



U.S. Department of Transportation
Maritime Administration

U.S. Domestic Ocean Trades 2003



**U.S. Domestic Ocean Trades
2003**

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Contents

Preface	v
Notes and Sources	vii
Highlights	1
Domestic Ocean Trades	1
RO-RO/Container Trades	1
Tanker Trades	2
Barge Trades	2
Summary Tables	5
Figures	
(Highlights)	
H-1. U.S. Domestic Ocean Trades by Vessel Type, 1999-2003	1
H-2. U.S. Domestic Ro-Ro/Container Trades, 1999-2003	1
H-3. U.S. Domestic Ocean Tanker Trades, 1999-2003	2
H-4. U.S. Domestic Ocean Barge Trades, 1999-2003	2
Tables	
(Highlights)	
H-1. U.S. Domestic Ocean Trades by Vessel Type, 1999 and 2003 (Metric Tons and Metric Ton-Miles	1
(Summary)	
S-1. U.S. Domestic Ocean Trades by Vessel Type and Commodity Group, 1999 and 2003, (Metric Tons)	5
S-2. U.S. Domestic Ocean Trades by Vessel Type and Commodity Group, 1999 and 2003, (Metric Ton-Miles)	6
S-3. U.S. Domestic Ocean Trades by Vessel Type and Commodity Group, 1999 and 2003, (Average Miles	7
S-4. U.S. Domestic Ocean Trade by Vessel Type, Contiguous and Non-Contiguous, 1999-2003, (Metric Tons)	8
S-5. U.S. Domestic Ocean Trades by Region, 1999-2003, (Metric Tons)	9
S-6. U.S. Domestic Ocean Tanker Trades by Region, 1999-2003, (Metric Tons)	10
S-7. U.S. Domestic Ocean Ro-Ro/Container Trades by Region, 1999-2003, (Metric Tons)	11
S-8. U.S. Domestic Ocean Dry Cargo Trades by Region, 1999-2003, (Metric Tons)	12
S-9. U.S. Domestic Ocean Tank Barge Trades by Region, 1999-2003, (Metric Tons) ...	13
S-10. U.S. Domestic Ocean Bulk Carrier Trades by Region, 1999-2003, (Metric Tons)..	14
S-11. Other U.S. Domestic Ocean Trades by Region, 1999-2003, (Metric Tons)	15

Preface

The following report contains data on U.S. domestic ocean traffic. The traffic is presented in metric tons and metric ton-miles for the following vessel types: tankers, ro-ro and container vessels, dry cargo barges, tank barges, bulk carriers, and other vessels.

The report is divided into two sections, Highlights and Summary Tables. The Highlights section includes selected time series (1999-2003) detailing traffic by vessel type. The Summary Tables section presents traffic by major commodity groups, contiguous and non-contiguous trades, and shipping and receiving coasts. The report is also available at www.marad.dot.gov/marad_statistics.

Comments and recommendations as to content and format of the report can be made at www.data.marad@marad.dot.gov. In addition, to learn more about the Maritime Administration or the maritime industry, visit the agency's website at www.marad.dot.gov.

Notes and Sources

Geography

North Atlantic:

Connecticut
Delaware
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island

South Atlantic:

Florida (Atlantic Ports)
Georgia
North Carolina
Puerto Rico
South Carolina
Virginia
U.S. Virgin Islands

United States Gulf:

Alabama
Florida (Gulf Ports)
Louisiana
Mississippi
Texas

Pacific Northwest:

Alaska
Oregon
Washington

Pacific Southwest:

California
Hawaii
U.S. Pacific Island Territories

Contiguous Trades: Shipments between the lower 48 states (mainland).

Non-Contiguous Trades: Includes Shipments between the Lower 48 States and Alaska, Puerto Rico and Virgin Islands, Hawaii, and U.S. Pacific Territories. Shipments between Hawaii and Alaska are included in Hawaii non-contiguous trades, and shipments between Hawaii and U.S. Pacific Territories are included in Pacific Territories non-contiguous trades.

Vessel Types

The vessel categories used for this report include the following types:

Tankers: Petroleum/Chemical Carrier, Chemical Carrier, Petroleum Tanker, Liquid Gas Carrier.

RO-RO/Container: RO-RO Vessel, Container Ship, Container/Vehicle/Trailer (RO-RO) Carrier.

Dry Cargo Barge: Open Dry Cargo Barge, Covered Dry Cargo Barge, RO-RO Barge, Open Hopper Barge, Covered Hopper Barge, Carfloat (Railroad Car Barge), Container Barge, Lash/Seebee Barge, Flat/Deck Barge, Convertible Barge.

Tank Barge: Tank Barge.

Bulk Carrier: Bulk Carrier.

Other Cargo: General Cargo Freighter, Crewboat/Supply/Utility Vessel, Combination Passenger & Cargo, Break Bulk/RO-RO Carrier, Ferry, Tugboat/Towboat.

Domestic Ocean Trades

Domestic ocean traffic is defined as 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); and traffic between Great Lakes ports and seacoast ports, when having carriage over the ocean.

Sources

The domestic trade data in this report is from U.S. Army Corps of Engineers Waterborne Commerce detail files (see below). The other sources provided information on related trends, e.g., U.S. oil imports.

Energy Information Agency, Quarterly Coal Report, 3rd Quarter 2004, Wash., DC: U.S. Department of Energy, www.eia.doe.gov, March 2004. This source contains data on U.S. coal production and exports.

Notes and Sources

Energy Information Agency, Petroleum Supply Annual, 2003, Wash., DC: U.S. Department of Energy, www.eia.doe.gov, June 2004. This source contains data on U.S. petroleum production, imports and exports.

Energy Information Agency, Annual Energy Review, 2003, Wash., DC: U.S. Department of Energy, www.eia.doe.gov, June 2004. This source contains data on U.S. petroleum production by region and type.

Lloyd's Maritime Intelligence Unit, Vessel Movements Data Files, 1998 - 2003, London: Lloyd's Maritime Intelligence Unit, www.seasearcher.com, 1998-2002. This source contains data for vessel port calls, ports and active fleets.

U.S. Army Corps of Engineers, Waterborne Commerce of the United States, 1998-2003, detail files, New Orleans: Waterborne Commerce Statistics Center, www.iwr.usace.army.mil/ndc, 1999-2003. This source contains detailed data for U.S. foreign and domestic water-borne trade by commodity group and vessel type.

U.S. Army Corps of Engineers, Waterborne Commerce of the United States, 1998-2002, Part 5, National Summaries, New Orleans: Waterborne Commerce Statistics Center, www.iwr.usace.army.mil/ndc, 1999-2003. This source contains summaries of data for U.S. foreign and domestic water borne trade by commodity group and type of traffic.

U.S. Geological Survey, Mineral Commodities Summary, Phosphate Rock, 2004, Reston, VA: U.S. Geological Survey, U.S. Department of Interior, www.usgs.gov, 2005. This source contains data on U.S. phosphate rock production, imports, and exports.

U.S. Maritime Administration, Industry Survey Series: Coastal Tank Barge, 2002, Wash., DC: U.S. Maritime Administration, www.marad.dot.gov/marad_statistics, 2002. This source contains a summary of views of major coastwise tank barge operators regarding coastal tank barge markets.

Photo Credits

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Highlights

Domestic Ocean Trades

In 2003, U.S. domestic ocean trades amounted to 202 million metric tons (Figure H-1 and Table S-1). Of this, 49 percent was moved by tankers, 29 percent was moved by tank barges, 18 percent was by moved dry cargo barges and 3 percent was moved by ro-ro's and containerships.

Overall, the trades have fallen by 6 million metric tons over the last four years. The 2003 recovery was due largely to the rebuilding of U.S. petroleum stocks which were drawn down (as oil prices increased) the year before. Tanker trades fell by 7 percent in 2002 and increased by 7 percent the following year.

In terms of metric ton-miles, the trades fell by 5 percent over the last four years, a 3 percent decline in metric tons and a 2 percent decline in average shipment miles (Tables H-1, S-2 and S-2). The decline in shipment miles was due largely to a decline in long-haul tanker trades.

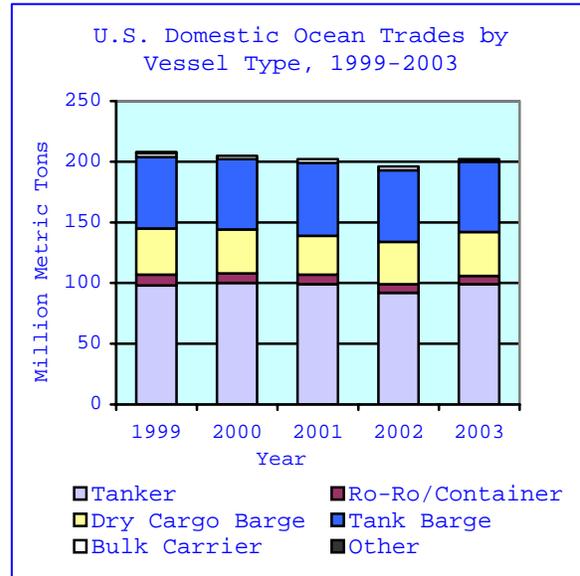


Figure H-1

Ro-Ro/Container Trades

The domestic ro-ro/container trades consist of four non-contiguous trades; Mainland (lower 48 states)/Alaska, Mainland/Hawaii, Mainland/Puerto Rico, and U.S. Pacific Territories; and contiguous trades which are an adjunct to non-contiguous services. In 2003, the non-contiguous trades amounted to 7 million metric tons. Of this, 47 percent was in the Hawaii trades, 28 percent was in the Puerto Rico trades and 23 percent was in the Alaska trades (Figure H-2 and Table S-3).

	1999		2003	
	MT	MTM	MT	MTM
Tanker	98	179	99	169
Ro-Ro/Container	9	19	7	18
Dry Cargo Barge	38	25	36	23
Tank Barge	59	38	58	39
Bulk Carrier	1	2	2	2
Other	-	2	-	2
Total	208	265	202	252

Table H-1

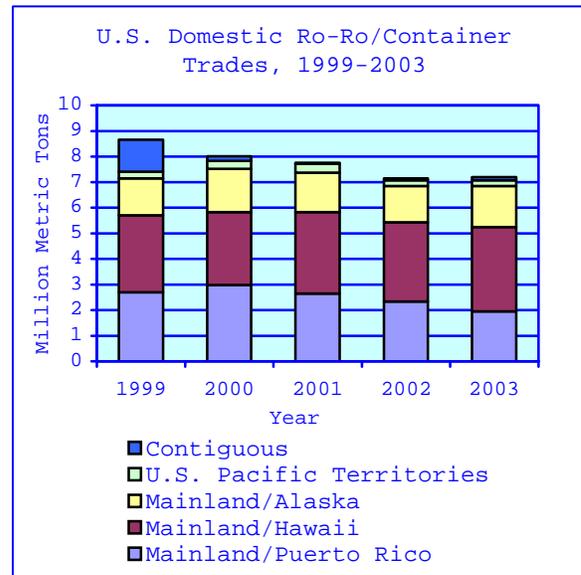


Figure H-2

Highlights

Over the last four years, ro-ro/container traffic has fallen by 17 percent (1.5 million metric tons). The decline was largely in the contiguous and mainland/Puerto Rico segments (down 91 and 27 percent respectively).

Tanker Trades

In 2003, domestic tanker trades amounted to 99 million metric tons. Of this, 49 percent was petroleum products, 46 percent was crude oil, and 5 percent was chemicals (Figure H-3).

In 2003, domestic tanker trades (metric tons) recovered to slightly above the 1999 level. However, over the last four years ton-miles, and average shipment miles fell by 6 percent reflecting declines in long-haul tanker trades: Alaska/Pacific Southwest, U.S Gulf/South Atlantic (Tables S-1, S-2, S-3 and S-6).

While domestic tanker movements of petroleum have not increased significantly over the last four years, oceanborne petroleum imports, a substitute for domestic shipments, increased by 17 percent (Figure H-4). In 2003, imports were 6.5 times domestic shipments, up from 5.6 times in 1999.

Barge Trades

While tank barge shipments (metric tons) were down by 3 percent from 1999 to 2003, average shipment miles increased by 5 percent over the same period (Figure H-5 and Table S-1). Tank barges compete with domestic tankers in medium-haul trades, but complement tankers (foreign and domestic) and pipelines in short-haul trades. Seventy percent of the major coastwise tank barge operators expect the tank barge share of coastal tank vessel (tanker and tank barge) shipments to increase over the next three years (U.S. Maritime Administration, Industry Survey Series: Coastal Tank Barge, 2002, p. 7.). Coastwise tank barge operators took delivery of 22 new/reconstructed barges in 2003 and 2004, and another 20 barges are scheduled for delivery in 2005 and 2006.

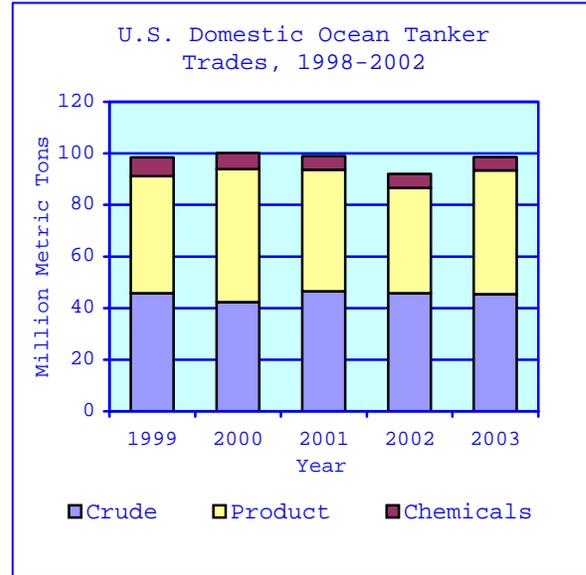


Figure H-3

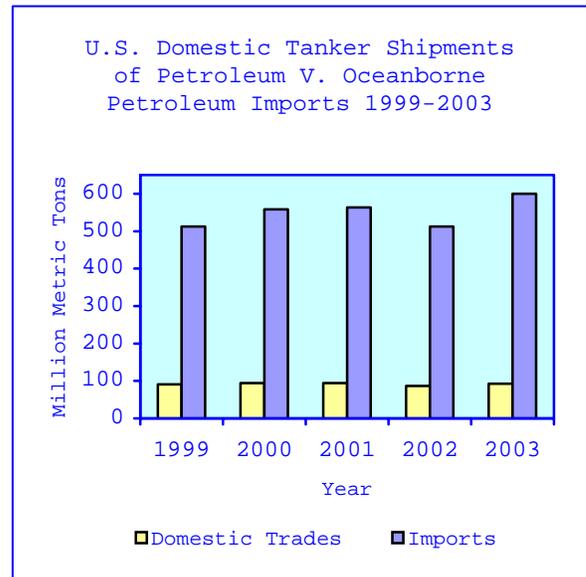


Figure H-4

Highlights

Dry cargo barge traffic fell by 4 percent (1.6 million metric tons) over the last four years due largely to declines in domestic production of coal and phosphate rock (Energy Information Agency, Quarterly Coal Report and U.S. Geological Survey, Mineral Commodities Summary, Phosphate Rock) (Figure H-5 and Table S-1). Average shipment miles for dry cargo barges declined by 4 percent over the same period (Table S-3).

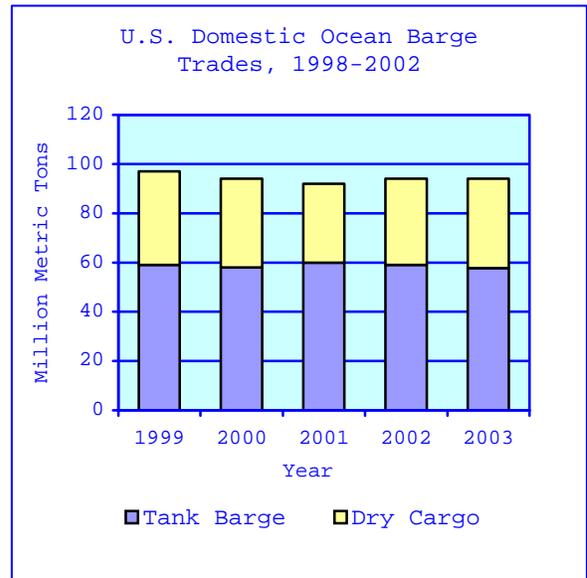


Figure H-5

Summary Tables

U.S. Domestic Ocean Trades By Vessel Type and Commodity Group, 1999 and 2003							
(Thousand Metric Tons)							
Year/Commodity Group	Tanker	Ro-Ro Container	Dry Cargo Barge	Tank Barge	Bulk Carrier	Other	Total
1999							
Coal	0	0	9,484	0	2,342	0	11,827
Petroleum	91,085	48	558	55,217	0	4	146,912
Crude	45,818	0	0	884	0	0	46,702
Chemicals	7,290	593	1,389	3,703	8	1	12,984
Crude Materials	0	259	14,532	171	1	303	15,266
Phosphate Rock	0	0	4,932	0	0	0	4,932
Farm products	31	2,847	2,827	189	308	275	6,476
Prim. Mfgs.	0	688	6,144	2	0	17	6,852
Manufactures	0	4,174	2,965	11	0	66	7,215
Other	0	42	0	0	0	0	42
Total	98,405	8,650	37,900	59,293	2,659	666	207,575
2003							
Coal	0	0	8,579	28	1,016	0	9,622
Petroleum	93,340	35	870	51,791	350	2	146,388
Crude	45,417	0	0	807	0	0	46,224
Chemicals	5,182	142	1,196	5,009	277	0	11,806
Crude Materials	0	184	12,173	217	0	7	12,581
Phosphate Rock	0	0	2,842	0	0	0	2,842
Farm products	0	1,625	2,906	682	31	292	5,536
Prim. Mfgs.	0	391	7,599	2	0	15	8,007
Manufactures	0	4,777	3,006	2	0	83	7,868
Other	0	31	2	0	0	23	56
Total	98,522	7,185	36,331	57,730	1,674	422	201,864

Table S-1

Summary Tables

U.S. Domestic Ocean Trades By Vessel Type and Commodity Group, 1999 and 2003							
(Million Metric Ton-Miles)							
Year/Commodity Group	Tanker	Ro-Ro Container	Dry Cargo Barge	Tank Barge	Bulk Carrier	Other	Total
1999							
Coal	0	0	6,510	0	1,179	0	7,689
Petroleum	160,849	108	642	31,684	0	2	193,284
Crude	86,390	0	0	304	0	0	86,694
Chemicals	18,402	1,145	1,438	5,735	27	1	26,748
Crude Materials	0	724	8,234	137	3	157	9,255
Phosphate Rock	0	0	4,460	0	0	0	4,460
Farm products	8	6,334	3,158	254	994	1,309	12,057
Prim. Mfgs.	0	1,567	2,590	12	0	35	4,196
Manufactures	0	9,319	2,569	0	1	349	12,250
Other	0	86	0	0	0	0	86
Total	179,258	19,283	25,142	37,825	2,204	1,853	265,565
2003							
Coal	0	0	5,847	28	661	0	6,536
Petroleum	156,191	99	1,224	30,586	665	0	188,765
Crude	81,174	0	0	374	0	0	81,548
Chemicals	12,725	406	1,175	7,209	321	0	21,836
Crude Materials	0	566	5,997	163	0	16	6,742
Phosphate Rock	0	0	2,484	0	0	0	2,484
Farm products	0	4,510	3,437	525	99	1,493	10,065
Prim. Mfgs.	0	1,096	3,126	6	0	31	4,259
Manufactures	0	11,114	2,157	2	0	226	13,498
Other	0	79	3	0	0	141	224
Total	168,915	17,870	22,967	38,519	1,747	1,907	251,924

Table S-2

Summary Tables

U.S. Domestic Ocean Trades By Vessel Type and Commodity Group, 1999 and 2003							
(Average Miles)							
Year/Commodity Group	Tanker	Ro-Ro Container	Dry Cargo Barge	Tank Barge	Bulk Carrier	Other	All Vessel Types
1999							
Coal	0	3,272	686	0	503	0	650
Petroleum	1,766	2,253	1,149	574	0	522	1,316
Crude	1,886	2,109	2,123	344	0	0	1,856
Chemicals	2,524	1,931	1,035	1,549	3,220	848	2,060
Crude Materials	0	2,799	567	798	3,219	517	606
Phosphate Rock	0	1,505	904	0	0	0	904
Farm products	253	2,225	1,117	1,343	3,232	4,765	1,862
Prim. Mfgs.	0	2,279	422	1,836	0	1,982	612
Manufactures	0	2,232	867	1,104	3,883	5,320	1,698
Other	0	3,600	606	0	0	0	2,048
All Commodities	1,822	2,229	663	638	829	2,782	1,279
2003							
Coal	0	0	682	1,000	651	0	679
Petroleum	1,673	2,829	1,407	591	1,900	0	1,289
Crude	1,787	0	1,534	463	0	0	1,764
Chemicals	2,455	2,859	982	1,439	1,159	6,255	1,850
Crude Materials	0	3,076	493	751	0	2,286	536
Phosphate Rock	0	0	874	0	0	0	874
Farm products	0	2,775	1,183	770	3,194	5,113	1,818
Prim. Mfgs.	0	2,803	411	3,000	0	2,067	532
Manufactures	0	2,327	718	1,000	0	2,723	1,716
Other	0	2,548	1,500	0	0	6,130	4,000
All Commodities	1,714	2,487	632	667	1,044	4,519	1,248

Table S-3

Summary Tables

U.S. Domestic Ocean Trades, Contiguous/Non-Contiguous by Vessel Type, 1999-2003					
(Thousand Metric Tons)					
Vessel Type/Trade	1999	2000	2001	2002	2003
Tanker	98,405	100,269	98,962	92,021	98,522
Contiguous	37,057	40,960	38,180	33,633	35,636
Non-Contiguous	61,348	59,309	60,782	58,387	62,886
Alaska	43,393	40,576	44,020	43,583	43,154
Hawaii	2,142	2,189	2,489	2,296	1,773
Puerto Rico and Virgin Islands	15,657	16,497	14,273	12,458	17,959
U.S. Pacific Territories	156	47	0	50	0
Ro-Ro/Container	8,650	8,004	7,744	7,132	7,186
Contiguous	1,262	177	36	69	115
Non-Contiguous	7,388	7,828	7,708	7,062	7,071
Alaska	1,435	1,693	1,545	1,406	1,599
Hawaii	3,012	2,850	3,186	3,097	3,293
Puerto Rico and Virgin Islands	2,686	2,980	2,642	2,331	1,953
U.S. Pacific Territories	255	305	335	228	225
Dry Cargo Barge	37,900	36,344	32,476	35,327	36,330
Contiguous	34,578	33,726	30,340	33,079	33,315
Non-Contiguous	3,322	2,617	2,137	2,248	3,016
Alaska	624	509	332	367	334
Hawaii	150	216	185	118	261
Puerto Rico and Virgin Islands	2,526	1,871	1,596	1,738	2,377
U.S. Pacific Territories	22	21	24	25	44
Tank Barge	59,293	58,103	60,088	58,508	57,730
Contiguous	58,729	57,676	59,772	58,244	57,282
Non-Contiguous	564	428	316	264	448
Alaska	288	198	116	84	82
Hawaii	34	10	0	0	17
Puerto Rico and Virgin Islands	242	216	200	180	349
U.S. Pacific Territories	0	4	0	0	0
Dry Bulk Carrier	2,659	2,780	3,434	2,924	1,674
Contiguous	2,342	2,469	3,261	2,924	1,643
Non-Contiguous	317	311	173	0	31
Alaska	0	0	0	0	0
Hawaii	317	311	173	0	31
Puerto Rico and Virgin Islands	0	0	0	0	0
U.S. Pacific Territories	0	0	0	0	0
Other	666	381	152	404	422
Contiguous	292	57	77	73	53
Non-contiguous	374	324	76	331	368
Alaska	119	98	76	66	71
Hawaii	0	1	0	0	1
Puerto Rico and Virgin Islands	0	1	0	2	0
U.S. Pacific Territories	255	224	0	263	296
Total	207,575	205,881	202,857	196,317	201,864
Contiguous	134,261	135,066	131,666	128,024	128,046
Non-contiguous	73,314	70,814	71,191	68,292	73,819
Alaska	45,860	43,074	46,088	45,505	45,240
Hawaii	5,654	5,576	6,033	5,511	5,375
Puerto Rico and Virgin Islands	21,111	21,564	18,711	16,709	22,638
U.S. Pacific Territories	689	600	359	567	566

Table S-4

Summary Tables

U.S. Domestic Ocean Trades, 1999-2003						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	36,766	2,375	912	0	77	40,131
South Atlantic	14,321	8,699	1,487	63	567	25,137
U.S. Gulf	4,395	21,427	40,325	172	2,255	68,574
Pacific Northwest	25	19	175	27,144	28,295	55,658
Pacific Southwest	2	6	226	2,691	15,150	18,075
Total	55,508	32,526	43,125	30,070	46,345	207,575
2000						
North Atlantic	34,882	1,687	1,345	0	0	37,914
South Atlantic	15,222	8,936	1,232	24	488	25,901
U.S. Gulf	5,903	21,723	39,718	127	1,444	68,915
Pacific Northwest	0	24	173	29,475	25,958	55,629
Pacific Southwest	4	35	313	2,532	14,637	17,521
Total	56,010	32,405	42,781	32,157	42,527	205,881
2001						
North Atlantic	34,793	1,899	950	0	0	37,642
South Atlantic	14,638	7,798	1,412	34	424	24,307
U.S. Gulf	5,063	20,000	37,574	70	1,322	64,029
Pacific Northwest	1	14	129	30,848	27,582	58,573
Pacific Southwest	0	23	246	2,571	15,465	18,306
Total	54,495	29,735	40,311	33,523	44,793	202,857
2002						
North Atlantic	33,844	1,879	1,258	0	0	36,981
South Atlantic	11,671	7,699	1,591	0	150	21,111
U.S. Gulf	4,628	19,118	38,872	36	1,139	63,793
Pacific Northwest	0	84	161	29,124	26,516	55,885
Pacific Southwest	6	0	146	2,482	15,913	18,547
Total	50,149	28,781	42,027	31,642	43,718	196,317
2003						
North Atlantic	33,108	1,679	969	0	0	35,756
South Atlantic	13,069	8,897	2,930	0	169	25,065
U.S. Gulf	4,606	20,474	37,686	55	1,076	63,897
Pacific Northwest	0	57	122	28,285	27,128	55,592
Pacific Southwest	0	61	426	2,260	18,808	21,555
Total	50,783	31,168	42,133	30,600	47,181	201,864

Table S-5

Summary Tables

U.S. Domestic Ocean Tanker Trades, 1999-2003						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	1,002	79	632	0	74	1,788
South Atlantic	8,985	4,921	945	63	567	15,481
U.S. Gulf	3,737	12,701	9,933	153	2,147	28,671
Pacific Northwest	25	19	175	21,998	26,209	48,427
Alaska	0	0	0	20,266	24,910	45,177
Pacific Southwest	2	5	226	1,704	2,101	4,039
Total	13,750	17,726	11,911	23,918	31,099	98,405
2000						
North Atlantic	1,002	122	865	0	0	1,988
South Atlantic	9,712	5,188	941	24	487	16,353
U.S. Gulf	4,853	13,617	9,937	127	1,444	29,978
Pacific Northwest	0	24	171	24,239	24,094	48,528
Alaska	0	0	0	20,490	21,878	42,367
Pacific Southwest	0	35	313	1,738	1,336	3,422
Total	15,568	18,986	12,227	26,128	27,361	100,269
2001						
North Atlantic	783	250	715	0	0	1,748
South Atlantic	8,863	4,268	1,047	34	424	14,636
U.S. Gulf	4,449	11,210	10,474	70	1,302	27,506
Pacific Northwest	0	14	129	25,206	25,475	50,825
Alaska	0	0	37	23,609	22,841	46,486
Pacific Southwest	0	23	246	1,881	2,098	4,248
Total	14,095	15,765	12,611	27,191	29,300	98,962
2002						
North Atlantic	911	162	981	0	0	2,054
South Atlantic	6,530	4,095	1,347	0	150	12,122
U.S. Gulf	3,806	11,048	9,181	36	1,124	25,195
Pacific Northwest	0	84	128	24,287	24,569	49,068
Alaska	0	0	0	23,741	22,507	46,249
Pacific Southwest	0	0	130	1,756	1,696	3,582
Total	11,248	15,389	11,766	26,079	27,539	92,021
2003						
North Atlantic	971	116	746	0	0	1,833
South Atlantic	9,780	5,449	2,346	0	169	17,744
U.S. Gulf	3,430	11,434	10,584	55	1,076	26,579
Pacific Northwest	0	57	122	23,490	24,586	48,255
Alaska	0	0	0	23,440	22,070	45,510
Pacific Southwest	0	61	310	1,522	2,219	4,112
Total	14,181	17,117	14,108	25,066	28,050	98,522

Table S-6

Summary Tables

U.S. Domestic Ocean Ro-Ro/Container Trades, 1999-2003						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	245	850	28	0	3	1,126
South Atlantic	245	1,586	212	0	0	2,043
U.S. Gulf	0	363	0	0	0	364
Pacific Northwest	0	0	0	1,487	685	2,172
Pacific Southwest	0	0	0	242	2,703	2,946
Total	491	2,799	240	1,729	3,391	8,650
2000						
North Atlantic	0	582	0	0	0	582
South Atlantic	203	1,735	89	0	0	2,027
U.S. Gulf	0	371	0	0	0	371
Pacific Northwest	0	0	0	1,693	588	2,281
Pacific Southwest	0	0	0	166	2,577	2,743
Total	203	2,688	89	1,859	3,165	8,004
2001						
North Atlantic	0	506	0	0	0	506
South Atlantic	152	1,695	66	0	0	1,913
U.S. Gulf	0	223	0	0	0	223
Pacific Northwest	0	0	0	1,559	610	2,169
Pacific Southwest	0	0	0	89	2,843	2,932
Total	152	2,424	66	1,648	3,454	7,744
2002						
North Atlantic	0	297	0	0	0	297
South Atlantic	86	1,686	37	0	0	1,809
U.S. Gulf	0	226	0	0	0	226
Pacific Northwest	0	0	0	1,438	586	2,024
Pacific Southwest	0	0	0	90	2,687	2,777
Total	86	2,208	37	1,528	3,273	7,132
2003						
North Atlantic	0	196	0	0	0	196
South Atlantic	53	1,439	40	0	0	1,532
U.S. Gulf	0	226	0	0	0	226
Pacific Northwest	0	0	0	1,632	606	2,238
Pacific Southwest	0	0	0	106	2,889	2,995
Total	53	1,861	40	1,738	3,495	7,187

Table S-7

Summary Tables

U.S. Domestic Ocean Dry Cargo Barge Trades, 1999-2003						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	6,304	883	151	0	0	7,339
South Atlantic	1,630	1,608	166	0	0	3,404
U.S. Gulf	8	1,047	16,804	0	1	17,860
Pacific Northwest	0	0	0	1,822	622	2,444
Pacific Southwest	0	0	0	155	6,698	6,854
Total	7,942	3,538	17,121	1,977	7,321	37,900
2000						
North Atlantic	6,308	678	89	0	0	7,075
South Atlantic	2,240	1,386	81	0	0	3,707
U.S. Gulf	95	802	15,252	0	1	16,150
Pacific Northwest	0	0	1	1,741	663	2,405
Pacific Southwest	0	0	0	50	6,956	7,006
Total	8,643	2,866	15,424	1,791	7,620	36,344
2001						
North Atlantic	6,958	561	0	0	0	7,519
South Atlantic	2,332	1,308	69	0	0	3,709
U.S. Gulf	116	883	11,312	0	0	12,312
Pacific Northwest	0	0	0	1,506	664	2,170
Pacific Southwest	0	0	0	50	6,718	6,768
Total	9,406	2,752	11,381	1,555	7,382	32,476
2002						
North Atlantic	6,684	809	0	0	0	7,492
South Atlantic	2,245	1,267	15	0	0	3,527
U.S. Gulf	28	637	13,911	0	0	14,576
Pacific Northwest	0	0	0	1,167	680	1,848
Pacific Southwest	0	0	2	78	7,805	7,884
Total	8,956	2,713	13,928	1,245	8,485	35,327
2003						
North Atlantic	6,008	880	31	0	0	6,919
South Atlantic	1,748	1,415	128	0	0	3,291
U.S. Gulf	7	995	13,768	0	0	14,770
Pacific Northwest	0	0	0	1,171	877	2,048
Pacific Southwest	0	0	60	81	9,161	9,302
Total	7,763	3,290	13,987	1,252	10,038	36,330

Table S-8

Summary Tables

U.S. Domestic Ocean Tank Barge Trades, 1999-2002						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	29,210	564	100	0	0	29,874
South Atlantic	1,119	583	164	0	0	1,866
U.S. Gulf	649	7,316	13,577	19	107	21,668
Pacific Northwest	0	0	0	1,452	779	2,231
Pacific Southwest	0	0	0	575	3,079	3,654
Total	30,978	8,463	13,841	2,047	3,965	59,293
2000						
North Atlantic	27,562	305	391	0	0	28,258
South Atlantic	701	626	121	0	0	1,449
U.S. Gulf	955	6,933	14,417	0	0	22,304
Pacific Northwest	0	0	0	1,695	613	2,308
Pacific Southwest	0	0	0	577	3,208	3,784
Total	29,217	7,864	14,930	2,272	3,820	58,103
2001						
North Atlantic	27,038	582	235	0	0	27,855
South Atlantic	900	527	230	0	0	1,657
U.S. Gulf	496	7,476	15,117	0	19	23,108
Pacific Northwest	0	0	0	2,490	812	3,303
Pacific Southwest	0	0	0	552	3,612	4,164
Total	28,434	8,585	15,582	3,043	4,444	60,088
2002						
North Atlantic	26,239	612	277	0	0	27,128
South Atlantic	915	652	159	0	0	1,726
U.S. Gulf	794	7,016	14,983	0	15	22,809
Pacific Northwest	0	0	0	2,163	680	2,843
Pacific Southwest	0	0	0	558	3,444	4,002
Total	27,948	8,280	15,420	2,721	4,139	58,508
2003						
North Atlantic	26,114	488	192	0	0	26,794
South Atlantic	786	594	324	0	0	1,704
U.S. Gulf	1,132	7,503	12,870	0	0	21,505
Pacific Northwest	0	0	0	1,917	1,057	2,974
Pacific Southwest	0	0	0	545	4,208	4,753
Total	28,032	8,585	13,386	2,462	5,265	57,730

Table S-9

Summary Tables

U.S. Domestic Ocean Bulk Carrier Trades, 1999-2003							
(Thousand Metric Tons)							
Year/ Shipping Coast	Receiving Coast					Total	
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest		
1999							
North Atlantic	0	0	0	0	0	0	
South Atlantic	2,342	0	0	0	0	2,342	
U.S. Gulf	0	0	0	0	0	0	
Pacific Northwest	0	0	0	0	0	0	
Pacific Southwest	0	0	0	0	317	317	
Total	2,342	0	0	0	317	2,659	
2000							
North Atlantic	0	0	0	0	0	0	
South Atlantic	2,366	0	0	0	0	2,366	
U.S. Gulf	0	0	103	0	0	103	
Pacific Northwest	0	0	0	0	0	0	
Pacific Southwest	0	0	0	0	311	311	
Total	2,366	0	103	0	311	2,780	
2001							
North Atlantic	0	0	0	0	0	0	
South Atlantic	2,391	0	0	0	0	2,391	
U.S. Gulf	0	209	661	0	0	870	
Pacific Northwest	0	0	0	0	20	20	
Pacific Southwest	0	0	0	0	153	153	
Total	2,391	209	661	0	173	3,434	
2002							
North Atlantic	0	0	0	0	0	0	
South Atlantic	1,894	0	32	0	0	1,926	
U.S. Gulf	0	188	777	0	0	965	
Pacific Northwest	0	0	33	0	0	33	
Pacific Southwest	0	0	0	0	0	0	
Total	1,894	188	842	0	0	2,924	
2003							
North Atlantic	0	0	0	0	0	0	
South Atlantic	703	0	92	0	0	795	
U.S. Gulf	36	316	462	0	0	814	
Pacific Northwest	0	0	0	0	0	0	
Pacific Southwest	0	0	34	0	31	65	
Total	739	316	588	0	31	1,674	

Table S-10

Summary Tables

Other U.S. Domestic Ocean Trades, 1999-2002						
(Thousand Metric Tons)						
Year/ Shipping Coast	Receiving Coast					Total
	North Atlantic	South Atlantic	U.S. Gulf	Pacific Northwest	Pacific Southwest	
1999						
North Atlantic	5	0	0	0	0	5
South Atlantic	0	0	0	0	0	0
U.S. Gulf	0	0	11	0	0	11
Pacific Northwest	0	0	0	385	0	385
Pacific Southwest	0	0	0	14	251	265
Total	5	0	11	399	251	666
2000						
North Atlantic	10	0	0	0	0	10
South Atlantic	0	0	0	0	0	0
U.S. Gulf	0	1	8	0	0	9
Pacific Northwest	0	0	0	107	0	107
Pacific Southwest	4	0	0	1	250	255
Total	14	1	8	108	250	381
2001						
North Atlantic	14	0	0	0	0	14
South Atlantic	0	0	0	0	0	0
U.S. Gulf	0	0	11	0	0	11
Pacific Northwest	1	0	0	86	0	87
Pacific Southwest	0	0	0	0	41	41
Total	15	0	11	86	41	153
2002						
North Atlantic	10	0	0	0	0	10
South Atlantic	0	0	0	0	0	0
U.S. Gulf	0	2	20	0	0	22
Pacific Northwest	0	0	0	69	1	70
Pacific Southwest	6	0	14	1	281	302
Total	16	2	34	70	282	404
2003						
North Atlantic	16	0	0	0	0	16
South Atlantic	0	0	0	0	0	0
U.S. Gulf	0	0	2	0	0	2
Pacific Northwest	0	0	0	74	2	76
Pacific Southwest	0	0	22	7	299	328
Total	16	0	24	81	301	422

Table S-11