HARBOR, MOLOKAI, HI													
(21 feet and less)													
	Inbound							Outbound					
Grand													
Total	862	60	—	226	576	—	859	60	—	223	576	—	
Total trips:												1,721	
PORT ALLEN HARBOR, KAUAI, HI													
(19 feet and less)													
	Inbound							Outbound					
Grand													
Total	777	726	—	47	2	2	776	726	—	46	2	2	
Total trips:												1,553	
WAKE ISLAND HARBOR, WAKE ISLAND													
(17 feet and less)													
	Inbound							Outbound					
Grand													
Total	1	—	1	—	—	—	1	—	1	—	—	—	
Total trips:												2	
WELLS HARBOR, MIDWAY ISLAND													
No Vessel Trips Reported													
PEARL HARBOR, OAHU, HI													
(36 feet and less)													
	Inbound							Outbound					
Grand													
Total	285	13	9	245	12	6	276	16	9	237	8	6	
Total trips:												561	

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

COLUMBIA RIVER AND TRIBUTARIES ABOVE MCNARY LOCK AND DAM TO KENNEWICK, WA

Upbound

Downbound

Grand

Total	3,181	117	—	1,075	1,356	633	3,237	118	—	1,000	1,330	789
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DOMESTIC

Total	3,181	117	—	1,075	1,356	633	3,237	118	—	1,000	1,330	789
17	8	—	—	—	—	8	—	—	—	—	—	—
16	1	—	—	—	—	1	165	—	—	—	165	—
15	6	—	—	—	—	6	30	—	—	—	30	—
14	112	—	—	—	95	17	311	—	—	—	94	217
13	256	—	—	—	233	23	378	—	—	—	233	145
12	2,798	117	—	1,075	1,028	578	2,353	118	—	1,000	808	427

Total trips: 6,418

SNAKE RIVER, OR, WA AND ID

Upbound

Downbound

Grand

Total	4,166	972	—	1,343	1,235	616	4,183	972	—	1,236	1,364	611
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DOMESTIC

Total	4,166	972	—	1,343	1,235	616	4,183	972	—	1,236	1,364	611
17	8	—	—	—	—	8	—	—	—	—	—	—
16	1	—	—	—	—	1	116	—	—	—	116	—
15	6	—	—	—	—	6	21	—	—	—	21	—
14	39	—	—	—	22	17	289	—	—	—	143	146
13	223	—	—	—	190	33	307	—	—	—	190	117
12	58	—	—	9	18	31	246	—	—	8	194	44
11	109	—	—	81	—	28	176	—	—	85	87	4
10	363	40	—	247	51	25	341	40	—	211	83	7
9	398	—	—	364	2	32	301	—	—	265	33	3
8	291	72	—	190	—	29	279	73	—	185	19	2
7	351	9	—	305	—	37	405	9	—	362	33	1
6	71	—	—	36	2	33	47	—	—	32	13	2
5	160	—	—	111	1	48	109	—	—	88	20	1
4	116	—	—	—	14	102	163	—	—	—	26	137
3	835	—	—	—	664	171	469	—	—	—	327	142
2	1,135	849	—	—	271	15	912	848	—	—	59	5
1	2	2	—	—	—	—	2	2	—	—	—	—

Total trips: 8,349

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

COLUMBIA RIVER ENTRANCE, OR AND WA

	Upbound						Downbound					
Grand												
Total	3,502	1,804	759	455	323	161	3,279	1,800	756	356	252	115

FOREIGN

Total	2,035	1,782	53	92	92	16	2,032	1,783	54	94	89	12
41	—	—	—	—	—	—	8	8	—	—	—	—
40	1	1	—	—	—	—	22	20	2	—	—	—
39	6	6	—	—	—	—	42	41	—	—	1	—
38	10	9	1	—	—	—	67	67	—	—	—	—
37	7	5	2	—	—	—	64	63	1	—	—	—
36	21	17	4	—	—	—	76	76	—	—	—	—
35	33	30	3	—	—	—	89	88	1	—	—	—
34	21	18	3	—	—	—	143	140	—	2	1	—
33	30	27	3	—	—	—	142	141	1	—	—	—
32	51	48	2	1	—	—	139	135	4	—	—	—
31	56	54	2	—	—	—	62	61	1	—	—	—
30	89	87	2	—	—	—	112	110	2	—	—	—
29	111	107	4	—	—	—	86	85	1	—	—	—
28	106	103	3	—	—	—	111	107	4	—	—	—
27	123	118	3	—	2	—	91	86	5	—	—	—
26	113	113	—	—	—	—	115	109	6	—	—	—
25	128	124	4	—	—	—	103	98	5	—	—	—
24	105	101	4	—	—	—	76	76	—	—	—	—
23	116	114	2	—	—	—	50	46	4	—	—	—
22	136	134	2	—	—	—	39	35	4	—	—	—
21	132	115	2	—	15	—	38	34	4	—	—	—
20	151	120	2	—	29	—	38	23	2	—	13	—
19	100	92	1	4	3	—	21	17	—	4	—	—
18	389	239	4	87	43	16	298	117	7	88	74	12

DOMESTIC

Total	1,467	22	706	363	231	145	1,247	17	702	262	163	103
37	3	—	3	—	—	—	1	—	1	—	—	—
36	9	—	9	—	—	—	—	—	—	—	—	—
35	26	—	26	—	—	—	1	—	1	—	—	—
34	11	—	11	—	—	—	1	—	1	—	—	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	4	—	4	—	—	—	2	—	2	—	—	—
31	4	—	4	—	—	—	—	—	—	—	—	—
30	6	—	6	—	—	—	2	—	2	—	—	—
29	5	—	5	—	—	—	1	—	1	—	—	—
28	5	—	5	—	—	—	1	1	—	—	—	—
27	5	—	5	—	—	—	2	—	2	—	—	—
26	4	2	2	—	—	—	6	—	6	—	—	—
25	12	9	3	—	—	—	26	1	25	—	—	—
24	1	—	1	—	—	—	4	—	4	—	—	—
23	—	—	—	—	—	—	7	—	7	—	—	—
22	2	—	—	—	2	—	3	—	3	—	—	—
21	10	—	1	—	—	9	6	—	4	—	—	2
20	58	—	3	37	11	7	50	4	11	35	—	—
19	32	—	—	11	3	18	15	—	—	13	—	2
18	1,269	11	617	315	215	111	1,119	11	632	214	163	99

Total trips: 6,781

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY

	Upbound						Downbound					
Grand												
Total	39,200	22,457	145	11,126	3,755	1,717	39,329	22,457	141	10,846	4,034	1,851

FOREIGN

Total	2,002	1,750	53	91	92	16	2,006	1,757	54	94	89	12
41	—	—	—	—	—	—	8	8	—	—	—	—
40	1	1	—	—	—	—	22	20	2	—	—	—
39	6	6	—	—	—	—	42	41	—	—	1	—
38	10	9	1	—	—	—	67	67	—	—	—	—
37	7	5	2	—	—	—	64	63	1	—	—	—
36	21	17	4	—	—	—	76	76	—	—	—	—
35	33	30	3	—	—	—	89	88	1	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY - continued												
	Upbound						Downbound					
FOREIGN												
34	21	18	3	—	—	—	143	140	—	2	1	—
33	30	27	3	—	—	—	142	141	1	—	—	—
32	51	48	2	1	—	—	139	135	4	—	—	—
31	56	54	2	—	—	—	62	61	1	—	—	—
30	89	87	2	—	—	—	112	110	2	—	—	—
29	111	107	4	—	—	—	86	85	1	—	—	—
28	106	103	3	—	—	—	111	107	4	—	—	—
27	123	118	3	—	—	2	91	86	5	—	—	—
26	113	113	—	—	—	—	115	109	6	—	—	—
25	128	124	4	—	—	—	103	98	5	—	—	—
24	105	101	4	—	—	—	76	76	—	—	—	—
23	116	114	2	—	—	—	50	46	4	—	—	—
22	136	134	2	—	—	—	39	35	4	—	—	—
21	132	115	2	—	15	—	38	34	4	—	—	—
20	151	120	2	—	29	—	38	23	2	—	13	—
19	100	92	1	4	3	—	21	17	—	4	—	—
18	80	78	1	—	1	—	15	11	3	—	1	—
17	22	18	2	—	—	—	13	9	—	3	1	—
16	47	19	1	24	2	1	31	—	2	24	3	2
15	27	7	—	17	1	2	20	—	—	20	—	—
14	11	2	—	2	4	3	20	1	—	1	12	6
13	26	11	—	8	6	1	13	2	—	5	6	—
12	31	7	—	16	7	1	22	6	—	12	4	—
11	24	3	—	10	11	—	28	2	2	16	7	1
10	12	10	—	2	—	—	10	7	—	1	1	1
9	24	19	—	5	—	—	19	15	—	4	—	—
8	14	12	—	—	1	1	14	13	—	1	—	—
7	12	11	—	—	1	—	14	13	—	—	1	—
6	8	8	—	—	—	—	12	9	—	—	3	—
5	14	2	—	—	5	7	5	3	—	1	—	1
4	3	—	—	—	3	—	17	—	—	—	16	1
3	1	—	—	—	1	—	19	—	—	—	19	—
DOMESTIC												
Total	37,198	20,707	92	11,035	3,663	1,701	37,323	20,700	87	10,752	3,945	1,839
37	3	—	3	—	—	—	1	—	1	—	—	—
36	9	—	9	—	—	—	—	—	—	—	—	—
35	26	—	26	—	—	—	2	—	2	—	—	—
34	11	—	11	—	—	—	—	—	—	—	—	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	5	—	5	—	—	—	2	—	2	—	—	—
31	5	—	5	—	—	—	—	—	—	—	—	—
30	7	—	7	—	—	—	3	—	3	—	—	—
29	5	—	5	—	—	—	1	—	1	—	—	—
28	5	—	5	—	—	—	2	1	1	—	—	—
27	5	—	5	—	—	—	4	—	4	—	—	—
26	4	2	2	—	—	—	6	1	5	—	—	—
25	12	9	3	—	—	—	28	4	24	—	—	—
24	1	—	1	—	—	—	4	—	4	—	—	—
23	—	—	—	—	—	—	7	—	7	—	—	—
22	2	—	—	—	2	—	3	—	3	—	—	—
21	10	—	1	—	—	9	6	—	4	—	—	2
20	64	—	3	43	11	7	55	—	11	44	—	—
19	39	—	—	18	3	18	19	—	—	17	—	2
18	10	—	—	3	—	7	19	—	—	3	1	15
17	32	—	—	3	9	20	18	—	—	4	12	2
16	60	—	—	41	—	19	226	1	—	39	184	2
15	46	—	—	21	2	23	63	—	—	22	35	6
14	139	—	—	87	25	27	610	—	—	74	215	321
13	182	—	—	133	11	38	888	—	—	119	593	176
12	923	—	—	794	82	47	1,281	—	1	778	277	225
11	341	—	—	130	150	61	702	—	—	151	532	19
10	2,386	40	—	2,102	193	51	2,467	40	1	2,102	302	22
9	2,688	1	—	2,314	301	72	2,410	1	—	2,315	83	11
8	1,059	29	—	881	76	73	1,014	30	13	881	65	25
7	2,416	14	—	2,297	14	91	2,405	14	—	2,298	65	28
6	15,090	13,647	—	1,208	94	141	14,909	13,647	—	1,124	100	38
5	964	255	—	464	68	177	773	248	—	342	119	64
4	796	—	—	420	220	156	848	—	—	404	226	218
3	8,056	6,625	—	33	1,005	393	7,282	6,625	—	10	367	280
2	1,753	85	—	—	1,397	271	1,240	88	—	—	769	383

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

COLUMBIA RIVER, MOUTH TO INTERNATIONAL BOUNDARY - continued

Upbound							Downbound					
DOMESTIC												
1	43	—	—	43	—	—	25	—	—	25	—	—
											Total trips:	78,529

COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA AND PORTLAND, OR

Upbound							Downbound					
Grand												
Total	32,784	9,287	148	15,588	5,539	2,222	32,088	8,718	141	15,563	5,442	2,224

FOREIGN

Total	2,002	1,750	53	91	92	16	2,006	1,757	54	94	89	12
41	—	—	—	—	—	—	8	8	—	—	—	—
40	1	1	—	—	—	—	22	20	2	—	—	—
39	6	6	—	—	—	—	42	41	—	—	1	—
38	10	9	1	—	—	—	67	67	—	—	—	—
37	7	5	2	—	—	—	64	63	1	—	—	—
36	21	17	4	—	—	—	76	76	—	—	—	—
35	33	30	3	—	—	—	89	88	1	—	—	—
34	21	18	3	—	—	—	143	140	—	2	1	—
33	30	27	3	—	—	—	142	141	1	—	—	—
32	51	48	2	1	—	—	139	135	4	—	—	—
31	56	54	2	—	—	—	62	61	1	—	—	—
30	89	87	2	—	—	—	112	110	2	—	—	—
29	111	107	4	—	—	—	86	85	1	—	—	—
28	106	103	3	—	—	—	111	107	4	—	—	—
27	123	118	3	—	2	—	91	86	5	—	—	—
26	113	113	—	—	—	—	115	109	6	—	—	—
25	128	124	4	—	—	—	103	98	5	—	—	—
24	105	101	4	—	—	—	76	76	—	—	—	—
23	116	114	2	—	—	—	50	46	4	—	—	—
22	136	134	2	—	—	—	39	35	4	—	—	—
21	132	115	2	—	15	—	38	34	4	—	—	—
20	151	120	2	—	29	—	38	23	2	—	13	—
19	100	92	1	4	3	—	21	17	—	4	—	—
18	356	207	4	86	43	16	272	91	7	88	74	12

DOMESTIC

Total	30,782	7,537	95	15,497	5,447	2,206	30,082	6,961	87	15,469	5,353	2,212
37	3	—	3	—	—	—	1	—	1	—	—	—
36	9	—	9	—	—	—	—	—	—	—	—	—
35	26	—	26	—	—	—	2	—	2	—	—	—
34	12	—	12	—	—	—	—	—	—	—	—	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	5	—	5	—	—	—	2	—	2	—	—	—
31	4	—	4	—	—	—	—	—	—	—	—	—
30	7	—	7	—	—	—	2	—	2	—	—	—
29	5	—	5	—	—	—	1	—	1	—	—	—
28	5	—	5	—	—	—	2	1	1	—	—	—
27	5	—	5	—	—	—	4	—	4	—	—	—
26	5	2	3	—	—	—	6	1	5	—	—	—
25	12	9	3	—	—	—	28	4	24	—	—	—
24	2	—	2	—	—	—	5	—	5	—	—	—
23	—	—	—	—	—	—	7	—	7	—	—	—
22	3	—	—	—	3	—	3	—	3	—	—	—
21	10	—	1	—	—	9	6	—	4	—	—	2
20	65	—	3	50	5	7	67	—	11	50	6	—
19	35	—	—	22	3	10	28	—	—	17	—	11
18	30,568	7,526	1	15,425	5,436	2,180	29,918	6,955	15	15,402	5,347	2,199
											Total trips:	64,872

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT OF ASTORIA, OR

	Inbound						Outbound					
Grand												
Total	936	134	2	678	73	49	870	99	1	655	73	42

FOREIGN

Total	158	103	1	47	6	1	128	68	—	50	9	1
36	—	—	—	—	—	—	2	2	—	—	—	—
34	1	1	—	—	—	—	—	—	—	—	—	—
33	—	—	—	—	—	—	1	1	—	—	—	—
32	1	1	—	—	—	—	1	1	—	—	—	—
31	—	—	—	—	—	—	2	2	—	—	—	—
30	—	—	—	—	—	—	1	1	—	—	—	—
29	—	—	—	—	—	—	1	1	—	—	—	—
28	1	—	1	—	—	—	—	—	—	—	—	—
27	1	1	—	—	—	—	—	—	—	—	—	—
25	1	1	—	—	—	—	—	—	—	—	—	—
24	4	4	—	—	—	—	1	1	—	—	—	—
23	9	9	—	—	—	—	—	—	—	—	—	—
22	7	7	—	—	—	—	1	1	—	—	—	—
21	6	6	—	—	—	—	—	—	—	—	—	—
20	4	3	—	—	1	—	1	—	—	1	—	—
19	12	8	—	4	—	—	5	1	—	4	—	—
18	111	62	—	43	5	1	112	57	—	46	8	1

DOMESTIC

Total	778	31	1	631	67	48	742	31	1	605	64	41
35	—	—	—	—	—	—	1	—	1	—	—	—
34	1	—	1	—	—	—	—	—	—	—	—	—
20	1	—	—	1	—	—	1	—	—	1	—	—
19	4	—	—	4	—	—	5	—	—	5	—	—
18	772	31	—	626	67	48	735	31	—	599	64	41

Total trips: 1,806

PORTS OTHER THAN PORTLAND, ASTORIA, ST. HELENS, LONGVIEW, VANCOUVER AND KALAMA

	Inbound						Outbound					
Grand												
Total	2,396	9	—	1,986	374	27	2,275	8	—	1,900	359	8

FOREIGN

Total	27	3	—	14	10	—	18	3	—	8	7	—
34	—	—	—	—	—	—	2	2	—	—	—	—
30	1	1	—	—	—	—	—	—	—	—	—	—
26	1	1	—	—	—	—	1	1	—	—	—	—
19	2	1	—	—	1	—	—	—	—	—	—	—
18	23	—	—	14	9	—	15	—	—	8	7	—

DOMESTIC

Total	2,369	6	—	1,972	364	27	2,257	5	—	1,892	352	8
18	2,369	6	—	1,972	364	27	2,257	5	—	1,892	352	8

Total trips: 4,671

PORT OF LONGVIEW, WA

	Inbound						Outbound					
Grand												
Total	1,850	182	6	1,227	330	105	1,819	179	6	1,278	260	96

FOREIGN

Total	193	178	5	4	6	—	183	174	5	2	2	—
41	—	—	—	—	—	—	1	1	—	—	—	—
40	—	—	—	—	—	—	1	1	—	—	—	—
39	—	—	—	—	—	—	1	1	—	—	—	—
38	3	3	—	—	—	—	4	4	—	—	—	—
37	—	—	—	—	—	—	6	6	—	—	—	—
36	3	3	—	—	—	—	7	7	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT OF LONGVIEW, WA - continued

	Inbound						Outbound					
FOREIGN												
35	1	1	—	—	—	—	9	9	—	—	—	—
34	—	—	—	—	—	—	10	10	—	—	—	—
33	5	4	1	—	—	—	30	30	—	—	—	—
32	2	2	—	—	—	—	26	25	1	—	—	—
31	2	2	—	—	—	—	7	7	—	—	—	—
30	4	4	—	—	—	—	7	7	—	—	—	—
29	6	6	—	—	—	—	5	5	—	—	—	—
28	9	9	—	—	—	—	10	10	—	—	—	—
27	13	12	—	—	1	—	9	9	—	—	—	—
26	12	12	—	—	—	—	10	9	1	—	—	—
25	17	17	—	—	—	—	9	9	—	—	—	—
24	17	17	—	—	—	—	8	8	—	—	—	—
23	9	9	—	—	—	—	3	3	—	—	—	—
22	17	17	—	—	—	—	3	2	1	—	—	—
21	18	18	—	—	—	—	6	6	—	—	—	—
20	16	15	1	—	—	—	1	—	1	—	—	—
19	10	10	—	—	—	—	2	2	—	—	—	—
18	12	11	1	—	—	—	2	1	1	—	—	—
17	2	1	1	—	—	—	1	1	—	—	—	—
16	3	2	1	—	—	—	—	—	—	—	—	—
15	2	1	—	1	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	2	—	—	—	2	—
13	2	—	—	1	1	—	—	—	—	—	—	—
12	8	2	—	2	4	—	3	1	—	2	—	—
DOMESTIC												
Total	1,657	4	1	1,223	324	105	1,636	5	1	1,276	258	96
32	1	—	1	—	—	—	1	—	1	—	—	—
19	1	—	—	1	—	—	3	—	—	3	—	—
18	1	—	—	—	—	1	1	—	—	—	—	1
17	8	—	—	—	8	—	—	—	—	—	—	—
16	16	—	—	1	13	2	6	—	—	5	1	—
15	2	—	—	—	—	2	2	—	—	—	—	2
14	27	—	—	8	17	2	25	—	—	8	17	—
13	38	—	—	17	21	—	26	—	—	26	—	—
12	1,563	4	—	1,196	265	98	1,572	5	—	1,234	240	93
											Total trips:	3,669

PORT OF KALAMA, WA

	Inbound						Outbound					
Grand												
Total	1,147	78	14	794	171	90	1,170	96	12	779	187	96
FOREIGN												
Total	77	74	3	—	—	—	94	92	1	1	—	—
41	—	—	—	—	—	—	3	3	—	—	—	—
40	—	—	—	—	—	—	12	12	—	—	—	—
39	—	—	—	—	—	—	8	8	—	—	—	—
38	—	—	—	—	—	—	10	10	—	—	—	—
37	—	—	—	—	—	—	6	6	—	—	—	—
36	—	—	—	—	—	—	11	11	—	—	—	—
35	—	—	—	—	—	—	6	6	—	—	—	—
34	1	1	—	—	—	—	6	6	—	—	—	—
33	1	1	—	—	—	—	6	6	—	—	—	—
32	2	2	—	—	—	—	—	—	—	—	—	—
31	2	2	—	—	—	—	4	4	—	—	—	—
30	2	1	1	—	—	—	6	5	1	—	—	—
29	2	2	—	—	—	—	1	1	—	—	—	—
28	1	—	1	—	—	—	—	—	—	—	—	—
27	2	2	—	—	—	—	2	2	—	—	—	—
26	3	3	—	—	—	—	2	2	—	—	—	—
25	5	4	1	—	—	—	5	5	—	—	—	—
24	3	3	—	—	—	—	2	2	—	—	—	—
23	13	13	—	—	—	—	—	—	—	—	—	—
22	13	13	—	—	—	—	1	1	—	—	—	—
21	9	9	—	—	—	—	—	—	—	—	—	—
20	8	8	—	—	—	—	1	1	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT OF KALAMA, WA - continued

	Inbound						Outbound					
FOREIGN												
19	4	4	—	—	—	—	1	1	—	—	—	—
18	6	6	—	—	—	—	1	—	—	1	—	—
DOMESTIC												
Total	1,070	4	11	794	171	90	1,076	4	11	778	187	96
37	1	—	1	—	—	—	1	—	1	—	—	—
34	1	—	1	—	—	—	—	—	—	—	—	—
31	1	—	1	—	—	—	1	—	1	—	—	—
30	3	—	3	—	—	—	2	—	2	—	—	—
28	2	—	2	—	—	—	1	—	1	—	—	—
27	1	—	1	—	—	—	1	—	1	—	—	—
25	2	—	2	—	—	—	2	—	2	—	—	—
24	—	—	—	—	—	—	2	—	2	—	—	—
21	—	—	—	—	—	—	1	—	1	—	—	—
19	3	—	—	3	—	—	3	—	—	3	—	—
18	1,056	4	—	791	171	90	1,062	4	—	775	187	96
Total trips:											2,317	

MULTNOMAH CHANNEL, OR

	Upbound						Downbound					
Grand												
Total	1,118	3	—	630	485	—	1,095	3	—	573	498	21
DOMESTIC												
Total	1,118	3	—	630	485	—	1,095	3	—	573	498	21
16	—	—	—	—	—	—	2	—	—	2	—	—
15	—	—	—	—	—	—	1	—	—	—	1	—
14	2	—	—	2	—	—	2	—	—	2	—	—
13	4	—	—	4	—	—	2	—	—	2	—	—
12	8	—	—	8	—	—	10	—	—	10	—	—
11	82	—	—	—	82	—	—	—	—	—	—	—
10	49	—	—	3	46	—	14	—	—	13	1	—
9	450	—	—	178	272	—	130	—	—	130	—	—
8	124	—	—	58	66	—	67	—	—	57	—	10
7	165	—	—	165	—	—	145	—	—	144	1	—
6	117	2	—	108	7	—	117	2	—	101	13	1
5	102	1	—	101	—	—	111	1	—	109	1	—
4	8	—	—	3	5	—	184	—	—	—	184	—
3	1	—	—	—	1	—	210	—	—	3	207	—
2	6	—	—	—	6	—	100	—	—	—	90	10
Total trips:											2,213	

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR

	Upbound						Downbound					
Grand												
Total	2,729	378	1	1,599	647	104	2,621	386	—	1,528	610	97
FOREIGN												
Total	382	378	1	—	2	1	387	386	—	1	—	—
39	—	—	—	—	—	—	1	1	—	—	—	—
38	—	—	—	—	—	—	1	1	—	—	—	—
37	1	1	—	—	—	—	1	1	—	—	—	—
36	2	2	—	—	—	—	4	4	—	—	—	—
35	8	8	—	—	—	—	12	12	—	—	—	—
34	6	6	—	—	—	—	20	20	—	—	—	—
33	9	9	—	—	—	—	32	32	—	—	—	—
32	22	22	—	—	—	—	29	29	—	—	—	—
31	33	33	—	—	—	—	23	23	—	—	—	—
30	33	33	—	—	—	—	32	32	—	—	—	—
29	42	42	—	—	—	—	26	26	—	—	—	—
28	34	34	—	—	—	—	42	42	—	—	—	—
27	50	50	—	—	—	—	30	30	—	—	—	—
26	42	42	—	—	—	—	38	38	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

OREGON SLOUGH (NORTH PORTLAND HARBOR), OR - continued

Upbound

Downbound

FOREIGN

25	33	33	—	—	—	—	32	32	—	—	—	—
24	25	25	—	—	—	—	26	26	—	—	—	—
23	17	17	—	—	—	—	10	10	—	—	—	—
22	1	1	—	—	—	—	7	7	—	—	—	—
21	4	3	1	—	—	—	3	3	—	—	—	—
20	3	3	—	—	—	—	1	1	—	—	—	—
19	1	1	—	—	—	—	2	2	—	—	—	—
18	2	2	—	—	—	—	4	4	—	—	—	—
13	2	—	—	—	2	—	—	—	—	—	—	—
12	3	2	—	—	—	1	2	2	—	—	—	—
11	1	1	—	—	—	—	1	—	1	—	—	—
8	3	3	—	—	—	—	4	4	—	—	—	—
7	3	3	—	—	—	—	1	1	—	—	—	—
6	2	2	—	—	—	—	3	3	—	—	—	—

DOMESTIC

Total	2,347	—	—	1,599	645	103	2,234	—	—	1,527	610	97
14	12	—	—	1	11	—	15	—	—	1	14	—
13	17	—	—	10	7	—	22	—	—	18	4	—
12	248	—	—	242	6	—	263	—	—	243	20	—
11	4	—	—	1	3	—	14	—	—	2	12	—
10	497	—	—	449	48	—	527	—	—	415	98	14
9	387	—	—	356	26	5	381	—	—	356	3	22
8	209	—	—	157	38	14	140	—	—	132	7	1
7	138	—	—	86	47	5	77	—	—	72	5	—
6	223	—	—	186	22	15	197	—	—	187	8	2
5	64	—	—	23	26	15	27	—	—	15	12	—
4	147	—	—	88	41	18	166	—	—	86	80	—
3	323	—	—	—	315	8	124	—	—	—	109	15
2	78	—	—	—	55	23	281	—	—	—	238	43

Total trips: 5,350

PORT OF VANCOUVER, WA

Inbound

Outbound

Grand Total	4,771	399	12	3,275	679	406	4,473	372	15	3,215	558	313
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FOREIGN

Total	320	308	12	—	—	—	312	294	15	2	—	1
41	—	—	—	—	—	—	2	2	—	—	—	—
40	1	1	—	—	—	—	3	3	—	—	—	—
39	1	1	—	—	—	—	9	9	—	—	—	—
38	2	2	—	—	—	—	6	6	—	—	—	—
37	3	3	—	—	—	—	18	18	—	—	—	—
36	5	5	—	—	—	—	15	15	—	—	—	—
35	11	10	1	—	—	—	20	20	—	—	—	—
34	3	3	—	—	—	—	24	23	—	1	—	—
33	3	3	—	—	—	—	18	18	—	—	—	—
32	9	7	2	—	—	—	30	28	2	—	—	—
31	6	4	2	—	—	—	15	15	—	—	—	—
30	19	19	—	—	—	—	18	18	—	—	—	—
29	19	18	1	—	—	—	15	14	1	—	—	—
28	19	19	—	—	—	—	19	17	2	—	—	—
27	18	16	2	—	—	—	20	18	2	—	—	—
26	20	20	—	—	—	—	20	18	2	—	—	—
25	16	15	1	—	—	—	19	16	3	—	—	—
24	17	16	1	—	—	—	17	17	—	—	—	—
23	21	20	1	—	—	—	11	9	2	—	—	—
22	30	29	1	—	—	—	3	2	1	—	—	—
21	20	20	—	—	—	—	3	3	—	—	—	—
20	28	28	—	—	—	—	2	2	—	—	—	—
19	27	27	—	—	—	—	2	2	—	—	—	—
18	22	22	—	—	—	—	3	1	—	1	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT OF VANCOUVER, WA - continued

Inbound

Outbound

DOMESTIC

Total	4,451	91	—	3,275	679	406	4,161	78	—	3,213	558	312
26	2	2	—	—	—	—	1	1	—	—	—	—
25	9	9	—	—	—	—	3	3	—	—	—	—
20	2	—	—	2	—	—	7	—	7	—	—	—
18	4,438	80	—	3,273	679	406	4,150	74	—	3,206	558	312
										Total trips:		9,244

COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR

Upbound

Downbound

Grand

Total	5,142	371	—	1,549	2,283	939	4,988	378	—	1,437	2,180	993
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FOREIGN

Total	—	—	—	—	—	—	1	—	—	1	—	—
10	—	—	—	—	—	—	1	—	—	1	—	—

DOMESTIC

Total	5,142	371	—	1,549	2,283	939	4,987	378	—	1,436	2,180	993
17	8	—	—	—	—	8	—	—	—	—	—	—
16	4	—	—	—	—	4	182	—	—	—	182	—
15	12	—	—	2	—	10	30	—	—	—	30	—
14	41	—	—	—	22	19	493	—	—	—	181	312
13	319	—	—	—	298	21	468	—	—	—	299	169
12	258	—	—	88	130	40	472	—	—	77	176	219
11	164	—	—	96	20	48	260	—	—	121	126	13
10	419	40	—	220	119	40	532	40	—	171	301	20
9	224	—	—	150	24	50	222	—	—	135	81	6
8	366	23	—	294	10	39	366	24	—	282	57	3
7	403	9	—	330	11	53	391	9	—	319	61	2
6	2,924	299	—	369	1,649	607	1,571	305	—	331	686	249
										Total trips:		10,130

COLUMBIA RIVER ABOVE THE DALLES DAM, WA AND OR TO MCNARY LOCK AND DAM, OR AND WA

Upbound

Downbound

Grand

Total	3,766	113	—	834	1,821	998	3,713	118	—	799	1,834	962
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DOMESTIC

Total	3,766	113	—	834	1,821	998	3,713	118	—	799	1,834	962
17	8	—	—	—	—	8	—	—	—	—	—	—
16	4	—	—	—	—	4	179	—	—	—	179	—
15	10	—	—	—	—	10	30	—	—	—	30	—
14	41	—	—	—	22	19	359	—	—	—	180	179
13	36	—	—	—	6	30	517	—	—	—	346	171
12	119	—	—	60	20	39	550	—	—	60	275	215
11	142	—	—	93	12	37	248	—	—	111	124	13
10	608	40	—	183	346	39	309	40	—	148	101	20
9	140	—	—	87	4	49	136	—	—	59	72	5
8	264	23	—	194	8	39	284	24	—	207	50	3
7	211	9	—	48	101	53	119	9	—	57	50	3
6	106	—	—	19	10	77	39	—	—	11	22	6
5	263	—	—	150	14	99	180	—	—	146	27	7
4	261	—	—	—	83	178	192	—	—	—	32	160
3	965	—	—	—	708	257	390	—	—	—	235	155
2	588	41	—	—	487	60	181	45	—	—	111	25
										Total trips:		7,479

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT OF PORTLAND, OR

	Inbound						Outbound					
Grand												
Total	19,357	1,547	113	11,738	4,029	1,930	19,377	1,590	110	11,802	4,045	1,830

FOREIGN

Total	1,158	1,022	31	24	66	15	1,206	1,067	31	30	68	10
41	—	—	—	—	—	—	2	2	—	—	—	—
40	—	—	—	—	—	—	5	4	1	—	—	—
39	2	2	—	—	—	—	24	23	—	—	1	—
38	2	1	1	—	—	—	43	43	—	—	—	—
37	4	2	2	—	—	—	33	32	1	—	—	—
36	12	8	4	—	—	—	39	39	—	—	—	—
35	20	18	2	—	—	—	52	51	1	—	—	—
34	16	13	3	—	—	—	92	90	—	1	—	—
33	18	16	2	—	—	—	78	77	1	—	—	—
32	37	36	—	1	—	—	73	72	1	—	—	—
31	44	44	—	—	—	—	31	30	1	—	—	—
30	62	61	1	—	—	—	74	73	1	—	—	—
29	84	81	3	—	—	—	60	60	—	—	—	—
28	74	73	1	—	—	—	79	77	2	—	—	—
27	86	84	1	—	1	—	59	56	3	—	—	—
26	72	72	—	—	—	—	80	77	3	—	—	—
25	83	81	2	—	—	—	70	68	2	—	—	—
24	60	57	3	—	—	—	47	47	—	—	—	—
23	62	61	1	—	—	—	35	33	2	—	—	—
22	63	62	1	—	—	—	30	29	1	—	—	—
21	74	57	2	—	—	15	28	24	4	—	—	—
20	88	59	1	—	28	—	33	20	1	—	12	—
19	42	41	—	—	1	—	10	10	—	—	—	—
18	153	93	1	23	21	15	129	30	6	29	54	10

DOMESTIC

Total	18,199	525	82	11,714	3,963	1,915	18,171	523	79	11,772	3,977	1,820
37	2	—	2	—	—	—	—	—	—	—	—	—
36	11	—	11	—	—	—	—	—	—	—	—	—
35	27	—	27	—	—	—	1	—	1	—	—	—
34	9	—	9	—	—	—	1	—	1	—	—	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	2	—	2	—	—	—	1	—	1	—	—	—
31	3	—	3	—	—	—	—	—	—	—	—	—
30	10	—	10	—	—	—	3	—	3	—	—	—
29	4	—	4	—	—	—	2	—	2	—	—	—
28	2	—	2	—	—	—	1	1	—	—	—	—
27	2	—	2	—	—	—	1	—	1	—	—	—
26	3	—	3	—	—	—	5	—	5	—	—	—
25	—	—	—	—	—	—	23	1	22	—	—	—
24	2	—	2	—	—	—	3	—	3	—	—	—
23	1	—	1	—	—	—	7	—	7	—	—	—
22	3	—	—	—	3	—	3	—	3	—	—	—
21	10	—	1	—	—	9	5	—	3	—	—	2
20	73	—	2	53	11	7	54	—	11	43	—	—
19	32	—	—	11	3	18	12	—	—	8	—	4
18	18,002	525	—	11,650	3,946	1,881	18,049	521	16	11,721	3,977	1,814

Total trips: 38,734

WILLAMETTE RIVER ABOVE PORTLAND AND YAMHILL RIVER, OR

	Upbound						Downbound					
Grand												
Total	4,637	231	—	2,237	2,169	—	4,769	231	—	2,312	2,226	—

DOMESTIC

Total	4,637	231	—	2,237	2,169	—	4,769	231	—	2,312	2,226	—
10	3	—	—	3	—	—	3	—	—	1	2	—
9	3	—	—	3	—	—	9	—	—	8	1	—
8	8	—	—	8	—	—	9	—	—	9	—	—
7	201	125	—	76	—	—	212	125	—	83	4	—
6	1,872	35	—	1,832	5	—	1,878	35	—	1,832	11	—
5	250	67	—	1	182	—	230	67	—	1	162	—
4	318	4	—	314	—	—	1,960	4	—	378	1,578	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

WILLAMETTE RIVER ABOVE PORTLAND AND YAMHILL RIVER, OR - continued

Upbound

Downbound

DOMESTIC

3	2	—	—	—	2	—	250	—	—	—	250	—
2	1,980	—	—	—	1,980	—	218	—	—	—	218	—
											Total trips:	9,406

COOS BAY, OR

Inbound

Outbound

Grand

Total	1,337	119	66	873	248	31	1,365	121	66	883	267	28
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FOREIGN

Total	126	119	—	1	6	—	136	121	—	5	10	—
38	2	2	—	—	—	—	—	—	—	—	—	—
37	1	1	—	—	—	—	2	2	—	—	—	—
36	—	—	—	—	—	—	5	5	—	—	—	—
35	—	—	—	—	—	—	12	12	—	—	—	—
34	—	—	—	—	—	—	11	11	—	—	—	—
33	—	—	—	—	—	—	24	24	—	—	—	—
32	2	2	—	—	—	—	10	10	—	—	—	—
31	2	2	—	—	—	—	9	9	—	—	—	—
30	7	7	—	—	—	—	7	7	—	—	—	—
29	6	6	—	—	—	—	4	4	—	—	—	—
28	13	13	—	—	—	—	7	7	—	—	—	—
27	21	21	—	—	—	—	7	7	—	—	—	—
26	17	16	—	—	1	—	4	4	—	—	—	—
25	11	11	—	—	—	—	7	7	—	—	—	—
24	13	13	—	—	—	—	4	4	—	—	—	—
23	5	5	—	—	—	—	4	4	—	—	—	—
22	1	1	—	—	—	—	2	2	—	—	—	—
21	5	5	—	—	—	—	—	—	—	—	—	—
20	2	2	—	—	—	—	—	—	—	—	—	—
19	6	5	—	1	—	—	5	1	—	4	—	—
18	5	5	—	—	—	—	—	—	—	—	—	—
17	2	2	—	—	—	—	1	1	—	—	—	—
16	3	—	—	—	3	—	3	—	—	—	3	—
15	1	—	—	—	1	—	1	—	—	—	1	—
14	1	—	—	—	1	—	2	—	—	1	1	—
12	—	—	—	—	—	—	5	—	—	—	5	—

DOMESTIC

Total	1,211	—	66	872	242	31	1,229	—	66	878	257	28
20	1	—	—	—	—	1	—	—	—	—	—	—
19	9	—	—	8	—	1	8	—	—	8	—	—
18	1	—	—	—	—	1	—	—	—	—	—	—
17	2	—	—	—	—	2	—	—	—	—	—	1
16	24	—	—	23	—	1	23	—	—	21	1	1
15	10	—	—	10	—	—	13	—	—	10	3	—
14	32	—	—	30	2	—	26	—	—	20	6	—
13	46	—	—	44	1	1	54	—	—	48	5	1
12	1,086	—	66	757	239	24	1,104	—	66	771	242	25
											Total trips:	2,702

UMPQUA RIVER, OR

Upbound

Downbound

Grand

Total	411	—	—	219	192	—	407	—	—	222	185	—
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DOMESTIC

Total	411	—	—	219	192	—	407	—	—	222	185	—
12	6	—	—	—	6	—	32	—	—	—	32	—
11	—	—	—	—	—	—	13	—	—	—	13	—
10	—	—	—	—	—	—	25	—	—	—	25	—
9	—	—	—	—	—	—	58	—	—	—	58	—
8	4	—	—	—	4	—	44	—	—	—	44	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

UMPQUA RIVER, OR - continued

	Upbound						Downbound					
DOMESTIC												
7	3	—	—	—	3	—	—	—	—	—	—	—
6	398	—	—	219	179	—	235	—	—	222	13	—
										Total trips:		818

COLUMBIA RIVER SYSTEM

	Upbound						Downbound					
Grand												
Total	37,123	10,194	765	17,441	6,383	2,340	36,977	10,188	758	17,433	6,277	2,321
FOREIGN												

Total	2,035	1,782	53	92	92	16	2,032	1,783	54	94	89	12
41	—	—	—	—	—	—	8	8	—	—	—	—
40	1	1	—	—	—	—	22	20	2	—	—	—
39	6	6	—	—	—	—	42	41	—	—	1	—
38	10	9	1	—	—	—	67	67	—	—	—	—
37	7	5	2	—	—	—	64	63	1	—	—	—
36	21	17	4	—	—	—	76	76	—	—	—	—
35	33	30	3	—	—	—	89	88	1	—	—	—
34	21	18	3	—	—	—	143	140	—	2	1	—
33	30	27	3	—	—	—	142	141	1	—	—	—
32	51	48	2	1	—	—	139	135	4	—	—	—
31	56	54	2	—	—	—	62	61	1	—	—	—
30	89	87	2	—	—	—	112	110	2	—	—	—
29	111	107	4	—	—	—	86	85	1	—	—	—
28	106	103	3	—	—	—	111	107	4	—	—	—
27	123	118	3	—	2	—	91	86	5	—	—	—
26	113	113	—	—	—	—	115	109	6	—	—	—
25	128	124	4	—	—	—	103	98	5	—	—	—
24	105	101	4	—	—	—	76	76	—	—	—	—
23	116	114	2	—	—	—	50	46	4	—	—	—
22	136	134	2	—	—	—	39	35	4	—	—	—
21	132	115	2	—	15	—	38	34	4	—	—	—
20	151	120	2	—	29	—	38	23	2	—	13	—
19	100	92	1	4	3	—	21	17	—	4	—	—
18	80	78	1	—	1	—	15	11	3	—	1	—
17	22	18	2	—	—	—	13	9	—	3	1	—
16	47	19	1	24	2	1	31	—	2	24	3	2
15	27	7	—	17	1	2	20	—	—	20	—	—
14	11	2	—	2	4	3	20	1	—	1	12	6
13	32	17	—	8	6	1	16	5	—	5	6	—
12	31	7	—	16	7	1	22	6	—	12	4	—
11	28	7	—	10	11	—	31	5	2	16	7	1
10	19	16	—	3	—	—	14	11	—	1	1	1
9	27	22	—	5	—	—	21	17	—	4	—	—
8	17	15	—	—	1	1	17	16	—	1	—	—
7	20	19	—	—	1	—	23	22	—	—	1	—
6	9	9	—	—	—	—	13	10	—	—	3	—
5	15	3	—	—	5	7	6	4	—	1	—	1
4	3	—	—	—	3	—	17	—	—	—	16	1
3	1	—	—	—	1	—	19	—	—	—	19	—

DOMESTIC

Total	35,088	8,412	712	17,349	6,291	2,324	34,945	8,405	704	17,339	6,188	2,309
37	3	—	3	—	—	—	1	—	1	—	—	—
36	11	—	11	—	—	—	—	—	—	—	—	—
35	27	—	27	—	—	—	2	—	2	—	—	—
34	12	—	12	—	—	—	—	—	—	—	—	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	3	—	3	—	—	—	2	—	2	—	—	—
31	4	—	4	—	—	—	—	—	—	—	—	—
30	12	—	12	—	—	—	3	—	3	—	—	—
29	4	—	4	—	—	—	1	—	1	—	—	—
28	4	—	4	—	—	—	2	1	1	—	—	—
27	2	—	2	—	—	—	3	—	3	—	—	—
26	5	2	3	—	—	—	6	1	5	—	—	—
25	11	9	2	—	—	—	28	4	24	—	—	—
24	2	—	2	—	—	—	5	—	5	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

COLUMBIA RIVER SYSTEM - continued

Upbound

Downbound

DOMESTIC

23	1	—	1	—	—	—	7	—	7	—	—	—
22	3	—	—	—	—	3	3	—	3	—	—	—
21	10	—	—	—	—	9	6	—	4	—	—	2
20	70	—	2	50	11	7	61	—	11	50	—	—
19	41	—	—	19	3	19	23	—	—	20	—	3
18	12	—	—	3	—	9	18	—	—	3	1	14
17	26	—	—	5	9	12	28	—	—	4	12	12
16	183	—	—	70	102	11	165	1	—	71	82	11
15	57	—	—	22	20	15	56	—	—	22	18	16
14	386	—	—	83	129	174	369	—	—	84	111	174
13	603	—	—	167	302	134	609	—	—	168	303	138
12	1,814	—	1	1,497	179	137	1,816	—	1	1,498	180	137
11	528	—	—	145	341	42	529	—	—	146	341	42
10	3,520	40	—	3,187	251	42	3,516	40	1	3,188	245	42
9	3,827	1	—	3,585	193	48	3,828	1	—	3,585	193	49
8	1,413	79	—	1,203	72	59	1,426	79	13	1,203	72	59
7	3,295	239	—	2,920	63	73	3,249	239	—	2,920	16	74
6	3,152	88	—	2,839	102	123	3,152	88	—	2,839	102	123
5	1,930	416	617	477	266	154	1,932	416	617	478	266	155
4	2,417	8	—	1,012	1,064	333	2,415	4	—	1,013	1,064	334
3	8,109	6,631	—	22	998	458	8,110	6,631	—	22	999	458
2	3,545	897	—	—	2,183	465	3,547	898	—	—	2,183	466
1	45	2	—	43	—	—	27	2	—	25	—	—
											Total trips:	74,100

ALSEA BAY AND RIVER, OR
No Vessel Trips Reported

CHETCO RIVER, OR
(4 feet and less)

Upbound

Downbound

Grand

Total	4	4	—	—	—	—	1	1	—	—	—	—	
												Total trips:	5

CHINOOK CHANNEL, WA
No Vessel Trips Reported

CLATSKANIE RIVER, OR
(1 feet and less)

Upbound

Downbound

Grand

Total	—	—	—	—	—	—	2	—	—	2	—	—	
												Total trips:	2

COLUMBIA RIVER AT BAKERS BAY, WA
(13 feet and less)

Upbound

Downbound

Grand

Total	650	32	617	1	—	—	643	26	617	—	—	—	
												Total trips:	1,293

COLUMBIA SLOUGH, OR
No Vessel Trips Reported

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
COOS AND MILLICOMA RIVERS, OR (7 feet and less)												
				Upbound						Downbound		
Grand												
Total	6	—	—	6	—	—	6	—	—	6	—	—
										Total trips:		12
COQUILLE RIVER, OR No Vessel Trips Reported												
COWLITZ RIVER, WA (7 feet and less)												
				Upbound						Downbound		
Grand												
Total	4	—	—	2	2	—	6	—	—	4	2	—
										Total trips:		10
DEEP RIVER, WA (7 feet and less)												
				Upbound						Downbound		
Grand												
Total	4	—	—	4	—	—	4	—	—	4	—	—
										Total trips:		8
DEPOE BAY, OR No Vessel Trips Reported												
ELOKOMIN SLOUGH, WA No Vessel Trips Reported												
GRAYS RIVER, WA No Vessel Trips Reported												
LAKE RIVER, WA (6 feet and less)												
				Upbound						Downbound		
Grand												
Total	31	31	—	—	—	—	31	31	—	—	—	—
										Total trips:		62
LEWIS RIVER, WA No Vessel Trips Reported												
PORT OF ST. HELENS, OR (12 feet and less)												
				Inbound						Outbound		
Grand												
Total	2	—	—	1	1	—	2	—	—	1	1	—
										Total trips:		4
PORT ORFORD, OR No Vessel Trips Reported												
ROGUE RIVER, OR (2 feet and less)												
				Upbound						Downbound		
Grand												
Total	1,633	1,633	—	—	—	—	1,633	1,633	—	—	—	—
										Total trips:		3,266

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

SIUSLAW RIVER, OR
No Vessel Trips Reported

SKAMOKAWA (STEAMBOAT) SLOUGH, WA
(4 feet and less)

	Upbound						Downbound					
Grand												
Total	2	—	—	—	—	2	2	—	—	—	—	2
	Total trips:											4

SKAMOKAWA CREEK, WA
No Vessel Trips Reported

SKIPANON CHANNEL, OR
(19 feet and less)

	Upbound						Downbound					
Grand												
Total	69	—	—	47	22	—	72	—	—	50	22	—
	Total trips:											141

SMITH RIVER, OR
No Vessel Trips Reported

TILLAMOOK BAY AND BAR, OR
No Vessel Trips Reported

WESTPORT SLOUGH, OR
(13 feet and less)

	Upbound						Downbound					
Grand												
Total	6,625	6,625	—	—	—	—	6,626	6,624	—	2	—	—
	Total trips:											13,251

YAQUINA BAY AND HARBOR, OR
(19 feet and less)

	Upbound						Downbound					
Grand												
Total	4	—	2	1	1	—	3	2	—	—	1	—
	Total trips:											7

YAQUINA RIVER, OR
No Vessel Trips Reported

YOUNGS BAY AND YOUNGS RIVER, OR
(12 feet and less)

	Upbound						Downbound					
Grand												
Total	41	—	—	36	5	—	30	—	—	28	2	—
	Total trips:											71

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
GRAYS HARBOR AND CHEHALIS RIVER, WA												
	Inbound						Outbound					
Grand												
Total	1,920	90	301	840	683	6	2,085	93	301	928	739	24
FOREIGN												
Total	304	90	1	112	101	—	308	93	—	112	103	—
38	—	—	—	—	—	—	1	1	—	—	—	—
37	—	—	—	—	—	—	1	1	—	—	—	—
36	—	—	—	—	—	—	2	2	—	—	—	—
35	1	1	—	—	—	—	2	2	—	—	—	—
34	5	5	—	—	—	—	4	4	—	—	—	—
33	—	—	—	—	—	—	9	9	—	—	—	—
32	—	—	—	—	—	—	13	13	—	—	—	—
31	—	—	—	—	—	—	4	4	—	—	—	—
30	1	1	—	—	—	—	5	5	—	—	—	—
29	4	4	—	—	—	—	1	1	—	—	—	—
28	3	3	—	—	—	—	2	2	—	—	—	—
27	3	3	—	—	—	—	4	4	—	—	—	—
26	4	4	—	—	—	—	9	9	—	—	—	—
25	2	2	—	—	—	—	5	4	—	—	1	—
24	6	6	—	—	—	—	3	3	—	—	—	—
23	13	13	—	—	—	—	1	1	—	—	—	—
22	1	1	—	—	—	—	1	1	—	—	—	—
21	2	2	—	—	—	—	2	2	—	—	—	—
20	10	9	—	—	1	—	1	1	—	—	—	—
19	6	5	1	—	—	—	2	2	—	—	—	—
18	4	4	—	—	—	—	—	—	—	—	—	—
17	5	5	—	—	—	—	1	1	—	—	—	—
16	4	3	—	1	—	—	3	2	—	1	—	—
15	5	4	—	—	1	—	1	—	—	—	1	—
14	98	1	—	6	91	—	3	—	—	2	1	—
13	7	—	—	4	3	—	3	1	—	2	—	—
12	120	14	—	101	5	—	225	18	—	107	100	—
DOMESTIC												
Total	1,616	—	300	728	582	6	1,777	—	301	816	636	24
16	283	—	—	283	—	—	294	—	—	285	—	9
15	34	—	—	3	31	—	35	—	—	2	33	—
14	11	—	—	10	1	—	17	—	—	13	4	—
13	11	—	—	11	—	—	12	—	—	10	2	—
12	1,277	—	300	421	550	6	1,419	—	301	506	597	15
											Total trips:	4,005
PORT ANGELES HARBOR, WA												
	Inbound						Outbound					
Grand												
Total	2,223	41	35	1,618	221	308	2,165	47	24	1,570	231	293
FOREIGN												
Total	267	40	13	109	88	17	257	45	5	106	97	4
40	1	—	1	—	—	—	1	—	1	—	—	—
38	1	—	1	—	—	—	—	—	—	—	—	—
34	—	—	—	—	—	—	2	1	—	—	1	—
33	1	—	1	—	—	—	—	—	—	—	—	—
32	—	—	—	—	—	—	4	4	—	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
30	2	—	2	—	—	—	—	—	—	—	—	—
29	1	—	1	—	—	—	1	1	—	—	—	—
28	2	—	2	—	—	—	5	5	—	—	—	—
27	1	—	1	—	—	—	—	—	—	—	—	—
26	1	1	—	—	—	—	6	5	—	—	—	1
25	1	—	1	—	—	—	1	—	1	—	—	—
24	5	2	2	1	—	—	3	3	—	—	—	—
23	5	5	—	—	—	—	2	2	—	—	—	—
22	3	2	1	—	—	—	5	2	2	—	1	—
21	3	3	—	—	—	—	2	1	1	—	—	—
20	8	5	—	—	—	3	3	3	—	—	—	—
19	4	1	—	3	—	—	2	—	—	2	—	—
18	228	21	—	105	88	14	219	17	—	104	95	3

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

PORT ANGELES HARBOR, WA - continued

	Inbound						Outbound					
DOMESTIC												
Total	1,956	1	22	1,509	133	291	1,908	2	19	1,464	134	289
42	—	—	—	—	—	—	1	—	1	—	—	—
39	—	—	—	—	—	—	1	—	1	—	—	—
37	1	—	1	—	—	—	—	—	—	—	—	—
32	1	—	1	—	—	—	—	—	—	—	—	—
30	5	—	5	—	—	—	—	—	—	—	—	—
29	1	—	1	—	—	—	—	—	—	—	—	—
27	—	—	—	—	—	—	1	—	1	—	—	—
22	331	—	—	331	—	—	305	—	—	305	—	—
20	2	—	—	2	—	—	4	—	1	2	—	1
19	16	—	—	8	—	8	5	—	—	2	—	3
18	1,599	1	14	1,168	133	283	1,591	2	15	1,155	134	285
										Total trips:		4,388

PORT TOWNSEND HARBOR, WA

	Inbound						Outbound					
Grand												
Total	4,425	4,082	—	178	148	17	4,423	4,078	—	174	154	17
FOREIGN												
Total	19	—	—	9	10	—	24	2	—	10	12	—
20	19	—	—	9	10	—	24	2	—	10	12	—
DOMESTIC												
Total	4,406	4,082	—	169	138	17	4,399	4,076	—	164	142	17
20	4,406	4,082	—	169	138	17	4,399	4,076	—	164	142	17
										Total trips:		8,848

HAMMERSLEY INLET, WA

	Upbound						Downbound					
Grand												
Total	489	—	—	273	216	—	494	—	—	286	208	—
DOMESTIC												
Total	489	—	—	273	216	—	494	—	—	286	208	—
13	9	—	—	—	9	—	1	—	—	—	1	—
12	4	—	—	4	—	—	—	—	—	—	—	—
10	200	—	—	200	—	—	216	—	—	216	—	—
9	5	—	—	5	—	—	4	—	—	4	—	—
8	39	—	—	39	—	—	55	—	—	40	15	—
7	13	—	—	13	—	—	62	—	—	15	47	—
6	219	—	—	12	207	—	156	—	—	11	145	—
										Total trips:		983

OLYMPIA HARBOR, WA

	Inbound						Outbound					
Grand												
Total	313	14	—	204	95	—	314	16	—	211	87	—
FOREIGN												
Total	19	14	—	2	3	—	20	16	—	2	2	—
33	—	—	—	—	—	—	1	1	—	—	—	—
32	—	—	—	—	—	—	1	1	—	—	—	—
29	—	—	—	—	—	—	2	2	—	—	—	—
28	2	2	—	—	—	—	5	5	—	—	—	—
27	4	4	—	—	—	—	2	2	—	—	—	—
26	2	2	—	—	—	—	—	—	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

OLYMPIA HARBOR, WA - continued

	Inbound						Outbound					
FOREIGN												
25	1	1	—	—	—	—	—	—	—	—	—	—
24	—	—	—	—	—	—	1	1	—	—	—	—
23	1	1	—	—	—	—	1	1	—	—	—	—
22	1	1	—	—	—	—	2	2	—	—	—	—
21	—	—	—	—	—	—	1	1	—	—	—	—
20	2	2	—	—	—	—	—	—	—	—	—	—
19	1	1	—	—	—	—	—	—	—	—	—	—
18	5	—	—	2	3	—	4	—	—	2	2	—
DOMESTIC												
Total	294	—	—	202	92	—	294	—	—	209	85	—
18	294	—	—	202	92	—	294	—	—	209	85	—
Total trips:											627	

TACOMA HARBOR, WA

	Inbound						Outbound					
Grand												
Total	20,248	8,613	85	8,966	1,543	1,041	20,178	8,662	74	8,849	1,533	1,060

FOREIGN

Total	1,242	687	37	203	293	22	1,222	691	33	195	280	23
47	—	—	—	—	—	—	1	—	1	—	—	—
44	—	—	—	—	—	—	2	2	—	—	—	—
43	1	1	—	—	—	—	1	1	—	—	—	—
42	2	2	—	—	—	—	5	5	—	—	—	—
41	6	6	—	—	—	—	5	5	—	—	—	—
40	2	2	—	—	—	—	19	19	—	—	—	—
39	3	3	—	—	—	—	12	12	—	—	—	—
38	10	10	—	—	—	—	13	13	—	—	—	—
37	17	17	—	—	—	—	19	19	—	—	—	—
36	10	10	—	—	—	—	21	21	—	—	—	—
35	23	23	—	—	—	—	33	33	—	—	—	—
34	39	39	—	—	—	—	42	42	—	—	—	—
33	36	35	1	—	—	—	42	42	—	—	—	—
32	43	43	—	—	—	—	84	83	1	—	—	—
31	40	40	—	—	—	—	29	29	—	—	—	—
30	41	41	—	—	—	—	54	51	2	—	1	—
29	34	34	—	—	—	—	23	21	2	—	—	—
28	24	24	—	—	—	—	48	44	4	—	—	—
27	42	41	1	—	—	—	37	37	—	—	—	—
26	41	39	2	—	—	—	43	38	5	—	—	—
25	40	39	1	—	—	—	31	28	3	—	—	—
24	60	58	2	—	—	—	39	37	2	—	—	—
23	36	28	8	—	—	—	34	28	6	—	—	—
22	35	30	5	—	—	—	17	17	—	—	—	—
21	43	38	4	—	1	—	18	17	1	—	—	—
20	42	29	5	—	5	3	11	9	1	1	—	—
19	25	16	3	2	3	1	3	2	1	—	—	—
18	26	14	1	2	9	—	8	3	2	1	1	1
17	14	6	3	1	4	—	10	3	—	—	7	—
16	35	5	—	—	29	1	53	7	2	—	44	—
15	27	2	—	7	18	—	25	1	—	11	13	—
14	72	1	1	62	8	—	73	2	—	54	13	4
13	36	—	—	25	11	—	53	1	—	28	24	—
12	337	11	—	104	205	17	314	19	—	100	177	18

DOMESTIC

Total	19,006	7,926	48	8,763	1,250	1,019	18,956	7,971	41	8,654	1,253	1,037
41	5	—	5	—	—	—	—	—	—	—	—	—
39	1	—	1	—	—	—	—	—	—	—	—	—
37	1	—	1	—	—	—	—	—	—	—	—	—
36	12	—	12	—	—	—	—	—	—	—	—	—
35	6	—	6	—	—	—	—	—	—	—	—	—
34	2	—	2	—	—	—	—	—	—	—	—	—
33	1	—	1	—	—	—	6	6	—	—	—	—
32	—	—	—	—	—	—	9	9	—	—	—	—
31	2	1	—	—	—	1	2	2	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

TACOMA HARBOR, WA - continued

Inbound

Outbound

DOMESTIC

30	—	—	—	—	—	—	5	5	—	—	—	—
29	4	3	1	—	—	—	—	—	—	—	—	—
28	137	137	—	—	—	—	129	129	—	—	—	—
27	52	52	—	—	—	—	103	103	—	—	—	—
26	27	27	—	—	—	—	12	12	—	—	—	—
25	7	7	—	—	—	—	6	6	—	—	—	—
24	4	4	—	—	—	—	4	4	—	—	—	—
22	94	—	—	94	—	—	88	—	—	88	—	—
21	3	—	—	—	—	3	13	—	—	—	—	13
20	4	—	—	3	—	1	11	—	—	2	—	9
19	4	—	—	—	—	4	10	—	—	—	—	10
18	880	—	—	875	—	5	873	—	—	873	—	—
17	3,160	—	—	3,155	—	5	3,154	—	—	3,142	—	12
16	72	—	—	61	2	9	84	—	—	71	—	13
15	73	—	—	19	30	24	53	—	—	19	30	4
14	816	—	—	682	111	23	828	—	—	695	108	25
13	144	—	—	71	24	49	108	—	—	82	4	22
12	13,495	7,695	19	3,803	1,083	895	13,458	7,695	41	3,682	1,111	929
Total trips:											40,426	

SEATTLE HARBOR, WA

Inbound

Outbound

Grand

Total	49,909	35,819	71	9,988	2,460	1,571	50,138	35,888	72	10,064	2,554	1,560
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FOREIGN

Total	2,611	1,035	9	790	768	9	2,788	1,118	9	811	823	27
38	47	46	—	1	—	—	47	47	—	—	—	—
37	46	46	—	—	—	—	57	57	—	—	—	—
36	45	45	—	—	—	—	48	48	—	—	—	—
35	48	47	1	—	—	—	22	22	—	—	—	—
34	102	100	1	—	1	—	31	31	—	—	—	—
33	83	83	—	—	—	—	86	85	—	1	—	—
32	61	60	1	—	—	—	57	56	1	—	—	—
31	63	61	1	—	1	—	44	43	—	—	—	1
30	57	57	—	—	—	—	85	81	—	2	2	—
29	56	55	1	—	—	—	65	63	2	—	—	—
28	38	36	2	—	—	—	41	40	1	—	—	—
27	59	59	—	—	—	—	139	138	1	—	—	—
26	44	44	—	—	—	—	47	43	2	1	1	—
25	45	45	—	—	—	—	40	40	—	—	—	—
24	40	39	—	1	—	—	72	72	—	—	—	—
23	30	30	—	—	—	—	28	28	—	—	—	—
22	34	34	—	—	—	—	32	32	—	—	—	—
21	21	21	—	—	—	—	53	53	—	—	—	—
20	20	19	1	—	—	—	10	7	1	—	—	2
19	48	10	—	—	38	—	10	9	—	—	1	—
18	1,624	98	1	788	728	9	1,774	123	1	807	819	24

DOMESTIC

Total	47,298	34,784	62	9,198	1,692	1,562	47,350	34,770	63	9,253	1,731	1,533
34	—	—	—	—	—	—	11	11	—	—	—	—
33	—	—	—	—	—	—	10	10	—	—	—	—
32	2	2	—	—	—	—	13	13	—	—	—	—
31	1	1	—	—	—	—	6	5	1	—	—	—
30	1	1	—	—	—	—	6	6	—	—	—	—
29	—	—	—	—	—	—	4	4	—	—	—	—
28	1	—	1	—	—	—	1	1	—	—	—	—
27	8	8	—	—	—	—	9	9	—	—	—	—
26	28	28	—	—	—	—	11	11	—	—	—	—
25	27	27	—	—	—	—	15	15	—	—	—	—
24	23	23	—	—	—	—	13	13	—	—	—	—
23	12	12	—	—	—	—	4	4	—	—	—	—
22	106	2	—	103	1	—	99	1	—	98	—	—
21	3	—	—	—	—	3	—	—	—	—	—	—
20	55	—	—	52	—	3	50	—	—	48	—	2
19	17	—	—	3	—	14	11	—	—	8	—	3

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SEATTLE HARBOR, WA - continued												
	Inbound						Outbound					
DOMESTIC												
18	47,014	34,680	61	9,040	1,691	1,542	47,087	34,667	62	9,099	1,731	1,528
	Total trips:											100,047
LAKE WASHINGTON SHIP CANAL, WA												
	Upbound						Downbound					
Grand												
Total	4,441	2,430	1	1,227	707	76	4,003	2,439	1	857	639	67
FOREIGN												
Total	97	31	1	36	28	1	153	43	1	56	51	2
38	—	—	—	—	—	—	1	1	—	—	—	—
32	—	—	—	—	—	—	—	—	1	—	—	—
30	—	—	—	—	—	—	4	3	—	1	—	—
29	—	—	—	—	—	—	1	1	—	—	—	—
26	1	1	—	—	—	—	1	1	—	—	—	—
22	96	30	1	36	28	1	145	37	—	55	51	2
DOMESTIC												
Total	4,344	2,399	—	1,191	679	75	3,850	2,396	—	801	588	65
22	4,344	2,399	—	1,191	679	75	3,850	2,396	—	801	588	65
	Total trips:											8,444
EVERETT HARBOR AND SNOHOMISH RIVER, WA												
	Inbound						Outbound					
Grand												
Total	3,082	1,185	3	1,363	484	47	3,030	1,186	5	1,382	412	45
FOREIGN												
Total	244	54	2	62	126	—	212	55	2	60	95	—
37	1	1	—	—	—	—	—	—	—	—	—	—
36	1	1	—	—	—	—	—	—	—	—	—	—
33	2	2	—	—	—	—	4	4	—	—	—	—
32	2	2	—	—	—	—	16	15	1	—	—	—
31	2	2	—	—	—	—	—	—	—	—	—	—
30	4	4	—	—	—	—	7	7	—	—	—	—
29	4	4	—	—	—	—	1	1	—	—	—	—
28	2	2	—	—	—	—	5	5	—	—	—	—
27	3	2	1	—	—	—	2	2	—	—	—	—
26	5	5	—	—	—	—	4	4	—	—	—	—
25	1	1	—	—	—	—	1	1	—	—	—	—
24	4	4	—	—	—	—	2	1	1	—	—	—
23	1	1	—	—	—	—	4	4	—	—	—	—
22	1	1	—	—	—	—	1	1	—	—	—	—
21	2	2	—	—	—	—	1	1	—	—	—	—
20	5	5	—	—	—	—	—	—	—	—	—	—
19	3	2	1	—	—	—	—	—	—	—	—	—
18	201	13	—	62	126	—	164	9	—	60	95	—
DOMESTIC												
Total	2,838	1,131	1	1,301	358	47	2,818	1,131	3	1,322	317	45
22	2,838	1,131	—	1,301	358	47	2,818	1,131	3	1,322	317	45
18	2,814	1,131	1	1,277	358	47	2,794	1,131	3	1,298	317	45
	Total trips:											6,112

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

ANACORTES HARBOR, WA

Inbound

Outbound

Grand

Total	6,074	3,817	179	1,685	64	329	6,073	3,809	170	1,688	32	374
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FOREIGN

Total	275	36	38	119	54	28	219	33	29	95	24	38
44	1	—	1	—	—	—	—	—	—	—	—	—
42	1	1	—	—	—	—	3	1	2	—	—	—
41	1	—	1	—	—	—	1	—	1	—	—	—
40	—	—	—	—	—	—	2	—	2	—	—	—
39	2	—	2	—	—	—	—	—	—	—	—	—
38	2	—	2	—	—	—	2	—	2	—	—	—
37	1	—	1	—	—	—	—	—	—	—	—	—
36	3	—	3	—	—	—	1	—	1	—	—	—
35	—	—	—	—	—	—	2	1	1	—	—	—
34	1	—	1	—	—	—	1	1	—	—	—	—
33	1	—	1	—	—	—	5	3	2	—	—	—
32	3	—	3	—	—	—	3	1	2	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
30	2	—	2	—	—	—	2	—	2	—	—	—
29	1	1	—	—	—	—	—	—	—	—	—	—
28	2	—	2	—	—	—	3	—	3	—	—	—
27	2	—	2	—	—	—	1	—	1	—	—	—
26	5	—	5	—	—	—	2	—	1	—	1	—
25	1	—	1	—	—	—	3	—	3	—	—	—
24	2	—	2	—	—	—	2	1	1	—	—	—
23	3	—	2	—	—	1	1	—	—	—	—	1
22	2	1	—	—	1	—	—	—	—	—	—	—
21	3	3	—	—	—	—	1	1	—	—	—	—
19	2	2	—	—	—	—	2	—	1	—	1	—
18	234	28	7	119	53	27	181	23	4	95	22	37

DOMESTIC

Total	5,799	3,781	141	1,566	10	301	5,854	3,776	141	1,593	8	336
45	1	—	1	—	—	—	—	—	—	—	—	—
44	8	—	8	—	—	—	—	—	—	—	—	—
43	18	—	18	—	—	—	1	—	1	—	—	—
42	3	—	3	—	—	—	—	—	—	—	—	—
40	8	—	8	—	—	—	—	—	—	—	—	—
39	12	—	12	—	—	—	—	—	—	—	—	—
38	33	—	33	—	—	—	—	—	—	—	—	—
37	7	—	7	—	—	—	2	—	2	—	—	—
36	9	—	9	—	—	—	—	—	—	—	—	—
35	3	—	3	—	—	—	6	—	6	—	—	—
34	2	—	2	—	—	—	3	—	3	—	—	—
33	2	—	2	—	—	—	4	—	4	—	—	—
32	2	—	2	—	—	—	8	—	8	—	—	—
31	2	—	2	—	—	—	4	—	4	—	—	—
30	1	—	1	—	—	—	9	—	8	—	—	1
29	—	—	—	—	—	—	7	—	7	—	—	—
28	1	—	1	—	—	—	7	—	7	—	—	—
27	—	—	—	—	—	—	2	—	2	—	—	—
25	2	—	2	—	—	—	25	—	25	—	—	—
24	1	—	1	—	—	—	32	—	32	—	—	—
23	2	—	2	—	—	—	—	—	—	—	—	—
22	398	—	2	396	—	—	350	—	—	350	—	—
21	2	—	1	—	—	1	5	—	—	—	—	5
20	27	—	12	14	—	1	22	—	1	16	—	5
19	31	—	1	30	—	—	54	—	—	26	—	28
18	5,224	3,781	8	1,126	10	299	5,313	3,776	31	1,201	8	297

Total trips: 12,147

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

BELLINGHAM BAY AND HARBOR, WA

	Inbound						Outbound					
Grand Total	1,943	615	21	1,011	251	45	1,980	599	23	1,058	251	49

FOREIGN

Total	333	196	12	40	83	2	316	179	16	51	68	2
33	4	3	1	—	—	—	5	4	1	—	—	—
32	2	1	1	—	—	—	1	—	1	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
30	—	—	—	—	—	—	2	1	1	—	—	—
29	1	1	—	—	—	—	1	—	1	—	—	—
28	—	—	—	—	—	—	2	1	1	—	—	—
27	1	1	—	—	—	—	4	3	1	—	—	—
26	2	2	—	—	—	—	5	4	1	—	—	—
25	7	5	2	—	—	—	8	7	1	—	—	—
24	7	5	2	—	—	—	2	2	—	—	—	—
23	4	4	—	—	—	—	9	7	2	—	—	—
22	1	1	—	—	—	—	6	3	3	—	—	—
21	2	2	—	—	—	—	2	1	1	—	—	—
20	5	1	4	—	—	—	2	1	1	—	—	—
19	15	14	1	—	—	—	3	2	1	—	—	—
18	282	156	1	40	83	2	263	142	—	51	68	2

DOMESTIC

Total	1,610	419	9	971	168	43	1,664	420	7	1,007	183	47
29	1	—	1	—	—	—	2	—	2	—	—	—
27	1	—	1	—	—	—	2	—	2	—	—	—
26	1	—	1	—	—	—	1	—	1	—	—	—
25	2	—	2	—	—	—	2	—	2	—	—	—
24	2	—	2	—	—	—	—	—	—	—	—	—
22	334	—	—	334	—	—	—	—	—	358	—	—
21	2	—	2	—	—	—	1	—	—	—	—	1
20	—	—	—	—	—	—	2	—	—	2	—	—
18	1,267	419	—	637	168	43	1,296	420	—	647	183	46

Total trips: 3,923

BLAINE HARBOR, WA
(12 feet and less)

	Inbound						Outbound					
Grand Total	45	—	—	44	1	—	69	—	—	69	—	—
	Total trips: 114											

COLUMBIA RIVER BETWEEN WENATCHEE AND KETTLE FALLS, WA
(9 feet and less)

	Upbound						Downbound					
Grand Total	13,644	13,639	—	5	—	—	13,644	13,639	—	5	—	—
	Total trips: 27,288											

FLATHEAD LAKE, MT
No Vessel Trips Reported

HOQUIAM RIVER, WA
(16 feet and less)

	Upbound						Downbound					
Grand Total	758	—	—	329	429	—	727	—	—	296	431	—
	Total trips: 1,485											

KOOTENAI RIVER, ID AND MT
No Vessel Trips Reported

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
NEAH BAY, WA (14 feet and less)												
				Inbound						Outbound		
Grand												
Total	40	—	—	20	20	—	53	—	—	26	26	1
										Total trips:		93
PORT GAMBLE HARBOR, WA (22 feet and less)												
				Inbound						Outbound		
Grand												
Total	71	—	—	58	13	—	80	—	—	62	17	1
										Total trips:		151
QUILLAYUTE RIVER, WA (12 feet and less)												
				Upbound						Downbound		
Grand												
Total	2	—	—	2	—	—	—	—	—	—	—	—
										Total trips:		2
SKAGIT RIVER, WA (7 feet and less)												
				Upbound						Downbound		
Grand												
Total	24	23	—	1	—	—	24	23	—	1	—	—
										Total trips:		48
STILLAGUAMISH RIVER, WA No Vessel Trips Reported												
SWINOMISH CHANNEL, WA (13 feet and less)												
				Upbound						Downbound		
Grand												
Total	384	159	—	164	61	—	383	169	—	148	66	—
										Total trips:		767
WATERWAY CONNECTING PORT TOWNSEND BAY AND OAK BAY, WA (17 feet and less)												
				Upbound						Downbound		
Grand												
Total	46	—	—	36	10	—	48	—	—	38	10	—
										Total trips:		94
WILLAPA RIVER AND HARBOR, AND NASELLE RIVER, WA (15 feet and less)												
				Inbound						Outbound		
Grand												
Total	49	—	—	10	39	—	51	—	—	11	40	—
										Total trips:		100
COEUR D ALENE LAKE AND ST. JOE RIVER, ID (7 feet and less)												
				Upbound						Downbound		
Grand												
Total	831	—	—	831	—	—	831	—	—	831	—	—
										Total trips:		1,662

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

OTHER PUGET SOUND AREA PORTS, WA
(55 feet and less)

	Inbound						Outbound						
Grand													
Total	127,428	120,848	286	4,420	1,466	408	127,401	120,794	304	4,380	1,484	439	
											Total trips:	254,829	

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

KETCHIKAN HARBOR, AK

Inbound

Outbound

Grand

Total	3,462	2,055	---	679	620	108	3,538	2,047	---	720	645	126
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FOREIGN

Total	835	679	---	76	73	7	849	669	---	89	85	6
29	7	6	---	---	1	---	6	5	---	---	1	---
28	28	28	---	---	---	---	27	27	---	---	---	---
27	66	66	---	---	---	---	62	62	---	---	---	---
26	67	67	---	---	---	---	71	71	---	---	---	---
25	64	64	---	---	---	---	63	63	---	---	---	---
24	55	54	---	---	1	---	64	63	---	---	1	---
23	49	49	---	---	---	---	48	48	---	---	---	---
22	20	20	---	---	---	---	19	19	---	---	---	---
21	4	1	---	---	3	---	3	1	---	---	2	---
20	11	5	---	---	6	---	8	1	---	---	7	---
19	8	7	---	---	1	---	11	8	---	---	3	---
18	13	11	---	2	---	---	11	7	---	3	1	---
17	8	2	---	3	3	---	10	5	---	3	2	---
16	17	10	---	3	2	2	16	5	---	8	2	1
15	21	10	---	5	5	1	24	12	---	7	5	---
14	23	17	---	5	1	---	24	15	---	7	2	---
13	51	35	---	10	6	---	45	30	---	7	8	---
12	323	227	---	48	44	4	337	227	---	54	51	5

DOMESTIC

Total	2,627	1,376	---	603	547	101	2,689	1,378	---	631	560	120
20	24	---	---	24	---	---	22	---	---	22	---	---
19	3	---	---	3	---	---	1	---	---	1	---	---
18	14	---	---	14	---	---	14	---	---	14	---	---
17	5	---	---	5	---	---	5	---	---	5	---	---
16	24	13	---	8	---	3	23	13	---	10	---	---
15	502	393	---	108	1	---	507	393	---	112	2	---
14	107	---	---	34	72	1	112	---	---	31	80	1
13	604	562	---	30	6	6	605	562	---	29	9	5
12	1,344	408	---	377	468	91	1,400	410	---	407	469	114

Total trips: 7,000

WRANGELL NARROWS, AK

Upbound

Downbound

Grand

Total	1,570	643	---	386	466	75	1,501	643	---	354	421	83
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DOMESTIC

Total	1,570	643	---	386	466	75	1,501	643	---	354	421	83
20	24	---	---	24	---	---	16	---	---	16	---	---
19	1	---	---	1	---	---	3	---	---	3	---	---
18	15	---	---	15	---	---	12	---	---	12	---	---
17	6	---	---	6	---	---	3	---	---	3	---	---
16	19	13	---	6	---	---	20	13	---	7	---	---
15	531	407	---	124	---	---	532	407	---	124	1	---
14	86	---	---	16	69	1	76	---	---	20	56	---
13	118	88	---	19	9	2	111	88	---	16	7	---
12	770	135	---	175	388	72	728	135	---	153	357	83

Total trips: 3,071

JUNEAU HARBOR, AK

Upbound

Downbound

Grand

Total	3,093	2,514	---	239	292	48	3,048	2,492	---	220	291	45
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FOREIGN

Total	401	397	---	2	2	---	399	397	---	1	1	---
24	318	318	---	---	---	---	320	320	---	---	---	---
23	29	29	---	---	---	---	33	33	---	---	---	---

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
JUNEAU HARBOR, AK - continued												
	Upbound						Downbound					
FOREIGN												
22	16	16	—	—	—	—	13	13	—	—	—	—
21	3	2	—	1	—	—	2	1	—	1	—	—
19	1	1	—	—	—	—	—	—	—	—	—	—
18	6	6	—	—	—	—	7	7	—	—	—	—
17	11	11	—	—	—	—	10	10	—	—	—	—
16	1	1	—	—	—	—	2	2	—	—	—	—
15	1	1	—	—	—	—	1	1	—	—	—	—
14	3	1	—	—	2	—	1	1	—	—	—	—
13	2	2	—	—	—	—	—	—	—	—	—	—
12	1	1	—	—	—	—	—	—	—	—	—	—
11	1	1	—	—	—	—	1	1	—	—	—	—
10	—	—	—	—	—	—	1	1	—	—	—	—
8	2	1	—	1	—	—	1	1	—	—	—	—
7	—	—	—	—	—	—	2	2	—	—	—	—
6	6	6	—	—	—	—	5	4	—	—	1	—
DOMESTIC												
Total	2,692	2,117	—	237	290	48	2,649	2,095	—	219	290	45
20	23	—	—	23	—	—	20	—	—	20	—	—
19	2	—	—	2	—	—	4	—	—	4	—	—
18	14	—	—	14	—	—	14	—	—	14	—	—
17	4	—	—	4	—	—	4	—	—	4	—	—
16	8	—	—	8	—	—	8	—	—	8	—	—
15	580	485	—	95	—	—	571	485	—	86	—	—
14	65	—	—	20	43	2	63	—	—	21	42	—
13	211	192	—	14	—	5	205	192	—	12	—	1
12	10	—	—	4	3	3	5	—	—	1	4	—
11	23	—	—	22	—	1	22	—	—	22	—	—
10	38	—	—	26	—	12	26	—	—	22	—	4
9	117	109	—	4	—	4	105	95	—	4	—	6
8	23	16	—	1	—	6	23	16	—	1	—	6
7	56	49	—	—	—	7	58	49	—	—	—	9
6	52	48	—	—	—	4	49	41	—	—	—	8
5	108	—	—	—	107	1	113	—	—	—	107	6
4	1	1	—	—	—	—	5	—	—	—	—	5
3	660	573	—	—	84	3	656	573	—	—	83	—
2	693	644	—	—	49	—	694	644	—	—	50	—
1	4	—	—	—	4	—	4	—	—	—	4	—
										Total trips:		6,141

VALDEZ HARBOR, AK

Grand	Inbound						Outbound					
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
Total	1,516	938	478	67	2	31	1,574	902	560	75	2	35
FOREIGN												
Total	28	5	21	2	—	—	28	4	21	3	—	—
58	—	—	—	—	—	—	2	—	2	—	—	—
53	—	—	—	—	—	—	3	—	3	—	—	—
52	—	—	—	—	—	—	9	—	9	—	—	—
50	—	—	—	—	—	—	4	—	4	—	—	—
43	—	—	—	—	—	—	1	—	1	—	—	—
42	1	—	1	—	—	—	1	—	1	—	—	—
40	1	—	1	—	—	—	—	—	—	—	—	—
39	2	—	2	—	—	—	—	—	—	—	—	—
38	1	—	1	—	—	—	—	—	—	—	—	—
37	2	—	2	—	—	—	—	—	—	—	—	—
36	5	—	5	—	—	—	—	—	—	—	—	—
35	3	—	3	—	—	—	—	—	—	—	—	—
34	3	—	3	—	—	—	—	—	—	—	—	—
32	1	—	1	—	—	—	—	—	—	—	—	—
31	1	—	1	—	—	—	—	—	—	—	—	—
30	1	—	1	—	—	—	—	—	—	—	—	—
28	1	—	—	1	—	—	—	—	—	—	—	—
27	1	1	—	—	—	—	1	—	1	—	—	—
26	—	—	—	—	—	—	1	—	—	1	—	—
25	1	—	—	1	—	—	1	—	—	1	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

VALDEZ HARBOR, AK - continued

Inbound

Outbound

FOREIGN

22	—	—	—	—	—	—	1	1	—	—	—	—
16	1	1	—	—	—	—	—	—	—	—	—	—
14	1	1	—	—	—	—	2	2	—	—	—	—
12	2	2	—	—	—	—	2	1	—	1	—	—

DOMESTIC

Total	1,488	933	457	65	2	31	1,546	898	539	72	2	35
59	—	—	—	—	—	—	1	—	1	—	—	—
58	—	—	—	—	—	—	40	—	40	—	—	—
57	—	—	—	—	—	—	18	—	18	—	—	—
56	—	—	—	—	—	—	3	—	3	—	—	—
55	—	—	—	—	—	—	22	—	22	—	—	—
54	—	—	—	—	—	—	18	—	18	—	—	—
53	—	—	—	—	—	—	17	—	17	—	—	—
52	—	—	—	—	—	—	40	—	40	—	—	—
51	—	—	—	—	—	—	19	—	19	—	—	—
50	—	—	—	—	—	—	5	—	5	—	—	—
49	—	—	—	—	—	—	60	—	60	—	—	—
48	—	—	—	—	—	—	13	—	13	—	—	—
47	—	—	—	—	—	—	12	—	12	—	—	—
46	—	—	—	—	—	—	4	—	4	—	—	—
45	—	—	—	—	—	—	4	—	4	—	—	—
44	3	—	3	—	—	—	39	—	39	—	—	—
43	1	—	1	—	—	—	60	—	60	—	—	—
42	3	—	3	—	—	—	10	—	10	—	—	—
41	8	—	8	—	—	—	6	—	6	—	—	—
40	16	—	16	—	—	—	12	—	12	—	—	—
39	8	—	8	—	—	—	26	—	26	—	—	—
38	23	—	23	—	—	—	71	—	71	—	—	—
37	11	—	11	—	—	—	11	—	11	—	—	—
36	17	—	17	—	—	—	5	—	5	—	—	—
35	12	—	12	—	—	—	2	—	2	—	—	—
34	6	—	6	—	—	—	2	—	2	—	—	—
33	8	—	8	—	—	—	1	—	1	—	—	—
32	7	—	7	—	—	—	—	—	—	—	—	—
31	8	—	8	—	—	—	—	—	—	—	—	—
30	12	—	12	—	—	—	—	—	—	—	—	—
29	10	—	10	—	—	—	—	—	—	—	—	—
28	8	—	8	—	—	—	1	—	1	—	—	—
27	7	—	7	—	—	—	—	—	—	—	—	—
26	1	—	1	—	—	—	—	—	—	—	—	—
25	61	—	61	—	—	—	—	—	—	—	—	—
24	43	—	43	—	—	—	2	—	2	—	—	—
23	20	—	20	—	—	—	—	—	—	—	—	—
20	18	—	18	—	—	—	2	—	—	2	—	—
18	5	—	5	—	—	—	—	—	—	—	—	—
17	—	—	—	—	—	—	1	—	—	—	—	1
16	1	—	—	—	—	—	1	—	—	—	—	1
15	34	—	—	34	—	—	—	—	—	37	—	—
14	81	60	18	3	—	—	71	60	2	5	—	4
13	6	—	—	6	—	—	11	—	7	—	—	4
12	1,050	873	123	22	2	30	898	838	13	21	2	24

Total trips: 3,090

SEWARD HARBOR, AK

Inbound

Outbound

Grand

Total	671	645	—	13	10	3	672	647	—	13	10	2
--------------	------------	------------	----------	-----------	-----------	----------	------------	------------	----------	-----------	-----------	----------

FOREIGN

Total	125	121	—	4	—	—	129	122	—	5	2	—
38	—	—	—	—	—	—	4	4	—	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
30	1	1	—	—	—	—	—	—	—	—	—	—
29	9	8	—	1	—	—	9	8	—	1	—	—
28	19	18	—	1	—	—	19	18	—	1	—	—
27	24	24	—	—	—	—	23	23	—	—	—	—

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SEWARD HARBOR, AK - continued												
	Inbound						Outbound					
FOREIGN												
26	25	24	—	1	—	—	24	23	—	1	—	—
25	19	18	—	1	—	—	16	15	—	1	—	—
24	6	6	—	—	—	—	5	5	—	—	—	—
23	2	2	—	—	—	—	3	3	—	—	—	—
22	—	—	—	—	—	—	2	2	—	—	—	—
21	3	3	—	—	—	—	1	1	—	—	—	—
20	2	2	—	—	—	—	2	2	—	—	—	—
19	2	2	—	—	—	—	2	1	—	—	1	—
18	7	7	—	—	—	—	7	7	—	—	—	—
17	2	2	—	—	—	—	2	2	—	—	—	—
16	2	2	—	—	—	—	2	2	—	—	—	—
13	1	1	—	—	—	—	3	2	—	1	—	—
12	1	1	—	—	—	—	1	1	—	—	—	—
11	—	—	—	—	—	—	1	—	—	—	1	—
8	—	—	—	—	—	—	2	2	—	—	—	—
DOMESTIC												
Total	546	524	—	9	10	3	543	525	—	8	8	2
15	6	3	—	1	2	—	6	3	—	1	2	—
14	70	69	—	1	—	—	69	69	—	—	—	—
13	1	—	—	1	—	—	1	—	—	—	—	—
12	6	—	—	6	—	—	7	—	—	6	1	—
11	1	—	—	—	—	1	1	—	—	—	—	1
9	262	262	—	—	—	—	260	259	—	—	1	—
6	1	—	—	—	—	1	—	—	—	—	—	—
5	3	—	—	—	3	—	2	—	—	—	2	—
4	1	—	—	—	1	—	—	—	—	—	—	—
3	1	—	—	—	1	—	1	—	—	—	1	—
2	194	190	—	—	3	1	196	194	—	—	1	1
											Total trips:	1,343
HOMER, AK												
	Inbound						Outbound					
Grand												
Total	397	265	17	47	40	28	396	272	16	43	36	29
FOREIGN												
Total	69	35	17	5	12	—	68	38	16	4	10	—
27	22	11	11	—	—	—	28	17	11	—	—	—
26	3	2	1	—	—	—	2	1	1	—	—	—
25	3	1	2	—	—	—	5	1	2	—	2	—
24	1	1	—	—	—	—	1	—	—	—	1	—
23	1	—	—	—	1	—	6	5	—	—	1	—
22	3	2	1	—	—	—	2	2	—	—	—	—
21	8	6	2	—	—	—	7	4	2	—	1	—
20	4	4	—	—	—	—	4	2	—	—	2	—
19	1	1	—	—	—	—	2	2	—	—	—	—
18	2	2	—	—	—	—	3	3	—	—	—	—
17	8	—	—	3	5	—	6	—	—	3	3	—
16	1	—	—	—	1	—	—	—	—	—	—	—
15	3	2	—	—	1	—	—	—	—	—	—	—
14	1	—	—	1	—	—	—	—	—	—	—	—
13	1	—	—	—	1	—	—	—	—	—	—	—
12	3	1	—	—	2	—	—	—	—	—	—	—
11	1	1	—	—	—	—	—	—	—	—	—	—
10	2	1	—	1	—	—	2	1	—	1	—	—
4	1	—	—	—	1	—	—	—	—	—	—	—
DOMESTIC												
Total	328	230	—	42	28	28	328	234	—	39	26	29
17	2	—	—	2	—	—	3	—	—	3	—	—
16	4	—	—	—	—	4	1	—	—	—	—	1
15	5	—	—	2	3	—	5	—	—	2	2	1
14	155	133	—	15	1	6	146	133	—	11	1	1
13	11	—	—	7	—	4	13	—	—	9	—	4
12	4	—	—	1	2	1	2	—	—	—	1	1

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker

HOMER, AK - continued

	Inbound						Outbound					
DOMESTIC												
11	3	—	—	—	—	3	3	—	—	—	—	3
10	16	—	—	14	—	2	14	—	—	11	—	3
9	1	—	—	—	—	1	5	2	—	2	—	1
8	2	—	—	—	—	2	1	—	—	—	—	1
7	—	—	—	—	—	—	2	—	—	—	—	2
6	1	—	—	—	—	1	3	—	—	—	—	3
5	2	1	—	—	—	1	3	2	—	1	—	—
4	61	60	—	—	—	1	90	90	—	—	—	—
3	14	1	—	—	12	1	26	—	—	—	19	7
2	42	35	—	1	5	1	9	7	—	—	1	1
1	5	—	—	—	5	—	2	—	—	—	2	—
											Total trips:	793

ANCHORAGE, AK

	Inbound						Outbound					
Grand												
Total	495	300	18	81	52	44	496	294	19	86	54	43

FOREIGN

Total	93	65	15	6	7	—	81	60	16	3	2	—
37	1	—	1	—	—	—	1	1	—	—	—	—
36	6	1	5	—	—	—	5	1	4	—	—	—
35	6	1	5	—	—	—	5	3	2	—	—	—
34	2	2	—	—	—	—	4	4	—	—	—	—
33	—	—	—	—	—	—	7	3	4	—	—	—
32	2	2	—	—	—	—	7	6	1	—	—	—
31	1	1	—	—	—	—	2	1	1	—	—	—
30	3	2	1	—	—	—	2	2	—	—	—	—
29	2	2	—	—	—	—	1	1	—	—	—	—
28	2	2	—	—	—	—	2	1	1	—	—	—
27	2	2	—	—	—	—	6	5	1	—	—	—
26	4	3	1	—	—	—	5	3	2	—	—	—
25	7	6	1	—	—	—	6	6	—	—	—	—
24	4	3	1	—	—	—	2	2	—	—	—	—
23	—	—	—	—	—	—	2	2	—	—	—	—
22	2	2	—	—	—	—	—	—	—	—	—	—
21	2	2	—	—	—	—	2	2	—	—	—	—
20	6	3	—	—	3	—	5	4	—	—	1	—
19	6	4	—	1	1	—	4	4	—	—	—	—
18	3	3	—	—	—	—	1	1	—	—	—	—
17	1	1	—	—	—	—	3	2	—	1	—	—
16	4	3	—	1	—	—	3	3	—	—	—	—
15	3	2	—	—	1	—	—	—	—	—	—	—
13	1	1	—	—	—	—	5	2	—	2	1	—
12	23	17	—	4	2	—	1	1	—	—	—	—

DOMESTIC

Total	402	235	3	75	45	44	415	234	3	83	52	43
36	1	—	1	—	—	—	—	—	—	—	—	—
35	1	—	1	—	—	—	—	—	—	—	—	—
33	7	6	1	—	—	—	—	—	—	—	—	—
32	10	10	—	—	—	—	—	—	—	—	—	—
31	1	1	—	—	—	—	—	—	—	—	—	—
30	4	4	—	—	—	—	—	—	—	—	—	—
29	1	1	—	—	—	—	4	4	—	—	—	—
28	129	129	—	—	—	—	140	140	—	—	—	—
27	—	—	—	—	—	—	3	3	—	—	—	—
26	—	—	—	—	—	—	3	3	—	—	—	—
25	76	76	—	—	—	—	75	75	—	—	—	—
24	—	—	—	—	—	—	1	1	—	—	—	—
23	—	—	—	—	—	—	3	—	—	—	—	3
20	6	—	—	6	—	—	7	—	—	7	—	—
19	1	—	—	1	—	—	7	—	—	1	—	6
18	3	—	—	—	—	3	—	—	—	—	—	—
17	1	—	—	—	—	1	—	—	—	1	—	—
16	1	—	—	—	—	1	6	—	—	1	2	3
15	44	—	—	23	17	4	41	—	—	26	12	3

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ANCHORAGE, AK - continued												
	Inbound						Outbound					
DOMESTIC												
14	28	—	—	22	6	—	38	—	—	25	7	6
13	18	—	—	10	6	2	19	—	—	8	4	7
12	70	8	—	13	16	33	67	8	3	14	27	15
	Total trips:											991
 UNALASKA BAY AND ISLAND, AK												
	Inbound						Outbound					
Grand												
Total	1,035	785	1	145	25	79	992	741	2	151	23	75
FOREIGN												
Total	348	337	1	7	2	1	335	326	2	6	1	—
34	59	59	—	—	—	—	61	60	1	—	—	—
33	18	18	—	—	—	—	9	9	—	—	—	—
32	7	7	—	—	—	—	7	7	—	—	—	—
31	5	5	—	—	—	—	5	5	—	—	—	—
30	2	2	—	—	—	—	3	3	—	—	—	—
29	—	—	—	—	—	—	1	1	—	—	—	—
28	—	—	—	—	—	—	3	3	—	—	—	—
27	6	5	1	—	—	—	3	3	—	—	—	—
26	3	3	—	—	—	—	3	2	1	—	—	—
25	6	6	—	—	—	—	5	5	—	—	—	—
24	5	5	—	—	—	—	7	7	—	—	—	—
23	10	9	—	—	—	1	14	14	—	—	—	—
22	6	5	—	—	1	—	6	6	—	—	—	—
21	8	8	—	—	—	—	20	20	—	—	—	—
20	23	23	—	—	—	—	22	22	—	—	—	—
19	24	24	—	—	—	—	24	24	—	—	—	—
18	30	30	—	—	—	—	30	30	—	—	—	—
17	40	39	—	1	—	—	27	27	—	—	—	—
16	33	33	—	—	—	—	30	30	—	—	—	—
15	11	11	—	—	—	—	11	11	—	—	—	—
14	11	10	—	1	—	—	10	10	—	—	—	—
13	12	12	—	—	—	—	11	11	—	—	—	—
12	11	11	—	—	—	—	5	5	—	—	—	—
11	10	9	—	—	1	—	9	8	—	—	1	—
10	—	—	—	—	—	—	2	1	—	1	—	—
9	1	1	—	—	—	—	—	—	—	—	—	—
8	4	—	—	4	—	—	4	1	—	3	—	—
7	1	—	—	1	—	—	2	—	—	2	—	—
5	1	1	—	—	—	—	1	1	—	—	—	—
3	1	1	—	—	—	—	—	—	—	—	—	—
DOMESTIC												
Total	687	448	—	138	23	78	657	415	—	145	22	75
34	7	7	—	—	—	—	1	1	—	—	—	—
33	1	1	—	—	—	—	—	—	—	—	—	—
32	1	1	—	—	—	—	—	—	—	—	—	—
31	—	—	—	—	—	—	1	1	—	—	—	—
30	1	1	—	—	—	—	—	—	—	—	—	—
29	2	2	—	—	—	—	2	2	—	—	—	—
28	3	3	—	—	—	—	4	4	—	—	—	—
27	3	3	—	—	—	—	3	3	—	—	—	—
26	3	3	—	—	—	—	1	1	—	—	—	—
24	35	35	—	—	—	—	36	36	—	—	—	—
23	3	—	—	—	—	3	5	4	—	—	—	1
21	1	—	—	—	—	1	1	—	—	—	—	1
20	32	30	—	2	—	—	5	3	—	2	—	—
19	2	—	—	—	1	1	1	—	—	—	—	1
18	2	2	—	—	—	—	2	2	—	—	—	—
17	3	—	—	3	—	—	3	—	—	2	—	1
16	29	22	—	2	—	5	31	23	—	3	—	5
15	46	10	—	34	2	—	47	9	—	36	1	1
14	69	34	—	33	1	1	72	34	—	36	2	—
13	88	81	—	5	—	2	83	79	—	3	—	1
12	110	102	—	2	6	—	110	103	—	2	5	—
11	40	32	—	1	6	1	33	26	—	1	5	1

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
UNALASKA BAY AND ISLAND, AK - continued												
	Inbound						Outbound					
DOMESTIC												
10	103	45	—	50	—	8	106	44	—	49	—	13
9	18	10	—	2	—	6	19	10	—	4	—	5
8	24	11	—	4	1	8	31	14	—	7	3	7
7	4	—	—	—	2	2	4	—	—	—	2	2
6	9	2	—	—	2	5	11	5	—	—	2	4
5	12	—	—	—	—	12	16	—	—	—	—	16
4	14	11	—	—	—	3	16	11	—	—	—	5
3	9	—	—	—	—	9	4	—	—	—	—	4
2	13	—	—	—	2	11	9	—	—	—	2	7
										Total trips:		2,027
BETHEL HARBOR, AK (15 feet and less)												
	Inbound						Outbound					
Grand												
Total	338	2	—	150	166	20	344	2	—	151	170	21
										Total trips:		682
CORDOVA HARBOR, AK (17 feet and less)												
	Inbound						Outbound					
Grand												
Total	342	278	—	49	1	14	350	280	—	55	1	14
										Total trips:		692
CRAIG HARBOR, AK (14 feet and less)												
	Inbound						Outbound					
Grand												
Total	119	13	—	55	26	25	114	12	—	52	26	24
										Total trips:		233
DILLINGHAM HARBOR, AK (15 feet and less)												
	Inbound						Outbound					
Grand												
Total	126	2	—	45	54	25	127	2	—	43	57	25
										Total trips:		253
DOUGLAS HARBOR, AK (10 feet and less)												
	Inbound						Outbound					
Grand												
Total	791	787	—	2	—	2	791	787	—	2	—	2
										Total trips:		1,582
DRY PASS, AK No Vessel Trips Reported												
EGEGIK RIVER, AK (13 feet and less)												
	Inbound						Outbound					
Grand												
Total	30	1	—	4	22	3	25	—	—	3	20	2
										Total trips:		55

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ELFIN COVE HARBOR, AK (10 feet and less)												
				Inbound						Outbound		
Grand												
Total	7	—	—	4	—	3	7	—	—	4	—	3
										Total trips:		14
GASTINEAU CHANNEL, AK No Vessel Trips Reported												
HOONAH HARBOR, AK (19 feet and less)												
				Inbound						Outbound		
Grand												
Total	393	287	—	39	53	14	391	285	—	39	53	14
										Total trips:		784
HUMBOLDT HARBOR, AK (18 feet and less)												
				Inbound						Outbound		
Grand												
Total	213	166	—	34	—	13	195	160	—	26	—	9
										Total trips:		408
KAKE HARBOR, AK (25 feet and less)												
				Inbound						Outbound		
Grand												
Total	312	130	—	50	115	17	314	131	—	51	111	21
										Total trips:		626
KING COVE LAGOON, AK (23 feet and less)												
				Inbound						Outbound		
Grand												
Total	197	150	—	37	3	7	204	153	—	41	3	7
										Total trips:		401
KODIAK HARBOR, AK (33 feet and less)												
				Inbound						Outbound		
Grand												
Total	458	278	—	110	21	49	431	277	—	91	21	42
										Total trips:		889
METLAKATLA HARBOR, AK (24 feet and less)												
				Inbound						Outbound		
Grand												
Total	459	270	—	46	126	17	457	272	—	46	124	15
										Total trips:		916
NAKNEK RIVER, AK (20 feet and less)												
				Upbound						Downbound		
Grand												
Total	117	7	—	37	62	11	93	7	—	32	48	6
										Total trips:		210

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
NINILCHIK HARBOR, AK (4 feet and less)												
				Inbound						Outbound		
Grand												
Total	6	6	—	—	—	—	6	6	—	—	—	—
										Total trips:		12
NOME, AK (20 feet and less)												
				Inbound						Outbound		
Grand												
Total	97	18	—	33	38	8	90	18	—	34	30	8
										Total trips:		187
OLD HARBOR, AK (15 feet and less)												
				Inbound						Outbound		
Grand												
Total	15	8	—	3	—	4	16	8	—	3	—	5
										Total trips:		31
PELICAN HARBOR, AK (13 feet and less)												
				Inbound						Outbound		
Grand												
Total	49	13	—	19	13	4	51	13	—	21	13	4
										Total trips:		100
PETERSBURG HARBOR, AK (20 feet and less)												
				Inbound						Outbound		
Grand												
Total	1,104	508	—	255	305	36	1,101	505	—	256	307	33
										Total trips:		2,205
PORT ALEXANDER, AK No Vessel Trips Reported												
SELDOVIA HARBOR, AK (17 feet and less)												
				Inbound						Outbound		
Grand												
Total	93	88	—	3	—	2	92	87	—	3	—	2
										Total trips:		185
SERGIUS AND WHITESTONE NARROWS, AK (16 feet and less)												
				Upbound						Downbound		
Grand												
Total	361	47	—	89	208	17	368	43	—	93	218	14
										Total trips:		729
SITKA HARBOR, AK (25 feet and less)												
				Inbound						Outbound		
Grand												
Total	1,819	1,440	—	136	223	20	1,838	1,456	—	137	223	22
										Total trips:		3,657

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SKAGWAY HARBOR, AK (36 feet and less)												
				Inbound						Outbound		
Grand												
Total	1,254	1,096	—	72	75	11	1,260	1,097	—	73	78	12
										Total trips:		2,514
STIKINE RIVER, AK No Vessel Trips Reported												
WRANGELL HARBOR, AK (18 feet and less)												
				Inbound						Outbound		
Grand												
Total	966	435	—	232	278	21	954	434	—	224	274	22
										Total trips:		1,920
CHATHAM STRAIT, AK (32 feet and less)												
				Upbound						Downbound		
Grand												
Total	1,827	1,121	—	247	383	76	1,766	1,134	—	228	333	71
										Total trips:		3,593
CLARENCE STRAIT, AK (20 feet and less)												
				Upbound						Downbound		
Grand												
Total	2,406	1,459	—	415	460	72	2,418	1,447	—	426	453	92
										Total trips:		4,824
FREDERICK SOUND, AK (32 feet and less)												
				Upbound						Downbound		
Grand												
Total	1,568	739	—	291	457	81	1,533	738	—	283	440	72
										Total trips:		3,101
ICY STRAIT, AK (36 feet and less)												
				Upbound						Downbound		
Grand												
Total	3,002	2,668	—	142	138	54	3,138	2,762	—	158	165	53
										Total trips:		6,140
KIVILINA, AK (30 feet and less)												
				Inbound						Outbound		
Grand												
Total	592	—	—	203	385	4	579	—	—	198	378	3
										Total trips:		1,171
KLAWOCK, AK (17 feet and less)												
				Inbound						Outbound		
Grand												
Total	163	10	—	113	35	5	164	12	—	116	31	5
										Total trips:		327

Trips and Drafts of Vessels, 1998
(draft in feet)

Draft	Self Propelled Vessels				Non-Self Propelled Vessels		Self Propelled Vessels				Non-Self Propelled Vessels	
	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Pass & Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
LYNN CANAL, AK (36 feet and less)												
				Upbound						Downbound		
Grand												
Total	2,698	2,278	—	193	188	39	2,641	2,278	—	162	158	43
										Total trips:		5,339
NIKISHKA, AK (40 feet and less)												
				Inbound						Outbound		
Grand												
Total	271	32	145	50	17	27	297	34	139	65	17	42
										Total trips:		568
PRINCE OF WALES IS. WEST SIDE, AK (33 feet and less)												
				Inbound						Outbound		
Grand												
Total	400	69	—	214	92	25	393	68	—	215	86	24
										Total trips:		793
REVILLAGIGADO CHANNEL, AK (33 feet and less)												
				Upbound						Downbound		
Grand												
Total	2,572	1,757	—	350	393	72	2,561	1,724	—	371	404	62
										Total trips:		5,133
STEPHENS PASSAGE, AK (32 feet and less)												
				Upbound						Downbound		
Grand												
Total	2,392	1,728	—	270	339	55	2,321	1,730	—	230	311	50
										Total trips:		4,713
SUMNER STRAIT, AK (20 feet and less)												
				Upbound						Downbound		
Grand												
Total	1,896	1,060	—	324	430	82	1,935	1,059	—	297	496	83
										Total trips:		3,831
TONGASS NARROWS, AK (23 feet and less)												
				Upbound						Downbound		
Grand												
Total	1,147	359	—	346	380	62	1,081	350	—	321	367	43
										Total trips:		2,228
WHITTIER HARBOR, AK (21 feet and less)												
				Inbound						Outbound		
Grand												
Total	553	387	—	82	84	—	549	388	—	82	79	—
										Total trips:		1,102

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