

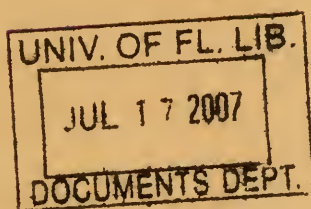
THE PANAMA CANAL RECORD

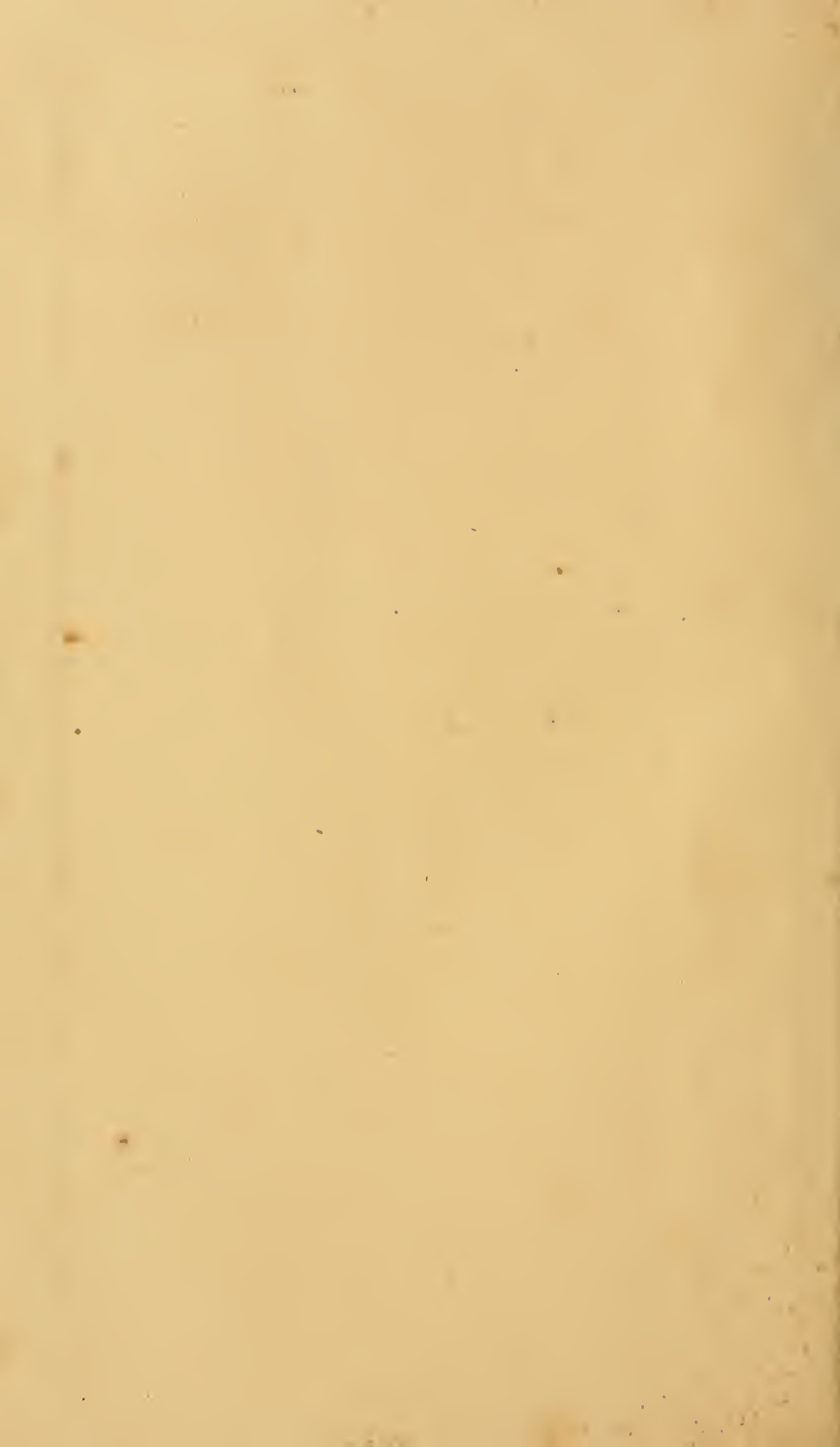
VOLUME 23

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THE PANAMA CANAL RECORD

PUBLISHED WEEKLY UNDER
THE AUTHORITY AND SUPER-
VISION OF THE PANAMA CANAL

AUGUST 7, 1929, TO JULY 30, 1930

VOLUME XXIII
WITH INDEX

THE PANAMA CANAL
BALBOA HEIGHTS, CANAL ZONE
1930

THE PANAMA CANAL PRESS
MOUNT HOPE, CANAL ZONE
1930

For additional copies of this publication address The Panama Canal, Washington, D. C., or Balboa Heights, Canal Zone. Price of bound volumes, \$1.00; for foreign postal delivery, \$1.50. Price of current subscription, \$0.50 a year, foreign \$1.00.

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OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., August 7, 1929. No. 1.

Traffic Through the Panama Canal in July, 1929.

During the month of July, 1929, 527 commercial vessels and four small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,259,582.37, and on the launches, \$12.00, or a total tolls collection of \$2,259,594.37.

The daily average number of commercial transits for the month was 17, and the average tolls collection \$72,889.75, as compared with an average of 16.76 transits and \$70,926.87 in tolls for the previous month, and an average of 16.41 transits and \$68,034.94 in tolls for July, 1928. The average amount of tolls paid by each of the commercial transits was \$4,287.63, as compared with \$4,230.23 for the month of June, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 7 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 7 months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	603	\$2,502,815.12	19.45	\$80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
June	503	2,127,805.97	16.76	70,926.87
July	527	2,259,582.37	17.00	72,889.75
Totals, first 7 months of calendar year 1929	3,755	16,023,664.05	17.71	75,583.32
Totals, first 7 months of calendar year 1928	3,658	15,121,750.37	17.17	70,994.13
Totals, first 7 months of calendar year 1927	3,287	14,514,706.34	15.50	68,465.60

As compared with the first seven months of the calendar year 1928, the corresponding period this year has had 97 more transits and \$901,913.68 in tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 5, 1929.

No. 574.

U. S. S. *Cleveland* in position, latitude 12° 02' 30" N., longitude 87° 01' 30" W., and sailing therefrom on corrected course 152° true for 25 nautical miles, took intervening soundings at frequent intervals obtaining many readings around 8 to 14 fathoms, with a least depth of 4.5 fathoms. Rocky bottom about midway of course. Chart shows depth of 30 to 45 fathoms along this track.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 3, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sir Osborn Holmden ^{1, 2}	27	16.15	28	6.30	28	14.35	28	18.00	Norwegian.	Anglo-Saxon Pet. Co.	471.8	64.0	19.0	Rotterdam, Holland	San Francisco, Cal.	Ballast.		9,562	6,604
Wanda ³	26	14.50	28	6.15	28	14.34	28	16.05	Honduran.	Stand. Fruit & S. S. Co.	188.0	31.0	10.0	Pro. Cabezas, Nic.	Balboa, C. Z.	Ballast.			
Sunco ⁴	27	17.10	28	6.15	28	14.54	28	16.35	American.	Transmarine Lines.	324.0	66.0	17.0	Newark, N. J.	Los Angeles, Calif.	General.	1,000	3,984	2,628
Sunco ⁵	28	3.05	28	7.05	28	15.28	28	16.35	American.	Sun Oil Co.	480.6	66.0	22.0	Chester, Pa.	Los Angeles, Calif.	Ballast.	9,619	6,456	
Atlantic.	28	5.35	28	7.30	28	16.06	28	20.26	American.	Argonaut S. S. Co.	410.5	54.3	24.0	Boston, Mass.	Portland, Oreg.	General, steel.	7,510	6,567	4,917
Hawaiian.	28	1.45	28	8.10	28	16.26	28	18.15	American.	Amer.-Hawaiian Line.	404.0	53.9	19.6	Boston, Mass.	Portland, Oreg.	General.	4,000	6,766	4,767
Relief ⁶	28	7.05	28	9.00	28	16.45	28	23.20	American.	Mer't, Chapman & Scott	184.6	30.2	16.0	New York, N. Y.	Callao, Peru.	(7)	911	327	
Peru ⁷	28	7.05	28	9.00	28	16.45	28	23.20	American.	Gabagan Const. Co.	166.0	40.0	8.6	New York, N. Y.	Callao, Peru.	Ballast.		1,049	1,049
West Iris.	28	4.10	28	12.25	28	19.40	28	21.45	American.	McGormick S. S. Co.	410.5	54.2	20.5	Buenos Aires, Arg.	San Francisco, Cal.	(8)	3,356	6,754	4,967
Manizales.	27	15.10	28	12.45	28	20.00	28	21.45	German.	North German Lloyd	216.5	32.9	12.10	Cristobal, C. Z.	Valparaiso, Chile.	General.	191	1,132	741
Frankenwald.	27	15.10	28	12.45	28	20.00	28	21.45	German.	Hamburg-American Line	399.0	54.0	26.7	Hamburg, Germany	Valparaiso, Chile.	General.		6,575	4,490
Fella ⁹	28	8.10	28	15.05	28	22.33	28	23.45	Italian.	Navy, Libia-Triestina	430.0	55.3	16.0	Trieste, Italy	Vancouver, B. C.	General.	1,930	7,764	6,635
Astral ¹⁰	28	14.45	28	13.30	28	22.52	29	00.10	American.	Standard Transp. Co.	439.5	58.0	21.0	Portland, Oreg.	Los Angeles, Calif.	Ballast.		8,913	6,210
Voyoda Putnik	28	15.05	29	6.10	29	13.30	29	14.50	Yugoslav.	Baburizza & Co.	400.0	52.0	28.0	Blyth, England.	Antofagasta, Chile.	Coal.	7,375	6,031	4,178
Paul Shoup ¹¹	28	16.35	29	6.20	29	14.22	29	16.40	American.	Tide-water Oil Co.	424.4	58.2	20.0	Bayonne, N. J.	Antofagasta, Chile.	Ballast.		7,333	5,182
Chilore.	28	17.50	29	7.15	29	15.19	29	16.40	American.	Ore S. S. Corp.	549.6	72.2	24.8	New York, N. Y.	Cruz Grande, Chile	Ballast.	14,538	9,348	
Harvester.	28	17.55	29	7.30	29	16.10	29	17.20	American.	The Texas S. S. Co.	416.8	56.1	21.6	New York, N. Y.	Los Angeles, Calif.	Ballast.	6,977	5,183	
Santoro.	28	18.35	29	8.05	29	15.49	29	17.00	American.	Ore S. S. Corp.	449.1	57.2	19.6	Baltimore, Md.	Cruz Grande, Chile	Ballast.	7,808	5,139	
Genevieve	29	1.00	29	8.15	29	16.53	29	18.15	American.	Horatio Stevenson.	253.4	43.8	17.0	Manzanillo, Cuba.	Buenaventura, Col.	Cattle.	247	2,968	2,078
Lykes	29	5.30	29	8.15	29	16.47	29	18.00	American.	Nelson Line.	324.0	46.2	18.0	Baltimore, Md.	Seattle, Wash.	General.	1,565	3,983	2,631
Plow City	29	5.30	29	8.15	29	16.47	29	18.00	American.	United Fruit Co.	330.0	44.6	18.4	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	672	3,675	2,359
San Jose.	29	10.53	29	11.45	29	17.40	30	2.30	American.										
Canadian	29	11.35	29	11.50	29	19.04	30	10.16	British.	Can. Nat. Steamships	430.0	56.0	22.5	Baltimore, Md.	Adelaide, Australia	General.	5,000	7,680	5,494
Constructer.	29	8.35	29	13.10	29	20.29	29	21.40	American.	Iskman S. S. Lines.	425.0	55.2	26.8	Baltimore, Md.	Los Angeles, Calif.	Steel, general.	8,100	7,611	5,450
Knoxville City.	29	8.43	30	6.08	30	12.40	30	13.34	American.	U. S. Army	436.0	58.0	25.4	New York, N. Y.	San Francisco, Cal.	General.	190	285	101
Somme ⁶	30	6.05	30	6.05	30	13.20			Panaman.	Panaman Government.	125.0	23.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.	5,220	5,566	3,820
El Pannuaco ⁶	30	6.42	30	8.45	30	16.00	30	20.40	American.	Sudden & Christensen.	410.5	54.0	21.0	Baltimore, Md.	San Francisco, Cal.	General.	3,134		
Dorothy Cahill	29	23.20	30	9.50	30	16.45	30	19.50	British.	Andrew Weir & Co.	396.6	53.0	24.0	Galveston, Tex.	Balboa, C. Z.	Sulphur	6,820	5,566	3,820
Arlington Court.	29	23.20	30	10.03	30	17.03	30	24.00	American.	Roosevelt S. S. Co., S. B.	395.5	53.0	21.6	New York, N. Y.	Adelaide, Australia	General.	3,134		
New Orleans ²	30	12.35	30	12.45	30	21.11	30	21.50	American.	S. African Dispatch	423.9	54.0	15.0	New York, N. Y.	Adelaide, Australia	General.	6,736	4,880	
West Ousega ²	30	12.35	30	12.45	30	21.11	30	21.50	American.	Iskman S. S. Lines	424.2	56.2	26.5	Baltimore, Md.	Seattle, Wash.	Steel products.	8,468	7,611	5,450
Steel Mariner.	30	12.48	30	13.15	30	22.44	30	24.00	American.	Williams S. S. Line	386.8	52.2	21.6	New York, N. Y.	Tacoma, Wash.	General.	4,802	5,684	4,070
Willaro.	30	12.48	30	13.15	30	22.44	30	24.00	American.	A. F. Klavens & Co.	381.0	55.2	19.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast.	7,927	6,755	4,887
Sommerstad ²	30	20.30	30	20.45	31	10.15	31	14.55	Norwegian.	Pac.-Atlantic S. S. Corp.	409.0	54.0	24.6	Wilmington, Del.	Seattle, Wash.	General.			
Oran.	31	1.35	31	6.25	31	14.32	31	15.50	American.										
Dorothy Luckenbach.	31	7.20	31	7.20	31	14.37	31	15.50	American.	Luckenbach Line	448.9	60.2	26.0	Boston, Mass.	Seattle, Wash.	General.	7,500	9,294	6,861

¹ Linseed, bones, fertilizer, live stock, and canned meats.² Towing dredge Peru.³ Transport.⁴ Tug.⁵ Dredge.⁶ Motorship⁷ Baiboa for dry docking.⁸ Tanker.

Nevalan.	31	6	25	31	8	10	31	15	19	31	16	30	American.	Amer.-Hawaiian Line.	400	0	59	0	Boston, Mass.	Seattle, Wash.	5,064	6,829	4,627
Aexjula.	31	2	00	31	9	35	31	16	41	31	17	55	British.	Pacific Steam Nav. Co.	215	7	33	5	Cristobal, C. Z.	Champerio, Guat.	1,130 ¹	1,273	706
Teno.	31	2	00	31	10	20	31	17	35	31	18	30	Chilean.	Gra. Sud. Amer. de Vap.	422	8	56	2	New York, N. Y.	Valparaiso, Chile.	2,551	7,764	4,672
Stedore.	31	1	30	31	15	15	31	22	50	1	0	05	American.	Ore S. S. Corp.	550	3	72	2	New York, N. Y.	Cruz Grande, Chile.	15,551	4,297	
Gulfstate.	31	19	02	31	19	10	1	10	10	1	11	47	American.	Gulf Refining Co.	435	0	56	0	Philadelphia, Pa.	Pt. San Luis, Calif.	7,643	5,324	
Gen. G. W.																							
Gedy.				31	9	10	31	16	30				American.	U. S. Navy.	89	0	22	0	Cristobal, C. Z.	Balboa, C. Z.	1,893	9,630	6,943
Pacific Pioneer.				31	7	10	1	6	10	1	13	12	British.	Furness, Withy & Co.	435	0	60	1	Glasgow, Scotland.	Vancouver, B. C.	1,893	9,630	6,943
Amerikland.	8-1	5	30	1	7	25	1	14	16	1	18	50	Swedish.	Ore S. S. Corp.	561	0	72	0	Baltimore, Md.	Cruz Grande, Chile.	15,500	4,496	
Niagara.	31	16	35	1	8	05	1	15	07	1	17	30	American.	U. S. Navy.	243	0	36	0	Cristobal, C. Z.	Balboa, C. Z.	7,106	5,068	
Monique.	1	1	35	1	9	25	1	16	28	1	17	30	French.	Cie. Aux. de Navigation	425	0	56	0	Bordeaux, France.	Los Angeles, Calif.	7,106	5,068	
Caroline.				1	8	50	1	10	45	1	18	03	Danish.	Anglo-Saxon Pet. Co.	456	8	59	2	New York, N. Y.	Los Angeles, Calif.	8,102	5,695	
Maersk.	1	13	00	1	13	15	1	20	30	1	22	23	American.	Texas S. S. Co.	416	8	56	1	Providence, R. I.	Wilmingon, Calif.	7,150	5,330	
Illinois.																							
Bohemian.																							
Club.	1	17	15	1	17	25	2	10	35	2	11	55	American.	Union Oil Co.	425	0	57	2	Philadelphia, Pa.	Los Angeles, Calif.	7,204	4,739	
Santa Rita.	1	14	35	2	6	00	2	13	37	2	17	20	American.	Grace Line.	370	0	53	0	New York, N. Y.	Valparaiso, Chile.	2,242	4,099	
La Plata Maru.	1	15	25	2	7	20	2	16	05	2	16	05	Japanese.	Ogata Shosen Kaisha	430	7	56	21	Buenos Aires, Arg.	Kobe, Japan.	3,083	7,875	5,821
Penelope.	2	6	55	2	8	35	2	15	42	2	21	05	Danish.	Standard Oil Co.	470	0	63	2	Rotterdam, Holland.	Tahara, Peru.	9,302	6,127	
City of Dieppe.	1	20	10	2	9	30	2	18	30	2	18	30	British.	Ellerman City Line.	465	0	58	0	Newport, England.	Brisbane, Australia.	5,462	6,789	
Lightburne.	2	11	55	2	12	10	2	18	22	2	22	02	American.	The Texas S. S. Co.	416	8	56	1	Providence, R. I.	Los Angeles, Calif.	6,976	5,072	
City of Elwood.	2	13	25	3	6	03	3	14	09	3	15	30	Norwegian.	Roosevelt S. S. Co., S. B.	395	1	32	9	New York, N. Y.	Hong Kong, China.	7,048 ¹	7,344	5,283
Stella.	7-24	18	45	3	6	03	3	14	09	3	15	30	Norwegian.	Panama Mail S. S. Co.	324	0	46	2	Cristobal, C. Z.	Champerio, Guat.	1,125	955	606
Point San Pedro.	3	3	15	3	6	15	3	14	07	3	17	15	American.	Gulf-Pacific Line.	445	0	58	0	Houston, Texas.	Tacoma, Wash.	2,767	3,974	5,572
Lishon Maru.	3	2	45	3	7	10	3	14	41	3	16	00	Japanese.	Nippon Yusen Kaisha.	386	8	52	2	Baltimore, Md.	Kobe, Japan.	7,628	8,015	5,810
Dochet.	3	2	50	3	7	30	3	15	12	3	16	20	American.	Redwood Line.	445	0	58	0	Mobile, Ala.	San Francisco, Cal.	2,876	5,705	4,167
Mongolia.	3	8	40	3	9	35	3	16	16	4	00	02	American.	Panama-Pacific Line.	600	0	65	3	New York, N. Y.	San Francisco, Cal.	3,419	17,051	11,426
Jowan.	3	12	05	3	12	20	3	18	47	3	20	00	American.	Amer.-Hawaiian Line.	407	7	53	7	Boston, Mass.	Portland, Ore.	4,346	7,079	5,028
Canada.	3	10	45	3	15	15	4	9	41	4	13	15	Swedish.	Johnson Line.	427	0	56	0	Gothenburg, Sweden.	Tacoma, Wash.	8,372	7,476	5,485

1: Tanker.

9 Survey ship.

10 Phosphate, cotton, and ammoni.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Lebore.....	28	3	45	28	5	45	28	15	50	28	15	50	American.	Ore S. S. Corp.	530	0	72	2	Cruz Grande, Chile.	New York, N. Y.	20,000	14,325	4,635
Vega ^{1,2}	27	7	32	28	6	40	28	16	35	29	17	37	American.	U. S. Navy.	401	5	54	2	Bremerton, Wash.	Hampton Rds., Va.	2,852		
Point Arena.....	27	18	30	28	7	05	28	20	38	29	20	30	American.	Swayze & Hoyt.	324	0	46	2	Los Angeles, Calif.	New Orleans, La.	3,000	3,954	2,612
Cornithic.....	28	6	00	28	7	39	28	19	15	29	00	15	British.	Shaw, Savill & Albion.	500	3	63	3	Auckland, N. Z.	Southampton, Eng.	4,825	12,821	9,507
Tactican.....	28	5	00	28	8	14	28	20	40	28	22	05	British.	T. & J. Harrison.	418	2	54	6	Wilmington, B. C.	London, England.	7,984	6,650	4,862
Norrona II ^{1,2}	28	5	14	28	8	40	28	16	40	28	17	35	Norwegian.	Lars Thorsen.	111	3	20	1	Cedras Id., Mexico.	Sandefjord, Nor'y.	113	178	49
Hanka ^{1,2}	25	13	45	28	8	39	28	16	40	28	17	50	Norwegian.	Lars Thorsen.	92	4	18	6	Cedras Id., Mexico.	Sandefjord, Nor'y.	113	178	49
Gabral ^{1,2}	25	13	45	28	8	39	28	16	40	28	17	50	Norwegian.	Lars Thorsen.	92	0	18	6	Calros Id., Mexico.	Sandefjord, Nor'y.	110	26	26
S-2 ^{1,2}	27	6	32	29	6	11	29	12	20				American.	U. S. Navy.	435	0	56	2	Bremerton, Wash.	Cristobal, C. Z.			
Franklin K.....	28	16	45	29	6	27	29	14	05	29	14	05	American.	Pan-Amer. Pet. Co.	435	0	56	2	Los Angeles, Calif.	Baltimore, Md.	9,635	7,405	5,131
Lane ^{1,2}	28	20	20	29	6	57	29	15	50	29	18	55	American.	N. O. & S. A. S. Co.	340	0	46	2	Toeplitz, Chile.	New Orleans, La.	4,613	3,983	2,570
Nosa Prince.....	28	6	05	29	7	35	29	15	35	29	50	40	American.	Grace Line.	360	3	51	3	Tale huano, Chile.	New York, N. Y.	3,186	5,957	4,325
Santa Elisa.....	28	23	00	29	8	28	29	17	00	29	21	25	Dutch.	Anglo-Saxon Pet. Co.	427	0	56	0	Los Angeles, Calif.	Fayal, Azores.	7,611	6,236	4,895
Scopas ^{1,2}	28	23	00	29	8	28	29	17	00	29	21	25	Dutch.	Anglo-Saxon Pet. Co.	427	0	56	0	Los Angeles, Calif.	Fayal, Azores.	7,611	6,236	4,895
Pomona.....	29	4	00	29	9	02	29	17	10	29	17	10	American.	Pomona S. S. Co.	440	0	56	0	Everett, Wash.	Portsmouth, R. I.	9,000	8,324	6,036
Alford Von.....	29	3	30	29	9	40	29	18	00	30	4	10	German.	Hamburg-American Line	409	1	54	0	Valparaiso, Chile.	Hamburg, Germany.	6,567	7,173	5,514
Bayer.....	29	3	30	29	9	40	29	18	00	30	4	10	German.	Hamburg-American Line	409	1	54	0	Valparaiso, Chile.	Hamburg, Germany.	6,567	7,173	5,514

¹ Tanker.

² Supply ship.

11 Supply ship.

12 Tanker.

13 Whaler.

14 Nitrate, general.

15 Sulphur.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
New Britain	29	4 15	29	9 54	29	18 15	29	18 15	American	Black Diamond S.S. Co.	338 8	52 2	23 7	Seattle, Wash.	New York, N. Y.	Lumber	6,202	5,684
Independence	28	17 15	29	10 13	29	19 35	30	1 40	American	Tampa Intercean Co.	440 0	56 0	28 0	Manila, P. I.	New Orleans, La.	General	9,385	8,290
Sun ¹ 15	29	12 01	29	13 07	29	20 35	29	20 35	American	Sun Oil Co.	480 6	66 0	29 0	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,693	9,620
Eleanor	29	16 50	29	17 40	30	11 35	30	11 35	American	Sudden & Christenson.	410 5	54 3	25 1	Tacoma, Wash.	Baltimore, Md.	Lumber, pulp	7,512	6,572
Christenson	30	6 14	30	10 30	30	13 45	30	13 45	American	U. S. Navy	292 0	44 0	35 1	Balboa, C. Z.	Cristobal, C. Z.	Cruiser	10,500	8,698
Galveston ¹ 6	30	4 49	30	7 01	30	14 40	30	15 10	American	Tampa Intercean Co.	419 5	56 5	26 2	Manila, P. I.	Baltimore, Md.	Sugar	8,806	7,917
Seaboard	30	4 40	30	7 01	30	14 40	30	15 10	American	Anglo-Saxon Pet. Co.	440 4	59 5	26 7	Los Angeles, Calif.	Curacao, D. W. I.	Gasoline	8,806	7,917
Telena ¹ 5	30	4 40	30	7 01	30	14 40	30	15 10	British	Anglo-Saxon Pet. Co.	440 4	59 5	26 7	Los Angeles, Calif.	New York, N. Y.	General	6,613	24,506
California	29	11 42	30	8 10	30	16 45	30	17 20	American	Panama-Pacific Line	574 4	80 3	28 6	San Francisco, Cal.	New York, N. Y.	General	6,613	24,506
California	29	11 42	30	8 10	30	16 45	30	17 20	American	Panama-Pacific Line	574 4	80 3	28 6	San Francisco, Cal.	New York, N. Y.	General	6,613	24,506
California	29	11 42	30	8 10	30	16 45	30	17 20	American	Panama-Pacific Line	574 4	80 3	28 6	San Francisco, Cal.	New York, N. Y.	General	6,613	24,506
Bretagne ¹ 5	30	6 45	30	8 34	30	18 00	30	18 00	American	Amer-Hawaiian Line	404 6	53 9	23 6	Portland, Ore.	Boston, Mass.	General	4,530	6,777
Bretagne ¹ 5	30	6 45	30	8 34	30	18 00	30	18 00	American	Amer-Hawaiian Line	404 6	53 9	23 6	Portland, Ore.	Boston, Mass.	General	4,530	6,777
El Lobo ¹ 1	30	9 00	30	10 10	30	19 30	30	19 00	Danish	Isbrandtsen Moller Co.	326 2	50 0	21 0	Holte, P. I.	N.E. coast of U. S.	Sugar, general	5,040	3,820
El Lobo ¹ 1	30	9 00	30	10 10	30	19 30	30	19 00	Danish	Isbrandtsen Moller Co.	326 2	50 0	21 0	Holte, P. I.	N.E. coast of U. S.	Sugar, general	5,040	3,820
Baldhill ¹ 1	30	9 50	30	10 36	30	19 30	30	22 45	British	C. T. Bowring & Co.	335 2	51 0	22 3	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	6,169	4,551
Baldhill ¹ 1	30	10 20	30	11 11	30	20 10	30	20 10	American	Pennsylvania Ship. Co.	416 9	56 2	26 6	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,636	6,728
Lewis	30	17 20	30	18 05	31	11 00	31	11 00	American	Luckenbach Line	496 0	68 2	29 0	Portland, Ore.	Boston, Mass.	Lumber, general	11,350	11,486
Lukenbach	30	17 20	30	18 05	31	11 00	31	11 00	American	Luckenbach Line	496 0	68 2	29 0	Portland, Ore.	Boston, Mass.	Lumber, general	11,350	11,486
Gen. G. W.	31		31		31		31		American	U. S. Army	98 0	22 0		Balboa, C. Z.	Cristobal, C. Z.	Tug		
Getty	31	2 30	31	6 29	31	15 00	31	15 00	American	Ore S. S. Corp.	550 3	72 2	34 6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,270	15,476
Bethore	31	20 30	31	6 55	31	15 10	31	15 10	American	Cities Service Trans. Co.	435 6	56 2	29 0	Los Angeles, Calif.	Port Arthur, Tex.	Crude oil	10,817	7,426
Haged	31		31		31		31		American	Cities Service Trans. Co.	435 6	56 2	29 0	Los Angeles, Calif.	Port Arthur, Tex.	Crude oil	10,817	7,426
Brish	31	4 35	31	7 32	31	16 10	31	20 15	British	British Tankers Co.	440 8	57 0	26 7	Los Angeles, Calif.	London, England	Gasoline	9,740	
Chvaly	31	4 35	31	7 32	31	16 10	31	20 15	British	British Tankers Co.	440 8	57 0	26 7	Los Angeles, Calif.	London, England	Gasoline	9,740	
Nugara ¹ 1	31	8 15	31	8 15	31	16 35	31	20 15	American	U. S. Navy	243 0	36 6		Balboa, C. Z.	Cristobal, C. Z.	Survey ship	438	1,572
Cerigo	31	6 00	31	8 15	31	16 30	31	20 15	German	Hamburg-American Line	227 2	34 4	13 7	Guayaquil, Ecuador	Cristobal, C. Z.	Gasoline	7,730	6,126
Spirita ¹ 3	31	8 30	31	9 08	31	17 30	31	22 05	British	Anglo-Saxon Pet. Co.	411 5	53 4	24 0	Los Angeles, Calif.	Land's End, Engl'd	Nitrates	5,510	4,035
Pellegra	31	14 20	31	15 06	31	23 00	31	23 00	Italian	Anglo-Saxon Pet. Co.	350 0	48 0	24 0	Antofagasta, Chile	Azores	Gasoline	5,510	4,035
Gro	31	18 50	31	19 35	31	23 00	31	23 00	Norwegian	Guiseppi Bozzo	332 2	50 2	23 0	Victoria, B. C.	New York, N. Y.	Lumber	9,139	9,139
Portland ¹ 5	31	20 45	1	6 45	1	13 10	1	17 20	German	Hamburg-American Line	402 2	61 2	26 0	Vancouver, B. C.	New York, N. Y.	General	9,139	9,139
S. C. T. Dodd	1	00 45	1	7 11	1	14 25	1	17 20	American	Standard Oil Co. of Cal.	435 0	57 2	27 6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,384	7,481
S. C. T. Dodd	1	22 00	1	7 42	1	14 45	1	17 20	German	Hamburg-American Line	332 0	54 0	24 0	Valparaiso, Chile	Hamburg, Germany	General	6,569	5,788
Swirvendoo	1	22 00	1	8 34	1	16 05	1	16 06	American	Transmarine Lines	324 0	46 2	23 6	Portland, Ore.	Newark, N. J.	Lumber	4,700	3,984
Swirvendoo	1	22 00	1	8 34	1	16 05	1	16 06	American	Transmarine Lines	324 0	46 2	23 6	Portland, Ore.	Newark, N. J.	Lumber	4,700	3,984
Missourian ¹ 5	1	4 00	1	9 12	1	16 40	1	16 40	American	Amer-Hawaiian Line	443 1	59 8	23 5	Cristobal, C. Z.	Boston, Mass.	Lumber, general	5,639	5,639
Cal.	1	8 05	1	9 22	1	17 25	1	17 25	German	Roland Line	216 5	32 9	15 0	Guayaquil, Ecuador	Cristobal, C. Z.	General	632	1,105
Sir Karl	1	8 10	1	11 30	1	18 15	1	18 15	Norwegian	Anglo-Saxon Pet. Co.	450 5	59 2	26 9	Los Angeles, Calif.	Land's End, Engl'd	Gasoline	10,487	8,085
Kundsen ¹ 5	1	14 54	1	16 00	1	23 20	1	23 20	American	Standard Oil Co. of N. Y.	435 6	56 2	26 9	Los Angeles, Calif.	New York, N. Y.	Distillate fuel	10,067	7,386
Ario ¹ 5	1	18 40	1	6 09	1	13 53	1	15 15	Japanese	Kokuyo Kisen Kaisha	385 0	51 0	27 6	Toconipala, Chile	Pensacola, Fla.	Nitrates	8,250	6,219
Belgian Maru	2	00 00	2	6 41	2	14 55	2	15 55	British	Sir W. R. Smith & Sons	411 8	50 5	28 0	Vancouver, B. C.	Manchester, Engl'd	General	8,785	7,038
York City	2	4 10	2	7 16	2	15 20	2	22 28	British	Pacific Steam Nav. Co.	303 0	43 0	12 6	Callao, Peru	New York, N. Y.	Coffee, general	888	2,844
Alvarado	2	4 10	2	7 16	2	15 20	2	22 28	British	Pacific Steam Nav. Co.	303 0	43 0	12 6	Callao, Peru	New York, N. Y.	Coffee, general	888	2,844
Alvarado	2	6 45	2	7 47	2	16 05	2	18 23	American	Texas S. S. Co.	425 8	57 0	27 4	Los Angeles, Calif.	Port Arthur, Tex.	Crude oil	10,000	7,218

¹ Sugar, cocoa, and ivory nuts.¹⁷ Survey ship.¹⁶ Cruiser.¹⁵ Motor ship.¹ Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 1	No. 8044 ²²	Pan-American Airways	Guayaquil via wayports.	August 2	Surinam ²⁴	United Fruit Co	Port Limon via Bocas.
August 1	Mecitor	United Fruit Co	Cartagena, Colombia.	August 2	Anachucina ²⁴	United Fruit Co	Colon, R. P.
August 1	Lizzie D. Peabody ²¹	M. P. Martinez	Colon, R. P.	August 3	Lizzie D. Peabody ²¹	M. P. Martinez	Colon, R. P.
August 2	Anachucina ²⁴	United Fruit Co.	Colon, R. P.	August 3	Linda S. ²¹	A. L. Surgeon	Managua via David.
August 2	Winks	Standard Fruit & S. S. Co	New Orleans via Habana	August 3	No. 9685 ²²	Pan-American Airways	Cartagena, Colombia.
August 2	Coppename	Standard Fruit Co	San Blas, R. P.	August 3	Calgrolite	Imperial Oil Co.	Mobile, Alabama.
August 2	Sirinam	United Fruit Co	Bocas, R. P.	August 3	Mecitor	United Fruit Co.	New Orleans and way pts.
August 2	No. 9664 ²²	Pan-American Airways	New Orleans, La.	August 3	Atlantida	Standard Fruit & S. S. Co	Cartagena, Colombia.
August 3	No. 9688 ²²	Pan-American Airways	Managua via David.	August 3	Medan	Leyland S. S. Line	
August 3	Killerig ²⁵	Lindsay, Swan, Hunter.	Cartagena, Colombia.				
August 3	Carlago	United Fruit Co	New Orleans via Habana.				
August 3	Linda S. ²¹	A. L. Surgeon	Colon, R. P.				
²² Air mail carrier.				²⁴ Motor boat.			
²³ Motor schooner.				PORT OF BALBOA.			
July 28	Cricamola ²⁶	Chiriqui Land Co	Pto. Armañuelles, R. P.	July 30	Frost ²⁷	West India Oil Co	Champerico, Guatemala.
July 29	Montebello	West India Oil Co.	Talara, Peru.	July 31	Montebello	Union Oil Co. of Calif.	Corinto, Nicaragua.
July 30	San Luis ²⁶	Union Oil Co. of Calif	Los Angeles, Calif	August 1	San Luis ²⁶	Chiriqui Land Co	Pto. Armañuelles, R. P.
July 31	Chiriqui Land Co	Chiriqui Land Co	Pt. Armañuelles, R. P.	August 2	A. B. de Obarrío ²⁶	Pacific Fruit Co.	Panama Bay, R. P.
August 1	A. B. de Obarrío ²⁶	Pacific Fruit Co.	Bayano River, R. P.	August 2	Dos Hermanos ²⁶	A. Valdez	Panama Bay, R. P.
August 2	Dos Hermanos ²⁶	A. Valdez	Bayano River, R. P.				
²⁶ Motor schooner.				²⁷ Motor boat.			
* Other than ships passing through the Canal.							

Tanker Traffic Through the Panama Canal in July, 1929.

During the month of July, 1929, 111 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 585,977, on which tolls of \$505,642.09 were collected. Cargo amounted to 482,427 tons. In point of net tonnage, tanker traffic increased 15.7 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 4.3 per cent over the cargo tonnage of July, 1928.

Tanker traffic comprised 21 per cent of the total commercial transits through the Canal during the month; made up 23.7 per cent of the total Panama Canal net tonnage; were the source of 22.4 per cent of the tolls collected; and carried 18.6 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of July, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for July, 1928:

Nationality.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British	12	59,706	\$42,988.32	
Danzig	1	5,929	4,268.88	
Dutch	1	4,395	3,164.40	
Norwegian	7	34,031	24,502.32	
Swedish	1	6,295	4,532.40	
United States	38	213,156	158,220.89	19,964
Totals, July, 1929	60	323,512	237,677.21	19,964
Totals, June, 1929	52	284,668	216,210.04	60,059
Totals, May, 1929	52	286,387	210,607.65	19,679
Totals, July, 1928	50	264,688	195,784.18	18,521
<i>Pacific to Atlantic.</i>				
British	13	65,313	66,556.13	105,736
Danzig	1	5,929	6,491.25	11,303
Dutch	2	9,460	10,067.50	16,856
German	1	4,186	4,468.75	8,519
Norwegian	3	11,405	11,842.50	17,677
Swedish	1	4,245	4,632.50	8,366
United States	30	161,927	163,906.25	294,006
Totals, July, 1929	51	262,465	267,964.88	462,463
Totals, June, 1929	47	255,930	261,993.75	465,875
Totals, May, 1929	49	252,053	261,846.40	453,684
Totals, July, 1928	46	241,854	246,324.35	443,962

¹ Includes 8,659 tons of creosote.

² Includes 6,604 tons of coconut oil.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for July, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
July, 1929	46	249,097	\$184,098.41	19,964
June, 1929	38	204,823	150,165.87	10,212
May, 1929	41	227,722	165,842.76	1,277
July, 1928	33	176,648	129,046.42	5,831
<i>From Los Angeles.</i>				
July, 1929	36	190,089	194,298.90	347,537
June, 1929	40	215,723	218,943.75	384,793
May, 1929	35	181,003	186,620.50	322,997
July, 1928	39	209,472	212,735.30	384,358

North Pacific Coast Line Prepares for Heavy Apple Season.

Recent press reports indicate that in anticipation of a heavy export movement of apples through Pacific ports of the United States and Canada, the North Pacific Coast Line, operated jointly by the Royal Mail Steam Packet Company and the Holland-American Line, has scheduled eleven extra refrigerator sailings during the ensuing season. During the period from September 30, 1929, to March 17, 1930, the line will have 28 sailings, constituting the heaviest apple season schedule in the history of the line.

The North Pacific Coast Line plies between the Pacific coast of North America and Europe (Great Britain, Germany, Holland, and Belgium), operating normally a service "A" on fortnightly schedule and a service "B" with sailings every three weeks. Both services carry a limited number of passengers.

Scuppers.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., August 1, 1929.

To all Steamship Owners and Agents—Recent amplification by the Commissioner of Navigation of Article 21, 1925 edition of Measurement of Vessels, provides that, if exemption from tonnage is claimed for such open, isolated erections as forecastles, bridges, poops or houses, on the grounds of a single tonnage opening in either side or center of bulkheads of same, the following conditions must prevail:

(1) A single opening of not less than the regulation 3' x 4' size in a forecandle, poop or house of ordinary length requires in addition, freeing ports and at least two scuppers, one on each side. Scuppers may drain either overboard, into bilges or on deck.

(2) A bridge space, or extended forecandle or poop, covering the waist of a ship, with a single opening of not less than the regulation 3' x 4' size, requires freeing ports and a suitable number of scuppers (not less than two, one on each side) the latter *not* to drain on deck.

(3) A single opening in a forecandle, poop or house of ordinary length at least 4 feet wide with an area of not less than 20 square feet requires in addition, two scuppers only, one on each side, which may drain to deck, overboard or to bilges.

(4) A bridge space, or extended forecandle or poop, covering the waist of a ship with a single opening as in (3), requires scuppers only. These must be suitable in number (not less than two, one on each side), and *not* drain on deck.

(5) Scuppers draining on deck are practicable for forecastles or poops of ordinary length on ships of usual deck sheer, but not for bridges in the waist of the ship, where drainage must be overboard or to bilges.

(6) *Where the regulations prescribe* scuppers in exempted spaces, *including shelter decks, they are not to be less than 3½" in diameter*, and must be kept clear at all times. However, to prohibit ingress of the sea the use of back (flapper) valves will be permitted.

(7) Regulations as to height of coaming not in excess of 2 feet, and temporary means of closing tonnage openings with rough boards in channels, or plates, are not affected.

In order to afford a reasonable opportunity for compliance with the preceding requirements, enforcement at the Canal will not be made effective until September 1, 1929, except that any vessel transiting the Canal prior to that date, and subject to change of tonnage under the foregoing regulations, will be given but one opportunity for compliance therewith.

I. C. KIDD,
Acting Chairman,
Board of Admeasurement.

APPROVED:

H. BURGESS,
Governor.

American-Hawaiian Steamship Company Appointed Operating Managers of Williams Steamship Corporation.

Following recent reports to the effect that the American-Hawaiian Line, one of the principal intercoastal lines operating through the Panama Canal, had purchased the Williams Steamship Line (also an intercoastal line), local representatives of the former company have announced that the Williams Steamship Corporation, an entirely separate organization from The American-Hawaiian Steamship Company, by resolution and agreement has appointed the American-Hawaiian Steamship Company its operating managers. The Williams Line steamers *Willhilo* and *Willsolo* have been taken over by the American-Hawaiian Line and renamed the *Arizonan* and *Georgian*, respectively, and are now engaged in the run between the two coasts. The old American-Hawaiian steamer *Georgian*, renamed the *San Gabriel*, is now in the service of the Pacific-Atlantic Steamship Corporation.

The following steamers are still in the service of the Williams Steamship Corporation: *Willboro*, *Willpolo*, *Willfaro*, *Willkeno*, and *Willzipo*.

Correction.

In THE PANAMA CANAL RECORD of July 24, 1929, an error in printing occurred in the table on page 721, showing principal commodities from the Pacific to the Atlantic in June, 1929, as compared with June, 1928. The figure for lumber in June, 1928, shown as 248,643 tons, should have been 348,643 tons.

Traffic by Nationality for July, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of July, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for July, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	60	312,951	234,778	384,099	234,360	\$272,444.42	232,990
Chilean.....	2	9,377	6,899	14,620	7,952	8,623.75	5,212
Colombian.....	4	1,074	1,007	1,750	1,011	1,249.35	637
Danish.....	2	10,624	8,430	13,288	8,482	10,537.50	13,902
Danzig.....	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch.....	6	25,884	17,325	29,930	17,223	20,428.15	16,263
French.....	3	13,528	10,393	16,800	10,425	12,991.25	9,565
German.....	13	46,978	33,888	55,153	33,445	42,360.00	44,494
Italian.....	1	6,035	5,055	7,061	4,460	6,318.75	1,930
Japanese.....	8	42,587	38,173	54,618	37,486	44,559.35	51,693
Norwegian.....	20	85,947	65,828	106,374	63,026	70,783.82	68,527
Panaman.....	4	2,695	1,470	3,795	2,686	1,827.20	3,011
Swedish.....	5	23,664	16,386	37,153	20,081	17,033.02	9,275
United States.....	142	696,965	540,143	875,245	537,333	597,935.21	438,902
Yugoslav.....	2	7,590	6,506	10,153	6,589	8,132.50	13,575
Totals, July, 1929.....	273	1,291,828	991,474	1,618,784	990,494	1,119,496.15	909,976
Totals, July, 1928.....	272	1,269,085	965,479	1,580,367	967,284	1,103,618.21	718,160
Totals, July, 1927.....	280	1,323,649	1,032,027	1,686,511	1,031,969	1,149,465.16	739,656

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentine	1		2,536			\$1,268.00	
Belgian	1	4,792	4,142	6,511	4,172	5,177.50	8,160
British	54	270,183	216,007	352,295	218,275	266,406.38	350,121
Chilean	2	7,735	6,033	10,889	6,233	7,541.25	7,543
Colombian	3	411	390	647	384	478.10	539
Danish	2	7,053	5,062	8,354	5,130	6,327.50	12,540
Danzig	1	5,929	5,193	8,745	5,026	6,491.25	11,303
Dutch	8	42,845	33,073	54,219	32,514	41,341.25	63,612
French	6	27,948	22,775	34,143	21,721	28,335.80	41,161
German	21	71,199	51,825	85,070	50,632	64,249.79	90,771
Italian	4	24,828	17,463	30,503	18,604	21,828.75	25,966
Japanese	6	29,579	25,407	37,645	25,018	31,591.25	41,792
Mexican	1	2,159	1,569	2,876	1,892	1,961.25	1,140
Norwegian	21	62,679	45,988	75,128	45,823	56,308.85	93,497
Panaman	2	2,653	1,431	2,547	1,431	1,765.25	1,225
Peruvian	1	5,415	4,338	7,073	4,373	5,422.50	7,577
Swedish	3	13,660	10,327	26,674	12,009	12,903.75	35,567
United States	117	597,454	464,801	755,978	464,957	580,682.50	895,672
Totals, July, 1929	254	1,176,452	918,360	1,499,297	919,094	1,140,086.22	1,688,186
Totals, July, 1928	237	1,049,310	805,408	1,342,537	814,540	1,005,464.98	1,543,795
Totals, July, 1927	229	1,083,306	851,111	1,385,744	853,689	1,066,050.83	1,710,812

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentine	1		2,536			\$1,268.00	
Belgian	1	4,792	4,142	6,511	4,172	5,177.50	8,160
British	114	583,084	450,785	736,394	452,644	558,850.80	583,111
Chilean	4	17,112	12,932	25,509	14,185	16,165.00	12,755
Colombian	7	1,485	1,397	2,397	1,395	1,727.45	1,176
Danish	4	17,657	13,492	21,642	13,612	16,865.00	26,442
Danzig	2	11,858	10,386	17,400	10,052	10,760.13	11,303
Dutch	14	68,729	50,398	84,149	49,737	61,769.40	79,875
French	9	41,476	33,168	50,943	32,146	41,327.05	50,726
German	34	118,177	85,713	140,223	84,077	106,609.79	135,265
Italian	5	30,863	22,518	37,564	23,064	28,147.50	27,896
Japanese	14	72,166	63,580	92,263	62,504	76,150.60	93,485
Mexican	1	2,159	1,569	2,876	1,892	1,961.25	1,140
Norwegian	41	148,626	111,816	181,502	109,749	127,092.67	162,024
Panaman	6	5,348	2,901	6,342	4,117	3,592.45	4,236
Peruvian	1	5,415	4,338	7,073	4,373	5,422.50	7,577
Swedish	8	37,324	26,713	63,827	32,990	29,941.77	44,842
United States	259	1,294,419	1,004,944	1,631,223	1,002,290	1,178,621.01	1,334,574
Yugoslav	2	7,590	6,506	10,153	6,559	8,132.50	13,575
Totals, July, 1929	527	2,468,280	1,909,834	3,118,081	1,909,588	2,259,582.37	2,598,152
Totals, July, 1928	509	2,318,395	1,771,887	2,922,904	1,781,824	2,109,033.19	2,291,955
Totals, July, 1927	509	2,406,955	1,833,138	3,072,255	1,885,658	2,215,515.99	2,450,468

Establishment of Bohio Station on Panama Railroad.

PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., August 2, 1929.

Circular 1317.

To all concerned—Effective Monday, August 5th, a new flag station will be established at Track Span 18-3, and will be known as Bohio. The following passenger trains will stop on flag to discharge and receive passengers:

Southbound:

No. 1, leaving Colon 7.00 a. m., daily except Sundays and holidays.

No. 5 leaving Colon 4.30 p. m., daily except Sundays and holidays.

No. 103, leaving Colon 9.20 a. m., Sundays and holidays.

No. 105, leaving Colon 4.00 p. m., Sundays and holidays.

Northbound:

No. 2, leaving Panama 7.05 a. m., daily except Sundays and holidays.

No. 6, leaving Panama 4.35 p. m., daily except Sundays and holidays.

No. 102, leaving Panama 7.05 a. m., Sundays and holidays.

No. 106, leaving Panama 6.15 p. m., Sundays and holidays.

E. F. ORR,

Acting Master of Transportation.

APPROVED:

S. W. HEALD,
Superintendent.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Sailings of Panama Railroad Steamship Line.

Folowing are proposed dates of sailings for the remainder of 1929, of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the passenger ships *Ancon* and *Cristobal* are engaged, sailing alternately.

Steamer.	Leave New York 4 P. M.	Leave Port au Prince P. M.	Arrive Cristobal A. M.	Leave Cristobal 3 P. M.	Leave Port au Prince P. M.	Arrive New York A. M.
Ancon.....	August 6.....	August 11.....	August 14.....	August 18.....	August 21.....	August 26.....
Cristobal.....	August 20.....	August 25.....	August 28.....	September 1.....	September 4.....	September 9.....
Ancon.....	September 4.....	September 9.....	September 12.....	September 16.....	September 19.....	September 24.....
Cristobal.....	September 17.....	September 22.....	September 25.....	September 29.....	October 2.....	October 7.....
Ancon.....	October 1.....	October 6.....	October 9.....	October 13.....	October 16.....	October 21.....
Cristobal.....	October 15.....	October 20.....	October 23.....	October 27.....	October 30.....	November 4.....
Ancon.....	October 29.....	November 3.....	November 6.....	November 10.....	November 13.....	November 18.....
Cristobal.....	November 12.....	November 17.....	November 20.....	November 24.....	November 27.....	December 2.....
Ancon.....	November 26.....	December 1.....	December 4.....	December 8.....	December 11.....	December 16.....
Cristobal.....	December 10.....	December 15.....	December 18.....	December 23.....	December 26.....	December 31.....
Ancon.....	December 24.....	December 29.....	January 1.....	January 5.....	January 8.....	January 13.....

Effective April 30, steamers sail on daylight saving time.

Due to discontinuance of the daylight saving time, departures after S. S. *Cristobal*, Sept. 17th, will be at 4 p. m. standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50

tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(a) For handling cargo from ship's side to storage place, the customary inward local charge of \$1 per ton.

(b) For delivery or reforwarding, customary outward local charge of \$1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(c) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers"). Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., August 14, 1929. No. 2.

Furness, Withy & Company, Ltd., Adds New Vessel.

Furness, Withy & Co., Ltd., has recently launched a new motor vessel for the trade between the United Kingdom and the west coast of North America. The new vessel, which is to be known as the *Pacific Ranger*, is 435 feet long, 60 feet beam, and of 10,000 deadweight tons. Like the other Furness vessels in this service, the *Pacific Ranger* is fitted with cold storage space for the lifting of refrigerator cargo and has accommodations for a limited number of passengers.

Other vessels of Furness, Withy & Company, Ltd., in this service are the *Pacific President*, *Pacific Enterprise*, *Pacific Shipper*, *Pacific Grove*, *Pacific Reliance*, *Pacific Trader*, *Pacific Exporter*, and *Pacific Pioneer*. The service is fortnightly.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 9, 1929.

No. 576.

1. The Port Captain at Balboa, C. Z., has been notified by the Port Captain, Buenaventura, Colombia, as follows:

On August 6th the Punta Soldado light will be in operation. Position: Lat. 3° 58' 03" N., Long. 77° 11' 33" W. Characteristics: 0.5 sec. light, 4.5 sec. obscured; 12 flashes a minute.

2. The Master of the Royal Netherlands S. S. *Boskoop* reports on the harbor lights of Buenaventura, Colombia, on July 29, 1929:

(a) The two red flashing light buoys, marking wreck of the S. S. *Tritonia*, are still in their former positions at the left bank of the River near the town. The wreck is marked by a fixed red light on the wreck itself, in clear weather visibility about half-a-mile.

(b) The red flashing light buoy, position Lat. 3° 49' 30" N., Long. 77° 10' 00" W., marks a wreck and is on the starboard side while one steams down the River.

(c) Between the port and Soldado Point are four light buoys showing a white flash, all in line of each other, marking the north side of the Fairway.

(d) About one mile easterly of Soldado Point my vessel struck a submerged object, giving a sound like a vessel passing over boulders. The pilot denies any obstructions there; the chart showed the depth of 8 to 9 fathoms, whereas my vessel was of 27 feet draft.

(e) A red flashing light buoy, position Lat. 3° 47' N., Long. 77° 16' W., about 1½ miles off the Vigia de San Pablo, exhibits a white flash. A short distance away from the buoy a drum (probably an empty gasoline drum) was anchored on the spot. Possibly the buoy and drum mark some obstruction between them; however, no notice of this was given by the harbormaster of Buenaventura.

3. The U. S. S. *Cleveland* gives the following report from recent soundings:

On August 4th, 4½ fathoms in Lat. 11° 54' N., Long. 86° 56' W., where the chart shows 37 fathoms; also 8½ fathoms in Lat. 9° 12' N., Long. 84° 51' W., where chart shows 268 fathoms.

4. The Commanding Officer of the U. S. S. *Galveston* reports that a careful examination of the locality in which the Army Transport *Cambrai*, Corinto Harbor approach, Nicaragua, is reported to have struck, disproves the existence of any danger to navigation at this point. The Hydrographic Office of the U. S. Navy therefore directs (N. M. 30, 1929) that the rock reported by the *Cambrai* as being in approximate position: 12° 15' N., 86° 57' W., with a least depth of 4½ fathoms, be removed from the charts.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 10, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Justin	2	1 03	4	6 25	4	13 07	4	14 40	German	North German Lloyd	449 0	58 0	18 6	Hamburg, Germany	Champerio, Guat.	General	2 007	7 933	5 799
Cid	3	13 35	4	6 40	4	13 51	4	15 00	British	Pacific Steam Nav. Co.	244 8	41 2	16 2	New York, N. Y.	Callao, Peru	General	916	2 746	1 626
Gard Maru	3	15 45	4	6 40	4	15 13	4	16 20	Japanese	Mitsui Bussan Kaisha	251 0	43 7	14 0	New Orleans, La.	Los Angeles, Calif.	Ballast	2 688	1 658	
Royal Prince	4	3 10	4	7 25	4	14 21	4	15 20	British	Prince Line, Ltd.	450 4	58 0	22 5	New York, N. Y.	Manila, P. I.	General	4 705	8 594	6 089
Colombo	3	5 58	4	9 05	4	15 35	4	16 30	Italian	Nav. Gen. Italiana	518 0	64 0	27 7	Genoa, Italy	Valparaiso, Chile	General	1 297	12 457	7 420
Grede Buena	3	22 15	4	9 25	4	16 55			Venezuelan	Venezuela Gulf Oil Co.	335 0	55 2	11 6	Maracaibo, Venez.	Balboa, C. Z.	Ballast			
Edgar F																			
Lockenbach	4	10 57	4	10 50	4	17 40	4	18 35	American	Lockenbach Line	425 0	57 3	23 0	Houston, Texas	Seattle, Wash.	General	3 924	8 568	6 648
Castletown	4	10 57	4	12 20	4	19 25	4	22 30	American	Nelson Line	321 7	50 0	16 8	Baltimore, Md.	San Francisco, Cal.	Pipe, glass, gen.	2 025	3 872	2 568
Mundeta	4	12 35	4	12 50	4	20 00	4	21 30	American	Munson S. S. Line	370 0	53 2	22 3	Baltimore, Md.	Seattle, Wash.	General	4 419	9 668	4 297
Maltram	4	12 45	4	14 10	4	21 24	5	5 10	American	Mallory Transp. Co.	333 8	48 0	19 0	Philadelphia, Pa.	Seattle, Wash.	Paper, steel	3 150	4 171	2 827
Cal	1	17 25	4	14 20	4	21 34	4	23 30	German	Roland S. S. Line	216 5	32 9	14 0	Cristobal, C. Z.	Buenaventura, Col.	General	367	1 105	698
Hessen	3	11 48	4	19 40	5	10 40	5	11 51	German	Hamburg-American Line	408 7	58 0	23 3	Hamburg, Germany	San Antonio, Chile	General	4 026	9 568	6 680
S-14			5	6 05	5	13 18			American	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-16			5	6 05	5	13 18			American	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-17			5	6 05	5	13 18			American	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Pacific Redwood	4	21 20	5	6 15	5	14 23			American	Dimon S. S. Corp.	409 5	54 2	22 6	Philadelphia, Pa.	Seattle, Wash.	General	5 967	6 537	4 841
Selma City	5	5 50	5	7 20	5	15 07	5	20 18	American	Isthmian S. S. Lines	425 0	56 0	25 0	Baltimore, Md.	Seattle, Wash.	General, steel	8 137	7 611	5 450
Silvermaple	5	6 05	5	7 30	5	15 07	5	16 20	British	Silver Line, Ltd.	425 0	58 0	19 0	New York, N. Y.	Britavia, Java	General	2 112	8 216	6 037
Hoyanger	5	6 10	5	8 35	5	15 49	5	17 05	Norwegian	Westfal, Larsen & Co.	398 0	54 0	17 4	Buenos Aires, Arg.	Vancouver, B. C.	Sugar	2 035	6 289	4 723
Indian	5	7 40	5	9 00	5	16 37	5	17 10	Danish	Canadian Transp. Co.	390 0	53 0	23 4	Guayabal, Cuba	Shanghai, China	General	6 400	6 173	4 418
Euador	4	7 00	5	9 56	5	16 31	5	17 40	American	Panama Mail S. S. Co.	380 6	48 7	22 7	New York, N. Y.	San Francisco, Cal.	General	2 025	5 926	4 178
Chile	5	7 15	5	12 15	5	19 10	5	21 32	Danish	East Asiatic S. S. Co.	425 0	55 0	22 10	Copenhagen, Den.	San Francisco, Cal.	General	6 200	7 382	5 063
Laurelwood	5	9 18	5	12 40	5	20 20	5	21 32	British	Anglo-American Oil Co.	346 0	39 0	32 9	Tyne, England	Los Angeles, Calif.	Ballast	7 655	5 129	
Glitter	5	14 30	5	14 50	5	22 28	5	23 45	Norwegian	Standard Shipping Co.	407 0	55 3	19 0	Rio de Janeiro, Bra.	Talara, Peru	Ballast	6 522	4 389	
Mallard	5	6 05	5	6 05	5	13 19			American	U. S. Navy	180 0	35 6		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Maple Branch	5	22 05	6	6 05	6	13 00	6	16 20	British	F. & W. Ritson	400 0	52 0	20 6	London, England	Magallanes, Chile	General	3 874	5 618	4 116
H. M. Flagler	6	00 40	6	6 30	6	13 48	6	15 20	American	Standard Shipping Co.	461 6	60 0	20 0	New York, N. Y.	Talara, Peru	Ballast	8 450	6 089	
Witell	5	11 15	6	7 20	6	14 20	6	16 00	German	North German Lloyd	449 0	58 2	23 0	Hamburg, Germany	Valparaiso, Chile	General	3 729	7 816	5 755
Eastern Knight	6	3 25	6	8 10	6	15 39	6	17 10	American	Quaker Line	417 0	55 7	21 6	Philadelphia, Pa.	Seattle, Wash.	General	5 346	7 643	5 657
Cerigo	7-31	16 30	6	10 10	6	17 22	6	18 26	German	Hamburg-American Line	225 0	34 0	13 9	Cristobal, C. Z.	Guayaquil, Ecuador	General	431	1 572	1 011
Limon	6	11 35	6	11 10	6	18 26	6	19 45	American	United Fruit Co.	330 0	44 0	19 0	Port Limon, C. R.	San Francisco, Cal.	General, bananas	551	3 684	2 234
Malchase	6	10 35	6	11 50	6	19 01	6	20 20	American	Mallory Transport Co.	303 0	48 0	21 0	New York, N. Y.	San Francisco, Cal.	Nitrate of soda	3 850	4 162	2 898
Tasmania	6	11 35	6	12 45	6	20 25	6	21 34	British	N. Z. Shipping Co.	484 0	62 7	27 10	Liverpool, England	Auckland, N. Z.	General	7 444	9 486	6 578
Chattanooga																			
City	6	13 55	6	14 40	6	21 55	7	00 34	American	Norton, Lilly & Co.	424 0	56 0	25 9	Houston, Tex.	Moi, Japan	General	7 552	7 611	5 450
Vancouver	6	15 30	6	15 40	6	23 04	7	17 17	British	Imperial Oil Co.	510 2	68 2	24 6	London, N. S.	Talara, Peru	Ballast	11 573	7 096	
Karama	6	16 40	6	19 15	7	9 09	7	18 55	British	Shaw, Savill & Albion	483 0	64 0	24 4	Hull, England	Hawkes Bay, N. Z.	General	6 698	11 729	8 373

° Coffee, guano, hides.

° Mine sweeper.

° Submarine.

° For dry docking.

° Motor ship.

° Tanker.

Gatunillo 7	7-24 18 17	6	6 13 35	American	Antonio Clap	227 0	34 0	10 7	Cristobal, C. Z.	Not stated	9
Durazzo	6 22 30	7 6 15	7 13 34	German	Hamburg-American Line	414 5	53 7	20 6	Pantarenas, C. R.	General	1,633
Kentuckian	7 6 55	7 7 55	7 14 42	American	Amer.-Hawman Line	470 2	63 2	19 0	Seattle, Wash.	General	7,049
Callopie 1	7 8 45	7 9 13	7 16 09	Danzig	Tankachiff Rhederei	446 0	56 0	26 6	Los Angeles, Calif.	Ballast	9,001
Katrina	3 00 10	7 10 06	7 17 22	American	Luckenbach Line	107 0	22 0	9 3	Tacoma, Wash.	General	5,104
Caueca 2	7 10 15	7 10 35	7 17 03	Colombian	National Navigation Co.	407 0	58 4	19 0	Buenaventura, Col.	General	8,179
San Roberto 1	7 10 55	7 11 10	7 18 15	British	Anglo-Mexican Pet. Co.	404 7	60 8	22 0	Los Angeles, Calif.	Ballast	163
Cities Service	7 10 55	7 12 00	7 19 10	American	Cities Service Transp. Co.	472 0	60 8	22 0	Los Angeles, Calif.	Ballast	5,997
Empire 1	7 11 25	7 12 00	7 19 15	British	Federal Steam Nav. Co.	423 0	60 8	22 0	Durand, N. Y.	General	3,981
Pakipaki 1	4 17 30	7 12 10	7 19 15	Nicaraguan	West Coast Transp. Co.	420 0	24 0	6 0	Los Angeles, Calif.	Ballast	286
Hedwig 8	7 16 50	7 18 15	8 12 38	British	Blue Star Line	439 0	54 0	18 0	Los Angeles, Calif.	Ballast	5,470
Comstar 1	7 20 00	8 6 25	8 12 44	British	Barber S. S. Line	461 9	60 0	23 0	Vancouver, B. C.	General	7,433
Tai Ping 2	7 21 15	8 6 15	8 14 00	Norwegian	Arrow Line	409 7	54 2	18 0	Taku Bar, China	General	9,804
Chas.	8 1 25	8 7 30	8 14 00	American	Calmar S. S. Corp.	385 0	51 2	27 6	Seattle, Wash.	General	3,500
Christenson..	8 4 00	8 7 30	8 14 58	American	Pac.-Arg.-Brazil Line	410 3	54 2	27 6	Seattle, Wash.	General, steel	6,693
Masamar	8 7 35	8 8 20	8 16 18	American	Irishman S. S. Lines	424 2	56 2	25 6	Seattle, Wash.	Coffee, cocoa	7,200
West Mahwah	8 7 35	8 8 20	8 16 18	American	Gracine Line	466 0	64 0	24 1	Seattle, Wash.	Steel, general	6,588
Steel Sentinel.	8 14 00	8 10 15	8 17 09	American	Donaldson Brothers	425 0	56 0	24 0	Talehuano, Chile	General	7,611
Sancta Maria 2	7 20 10	8 10 55	8 18 18	British	Pacific Steam Nav. Co.	530 0	66 0	19 6	Vancouver, B. C.	General	10,626
Gregalia	7 17 40	8 12 15	8 19 25	British	Defiance Steam Nav. Co.	400 0	58 0	25 3	Talehuano, Chile	General	7,827
Dronsea	8 7 25	8 12 20	8 19 46	Dutch	Shell Oil Co.	400 0	52 0	20 0	Vancouver, B. C.	General	14,827
Brielle	8 11 55	8 13 20	8 20 34	British	Wessel, Duval & Co	362 0	51 3	15 8	Corral, Chile	General	10,030
Malistan 1	8 12 30	8 20 34	8 22 14	Danish	Wessel, Duval & Co	362 0	51 3	15 8	Los Angeles, Calif.	General, cement	7,322
Nordlys	8 12 30	8 20 34	8 22 14	Danish	Wessel, Duval & Co	362 0	51 3	15 8	Los Angeles, Calif.	Ballast	5,799
Thukuteau	8 12 30	8 20 34	8 22 14	Danish	Wessel, Duval & Co	362 0	51 3	15 8	Talehuano, Chile	General	3,468
Mari	8 12 30	8 20 34	8 22 14	Danish	Wessel, Duval & Co	362 0	51 3	15 8	Talehuano, Chile	General	3,468
Golden Sea	8 12 30	8 20 34	8 22 14	Danish	Wessel, Duval & Co	362 0	51 3	15 8	Talehuano, Chile	General	3,468
Henry S. Grove	8 13 05	8 14 35	8 22 23	British	Schulte S. S. Co.	411 5	55 0	27 0	Kobe, Japan	Phosphate, etc	5,175
Arizona 1	8 14 05	8 14 35	8 22 23	British	Argonaut S. S. Line	387 0	54 0	27 0	Puerto Rico	Kerosene oil	6,434
Netherlands	8 14 05	8 14 35	8 22 23	British	Argonaut S. S. Line	387 0	54 0	27 0	Puerto Rico	Kerosene oil	6,434
Samuel Bakke 2	8 19 20	8 20 10	8 24 29	American	Texas Oil Co.	391 8	51 3	35 4	Portland, Ore.	General, steel	8,157
President Polk	8 20 35	8 20 10	8 24 29	American	Royal Mail S. P. Co.	450 0	58 3	30 0	Los Angeles, Calif.	General	7,655
Levant Arrow 1	8 20 35	8 20 10	8 24 29	American	Scand.-Pacific Line	390 8	52 7	17 0	Vancouver, B. C.	General	3,552
Stangstad 2	9 1 40	9 8 15	9 15 59	Norwegian	Dollar Line	502 1	62 7	17 0	Corral, Chile	General	6,558

Belawan-Deli, Sumatra.

^s Motor schooner.

7 Launch.

1 Tanker.

10

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Seythian	3	22 28	4	7 03	4	14 50	4	16 10	British	F. Leyland & Co	390 0	50 5	21 0	Sydney, Australia.	New Orleans, La.	Copra	4,284 5,411 3,804
Genevieve	4	3 00	4	7 19	4	14 30	4	18 15	American	Lykes Brothers	253 4	43 8	13 6	Buenaventura, Col.	Galveston, Tex.	Ballast	2,968 2,078
Lykes	4	9 30	4	10 30	4	17 30	6	16 10	French	French Line	425 0	54 8	25 0	Vancouver, B. C.	Le Havre, France.	General	7,827 7,351 5,189
Arizona	7-27	15 42	4	11 52	4	18 15	4	18 15	British	Eagle Oil Transp. Co.	305 0	52 1	23 0	Balboa, C. Z.	Maracaibo, Venez.	Ballast	
San Camilo	4	12 30	4	13 07	4	19 45	4	21 30	British	F. & W. Ritsen	395 5	53 8	23 0	Coronel, Chile	Le Havre, France.	General	6,003 5,761 3,881
Plum Branch.	4	13 45	4	14 43	4	22 50	4	22 50	American	Rosevelt S. S. Co., S. B.	410 5	54 2	27 6	Holte, P. I.	New York, N. Y.	Sugar, lumber.	8,025 7,496 5,823
Condr.																	
McCauley	4	20 00	5	6 11	5	13 10	5	13 10	American	U. S. Navy	429 0	53 9	26 6	Balboa, C. Z.	Darien, C. Z.	Lumber	7,200 6,526 4,228
Bennahr	4	23 50	5	6 59	5	15 15	5	16 30	American	Canadian Transp. Co.	416 9	56 3	27 0	Vancouver, B. C.	Immingham, Eng.	Lumber	9,166 6,706 4,639
Hadnot	5	1 45	5	7 23	5	16 20	5	18 20	Dutch	Cities Service Transp. Co.	450 0	58 2	29 0	Los Angeles, Calif	New Orleans, La.	Kerosene	9,149 8,730 5,860
Grootendijk.	5	2 00	5	8 25	5	17 20	5	22 25	Dutch	N. Pacific Coast Line	422 9	56 2	23 6	Victoria, B. C.	Rotterdam, Holland	General	2,734 7,764 4,705
Aconcagua.																	
Florence	5	4 00	5	8 45	5	18 10	5	18 10	American	Chilean Line	422 9	56 2	23 6	Valparaiso, Chile	New York, N. Y.	General	
Lukenbach.	5	4 00	5	8 45	5	18 10	5	18 10	American	Lukenbach Line	401 8	52 0	24 6	Portland, Ore	Mobile, Ala	Lumber, general.	6,369 6,002 4,621
Grant	5	10 54	5	11 46	5	19 15	6	12 00	American	U. S. Army	490 0	55 0	26 0	San Francisco, Cal.	New York, N. Y.	Army supplies.	199
Guatemala.	5	6 11	6	6 13	6	13 10	6	23 35	American	Panama Mail S. S. Co.	360 2	51 6	22 0	San Francisco, Cal.	New York, N. Y.	General	1,445 5,776 4,081
Panquaco	5	6 17	6	6 17	6	13 05	6	13 05	Panama	Panama Government.	125 6	23 6	14 9	Balboa, C. Z.	Cristobal, C. Z.	Gasoline	9,018 7,484 5,216
Washington	5	21 00	6	6 43	6	14 35	6	14 35	American	Texas S. S. Co.	425 8	57 0	26 0	Los Angeles, Calif	Baltimore, Md	Gasoline	7,423 6,237 4,353
San Rosendo	6	3 30	6	7 07	6	15 45	6	19 40	British	Anglo-Mexican Pet. Co.	407 1	53 2	25 0	Los Angeles, Calif	Lizards, Eng.	Gasoline	6,883 6,581 4,795
Clausen	5	19 55	6	7 37	6	16 45	6	16 45	American	Isithian S. S. Lines	409 8	54 2	24 3	Everett, Wash.	Baltimore, Md	Lumber	5,490 6,572 4,795
West Keats	5	21 45	6	8 28	6	18 30	6	18 30	American	Quaker Line	410 3	54 3	25 0	Tacoma, Wash.	Philadelphia, Pa.	Lumber	7,165 7,470 5,529
Robin Adair.	5	22 20	6	8 50	6	19 35	6	19 35	American	Seas Shipping Co	424 9	55 2	25 0	Seattle, Wash.	Baltimore, Md	Ore, lumber, gen.	
J. L. Luckenbach.	6	5 00	6	9 09	6	19 05	6	19 05	American	Lukenbach Line	448 9	60 2	30 0	Portland, Ore	Boston, Mass	General	8,000 9,294 6,861
Montanan	6	12 10	6	12 55	6	20 15	6	20 15	American	Amer-Hawaiian Line	404 6	53 9	25 0	Portland, Ore	Boston, Mass	General	6,716 6,756 4,775
Baron Haig	6	15 15	6	16 14	7	12 00	7	13 15	British	H. Hogarth & Sons	342 2	48 2	21 0	Manila, P. I.	Cape Hatteras	Sugar	5,200 3,917 2,759
W. H. Libby	6	18 35	6	6 28	7	14 15	7	14 15	American	Standard Shipping Co.	462 4	60 2	27 3	Baltimore, Md	Baltimore, Md	Gasoline	10,734 8,461 6,104
Britta	7	1 30	7	7 09	7	15 20	7	15 20	Norwegian	Arthur H. Mathusen.	407 8	54 7	26 8	Los Angeles, Calif	London, England	Gasoline	8,359 6,539 4,252
Emma																	
Macrak	6	22 30	7	7 26	7	16 25	7	18 00	Danish	Standard Shipping Co.	466 8	62 0	27 1	Cabo Blanco, Peru.	Montreal, Canada	Crude oil	12,238 8,645 6,024
Remscheid.	7	4 35	7	8 09	7	17 00	7	23 45	German	North German Lloyd	449 0	58 2	25 3	Corral, Chile	Bremen, Germany	General	8,429
Denver	7	8 20	7	9 20	7	17 30	7	17 30	American	U. S. Navy	292 0	44 0		Balboa, C. Z.	Cristobal, C. Z.	Cruiser	9,260 10,802 7,592
Lockhartine	7	8 20	7	9 19	7	18 30	8	00 15	British	Royal Mail S. P. Co.	485 0	62 0	29 4	Vancouver, B. C.	Rotterdam, Holland	Grain, general.	
Benjamin																	
Franklin	7	9 40	7	10 32	7	18 55	7	22 40	Norwegian	North-Pacific Service.	452 0	59 5	27 5	Vancouver, B. C.	Oslo, Norway	Grain, general.	8,275 9,082 6,140
Bennekom	6	22 00	7	11 21	7	19 35	8	00 55	Dutch	Royal Neth. S. S. Co.	450 0	58 0	25 5	Corral, Chile.	Hamburg, Germany	General	8,389 7,949 5,806
C. O. Still.	7	19 51	7	16 04	8	12 45	8	12 45	British	International Pet. Co.	505 0	75 5	33 0	Talara, Peru.	New York, N. Y.	Crude oil	21,000 16,780 9,885
Tanker.																	

¹ Tanker.² Dry docking only.³ Launch.⁴ Transp.⁵ Coast Guard.⁶ Motor ship.⁷ Cruiser.⁸ For orders.

Cleveland	7 21 50	8 6 10	8 13 55	12 11 05	American	U. S. Navy	292 0	44 0	Batavia, C. Z	Boston, Mass	Cruiser	9 400	7 709	5 477
Dean Emory	7 17 50	8 6 54	8 18 25	8 18 25	American	Pan.-Am. Pet. & Tr. Co.	429 3	59 2	Batavia, C. Z	Batavia, Mass	Gasoline	23	7 709	5 477
Caldas	8 3 20	8 7 10	8 18 45	8 18 45	Colombian	Cia. Nacional Nav	116 0	21 1	Buenaventura, Col	Cristobal, C. Z	General	23	211	124
Oliphenter	8 3 40	8 7 49	8 19 25	8 19 25	British	Richfield Oil Co.	410 0	53 5	Los Angeles, Calif	London, England	Gasoline	7 772	6 010	4 094
Gladyse	8 4 20	8 8 41	8 20 00	8 20 00	American	T. P. Gallagher & Co.	391 9	51 9	Manila, P. I	New Orleans, La	Coconut oil	6 535	5 393	3 719
Pacific Pine	8 6 30	8 8 41	8 20 00	8 20 00	American	Dimon S. S. Corp	410 5	54 3	Seattle, Wash	Baltimore, Md	Lumber	7 000	6 583	4 708
Kalimba	8 6 50	8 8 51	8 21 05	8 22 05	British	Canadian Transp. Co.	402 0	53 0	Vancouver, B. C.	Montreal, Canada	Lumber, general	6 000	5 602	4 177
Sacramento	8 6 45	8 9 10	8 21 05	8 21 40	American	Charles Nelson & Co.	380 0	53 2	Los Angeles, Calif	Norfolk, Va	General	5 945	5 653	4 122
Baralt	8 9 00	8 10 02	8 21 55	10 6 15	Dutch	Royal Neth. S. S. Co.	202 9	33 1	Guayaquil, Ecuador	Norfolk, C. Z	General	610	1 183	742
Rolling Stone	8 9 50	8 10 22	8 18 35	8 18 35	Panaman	Robert Wilcox	50 0	50 0	Batavia, C. Z	Cristobal, C. Z	Ballast	27	20	20
City of	8 12 15	8 13 41	8 22 00	10 15 10	Panaman	Panama Mail S. S. Co.	296 0	45 9	San Francisco, Cal	Cristobal, C. Z	Coffee, general	694	3 848	2 603
Parana	8 13 05	8 13 41	8 22 00	10 15 10	American	United Fruit Co.	315 2	44 2	San Francisco, Cal	Port Limon, C. R.	General, gasoline	463	3 496	2 131
San Mateo	8 14 15	8 15 05	8 22 55	8 22 55	American	Munson Line	384 8	51 2	Tacoma, Wash	Baltimore, Md	Lumber, general	6 300	5 571	4 033
Munbeaver	8 20 20	9 6 20	9 13 35	9 13 35	British	Donaldson Bros. Ltd	385 2	51 6	Vancouver, B. C.	Glasgow, Scotland	General	5 413	6 576	4 724
Novera	9 7 00	9 10 44	9 19 10	9 19 10	British	N. Z. Shipping Co.	490 6	62 8	Dunedin, N. Z.	Liverpool, England	Frozen, general	5 559	10 009	8 135
Santa Inez	9 8 05	9 11 32	9 18 15	9 23 00	American	Grace Line	370 0	53 2	Valparaiso, Chile	New York, N. Y.	Copper, general	2 900	6 255	4 016
Atlantic Sun	9 11 00	9 12 05	9 19 40	9 19 40	American	Sun Oil Co.	429 3	59 2	Los Angeles, Calif	Miami, Fla	Gasoline	9 200	7 568	5 283
Elisha Walker	9 13 15	9 13 15	9 21 05	9 21 05	American	Huasteca Petroleum Co.	429 3	59 2	Los Angeles, Calif	Baltimore, Md	Gasoline	9 400	7 978	5 783
Firmore	9 13 35	9 14 46	9 22 50	10 2 50	American	Ore S. S. Corp	449 1	57 2	Cruz Grande, Chile	Baltimore, Md	Iron ore	11 650	7 847	5 185
Real	9 11 40	9 11 40	9 21 00	10 8 00	Panaman	Hana Elliot	370 0	53 0	Batavia, C. Z	Cristobal, C. Z	Nitrates	7 100	5 523	4 068
Agawist	9 18 00	10 6 16	10 13 55	10 13 55	American	DuPont de Nemours	180 0	35 6	Liquique, Chile	Delaware River	Mine sweeper	15 000	11 274	7 895
Mallard	9 21 15	10 6 32	10 13 50	10 13 50	American	Standard Oil Co. of Cal	500 0	68 2	Batavia, C. Z	Philadelphia, Pa.	Gasoline	11 216	9 698	7 862
W. S. Rheem	10 5 17	10 7 28	10 15 55	10 15 55	American	Standard Transp. Co.	467 6	62 7	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	8 773	7 013	5 317
Sylvan Arrow	9 21 40	10 7 46	10 17 40	10 17 40	Danish	East Asiatic Co.	410 0	55 2	Vancouver, B. C.	Copenhagen, Den	General	8 620	9 936	6 561
Tongking	10 1 30	10 8 19	10 16 50	10 20 10	British	Pacific Steam Nav. Co	485 0	58 0	Coronel, Chile	Liverpool, England	General	6 011	7 380	5 339
Orica	10 3 34	10 8 55	10 18 05	10 18 05	American	Amer-Hawaiian Line	415 0	53 7	Seattle, Wash	Boston, Mass	General	2 866	3 517	2 268
Alaskan	10 3 00	10 9 03	10 19 00	10 23 20	Norwegian	El Aguila Co.	340 0	47 0	Ancorots, Wash	Tampico, Mexico	Lumber	7 595	6 603	4 382
Vindrogen	9 11 00	10 13 22	10 21 10	10 21 10	American	Arrow Line	410 0	54 2	Los Angeles, Calif	Philadelphia, Pa.	Lumber	7 595	6 603	4 382
Edwin Christenson	9 11 00	10 13 22	10 21 10	10 21 10	American	Arrow Line	410 0	54 2	Los Angeles, Calif	Philadelphia, Pa.	Lumber	7 595	6 603	4 382

* Tanker.

* Yacht.

* Commercial launch.

* Mine sweeper.

* Towing launch.

* Panama.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From —	Date.	Vessel.	Line.	For —
August 4	Ulva	United Fruit Co	Port Limon, Costa Rica.	August 4	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
August 4	Alemania	Hamburg-American Line	Curacao, D. W. I.	August 4	Ulva	United Fruit Co	New York via Habana
August 5	Maravi	United Fruit Co	Puerto Colombia.	August 4	Cristobal	Panama R. R. S. Line	New York via Haiti.
August 5	Tolosa	United Fruit Co	New York via Habana.	August 5	Cartago	United Fruit Co	New Orleans via way pts.
August 5	No. 9685	Pan-American Airways	Managua via David.	August 5	Maravi	United Fruit Co	New York via Kingston.
August 5	Linda S.	A. L. Surron	Colon, R. P.	August 5	Linda S.	A. L. Surron	Bluefields via Port Limon.
August 6	Swiftwind	Eastern Shell Co	Curacao, D. W. I.	August 6	Arachucua	United Fruit Co	Colon, R. P.
August 6	Pellerin de la Touche	French Line	Hayre via wayports.	August 6	Inapaquina	United Fruit Co	Colon, R. P.
August 6	Arachucua	United Fruit Co	Colon, R. P.	August 6	Killing	Lindsay, Swan, Hunter	Kingston, Jamaica
August 6	Inapaquina	United Fruit Co	Colon, R. P.	August 6	No. 9157	Pan-American Airways	Curacao via wayports.

* Other than ships passing through the Canal.

* Air mail carrier.

* Motor schooner.

* Tug.

* Motor boat.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.					* DEPARTURES.				
* ARRIVALS.			From—		Date.	Vessel.	Line.	For—	
August 7	Santa Marta	United Fruit Co	New York via Kingston.	August 6	No. 9688 ²⁵	Pan-American Airways	Managua via David.		
August 7	Darien C-35 ²⁵	Seadta Airplane Co	Barranquilla, Colombia.	August 6	No. 9776 ²⁵	Pan-American Airways	Guayaquil via wayports.		
August 8	Saramacca	United Fruit Co	New Orleans, La.	August 7	Tolosa	United Fruit Co	Port Limon, C. R.		
August 8	No. 9688 ²⁵	Pan-American Airways	Managua via David.	August 7	Swiftwind	Eastern Shell Co.	Caracao, D. W. I.		
August 8	No. 9137 ²⁵	Pan-American Airways	Curacao via wayports.	August 8	No. 9685 ²⁵	Pan-American Airways	Managua via David.		
August 9	Suriname	United Fruit Co	Port Limon via Bocas.	August 8	Darien C-35 ²⁵	Seadta Airplane Co	Barranquilla, Colombia.		
August 9	Anapala.	United Fruit Co.	New Orleans and Habana.	August 8	Santa Marta	United Fruit Co	New York via wayports.		
August 9	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	August 8	Saramacca	United Fruit Co	Puerto Colombia.		
August 9	No. 9776 ²⁵	Pan-American Airways	Guayaquil via wayports.	August 8	Pellerin della Touche	French Line	Havre via wayports.		
August 10	Mayari	United Fruit Co	New York via wayports.	August 9	Suriname	United Fruit Co	New Orleans, La.		
August 10	Paranina	United Fruit Co	New Orleans via Habana.	August 10	No. 9688 ²⁵	Pan-American Airways	Managua via David.		
August 10	No. 9685 ²⁵	Pan-American Airways	Managua via David.	August 10	Anapala	Standard Fruit & S. S. Co	New Orleans and waypts.		
August 10	Marques de Comillas	Spanish Steamship Line.	Barcelona via wayports.	August 10	Mayari	United Fruit Co.	New York via Kingston.		
August 10	Anaehueyna ²⁶	United Fruit Co	Colon, R. P.	August 10	Almanita	Hamburg-American Line	Maracaibo, Venezuela.		
PORT OF BALBOA.									
²⁵ Air mail carrier. ²⁶ Motor boat.									
August 6	Nora	Grace Line	Los Angeles, California.	August 7	Nora	Grace Line	Los Angeles, California.		
August 7	Mary Pinchot ²⁷	Gifford Pinchot	Gallapagos Island.	August 9	Sambu ²⁸	Hans Elliot	Panama Bay, R. P.		
August 9	Sambu ²⁸	Hans Elliot	Bayano River, R. P.	August 9	Dos Hermanos ²⁸	A. Valdez	Panama Bay, R. P.		
August 9	Dos Hermanos ²⁸	A. Valdez	Bayano River, R. P.						
²⁷ Yacht.			* Other than ships passing through the Canal.						
			²⁸ Motor schooner.						

Commercial Traffic Through the Panama Canal in July, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of July, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for July, 1928, and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	100	517,254	398,449	640,002	396,635	\$440,414.14	326,330
East coast of United States to west coast of South America:							
British	6	23,322	18,691	31,161	19,222	20,649.44	9,972
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	5,212
German	1	1,622	1,594	1,912	1,127	1,992.50	497
Japanese	1	5,147	5,066	6,787	5,085	3,799.50	
Norwegian	1	1,912	1,659	2,496	1,431	2,073.75	3,269
Swedish	2	5,934	5,050	16,939	5,431	4,816.87	537
United States	19	72,729	60,706	104,297	60,090	59,674.27	21,662
Totals	32	120,043	99,665	178,212	100,338	101,630.08	41,149
Europe to west coast of United States:							
British	7	33,299	27,806	45,716	27,360	25,705.30	3,820
Norwegian	10	46,798	38,146	61,777	36,409	36,181.32	21,398
Swedish	1	6,295	5,189	8,945	6,592	4,532.40	
United States	2	13,353	10,971	17,633	10,897	11,136.93	8,659
Totals	20	99,745	82,112	134,071	81,258	77,555.95	33,868
Europe to west coast of South America:							
British	6	34,865	27,749	46,143	28,553	34,686.25	24,005
Danzig	1	5,929	5,193	8,745	5,026	4,268.88	
Dutch	2	13,841	8,040	14,208	8,029	10,050.00	12,167
French	2	8,643	6,171	10,067	6,198	7,713.75	6,023
German	4	20,536	14,849	23,775	14,606	18,561.25	26,294
Norwegian	1	3,965	2,637	4,436	2,664	3,296.25	7,169
Yugoslav	2	7,590	6,506	10,153	6,589	8,132.50	13,575
Totals	18	95,369	71,145	117,527	71,665	86,708.88	89,233
East coast of United States to Far East:							
British	7	40,580	26,860	42,151	25,743	33,575.00	48,363
Japanese	6	30,086	27,149	38,376	26,499	33,312.35	45,895
Norwegian	1	7,063	4,042	6,744	4,109	5,052.50	8,082
United States	4	23,655	16,700	26,642	16,592	20,875.00	31,131
Totals	18	101,384	74,751	113,913	72,943	92,814.85	133,471
Europe to west coast of Canada:							
British	4	25,532	16,169	26,561	16,267	20,211.25	7,743
Danish	2	10,624	8,430	13,288	8,482	10,537.50	13,902
Dutch	1	6,164	5,183	8,373	5,167	6,478.75	3,800
French	1	4,885	4,222	6,733	4,227	5,277.50	3,542
German	3	20,774	14,361	23,915	14,577	17,951.25	15,377
Italian	1	6,035	5,055	7,061	4,460	6,318.75	1,930
Norwegian	3	15,711	11,954	18,902	11,926	14,942.50	15,301
Swedish	1	5,337	2,861	5,210	3,747	3,576.25	4,651
Totals	16	95,062	68,235	110,043	68,853	85,293.75	66,246
Cristobal to west coast of South America:							
Colombian	4	1,074	1,007	1,750	1,011	1,249.35	637
Dutch	2	1,484	588	1,560	646	735.00	296
German	4	3,191	2,362	4,245	2,418	2,952.50	1,318
Totals	10	5,749	3,957	7,555	4,075	4,936.85	2,251

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British.....	7	34,951	26,197	41,274	26,303	\$32,647.65	41,935
United States.....	2	10,489	7,647	12,094	7,546	9,558.75	7,135
Totals.....	9	45,440	33,844	53,368	33,849	42,206.40	49,070
Europe to Australasia:							
British.....	7	48,903	36,083	59,131	36,589	45,087.55	50,168
Swedish.....	1	6,098	3,286	6,059	4,311	4,107.50	4,087
Totals.....	8	55,001	39,369	65,190	40,900	49,195.05	54,255
Cristobal to west coast of Central America:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	2,267
German.....	1	855	722	1,306	717	902.50	1,008
Norwegian.....	2	1,008	846	1,464	782	1,057.50	880
Totals.....	5	3,304	2,854	5,068	2,803	3,567.50	4,155
East coast of Central America to west coast United States:							
United States.....	5	11,368	10,457	16,786	10,382	13,018.20	3,123
East coast of United States to Philippine Islands:							
British.....	2	11,143	6,274	10,362	6,116	7,842.50	10,206
Norwegian.....	1	5,136	4,112	6,552	4,122	5,140.00	6,295
United States.....	1	5,249	3,847	6,188	3,822	4,808.75	8,393
Totals.....	4	25,528	14,233	23,102	14,060	17,791.25	24,894
East coast of Canada to west coast South America:							
British.....	3	18,898	16,345	29,916	16,871	13,606.56	.....
East coast of Canada to Australasia:							
British.....	3	14,378	12,101	17,572	10,818	14,953.40	13,000
Cristobal to Balboa:							
Panaman.....	3	89	86	151	92	97.20	123
Around the world:							
United States.....	2	17,702	12,461	21,030	12,428	15,576.25	11,977
Cristobal to west coast of United States:							
Panaman.....	1	2,606	1,384	3,644	2,594	1,730.00	2,888
United States.....	1	1,549	1,167	1,974	1,161	1,458.75	2,290
Totals.....	2	4,155	2,551	5,618	3,755	3,188.75	5,178
East coast of United States to Hawaiian Islands:							
United States.....	2	6,016	4,601	7,678	4,648	4,995.92	2,226
Canadian interoceanic:							
British.....	2	8,254	6,628	10,931	6,716	8,285.00	6,187
East coast South America to west coast of United States:							
United States.....	2	9,981	7,178	11,335	7,197	8,972.50	6,476
Foreign vessels in ballast— United States inter- oceanic:							
British.....	1	6,416	5,415	8,966	5,329	4,619.52	.....
East coast of United States to west coast of Canada:							
United States.....	1	5,542	4,280	6,896	4,267	5,350.00	9,253
East coast of South America to west coast of Canada:							
Norwegian.....	1	4,354	2,432	4,003	2,483	3,040.00	6,142
East coast of South America to Far East:							
Japanese.....	1	7,354	5,958	9,455	5,902	7,447.50	5,798
West Indies to west coast of Canada:							
British.....	1	2,207	1,239	2,338	1,249	1,548.75	3,870
West Indies to west coast of United States:							
British.....	1	4,686	2,747	4,538	2,737	3,433.75	4,000
West Indies to Far East:							
British.....	1	4,076	3,188	5,041	3,192	3,985.00	7,454

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West Indies to west coast of South America:							
United States.....	1	2,078	1,679	2,690	1,668	\$2,098.75	247
Europe to Balboa:							
Dutch.....	1	4,395	3,514	5,789	3,381	3,164.40	.....
Grand totals, July, 1929..	273	1,291,828	991,474	1,618,784	990,494	1,119,496.15	909,976
Grand totals, July, 1928..	272	1,269,085	965,479	1,580,367	967,284	1,103,618.21	748,160
Grand totals, July, 1927..	280	1,323,649	1,032,027	1,686,511	1,031,969	1,149,465.16	739,656

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	86	458,183	350,257	566,430	351,320	\$437,821.25	639,983
West coast of South America to east coast of United States:							
British.....	7	26,983	21,761	36,394	22,451	27,201.25	39,742
Chilean.....	2	7,735	6,033	10,889	6,233	7,541.25	7,543
German.....	2	2,789	2,592	3,340	1,940	3,193.90	1,917
Norwegian.....	1	5,219	5,207	7,041	5,234	6,262.80	9,586
Peruvian.....	1	5,415	4,338	7,073	4,373	5,422.50	7,577
Swedish.....	1	4,496	3,743	15,337	4,385	4,678.75	21,600
United States.....	15	70,093	58,067	100,208	57,626	72,318.35	155,476
Totals.....	29	122,730	101,741	180,282	102,242	126,618.80	243,441
West coast of United States to Europe:							
British.....	14	62,326	51,967	83,009	51,745	64,892.65	114,874
Dutch.....	1	4,395	3,514	5,789	3,381	4,392.50	7,611
German.....	2	10,976	8,007	13,300	7,818	10,008.75	17,101
Norwegian.....	3	14,468	10,760	18,097	10,808	13,450.00	24,245
Swedish.....	2	9,164	6,584	11,337	8,524	8,230.00	13,967
United States.....	2	14,655	11,854	18,830	11,773	14,817.50	26,032
Totals.....	24	115,984	92,716	150,362	94,049	115,791.40	203,830
West coast of South America to Europe:							
British.....	5	29,853	24,254	40,082	24,614	30,317.50	32,002
Danzig.....	1	5,929	5,193	8,745	5,026	6,491.25	11,303
Dutch.....	2	11,413	8,307	13,850	8,157	10,383.75	19,048
French.....	3	12,710	10,556	16,047	10,531	13,062.05	21,329
German.....	7	34,302	25,907	41,259	25,234	32,383.75	52,158
Italian.....	2	12,290	7,466	15,322	9,021	9,332.50	7,978
Norwegian.....	4	11,449	8,545	13,936	8,461	10,257.50	16,686
Totals.....	24	117,946	90,228	149,241	91,044	112,228.30	160,504
West coast of Canada to Europe:							
British.....	9	46,855	37,433	60,109	37,556	46,791.25	70,278
Dutch.....	3	21,230	16,418	26,388	16,418	20,522.50	27,373
French.....	2	9,766	7,442	12,059	7,443	9,302.50	15,908
German.....	2	13,577	9,062	15,210	9,208	11,327.50	17,224
Italian.....	2	12,538	9,997	15,181	9,583	12,496.25	17,988
Norwegian.....	1	5,637	4,509	7,116	4,493	5,636.25	8,728
United States.....	1	5,188	3,856	6,194	3,845	4,820.00	7,957
Totals.....	20	114,791	88,717	142,257	88,546	110,896.25	165,456
Philippine Islands to east coast United States:							
British.....	1	6,263	4,602	7,375	4,594	5,752.50	6,302
Danish.....	2	7,033	5,062	8,354	5,130	6,327.50	12,540
Japanese.....	5	24,807	21,874	32,003	21,566	27,175.00	37,302
Norwegian.....	1	4,358	2,415	4,111	2,356	3,018.75	6,500
United States.....	4	21,753	18,265	27,460	18,060	22,831.25	34,870
Totals.....	13	64,214	52,218	79,303	51,706	65,105.00	97,514
West coast of South America to Cristobal:							
Colombian.....	3	411	390	647	384	478.10	539
Dutch.....	1	742	294	780	323	367.50	335
German.....	6	5,243	3,385	6,518	3,496	4,231.25	2,371
Norwegian.....	1	504	423	732	391	362.88	.....
Totals.....	11	6,900	4,492	8,677	4,594	5,439.73	3,245

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of Central America to Europe:							
British.....	1	75	68	226	87	\$54.00	
German.....	1	3,457	2,150	4,137	2,219	2,489.04	
Norwegian.....	4	2,991	2,333	4,268	2,280	2,911.47	1,102
Totals.....	6	6,523	4,551	8,631	4,586	5,454.51	1,102
Australasia to Enrope:							
British.....	5	42,948	32,128	52,003	32,673	40,160.00	24,937
French.....	1	5,472	4,777	6,037	3,747	5,971.25	3,924
Totals.....	6	48,420	36,905	58,040	36,420	46,131.25	28,861
West coast of Canada to east coast of United States:							
British.....	1	5,867	3,468	5,677	3,510	4,335.00	7,280
Norwegian.....	3	12,409	8,423	14,126	8,474	10,528.75	19,475
United States.....	1	2,628	2,009	3,254	1,977	2,511.25	3,982
Totals.....	5	20,904	13,900	23,057	13,961	17,375.00	30,737
West coast of Central America to Cristobal:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	1,262
German.....	1	855	722	1,306	717	615.60	
Norwegian.....	2	1,110	908	1,587	873	799.20	
Totals.....	5	3,406	2,916	5,191	2,894	3,022.30	1,262
Hawaiian Islands to east coast of United States:							
United States.....	2	6,354	4,942	8,336	4,942	6,177.50	11,358
West coast of United States to east coast of Central America:							
United States.....	4	9,134	8,361	13,520	8,242	10,398.20	2,236
West coast of United States to West Indies:							
British.....	1	4,849	4,386	7,406	4,279	5,482.50	8,806
Dutch.....	1	5,065	4,540	7,412	4,235	5,675.00	9,245
United States.....	1	4,668	3,405	5,685	3,414	4,256.25	7,478
Totals.....	3	14,582	12,331	20,503	11,928	15,413.75	25,529
Canadian intercoastal:							
British.....	3	12,205	9,398	15,300	9,441	11,747.50	18,993
Australasia to east coast of Canada:							
British.....	3	13,763	10,944	17,956	10,978	13,680.00	9,445
Central American intercoastal:							
Mexican.....	1	2,159	1,569	2,876	1,892	1,961.25	1,140
West coast of the United States to Cristobal:							
Panaman.....	1	2,606	1,384	2,461	1,384	1,730.00	1,225
West coast of South America to east coast of Canada:							
British.....	1	7,096	5,973	11,404	6,708	7,466.25	16,200
West coast of South America to West Indies:							
Argentine.....	1					1,268.00	
West coast of South America to east coast of Central America:							
British.....	1	9,609	8,309	13,056	8,335	6,918.48	
West coast of South America to Egypt:							
Belgian.....	1	4,792	4,142	6,511	4,172	5,177.50	8,160
Australasia to east coast of United States:							
United States.....	1	4,798	3,785	6,061	3,758	4,731.25	6,300
Far East to east coast of United States.....							
Japanese.....	1	4,772	3,533	5,642	3,452	4,416.25	4,490
Far East to West Indies:							
Norwegian.....	1	4,534	2,465	4,114	2,453	3,081.25	7,175
Balboa to Cristobal:							
Panaman.....	1	47	47	86	47	35.25	
Grand totals, July, 1929..	254	1,176,452	915,824	1,499,297	919,094	1,140,086.22	1,688,186
Grand totals, July, 1928..	237	1,049,310	806,408	1,342,537	814,540	1,005,464.98	1,543,795
Grand totals, July, 1927..	229	1,083,306	851,111	1,385,744	853,689	1,066,050.83	1,710,812

* Naval vessel of 2,536 displacement tons.

United States Intercoastal Traffic by Commodities for July, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for July, 1929, and the totals for July, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific	Pacific to Atlantic.	Totals.
Aeroplanes.....	9		9
Agricultural implements.....	1,406	40	1,446
Alfalfa.....		165	165
Alfalfa meal.....		263	263
Ammonia.....	549		549
Asbestos.....	188	35	223
Asphalt.....	259	20	279
Automobiles.....	1,761	43	1,804
Automobile accessories.....	195	96	291
Bark:			
Cascara.....		24	24
Other.....		492	492
Beans.....		2,365	2,365
Borax.....	100	1,333	1,433
Bricks.....	29		29
Burlap.....	39	155	194
Calcium carbide.....	135		135
Camphor.....		122	122
Canned goods:			
Fish.....	489	7,719	8,208
Fruit.....	319	14,270	14,589
Meat.....	25	371	396
Milk.....		653	653
Soup.....	1,986		1,986
Vegetables.....	256	2,263	2,519
Miscellaneous.....	2,244	3,303	5,547
Carbon black.....	63	31	94
Celite filtereel.....		404	404
Cement.....	1,345		1,345
Charcoal.....	161		161
Chemicals.....	1,007	1,307	2,314
China and fire clay.....	99	76	175
Coal.....	4,040		4,040
Cocoanuts.....		362	362
Coffee.....	44	154	198
Coke.....	1,000		1,000
Cold storage:			
Beef.....	9	5	14
Butter.....	40		40
Cheese.....	134	25	159
Eggs.....		260	260
Lard.....	165		165
Meat.....	418		418
Confectionery.....	383		383
Cork.....	159		159
Cotton.....	92	418	510
Cyanide.....	216		216
Drugs.....	686	2	688
Dyes.....	19		19
Earthenware.....	53	167	220
Eggs, dried.....		332	332
Explosives.....	32		32
Flour.....	64	5,096	5,160
Fruit:			
Dried.....	20	4,368	4,388
Fresh.....		539	539
Fuller's earth.....	468		468
Furniture.....	887	220	1,107
General.....	73,742	6,965	80,707
Glass and glassware.....	2,215	270	2,485
Granite.....	84		84
Hair.....		106	106
Hardwoods.....	521	104	625
Hay.....		14	14
Hemp.....	20	1,322	1,342
Honey.....		147	147

Commodity.	Atlantic to Pacific	Pacific to Atlantic.	Totals.
Hops		20	20
Jute		40	40
Lime	177		177
Linoleum	886	26	912
Liquors	128		128
Lumber	2,725	239,335	242,060
Malt	168		168
Manufactured goods:			
Iron and steel	144,532	3,763	148,295
Machinery	3,973	651	4,624
Railroad material	15,333		15,333
Tinplate	10,456		10,456
Textiles	3,565	415	3,980
Miscellaneous	9,125	4,187	13,312
Marble	46	22	68
Matches	172	14	186
Metals:			
Antimony		275	275
Copper		5,156	5,156
Iron	2,236		2,236
Lead		459	459
Scrap	860	484	1,344
Zinc	35	86	121
Other	87		87
Milk, powdered	39	759	898
Molasses	66		66
Musical instruments	7		7
Nuts	7		7
Oats	47		47
Oils:			
Cottonseed	152		152
Crude	8,890	31,718	40,608
Gas oil, fuel oil	29	9,073	9,102
Gasoline, benzine, naphtha	100	209,862	209,962
Kerosene		10,600	10,600
Linseed	71		71
Lubricating and greases	6,508	10,307	16,815
Olive	35		35
Vegetable	357		357
Wood	23		23
Other	16	10	26
Ores:			
Antimony		45	45
Chrome	124		124
Copper		3,075	3,075
Magnesite		2,000	2,000
Manganese		1,300	1,300
Zinc	40		40
Other		717	717
Paint	507	253	760
Paper	6,157	6,588	12,745
Paper pulp		8,924	8,924
Paper roofing	13		13
Peanuts	36	316	352
Peas		592	592
Phosphates	594		594
Porcelain	142	1,236	1,378
Quicksilver		1	1
Rags		629	629
Rice	100		100
Rope	133	96	229
Rosin	577		577
Rubber:			
Manufactured	907	54	961
Raw	61		61
Scrap		76	76
Salt	331	39	370
Sand	12		12
Seeds:			
Grass		107	107
Hemp		83	83
Other		200	200
Shells	1,007		1,007
Silk		2,735	2,735
Skins and hides		2,163	2,163
Slate	190		190
Soap	2,032	233	2,265
Soda	262		262
Soda, ash	1,469		1,469
Soda, bicarbonate	314		314
Soda, caustic	280		280
Starch	52		52
Sugar		19,236	19,236
Sulphur	10,125		10,125
Syrup		56	56

Commodity.	Atlantic to Pacific	Pacific to Atlantic.	Totals.
Talc.....	22	130	152
Tallow.....		242	242
Tar.....	185		185
Tea.....		42	42
Tobacco.....	940	230	1,170
Toys.....	39	58	97
Turpentine.....	133		133
Vegetables.....		71	71
Waste.....	99	74	173
Wax.....	72	145	217
Wheat.....		90	90
Wine.....	10	82	92
Wool.....		6,778	6,778
Zinc oxide.....	28		28
Totals, July, 1929.....	336,019	642,384	978,403
Totals, July, 1928.....	245,433	633,488	878,921
Totals, July, 1927.....	212,214	726,553	938,767

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending August 10, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged Tons.	Laded. Tons.
Acajutla.....	Pacific Steam Nav. Co.		July 31		1,130
Manizales.....	North German Lloyd		July 28		192
Orazio.....	Italian Line		July 28		216
Heredia.....	United Fruit Co.		July 29		37
Buenaventura.....	Panama R. R. S. S. Line		July 28		246
Wanks.....	Standard Fruit & S. S. Co.		July 28		8
Frankenwald.....	Hamburg-American Line		July 28		271
Fella.....	Panama R. R. S. S. Line	July 28	July 28	112	(²)
Pastores.....	United Fruit Co.	July 28	July 28	4	436
West Ivis.....	Andrews Co.	July 28	July 28	154	(²)
Santa Elisa.....	Grace Line	July 29	July 29	(¹)	99
Nosa Prince.....	N. O. & S. A. S. S. Co.	July 29	July 29	48	(²)
Coppename.....	United Fruit Co.	July 29	July 29	(¹)	64
Adolf von Baeyer.....	Hamburg-American Line	July 29	July 30	6	(²)
Independence.....	Panama Agencies Co.	July 29	July 20	224	(²)
Ulua.....	United Fruit Co.	July 29	July 31	83	13
Teutonia.....	Hamburg-American Line	July 30	July 31	351	51
Zacapa.....	United Fruit Co.	July 31	August 1	386	150
Cristobal.....	Panama R. R. S. S. Line	July 31		3,033	
Annetta I.....	United Fruit Co.	July 31		22	
Cerigo.....	Hamburg-American Line	July 31		438	
Maravi.....	United Fruit Co.	July 31	July 31	686	251
Anachucama.....	United Fruit Co.	July 31	August 1	44	(²)
Teno.....	Panama R. R. S. S. Line	July 31	July 31	(¹)	35
Ariguani.....	United Fruit Co.	July 31	July 31	2	(²)
Pacific Pioneer.....	Andrews & Co.	July 31	August 1	16	490
Stella.....	Panama Mail S. S. Co.		August 3		1,162
Norman Bridge.....	Anglo-American S. S. Co.	August 1	August 2	6,142	(²)
Osiris.....	Hamburg-American Line	August 1	August 1	32	101
Santa Rita.....	Grace Line	August 1	August 2	6	114
La Plata Maru.....	Panama Agencies Co.	August 1	August 2	140	(²)
Median.....	Andrews & Co.	August 1	August 3	4	109
Mercator.....	United Fruit Co.	August 1	August 3	(¹)	314
Cali.....	North German Lloyd	August 1		650	
Suriname.....	United Fruit Co.	August 2	August 2	898	62
Alvarado.....	Pacific Steam Navigation Co.	August 2	August 2	264	26
Coppename.....	United Fruit Co.	August 2	August 2	9	381
Justin.....	North German Lloyd	August 2	August 3	675	8
Anachucama.....	United Fruit Co.	August 2	August 3	46	(²)
Inapaquina.....	United Fruit Co.	August 2	August 3	22	(²)
Mississippi.....	French Line	August 2	August 3	327	(²)
Atlantida.....	Standard Fruit & S. S. Co.	August 2	August 3	193	304
Cauca.....	Anglo-American S. S. Co.	August 2		286	
Canada.....	Panama Agencies	August 3	August 3	284	(²)
Planet.....	Hamburg-American Line	August 3	August 3	(¹)	107
Cid.....	Pacific Steam Navigation Co.	August 3		34	
Colombia.....	Italian Line	August 3		305	
Creole Bueno.....	Andrews & Co.	August 3		3,000	
Hessen.....	Hamburg-American Line	August 3		510	
Limon.....	United Fruit Co.	August 3		771	
Cartago.....	United Fruit Co.	August 3		622	
Cristobal.....	Panama R. R. S. S. Line		August 4		1,240

* No cargo discharged.

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Annetta I.	United Fruit Co.				
Cerigo.	Hamburg-American Line.		August 6.		432
Cali.	North German Lloyd.		August 4.		551
Cid.	Pacific Steam Nav. Co.		August 4.		50
Colombia.	Italian Line.		August 4.		(²)
Creole Bueno.	Venezuela Gulf Oil Co.		August 4.		(²)
Hessen.	Hamburg-American Line.		August 4.		120
Limon.	United Fruit Co.		August 4.		126
Cartago.	United Fruit Co.		August 5.		32
Cauca.	National Navigation Co.		August 7.		107
Ulua.	United Fruit Co.	August 4.	August 4.	5	9
Wauks.	Standard Fruit & S. S. Co.	August 4.	August 4.	61	7
Ecuador.	Panama Mail S. S. Co.	August 4.	August 5.	651	202
Arizona.	French Line.	August 4.	August 6.	535	8
Chile.	East Asiatic S. S. Line.	August 5.	August 5.	58	(²)
Maravi.	United Fruit Co.	August 5.	August 5.	26	296
Aconagua.	Panama R. R. S. S. Line.	August 5.	August 5.	15	1
Witell.	North German Lloyd.	August 5.	August 6.	226	32
Tolosa.	United Fruit Co.	August 5.	August 7.	709	14
Gregalia.	Donaldson Bros. S. S. Co.	August 5.	August 7.	(¹)	390
Guatemala.	Panama Mail S. S. Co.	August 6.	August 6.	199	61
Inapaquina.	United Fruit Co.	August 6.	August 7.	29	(²)
Swiftwind.	C. D. Mallory & Co.	August 6.	August 7.	10,977	(²)
Anachucuna.	United Fruit Co.	August 6.	August 8.	42	(²)
Pellerin de la Touche.	French Line.	August 6.	August 8.	333	325
Benjamin Franklin.	Norway-Pacific S. S. Line.	August 7.	August 7.	(¹)	128
Santa Marta.	United Fruit Co.	August 7.	August 8.	887	261
Brille.	Royal Neth. S. S. Co.	August 7.	August 8.	290	55
Bennekom.	Royal Neth. S. S. Co.	August 7.	August 8.	132	8
Remscheid.	North German Lloyd.	August 7.	August 8.	382	59
Oropesa.	Pacific Steam Nav. Co.	August 7.	August 8.	85	10
Loekkatrina.	Pacific Steam Nav. Co.	August 7.	August 8.	(¹)	44
City of Panama.	Panama Mail S. S. Co.	August 8.		695	
Caldas.	National Navigation Co.	August 8.		3	
Heinrich Arp.	Colombian Maritime Co.	August 8.	August 8.	190	(²)
Saramacca.	United Fruit Co.	August 8.	August 8.	716	(²)
Nietheroy.	Pacific Steam Nav. Co.	August 8.	August 9.	25	36
Wayfarer.	T. & J. Harrison Line.	August 8.	August 10.	840	(²)
Baralt.	Royal Neth. S. S. Co.	August 8.	August 10.	601	193
San Mateo.	United Fruit Co.	August 8.	August 10.	536	37
Suriname.	United Fruit Co.	August 9.	August 9.	5	240
Santa Inez.	Grace Line.	August 9.	August 9.	416	67
Amapala.	Standard Fruit & S. S. Co.	August 9.	August 10.	312	259
Ruhr.	Hamburg-American Line.	August 10.		268	
Wauks.	Standard Fruit & S. S. Co.	August 10.		63	(²)
Marques de Comillas.	Spanish Line.	August 10.		808	
Parismina.	United Fruit Co.	August 10.		529	
Orita.	Pacific Steam Nav. Co.	August 10.	August 10.	60	19
Mayari.	United Fruit Co.	August 10.	August 10.	132	812

¹ No cargo discharged.

² No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending August 10, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Chateau Thierry.	U. S. Government.	July 26.	July 27.	511	56
Vega.	U. S. Government.	July 27.	July 28.	34	87
Caldas.	National Navigation Co.	July 27.	July 27.		2
Independence.	U. S. Shipping Board.	July 28.	July 29.	477	
Frankenwald.	Hamburg-American Line.	July 28.	July 29.	209	
Frost.	Hans Ericson.	July 29.	July 30.	425	
Montebello.	Union Oil Co.	July 30.	July 31.	3,479	
City of Elmwood.	Roosevelt Line.	August 3.	August 3.	2	
Guatemala.	Grace Line.	August 5.	August 6.	50	
Chile.	East Asiatic Co.	August 5.	August 5.	600	
Ecuador.	Panama Mail S. S. Co.	August 5.	August 6.	51	45
Nora.	Grace Line.	July 6.	July 6.	13,517	
Bennekom.	Royal Neth. S. S. Co.	August 7.	August 7.	141	
City of Panama.	Panama Mail S. S. Co.	August 8.	August 8.	28	

Admitting Office at Gorgas Hospital.

The admitting office and emergency station of Gorgas Hospital were removed from Ancon Dispensary to the first floor of the hospital Administration and Clinics Building on August 3, 1929.

Work of the District Physician, Ancon, will be carried on at the dispensary as formerly.

The highway leading to the admitting office and administration building which goes through the hospital grounds, will be open to those having business at the hospital, without the necessity of obtaining a pass, which was formerly required of drivers using this road.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective August 13, 1929:

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.22
Brass, sheet, average.....	Lb.	.35
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.15
Metal, yellow.....	Lb.	.24
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Celza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.11
Oil, marine engine.....	Gal.	.54
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.13
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.15
Waste, cotton, white.....	Lb.	.16

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

Notaries Public in the Canal Zone.

The following is a list of notaries public commissioned in the Canal Zone as of August 12, 1929. The list gives, by towns, the name, where stationed, and the date of expiration of commission:

ANCON.

Bowen, Vollie S., Land Office, February 27, 1930.
 Boyd, Oscar S., Municipal Division, July 30, 1931.
 French, A. W., Gorgas Hospital, May 14, 1932.
 Latimer, J. L., Ancon Laundry, April 30, 1930.
 McDougall, J. B., District Attorney, March 29, 1932.
 McGahhey, J. T., Ancon Clubhouse, August 12, 1930.
 Norris, R. N., Municipal Division, August 11, 1930.
 Ohlson, Elmer F., Gorgas Hospital, December 3, 1930.
 Sheibley, F. H., District Court, October 27, 1929.
 Walker, James J., District Court, November 22, 1931.

BALBOA.

Hyde, W. H., Port Captain, March 6, 1930.
 Illwitzer, P. G., Balboa Storehouse, October 12, 1929.
 Kalar, J. D., Port Captain, April 13, 1932.
 Kelley, Thomas H., Mechanical Division, August 18, 1930.
 Lefever, John E., Fort Amador, February 28, 1931.
 Prager, J. F., Balboa Storehouse, December 13, 1929.
 Smith, Walter R., Balboa Storehouse, September 4, 1931.
 Stillwell, J. L., Fort Amador, April 20, 1931.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, Room 316, October 28, 1930.
 Boggs, W. B., Administration Building, Room 262, August 4, 1931.
 Buehler, G. H., Administration Building, Room 205, August 17, 1931.
 Fenton, John A., Administration Building, Room 203, July 28, 1930.
 Gates, R. E., Administration Building, Room 203, June 12, 1932.
 Schecker, C. A., Administration Building, Room 244, January 19, 1930.
 Sims, Walter H., Quarry Heights, December 1, 1930.
 Taylor, R. G., Administration Building, Room 318, April 30, 1930.
 Ungar, J., Administration Building, Room 301, February 2, 1932.

Wang, Frank H., Administration Building, Room 305, April 29, 1932.

COROZAL.

Daniels, W. L., Albbrook Field, June 23, 1932.
 Fisher, Miss Bernice S., Panama Ordnance Depot, May 2, 1932.
 Grimm, G. L., Corozal Hospital, October 6, 1929.

CRISTOBAL-MOUNT HOPE.

Atwood, H. E., Commissary Division, April 8, 1930.
 Behlen, Ernest, Storehouse, January 23, 1932.
 Campbell, J. S., District Court, January 28, 1932.
 Clarke, V. J., Commissary Division, January 14, 1932.
 Daly, E. J., United Fruit Co., May 26, 1932.
 Ellis, Edward E., Coaling Plant, May 24, 1930.
 Flood, Arthur, Customs Office, November 15, 1931.
 Hargy, F. F., Port Captain, May 28, 1930.
 MacSparran, E. S., Receiving and Forwarding Agency, December 1, 1930.
 Murray, P. E., Magistrate, October 13, 1929.
 Raymond, J. G., Commissary Division, January 3, 1932.
 Russell, C. V., Pan-American Airways, April 29, 1930.
 Scarborough, W. W., Clubhouse, January 21, 1930.
 Walsh, M. H., Customs Office, August 5, 1932.
 Ward, Mrs. Marie L., Receiving and Forwarding Agency, August 2, 1932.

GATUN.

Malone, P. L., Railroad Station, November 23, 1931.

PARAISO.

Kimble, W. I., Dredging Division, July 25, 1932.

PEDRO MIGUEL.

Cauthers, R. A., Municipal Division, June 16, 1930.
 Rader, T. C., Pacific Locks, January 21, 1930.
 Wright, A. M., Dredging Division, January 21, 1930.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9).....	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m.,

12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., August 21, 1929. No. 3.

Completion of Fifteen Years of Canal Operation.

The Panama Canal completed 15 years of operation at the close of business on August 14, 1929, having been opened to commerce on August 15, 1914. During the 15 years of operation, 54,021 commercial vessels have transited the Canal, aggregating 237,603,786 net tons, Panama Canal measurement, on which tolls amounting to \$223,751,682.70 were levied, and which carried 249,777,467 long tons of cargo. Of these totals, the past 10 years have accounted for 84 per cent of the transits, 88 per cent of the net tonnage, 87 per cent of the tolls collected, and 86 per cent of the cargo carried.

Canal Traffic During the First Fifteen Days of August.

During the first 15 days of August, 261 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,117,033.24, and on the launches \$24.15, or a total tolls collection of \$1,117,057.39.

The daily average of transits of commercial vessels was 17.4 and the average tolls collection \$74,468.88, as compared with an average of 17.33 transits and \$73,905.36 for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,279.82, as compared with \$4,263.77 for the first 15 days of July.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 7½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 7½ months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,981.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August (first 15 days).....	261	1,117,033.24	17.40	74,468.88
Totals, first 7½ months of calendar year 1929.....	4,016	17,140,697.29	17.69	75,509.68
Totals, first 7½ months of calendar year 1928.....	3,901	16,169,074.76	17.11	70,916.99
Totals, first 7½ months of calendar year 1927.....	3,542	15,596,609.03	15.60	68,707.53

As compared with the first 7½ months of the calendar year 1928, the corresponding period this year has had 115 more transits and \$971,622.53 additional in tolls.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, August 17, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
City of Norwich	11	1 05	11	6 35	11	13 44	British	Ellerman & Bucknall	439	7	54	0	20	General	3,472	8,088	6,200
Californian	10	23 50	11	7 50	11	15 15	American	Amer.-Hawaian Line	445	0	59	8	21	General	4,053	8,567	6,020
Oldham	11	8 15	11	11 05	11	17 13	American	Roosevelt S. S. Co., S. B.	395	5	55	0	20	General	2,981	7,327	5,329
Sterneo	11	10 35	11	11 30	11	18 18	American	Transmarine Lines	324	0	46	0	20	General	1,919	3,984	2,628
Canadian	11	11 35	11	11 50	11	18 45	British	Can. Nat. Steamships	400	0	52	0	21	General	4,400	6,142	4,334
Challenger	10	17 30	11	14 00	11	20 29	German	Hamburg-American Line	432	3	59	1	22	General, bananas	4,691	8,454	6,344
San Francisco	11	16 35	11	19 35	12	9 18	Greek	Stathos S. S. Co.	401	0	53	0	26	Coal	6,310	5,780	4,047
Maria Stathos	11	16 35	11	19 35	12	9 18	Greek	Stathos S. S. Co.	401	0	53	0	26	Coal	6,310	5,780	4,047
Ruhr	11	7 55	12	6 10	12	13 48	German	Hamburg-American Line	454	0	58	0	18	General	3,331	8,086	5,918
Joseph Seep	11	12 25	12	6 10	12	13 58	American	Standard Shipping Co.	429	3	59	2	19	Gasoline, kerosene	7,825	5,016	3,507
New York	11	13 55	12	7 25	12	14 37	American	Texas S. S. Co.	416	8	56	0	18	Ballast	5,556	6,220	4,432
San Francisco	12	6 30	12	9 55	12	17 09	American	Isthmian S. S. Lines	292	0	44	0	17	Ballast	515	3,490	2,141
Denver	11	6 33	12	11 00	12	18 07	American	U. S. Navy	315	2	44	2	19	Bananas, general	1,946	2,676	1,803
San Mateo	12	9 45	12	11 05	12	17 48	American	United Fruit Co.	315	2	44	2	19	Auto. parts	9,494	7,473	5,536
Lake Benbow	12	11 40	12	11 50	12	19 18	American	Ford Motor Co.	250	0	45	3	19	General, steel	3,751	5,699	4,167
Robin Good-fellow	12	10 05	12	13 20	12	21 20	American	Isthmian S. S. Lines	424	8	55	0	28	General, steel	2,457	8,888	6,812
American Star	12	13 45	12	14 00	12	22 19	American	Nelson Line	386	8	52	2	17	General	5,997	7,151	4,756
Noordrijck	12	03 25	13	6 03	13	13 54	Dutch	Holland-American Line	470	7	58	0	19	General	4,156	5,455	3,902
Lobos	12	09 13	13	6 19	13	14 19	British	Pacific Steam Nav. Co.	404	0	52	3	23	General	1,500	5,879	4,121
Orinoco	12	19 55	13	7 15	13	15 37	American	States S. S. Co.	376	0	52	3	23	General	5,600	7,060	5,025
Eagle	13	6 50	13	8 30	13	16 22	American	Standard Transp. Co.	410	0	56	0	18	General	4,781	9,032	6,038
Canadian	13	7 54	13	9 50	13	18 34	British	Can. Nat. Steamships	400	0	52	4	18	General	9,379	8,491	5,760
Ranger	13	10 25	13	10 40	13	17 20	American	Tidewater Oil Co.	419	5	56	5	22	General	5,136	8,543	6,427
Solara	13	12 45	13	14 05	13	21 05	American	Burbank & Co.	409	0	54	0	21	General	8,266	8,204	6,319
Fuge Brush	13	16 45	13	17 00	14	9 03	American	Amer.-Hawaian Line	471	2	59	6	21	General	3,318	3,984	2,612
Nebraska	13	16 45	13	17 00	14	9 03	American	Amer.-Hawaian Line	471	2	59	6	21	General	3,318	3,984	2,612
Gila	13	16 40	13	17 40	14	11 30	Norwegian	Bjorn Bjornstad & Co.	360	0	51	0	13	General	4,174	7,820	5,661
Durenda	13	16 20	14	6 15	14	13 34	British	Brit.-In. Stm. Nav. Co.	450	0	58	3	22	General	3,000	5,906	4,187
Edward	14	03 30	14	7 45	14	14 49	American	Luckenbach Line	435	0	57	0	22	General	5,136	8,543	6,427
Luckenbach	14	2 20	14	8 25	14	14 47	American	Tampa-Intercean Co.	410	0	56	0	27	General	8,266	8,204	6,319
Liberator	13	23 40	14	9 40	14	17 56	Norwegian	Administrado del Guano	275	7	40	2	14	General	3,318	3,984	2,612
Fjord	13	23 40	14	9 40	14	17 56	Norwegian	Administrado del Guano	275	7	40	2	14	General	3,318	3,984	2,612
Point Montara	14	3 45	14	9 40	14	17 45	American	Swayne & Hoyt	324	0	46	0	20	General	4,174	7,820	5,661
Holmport	14	13 10	15	6 10	15	13 59	British	J. & J. Denholm, Ltd	423	6	56	0	18	General	4,174	7,820	5,661
Witram	14	16 35	15	7 10	15	14 21	German	North German Lloyd	449	0	58	2	24	General	3,000	5,906	4,187
Canadian	14	20 55	15	8 30	15	15 54	British	Can. Nat. Steamships	400	0	52	0	20	Paper, autos, gen.	3,000	5,906	4,187
Britisher	14	20 55	15	8 30	15	15 54	British	Can. Nat. Steamships	400	0	52	0	20	General, steel, naphtha.	3,000	5,906	4,187

* Motor ship.

* Tanker.

* Cruiser.

* General, steel, naphtha.

	15	10	14	15	10	35	15	17	36	15	18	54	British	Anglo-Franco'n Oilfields	407	4	52	2	18	1	Philadelphia, Pa.	La Libertad, Vera	Ballast	6	046	4	326
El Cervo	15	6	45	15	13	50	15	20	56	15	22	00	American	Ore S. S. Corp.	549	0	72	0	24	9	New York, N. Y.	Crúz Grande, Chile	Ballast	14	325	4	035
Labore	15	6	47	15	10	42	16	12	00	16	12	00	Panama	United Fruit Co.	105	0	15	3	5	0	Cristobal, C. Z.	Balboa, C. Z.	Bananas	62	92	11	47
Anachucua	15	6	47	15	10	42	16	12	00	16	12	00	American	United Fruit Co.	105	0	15	3	5	0	Cristobal, C. Z.	Balboa, C. Z.	Bananas	62	92	11	47
No. 31004	15	6	47	15	10	42	16	12	00	16	12	00	American	United Fruit Co.	105	0	15	3	5	0	Cristobal, C. Z.	Balboa, C. Z.	Bananas	62	92	11	47
Pacific	14	19	28	16	6	10	16	13	11	16	14	15	British	Furness, Withy & Co.	450	0	60	6	21	5	Glasgow, Scotland	Vancouver, B. C.	General, bananas	2,090	10,086	7	226
President	16	5	55	16	7	05	16	14	05	17	00	11	American	Panama-Pacific Line	574	4	80	3	26	11	New York, N. Y.	San Francisco, Cal.	General	3,261	24,506	17	565
California	16	5	55	16	7	05	16	14	05	17	00	11	American	U. S. Navy	380	0	61	0			High seas	Balboa, C. Z.	Ballast				
Rochester	16	10	15	16	10	25	16	16	50	16	18	50	American	Amer-Hawaiian Line	415	0	56	0	24	0	New York, N. Y.	Tacoma, Wash.	General	8,000	7,750	5	805
Willkino	16	10	35	16	11	45	16	17	40	16	18	50	American	Pac. Scientific and Exploration Station	142	8	33	0	12	0	Newport News, Va.	Vladivostok, Russ.	Ballast		432	268	
Roinante	15	16	55	16	11	45	16	17	40	16	18	50	Soviet	Boyd, Weir & Sewell	420	0	53	0	24	2	Baltimore, Md	Manila, P. I.	Gen., kerosene	6,402	7,100	5	005
Glennbank	16	12	55	16	13	10	16	19	40	16	20	50	British	Dollar Line	502	0	62	0	25	0	New York, N. Y.	San Francisco, Cal.	General	1,995	12,023	8	443
President Hayes	16	13	25	16	13	55	16	20	50	16	21	58	American	Colombian Mar. Co.	237	2	37	2	12	7	New York, N. Y.	Buenaventura, Col.	Gen., asphalt	464	1,718	1	167
Henrich App.	8	2	55	16	14	45	16	22	00	17	4	30	American	Isleman S. S. Lines	394	0	55	0	28	1	Mobile, Ala.	Vancouver, B. C.	Steel products	8,482	7,047	5	132
A. L. Kent	16	14	20	16	14	45	16	22	00	17	4	30	American	Isleman S. S. Lines	394	0	55	0	28	1	Mobile, Ala.	Vancouver, B. C.	Steel products	8,482	7,047	5	132
George W.	16	13	15	16	18	55	17	9	09	17	10	25	American	Huasteca Petroleum Co.	416	0	56	1	21	5	Baltimore, Md	Los Angeles, Calif.	Ballast		6,703	4	759
Barnes	16	6	35	17	6	08	17	12	57	17	13	50	American	U. S. Army	436	0	58	0	24	6	Crooklyn, N. Y.	San Francisco, Cal.	General	746			
Cambrai	8	18	30	17	5	58	17	15	52	17	21	05	Colombian	National Navigation Co.	116	0	21	1	9	6	Baltimore, Md	Buenaventura, Col.	General	229	211	124	
Caldas	16	16	15	17	6	10	17	13	58	17	15	10	British	Canadian Transp. Co.	420	0	54	0	25	1	Houston, Texas	Yokohama, Japan	Scrap iron	8,206	6,996	5	346
Pacific	17	5	35	17	7	20	17	14	09	18	00	15	British	N. Z. Shipping Co.	525	0	61	4	28	6	London, England	Bluff, N. Z.	General	7,279	12,816	9	439
Manhattan	16	23	05	17	7	35	17	15	56	17	17	05	American	Redwood S. S. Line	386	8	52	2	21	6	Freeport, Texas	San Francisco, Cal.	General sulphur	5,512	5,696	4	125
Island	16	23	05	17	7	35	17	15	56	17	17	55	American	Sun Oil Co.	480	6	66	0	21	6	Charter, Pa.	Los Angeles, Calif.	Ballast		9,620	6	476
Sun	16	19	20	17	10	50	17	17	22	17	18	40	British	Pacific Steam Nav. Co.	450	0	57	5	26	2	New York, N. Y.	Talshuano, Chile	General	4,042	9,158	6	176
Pasquibo	17	11	05	17	11	40	17	18	41	17	19	50	American	Amer-Hawaiian Line	407	7	53	7	20	3	New York, N. Y.	Portland, Oreg.	General	3,719	7,098	5	065
Panama	8	22	00	17	12	17	17	20	05	17	21	50	Panama	Panama Mail S. S. Co.	296	9	45	9	21	5	Cristobal, C. Z.	San Francisco, Cal.	General	3,048	3,848	2	603
City of Panama	8	22	00	17	12	17	17	20	05	17	21	50	Panama	Nelson Line	324	0	46	2	16	6	Norfolk, Va.	Seattle, Wash.	General	1,827	3,984	2	628
Fort Armstrong	17	11	50	17	12	10	17	19	55	17	21	05	American	Redwood S. S. Line	411	4	67	1	61	0	Portland, Ore.	Bangkok, Siam	General, pipe	1,009			
Robinson	17	11	50	17	12	10	17	19	55	17	21	05	American	Redwood S. S. Line	411	4	67	1	61	0	Portland, Ore.	Bangkok, Siam	General, pipe	1,009			

1 Tanker.

2 Motor boat.

3 Barge.

4 Yacht.

5 Transport.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Killoran 9.	10	5	20	11	6	03	11	15	35	11	15	35	Finnish	Capt. Gustaf Erikson	255	0	39	0	21	0	Santa Island, Peru.	Antwerp, Belgium	Guano	3	050	1	957	1	675	
Penelope 10.	11	1	37	11	6	48	11	14	55	11	16	05	Danzig	Standard Oil Co.	470	1	63	2	20	0	Talara, Peru	Rotterdam, Holland	Gasoline	11	200	9	302	6	127	
Varg 10.	10	21	30	11	7	21	11	16	09	11	16	09	Norwegian	Leaf Hoegh	390	6	55	6	25	3	Los Angeles, Calif.	Land's End, Eng. 12	Gasoline	7	450	5	983	3	856	
Sea Thrush.	10	22	40	11	8	14	11	18	00	11	18	00	American	Shepard S. S. Co.	410	0	54	2	23	6	Tacoma, Wash.	New York, N. Y.	Lumber	7	300	6	625	4	841	
Procle																														
Bueno 11.	4	16	55	11	8	21	11	17	40	11	17	40	Venezuelan	Venezuela Gulf Oil Co.	325	0	55	2	10	0	Balboa, C. Z	Maracaibo, Venez.	Ballast.	6	383	7	956	1	866	
Abore 10.	11	4	30	11	8	35	11	19	00	11	23	00	American	Calmar S. S. Corp.	450	7	37	0	28	0	Portland, Ore.	Philadelphia, Pa.	Lumber	3	790					
Malang.	11	10	10	11	10	37	11	17	45	11	17	45	American	C. D. Mallory & Co.	341	8	50	1	23	6	Everett, Wash.	Providence, R. I.	Lumber	3	790					
Abadia 11.	11	12	30	11	14	27	11	22	10	12	4	00	British	Shell Oil Co.	412	0	53	3	24	6	San Francisco, Cal.	Land's End, Eng. 12	Gasoline	7	390	6	239	1	812	
Santa Barbara 10	11	16	35	12	6	10	12	13	10	12	17	05	American	Grace Line	405	0	64	0	25	6	Talshuano, Chile	New York, N. Y.	Nitrate, general	5,301	10,687	6	633			
F. H. Hillman	10	23	49	12	6	45	12	13	10	12	15	20	American	Standard Oil Co. of Cal	500	0	63	0	19	0	Los Angeles, Calif	Cartagena, Colom.	Ballast	6	320	4	957	2	638	
Mombasa	12	3	00	12	7	25	12	15	35	12	15	35	British	Armstrong S. S. Co.	384	4	50	1	23	8	Crúz Grande, Chile	Baltimore, Md	Iron ore	6	320	4	957	3	638	
Mobile City	12	2	20	12	8	50	12	17	10	12	22	35	American	Isthmian S. S. Lines	395	6	55	0	26	6	Vancouver, B. C.	Avonmouth, Eng.	General	7	922	7	736	5	241	
Golden Gate	12	4	20	12	8	50	12	17	10	12	22	35	Norwegian	Sealand-Sco. Pacific Co.	381	5	53	1	23	0	Charle, Chile	English Channel 12	General	6	503	5	616	3	879	
Baron Semple	12	6	30	12	9	42	12	18	40	12	19	50	British	H. Hogarth & Sons	303	0	43	0	20	0	Lobos de Tierra	London, England	Guano	3	500	2	862	1	655	
Dixie Arrow 11.	12	6	40	12	9	42	12	18	55	12	18	55	American	Standard Transp. Co.	468	3	62	7	27	2	Los Angeles, Calif	New York, N. Y. 12	Gasoline	11	297	2	862	1	7,140	

10 Motor ship.

11 Sailing ship.

12 Dry docking only.

13 For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Swedish.	12	10	00	12	17	30	12	8 15	American.	Nelson S. S. Line.	324 0	46 2	24 0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	4,770	3,983	2,029
Nosa King.	12	11	50	12	21	05	12	21 05	American.	N. O. & S. A. S. Co.	324 0	46 2	24 0	Liquique, Chile.	New Orleans, La.	Nitrates.	3,985	3,978	2,553
Borga ¹ .	12	12	45	12	21	35	13	11 08	Norwegian.	Fred Olsen & Co.	302 4	52 0	22 6	Vancouver, B. C.	Antwerp, Belgium.	General.	6,456	5,242	3,706
Pak Dohney.	12	13	30	12	22	20	12	22 20	American.	Refined Oil Co of Cal.	430 2	59 2	28 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,095	7,978	5,739
Maha.	12	17	30	12	10	45	13	12 10	British.	Shaw, Savill & Albion.	493 0	62 0	31 0	Brisbane, Australia.	London, England.	Frozen, general.	5,030	11,110	7,894
Benholm.	13	4	00	13	14	35	13	15 55	British.	Oriel S. S. Co.	494 5	53 3	25 6	Portland, Oreg.	Gaston, England.	Grain, lumber.	8,400	6,103	4,610
Reckoner ¹ .	13	4	00	13	13	40	14	7 52	American.	U. S. Navy.	384 0	64 9	35 2	Balboa, C. Z.	Crisobol, C. Z.	Cruiser.	6,842	25,254	17,170
Virginia.	12	10	50	13	8	18	13	15 30	American.	Panama-Pacific Line.	586 4	80 3	30 0	San Francisco, Cal.	New York, N. Y.	Canned goods, gen.	6,252	8,552	6,235
K. I. Luckenbach.	13	8	10	13	9	06	13	16 50	American.	Luckenbach Line.	446 0	56 1	27 6	Portland, Oreg.	Boston, Mass.	Lumber, general.	8,995	9,335	6,844
Sagle ¹ .	13	13	15	13	15	33	13	21 40	American.	North German Lloyd.	471 9	61 0	26 6	Vancouver, B. C.	Bremen, Germany.	General.	3,623	3,984	2,643
Point Gorda.	13	16	00	13	17	05	14	11 45	American.	Seymour & Hoyt.	324 0	46 2	21 0	Vancouver, B. C.	New Orleans, La.	Lumber, general.	4,250	3,489	2,298
Belmoira ¹ .	13	15	45	14	6	27	14	13 45	Norwegian.	Ore S. S. Corp.	329 6	49 2	21 0	Cruz Grande, Chile.	Baltimore, Md.	Iron ore.	9,447	7,862	5,049
Herman.	13	19	35	14	6	44	14	11 18	American.	Oil Transport Co.	431 0	59 2	26 0	San Francisco, Cal.	New York, N. Y.	Gasoline.	7,000	6,205	4,286
Falk ¹ .	13	22	00	14	7	37	14	15 15	American.	U. S. Tankship Corp.	390 0	54 0	25 0	Kahului, T. H.	Mobile, Ala.	Molasses.	7,150	6,987	4,933
Castana ² .	13	22	10	14	8	15	14	15 55	British.	P. S. Dalziel & Co.	430 4	53 0	25 0	Vancouver, B. C.	New York, N. Y.	Lumber.	7,247	6,821	4,927
Illingworth.	14	1	30	14	8	46	14	16 20	American.	Rac-Alantash S. S. Co.	409 8	54 3	26 0	Tacoma, Wash.	New York, N. Y.	Lumber.	3,768		
Willbello.	14	2	50	14	9	14	14	16 45	American.	Amer-Hawaiian Line.	434 3	57 1	19 6	San Francisco, Cal.	Boston, Mass.	General.	10,399	8,490	6,162
Georgian.	14	3	00	14	9	50	14	17 35	American.	States S. S. Co.	408 5	58 5	27 8	Portland, Oreg.	New York, N. Y.	Lumber, copper.	8,303	7,330	5,239
Willaheco.	14	3	00	14	9	59	14	17 35	American.	Kaiser S. S. Lines.	395 5	55 0	26 5	Honolulu, T. H.	New York, N. Y.	Sugar.	3,502	5,455	3,879
Enslay City.	14	1	00	14	10	50	14	18 05	American.	Islandian S. S. Lines.	408 5	55 2	23 6	Seattle, Wash.	Baltimore, Md.	Lumber, general.	8,559	7,221	4,844
Orient.	14	8	00	14	11	17	14	18 35	American.	States S. S. Co.	376 4	52 3	27 6	Talehuano, Chile.	Liverpool, England.	General.	8,498		
Losada ¹ .	14	5	30	14	12	08	14	20 00	British.	Pacific Steam Nav. Co.	406 1	54 2	27 6	Vancouver, B. C.	New York, N. Y.	General.	10,695	7,959	5,856
Pacific Grove ¹ .	14	5	30	14	12	52	14	20 00	British.	Furness, Withay & Co.	450 4	60 6	27 6						
Takaoka Maru.	14	00	25	14	13	33	14	21 35	Japanese.	Nippon Yusen Kaisha.	445 0	58 0	25 0	Manila, P. I.					
Canadian.	14	10	00	14	14	49	14	22 20	British.	Can. Nat. Steamships.	400 0	52 4	17 0	Adelaide, Australia.	Montreal, Canada.	General.	1,635	5,891	4,114
Leader.	14	19	00	14	20	15	14	15 15	American.	Ore S. S. Corp.	350 3	72 2	34 6	Cruz Grande, Chile.	Baltimore, Md.	Iron ore.	21,850	15,551	4,297
Marore.	14	16	45	15	6	16	15	14 40	Japanese.	Kokusa Kisen Kaisha.	425 0	53 6	28 2	Tocepolla, Chile.	Alexandria, Egypt.	Nitrates.	9,500	6,906	5,147
Yuri Maru.	14	17	15	15	6	37	15	15 05	American.	Redwood Line, Inc.	386 5	52 2	21 6	San Francisco, Cal.	New Orleans, La.	Logs, lumber.	5,541	5,708	4,131
Dio.	14	22	00	15	6	46	15	15 05	American.	Merritt, Chapman, Scott.	184 6	30 2	16 0	Callao, Peru.	New York, N. Y.	Ballast.	5,619	7,521	5,852
Relief ¹ .	14	22	20	15	6	46	15	14 45	British.	Blue Star Line.	420 0	54 7	24 0	N. Westm. Str. B.C.	Newcastle, Eng.	Oranges, general.	3,619	7,521	5,852
Godshard.	14	19	30	15	7	05	15	15 55	British.	Standard Shipping Co.	461 6	60 0	28 0	Talara, Peru.	Montreal, Canada.	Crude oil.	12,500	8,450	6,089
H. M. Flagler.	14	19	30	15	8	11	15	17 15	American.	Dupont de Nemours.	580 8	53 9	27 7	Tocepolla, Chile.	Charlestown, S. C.	Nitrates.	8,750	6,252	4,519
Impero.	14	23	30	15	8	18	15	18 20	Danish.	Anglo-Chilean Con. Co.	478 0	52 6	27 7	Vancouver, B. C.	Gibraltar ¹⁶ .	Nitrates.	8,100	7,004	4,849
Nord.	15	00	03	15	8	58	15	18 35	Italian.	U. S. Navy.	475 7	56 2	26 6	San Diego, Calif.	Cristobal, C. Z.	Navy stores.	7,789		
Kanawata ¹ .	15	2	00	15	9	19	15	19 15	American.	U. S. Navy.	475 7	56 2	26 6	San Diego, Calif.	Cristobal, C. Z.	General.	8,572	1,152	741
Manzanilla.	15	5	30	15	9	50	15	19 35	German.	North German Lloyd.	216 5	32 9	15 0	Guayaquil, Ecuador.	Cristobal, C. Z.	General.	8,390	6,573	4,629
Wiegand.	15	10	30	15	11	21	15	20 26	German.	North German Lloyd.	303 1	54 3	26 0	San Antonio, Chile.	Hamburg, Germany.	General.	690	2,472	1,513
Finn ¹ .	8	2	00	15	11	30	15	19 40	Motor ship.	Colombian Mar. Co.	273 7	41 0	15 6	Buenaventura, Col.	New York, N. Y.	Coffee, general.			
																		¹⁷ Tug.	
																		¹⁸ Cruiser.	
																		¹⁹ Motor ship.	
																		²⁰ Tanker.	
																		²¹ Ship for orders.	

¹ Tanker.² Motor ship.³ Cruiser.⁴ Tug.⁵ For orders.

Ship	Date	All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.												Line	For
		15	14	50	16	5	57	16	14	10	16	14	10		
William H. Dolony	August 11	15	22	20	16	6	38	16	14	30	16	15	30	Los Angeles, Calif.	Gasoline
Empire Arrow	August 11	16	2	04	16	8	00	16	14	30	16	15	30	New York, N. Y.	Gasoline
Asheville	August 11	16	2	04	16	8	00	16	14	30	16	15	30	Cristobal, C. Z.	Cruiser
Welsh City	August 11	16	4	20	16	8	15	16	19	15	16	19	15	General	8,200 6,957 5,132
Sutorpeo	August 11	16	4	20	16	8	15	16	19	15	16	19	15	Port Newark, N. J.	Lumber
Esparta	August 11	16	4	55	16	8	21	16	19	15	16	19	15	Port Limon, C. R.	General
Tramontaine	August 11	16	6	30	16	8	57	16	19	25	16	21	20	Curacao, D. W. I.	Gas oil
Vancouver	August 11	16	8	20	16	9	31	16	20	05	16	20	05	New York, N. Y.	Crude oil
Atlas	August 11	16	8	20	16	11	30	16	20	05	16	20	05	New York, N. Y.	Kerosene distill.
Mexican	August 11	16	6	00	16	11	30	16	20	05	16	20	05	Boston, Mass.	General
Swiftsure	August 11	16	7	30	16	18	05	17	11	05	17	11	05	Curacao, D. W. I.	Ballast
Anachagua	August 11	15	20	55	17	6	33	17	13	40	17	13	40	Cristobal, C. Z.	Ballast
Waterdown	August 11	16	12	00	17	6	21	17	13	40	17	13	40	New York, N. Y.	Gasoline
Emilie L. D.	August 11	16	18	55	17	7	02	17	15	45	17	15	45	Cristobal, C. Z.	Asphalt
Bahia	August 11	17	7	50	17	7	02	17	15	45	17	15	45	Gothenburg, Swed.	Barley, fruit
Harry	August 11	17	7	15	17	10	09	17	17	30	17	23	40	San Francisco, Cal.	General
Lukenbach	August 11	17	11	50	17	13	01	17	20	50	17	20	50	Portland, Oreg.	Gasoline
Custor	August 11	17	9	05	17	13	13	17	21	50	17	21	50	Los Angeles, Calif.	General
Sagadahoc	August 11	17	9	50	17	13	48	17	22	55	17	22	55	San Francisco, Cal.	Gasoline
Trewyn	August 11	16	13	30	17	18	45	18	13	10	18	13	10	Baltimore, Md.	Lumber

PORT OF ORIGIN.

Ship	Date	Vessel	Line	From	Date	Vessel	Line	To
August 11	August 11	Cuba	Hamburg-American Line	Tampico via wayports.	August 11	Anachagua ¹⁸	United Fruit Co.	Colon, R. P.
August 11	August 11	Toluca	United Fruit Co.	Port Limon, C. R.	August 11	Jaapaquina ¹⁸	United Fruit Co.	Colon, R. P.
August 11	August 11	Macabi	United Fruit Co.	New York via wayports.	August 11	Toluca	United Fruit Co.	New York via Habana.
August 11	August 11	Chalmers	United Fruit Co.	Colon, R. P.	August 11	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
August 12	August 12	Chalmers	United Fruit Co.	New York via Habana.	August 11	Cuba	Hamburg-American Line	Cartagena, Colombia.
August 12	August 12	Chalmers	United Fruit Co.	Managua via David.	August 12	Parismina	United Fruit Co.	New Orleans via wayports.
August 12	August 12	Chalmers	United Fruit Co.	Colon, R. P.	August 12	Macabi	United Fruit Co.	Puerto Colombia.
August 12	August 12	Chalmers	United Fruit Co.	Colon, R. P.	August 12	Saramacca	United Fruit Co.	Bocas, R. P.
August 13	August 13	Chalmers	United Fruit Co.	Grand Cayman, B. W. I.	August 13	No. 9137 ¹⁹	Pan-American Airways	Curacao via wayports.
August 13	August 13	Chalmers	United Fruit Co.	Puerto Colombia.	August 13	No. 9085 ¹⁹	Pan-American Airways	Managua via David.
August 13	August 13	Chalmers	United Fruit Co.	Avonmouth via wayports.	August 13	No. 8041 ¹⁹	Pan-American Airways	Guayaquil via David.
August 13	August 13	Chalmers	United Fruit Co.	New York via Haiti.	August 13	William M. ²¹	Pan-American Airways	Bluefields, Nicaragua.
August 13	August 13	Chalmers	United Fruit Co.	New York via Kingston.	August 13	Linda S. ²⁰	A. I. Bryan	Bluefields via Port Limon.
August 13	August 13	Chalmers	United Fruit Co.	Amsterdam via wayports.	August 14	Calumares	United Fruit Co.	Port Limon, Costa Rica.
August 13	August 13	Chalmers	United Fruit Co.	Barranquilla, Colombia.	August 14	Marques de Comillas	Spanish Line	Barcelona via wayports.
August 13	August 13	Chalmers	United Fruit Co.	Glasgow via wayports.	August 14	Carac	Elders & Fyffes, Ltd.	Port Limon, Costa Rica.
August 13	August 13	Chalmers	United Fruit Co.	New Orleans, La.	August 14	Simon Bolivar	Royal Neth. S. S. Co.	Port Limon, Costa Rica.
August 13	August 13	Chalmers	United Fruit Co.	Curacao via wayports.	August 15	Darien C-35 ¹⁹	Scadta Airplane Co.	Barranquilla, Colombia.
August 13	August 13	Chalmers	United Fruit Co.	Managua via David.	August 15	No. 9685 ¹⁹	Pan-American Airways	Managua and Puntarenas
August 13	August 13	Chalmers	United Fruit Co.	New Orleans via Habana.	August 15	Metapan	United Fruit Co.	New York via wayports.
August 13	August 13	Chalmers	United Fruit Co.	Bocas, R. P.	August 15	Antillan	Loyland S. S. Line	Port Limon, Costa Rica.

* Other than ships passing through the Canal.

¹⁸ Motor boat.¹⁹ Air mail carrier.²⁰ Motor schooner.²¹ Yacht.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 16	No. 8044 ²³	Pan-American Airways	Guayaquil via waypoints.	August 16	Inapaquina ²⁴	United Fruit Co.	Colon, R. P.
August 16	Wanks	Staud. Fruit & S. S. Co.	San Blas, R. P.	August 16	Annetta I. ²⁴	A. Tagarapulos	Colon, R. P.
August 16	Inapaquina ²³	United Fruit Co.	Colon, R. P.	August 16	Copename	United Fruit Co.	Limon via Bocas
August 16	Annetta I. ²¹	A. Tagarapulos	Colon, R. P.	August 16	Saramacca	United Fruit Co.	New Orleans, La.
Aug. st 17	Simon Bolivar	Royal Neth. S. S. Co.	Port Limon, Costa Rica.	August 17	Atlantida	Staud. Fruit & S. S. Co.	New Orleans via waypoints.
August 17	Macabi	United Fruit Co.	Puerto Columbia.	August 17	Macabi ²³	United Fruit Co.	New York via Kingston.
August 17	No. 9688 ²³	Pan-American Airways	Managua via waypoints.	August 17	No. 9688 ²³	Pan-American Airways	Managua via waypoints.
August 17	Heredia	United Fruit Co.	New Orleans via Habana	August 17	Simon Bolivar	Royal Neth. S. S. Co.	Amsterdam via waypoints.
August 17	Camden.	United Fruit Co.	Curacao, D. W. I.				
August 17	Champerico.	Pacific Steam Nav. Co.	Liverpool, England.				
PORT OF BALBOA.							
²³ Air mail carrier. ²⁴ Motor boat.							
August 13	Aragonia	Hamburg-American Line	Puntarenas, C. R.	August 13	Aragonia	Hamburg-American Line	Chile.
August 14	San Luis ²⁵	Chiriqui Land Co.	Pto. Armuelles, R. P.	August 15	Mary Pinchot ²⁶	Gifford Pinchot	Sea.
August 16	Necles	U. S. Navy.	Los Angeles, California.	August 16	San Luis ²⁵	Chiriqui Land Co.	Pto. Armuelles, R. P.
August 16	A. D. de Obarrío ²⁵	Pacific Fruit Co.	Bayano River, R. P.	August 17	Necles	U. S. Navy	Los Angeles, California.
August 16	Dos Hermanas ²⁵	A. Valdez	Bayano River, R. P.	August 16	A. B. de Obarrío ²⁵	Pacific Fruit Co.	Panama Bay, R. P.
August 16	Real ²⁵	Hans Elliot	Bayano River, R. P.	August 16	Dos Hermanas ²⁵	A. Valdez	Panama Bay, R. P.
August 16	Sambu ²⁵	Hans Elliot	Bayano River, R. P.	August 17	Real ²⁵	Hans Elliot	Panama Bay, R. P.
				August 17	Sambu ²⁵	Hans Elliot	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁵ Motor schooner. ²⁶ Yacht.

Cargo Through Canal During July, 1929.

On pages 38 and 39 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in July, 1929. This cargo, segregated according to direction, as compared with July, 1928, and the differences, is shown in the following tabulation:

	July, 1929.	July, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	909,976	748,160	+161,816
Pacific to Atlantic.....	1,683,186	1,543,795	+144,391
Totals.....	2,598,162	2,291,955	+306,207

As shown above, cargo tonnage from the Atlantic to the Pacific increased 161,816 tons over July, 1928, while that in the opposite direction gained 144,391 tons, making an increase in both directions of 306,207 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five and four-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and gulf seaboard of the United States, and 26.2 per cent in Europe. Cargo originating in the United States was 98,061 tons, or 19.7 per cent, greater than the tonnage from the United States in July, 1928, although the proportion of the total in July, 1929 (65.4 per cent) was slightly lower. Cargo from Europe showed a relative as well as an actual increase over the amount originating from that area in July, 1928, the actual increase amounting to 62,131 tons, or 35.2 per cent.

Destination.—Forty-eight and two-tenths per cent of the Pacific-bound cargo was destined to the United States; 18.4 per cent to Asia; 14.6 per cent to South America; and 13.6 per cent to Australasia. Tonnage to all these areas increased over the amounts destined to these regions in July, 1928. To the United States, the increase was 108,700 tons, or 32.9 per cent; to South America, 36,701 tons, or 38.2 per cent; to Australasia, 10,179 tons, or 9.0 per cent; and to Asia, 9,797 tons, or 6.2 per cent. The percentage of the total cargo to the United States and South America were also higher in July, 1929, as compared with July, 1928, while the percentage to Asia and Australasia were both lower in July of this year.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction 56.1 per cent came from the west coast of the United States; 25.6 per cent from South America; 8.3 per cent from Canada; 6.4 per cent from Asia; and 2.7 per cent from Australasia. Cargo from all these areas, with the exception of Canada, increased as follows over the amounts originating in these regions in July, 1928. From the United States, 80,797 tons, or 9.3 per cent; from South America, 33,054 tons, or 8.3 per cent; from Asia, 69,036 tons, or 172 per cent; and that from Australasia, 13,302 tons, or 42.6 per cent. Cargo tonnage from Canada decreased 51,471 tons, or 26.7 per cent under the tonnage originating in that region in July, 1928. The percentage of the total cargo from the United

States and South America was the same in July, 1929, as in the corresponding month in 1928, while that from Asia and Australasia both showed relative increases in July, 1929. The percentage of the total from Canada in July, 1929, was considerably lower in July, 1929, as compared with July, 1928 (12.5 per cent).

Destination.—Segregated according to destination, 61.8 per cent of the cargo in this direction went to the United States, and 32.5 per cent to Europe, these two destinations accounting for over 94 per cent of the cargo tonnage from the Pacific to the Atlantic. Tonnage to the United States increased 111,362 tons, or 11.9 per cent, over July, 1928, and that to Europe increased 54,950 tons, or 11.1 per cent. Cargo destined to both these areas showed slight increases in their relations to the total over July, 1928.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 84.8 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15.2 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for July, 1929, or July, 1928, are listed in the following tabulation, showing differences.

Commodity.	July, 1929.	July, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	12,368	12,645	-277
Asphalt.....	3,983	15,162	-11,179
Automobiles.....	22,881	14,466	+8,415
Cement.....	38,331	12,600	+25,731
Coal and coke.....	23,637	29,367	-5,730
Cotton.....	10,559	12,502	-1,943
Manufactured goods:			
Iron and steel.....	230,916	171,255	+59,661
Machinery.....	14,979	13,457	+1,522
Railroad material.....	29,294	11,058	+18,236
Tinplate.....	15,555	21,644	-6,089
Textiles.....	11,945	11,739	+209
Miscellaneous.....	15,492	7,462	+8,030
Metals, various.....	20,763	16,652	+4,111
Oils, mineral.....	62,050	61,992	+58
Paper.....	22,038	23,397	-1,359
Phosphates.....	32,638	23,598	+9,040
Sugar.....	15,108	3,227	+11,881
Sulphur.....	29,485	32,510	-3,025

The above 18 commodity groups comprised 67.3 per cent of the cargo moving from the Atlantic to the Pacific. Eleven of the items showed increases over July, 1928, while the balance showed decreases. Iron and steel, railroad material, and sugar made the heaviest gain over the corresponding month last year, while shipments of asphalt registered a marked decrease.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of July, 1929. Commodities which aggregated more than 10,000 tons either during the past months or the corresponding month a year ago are listed below, showing differences:

Commodity.	July, 1929.	July, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	24,625	14,815	+9,810
Canned goods (fish, fruits, vegetables, etc.).....	38,527	37,701	+826
Cold storage (food products) ¹	18,306	22,788	-4,482
Cotton.....	7,295	11,231	-3,936
Fruit, dried.....	8,761	13,013	-4,252
Lumber.....	348,814	344,836	+3,978
Metals, various.....	58,560	65,171	-6,611
Nitrates.....	143,664	148,983	-5,319
Oils, mineral.....	455,333	434,369	+20,964
Ores (principally iron).....	173,437	140,575	+32,862
Pulp.....	10,053	2,859	+7,194
Rice.....	10,993	9,451	+1,542
Sugar.....	113,644	26,428	+87,216
Wheat.....	107,888	124,042	-16,154
Wool.....	10,497	11,373	-876

¹ Does not include fresh fruit.

The above 15 commodity groups comprise over 90 per cent of the cargo from the Pacific to the Atlantic during July, 1929. As will be noted above, shipments of sugar and ores increased heavily over July, 1928, while wheat showed the heaviest decrease.

(Continued on next page.)

Supplement No. 14—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., August 16, 1929.

ITEM 35.—STORAGE ON PIERS.

(Effective August 17, 1929.)

5. Canal Zone for Orders:

- (c) A storage charge of 3 cents per ton (weight) per day or fraction thereof, or 1½ cents per ton (measurement) per day or fraction thereof for all time the cargo remains on the wharves of the Panama Railroad Company, in excess of 35 days, no storage charge being made for the first 35 days as provided in paragraph 1 of Item 35 of this tariff. The provision that a higher rate be charged per ton per day for storage after 65 days does not apply to this class of cargo.

H. BURGESS,
*Governor, The Panama Canal,
President, Panama Railroad Company.*

The change effected by the above is to make the charge 3 cents per ton on weight or 1½ cents per ton on measurement; previously paragraph (c) stated 3 cents per ton or fraction, with no distinction between weight and measurement.

Supplement No. 16.—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 19, 1929.

Regulation 5.1. of the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters" is hereby changed to read as follows:

Regulation 5.1. *Passenger Steamers:* Regular passenger steamers with accommodations for 50 or more passengers, when carrying mail and running on fixed published schedules, will be given preference over other vessels in transiting regardless of the number of passengers actually on board.

H. BURGESS,
Governor.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, July, 1929.—Continued from page 37.
(Figures represent tons of 2,240 pounds.)

From—	SOUTH AMERICA.						NORTH AMERICA.						ASIA.					AUSTRALASIA.			Grand totals.	Per cent of total cargo.		
	Chile.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Bahoa, C. Z. ²	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. ¹	Total, Asia.	Australia.	New Zealand.	Australasia. ¹	Total, Australasia.				
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports	15,816	1,973	506	13,112	5,013	36,420	265,006	881	1,537	46	5,567	273,037	29,450	10,357	15,032	28,883	83,922	24,027	5,121	29,748	423,127	46.4		
South Atlantic ports							3,616					3,616	16,572	40			16,612				20,228	2.2		
Gulf ports.	1,503	104	86	608	897	3,198	67,397				269	67,666	36,493	22,110	2,749	1,373	62,725	6,502	12,820	19,322	152,911	16.8		
Totals, U. S.	17,319	2,077	592	13,720	5,910	39,618	336,019	881	1,537	46	5,836	344,319	92,715	32,507	17,781	30,256	163,259	31,129	17,941	49,070	396,266	65.4		
CRISTOBAL, C. Z. ²							3,532			123		3,655									9,538	1.1		
East Coast of Canada							3,500	2,687				6,187						8,700	4,300		13,000	19,187	2.1	
West Indies	123	247		4	2	376	7,134	870				8,004						7,454			7,454	15,834	1.8	
East Coast of C. America.							2,464		9,638			12,102	3,850				3,850				15,952	1.8		
Totals, N. America.	18,944	3,492	1,831	14,463	7,147	45,877	352,649	4,438	11,175	109	5,836	374,207	90,565	32,507	17,781	30,256	167,109	39,829	29,695	69,524	656,777	72.2		
EUROPE:																								
British Isles	23,133	16	339	3,839	3,034	30,361	9,791	5,841	1,642			17,274									47,088	94,723	10.4	
Belgium	8,728	21	1,772	1,720	4,391	16,632	40,153	5,199				45,352									3,080	65,064	7.2	
Denmark							211	13				224										224	0.5	
France	1,090		100	371	2,236	3,797	585			733		585										4,382	9.1	
Germany	6,172	1,150	393	1,476	2,505	11,697	5,891	1,871				8,495										20,192	2.2	
Holland	1,522		2	820	1,128	3,497	9,277	241				9,518										13,015	1.4	
Italy			9			9	413	150	97			600										4,087	669	0.1
Norway and Sweden	930				4,218	7,135	5,702	60				8,158										19,380	2.1	
Spain and Portugal	80		30			110	745	138	19			902										1,012	0.1	
Europe ¹	1,020	35		76	12,482	13,613	3,772	2,364				6,136										19,749	2.2	
Totals, Europe	42,675	1,233	5,411	7,537	29,995	86,851	76,540	15,877	3,074	1,813		97,304									54,253	238,410	26.2	
East coast of South America							148					14,262	362				379					14,789	1.6	
Grand totals	61,619	4,725	7,242	22,148	37,142	132,876	438,331	25,391	14,249	2,026	5,836	485,833	96,927	32,507	17,798	30,256	167,488	43,916	79,863	123,779	909,976	100.0		
Per cent of total cargo:																								
July, 1929	6.8	0.5	0.8	2.4	4.1	14.6	48.2	2.8	1.6	0.2	0.6	53.4	9.5	3.6	2.0	3.3	18.4	4.8	8.8	13.6	100.0			
July, 1928	6.5	1.2	0.5	1.9	2.9	13.0	44.0	2.4	1.6	1.0	1.9	50.9	11.8	5.1	1.6	2.6	21.1	6.7	7.4	15.0	100.0			
July, 1927	7.0	1.8	0.8	4.5	1.6	15.7	39.7	6.2	0.8		0.9	47.6	8.8	7.3	2.3	1.5	19.9	13.1	3.5	16.8	100.0			

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

(Figures represent tons of 2,240 pounds.)

THE PANAMA CANAL RECORD

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NORTH AMERICA.																						
From—	UNITED STATES.					North America.					EUROPE.										Grand totals.	Per cent of total cargo.
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	E. coast Cen. Amer.	Cristobal, C. Z.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.	Total, Europe.			East coast of South America.	Egypt.
SOUTH AMERICA:																						
Chile	180,885	15,820	12,106	208,811		1,337		433	210,531	13,443	7,323	4,505	2,773	422,187	560	4,048	87,854	122,797	8,160	341,538	20.4	
Colombia	4,142			4,142				2,614	6,756					3			13		16	2	6,774	0.4
Ecuador	20,974			20,974				1,076	22,050		391		165				7	1,107	149	23,306	1.4	
Peru	7,367			7,367	16,200			7	23,571	16,541	3,090	1,263	1,144	15	21			11,422	33,496	57,405	3.4	
W. coast of S. Amer.	583			583				231	814	156	1,420		29					108	1,713	2,527	0.2	
Totals, S. America.	213,931	15,820	12,106	241,877	16,200	1,337		4,361	263,775	30,135	12,224	5,768	4,111	440,243	560	4,068	99,384	159,129	486,816	431,550	25.6	
NORTH AMERICA:																						
West coast of Canada.	31,175		1,250	32,425	18,993	4,317		57	55,792	40,528	3,766	5,476	5,519	2,852	540			24,797	83,478	1,713	140,983	8.3
West coast of Cen. Amer.	29			29		50	75	2,578	2,732										1,180		3,912	0.2
West coast of U. S.	567,119	4,409	70,856	642,384		23,482	689	3,146	669,701	185,101	4,615	6,707	18,290	7,959	2,245	479	3,469	45,341	275,459	1,506	946,666	56.1
Hawaii	3,323		8,035	11,358					11,358												11,358	0.7
Totals, N. America.	601,646	4,409	80,141	686,196	18,993	27,849	764	5,781	739,583	225,626	8,381	12,183	23,809	10,811	2,863	1,581	3,469	70,138	360,117	3,219	1,102,919	65.3
ASIA:																						
China	6,874			6,874				664	7,538												7,538	0.4
Japan	3,871			3,871				42	3,913												3,913	0.2
Philippines	76,673		12,195	88,868					88,868												88,868	5.3
Far East	1,685			1,685		7,175			8,860												8,860	0.5
Totals, Asia	89,103		12,195	101,298		7,175		706	109,179												109,179	6.4
AUSTRALASIA:																						
Australia	6,689			6,689	1,259				7,948												7,948	0.5
New Zealand	6,386			6,386	380				6,766	24,869											31,635	1.9
Australasia	1,031			1,031					1,031			3,924									4,955	0.3
Totals, Australasia.	14,106			14,106	1,639				15,745	24,869		3,924									44,538	2.7
Grand totals	918,806	20,229	104,442	1,043,477	36,832	36,361	764	10,848	1,128,282	280,637	30,905	12,875	27,920	11,251	5,298	2,147	537	169,522	548,039	3,705	1,688,186	100.0
Per cent of total cargo:																						
July, 1929	54	1.2	6.2	61.8	2.2	2.2		0.6	66.8	16.7	1.2	1.3	1.7	0.7	0.3	0.1	0.4	10.0	32.5	0.2	0.5	100.0
July, 1928	56.4	1.0	2.9	60.3	2.7	1.5	0.8	1.6	66.9	17.2	1.9	1.3	2.4	0.8	0.2	0.7	0.4	6.9	31.9	0.2	1.0	100.0
July, 1927	54.0	3.0	3.2	60.2	3.8	1.4	0.1	3.4	68.9	12.7	0.5	0.5	2.9	0.9	0.6	-0.8	0.7	8.8	28.4	1.6	1.1	100.0

* General cargo not routed so as to allow segregation between definite ports.

* Includes both local and transit cargo.

Proportion of Traffic by Frequency, Fiscal Year 1929.

The following tabulation shows for the fiscal year ended June 30, 1929, the number of vessels making the indicated number of transits through the Panama Canal, the per cent which each class formed of the total number of individual vessels (1,824), their aggregate number of transits, and their per cent of the total commercial transits (6,413):

Number of transits.	Number of vessels.	Per cent of individual vessels. (1,824)	Total number of transits.	Per cent of total canal transits.
1.....	536	29.4	536	8.4
2.....	475	26.0	950	14.8
3.....	193	10.6	579	9.0
4.....	165	9.0	660	10.3
5.....	116	6.4	580	9.1
6.....	81	4.4	486	7.6
7.....	75	4.1	525	8.2
8.....	58	3.2	464	7.2
9.....	45	2.4	405	6.3
10.....	14	0.8	140	2.2
11.....	4	0.2	44	0.7
12.....	8	0.4	96	1.5
13.....	9	0.5	117	1.8
14.....	12	0.7	168	2.6
15.....	3	0.2	45	0.7
16.....	5	0.3	80	1.2
17.....	4	0.2	68	1.0
18.....	2	0.1	36	0.6
19.....	5	0.3	95	1.5
20.....	6	0.3	120	1.9
22.....	2	0.1	44	0.7
24.....	2	0.1	48	0.8
30.....	2	0.1	60	0.9
32.....	1	0.1	32	0.5
35.....	1	0.1	35	0.5
Totals	1,824	100.0	6,413	100.0

FREQUENCY OF TRANSITS OF VESSELS THROUGH THE PANAMA CANAL.

During the fiscal year 1929, 1,824 individual commercial vessels representing 24 nationalities, passed through the Panama Canal. The number of transits per individual ship varied from 1 to 35, the 1,824 vessels making a total of 6,413 transits, or an average of 3.52 transits per vessel.

The highest number of transits made by any vessel during the fiscal year was 35, made by the steamship *Baralt*, owned and operated by the Royal Netherlands Steamship Company. This vessel is of Dutch registry, and operates between Cristobal and the west coast of the Republics of Colombia and Ecuador. It is a vessel of 742 net tons, Panama Canal measurement, 202 feet long by 33.1 feet beam.

Vessels of United States registry led in aggregate number of transits, though not in number of individual ships. While representing only 30 per cent of the individual vessels passing through the Canal, they made up 42 per cent of the total transits. Ships of British registry ranked first in total number of vessels transiting and second in number of total transits, with 680 individual ships making 1,783 transits. Germany ranked third with 92 ships making 402 transits.

The following table shows the number of individual ships, the frequency of transit per vessel, and total transits for the year, segregated by nationality:

NATIONALITY, NUMBER, AND TRANSITS OF VESSELS THROUGH THE PANAMA CANAL, FISCAL YEAR 1929.

Nationality. of vessels.	Vessels making indicated number of transits per vessel during fiscal year 1929.																																	Total ships.	Total transits.	Average number of transits.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	24	30	32	35											
Argentine.....	1																															1	1	1.00		
Belgian.....	1																															4	17	4.25		
British.....	241	212	69	60	46	22	10	7	2	3	1	1	2							2	1	1										680	1,783	2.62		
Chilean.....	2		1											2																		5	31	6.20		
Colombian.....	2														1																	8	101	12.63		
Costa Rican.....	1																				2											1	1	1.00		
Cuban.....	1																																1	1	1.00	
Danish.....	13	18	7	4	3																											45	101	2.24		
Danzig.....	3	1	1	1																													8	30	3.75	
Dutch.....	2	11	2	2	8	6																										32	149	4.69		
Finnish.....	4		1																														5	7	1.40	
French.....	8	8	10	10	3	1																										40	115	2.62		
German.....	21	19	10	14	8	5	8	2	1																							92	402	4.37		
Greek.....	10	16	1	4		1																											32	67	2.10	
Italian.....	7	11		2	6				2																								28	83	3.63	
Japanese.....	25	23	10	12		1																											71	155	2.18	
Mexican.....	1																																1	1	1.00	
Norwegian.....	40	35	22	12	8	2	3	1									1				1											125	340	2.72		
Panamanian.....	3	2	2						1	1	1	1																					11	47	4.27	
Peruvian.....	7			1													1																11	48	4.36	
Spanish.....	6	4	1	1	1	1																											14	32	2.28	
Swedish.....	15	8		7	3	3										1																	39	144	3.70	
United States.....	113	103	49	32	28	37	52	44	39	9	3	6	5	10	3	3	4	1	2	3													546	2,790	4.93	
Yugoslavian.....	9	4	6	3	2																												24	57	2.38	
Totals.....	536	475	193	165	116	51	75	58	45	14	4	8	9	12	3	5	4	2	5	6	2	2	2	1	1	1	1,824	6,413	3.52							

From the above it will be noted that 536, or approximately 29 per cent of the individual vessels using the Canal during the year, made but one transit. Two hundred and three of these were from the Pacific to Atlantic and 333 from the Atlantic to Pacific. Approximately 45 per cent made 3 transits or more; and less than 5 per cent made 10 or more transits.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending August 17, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
Santa Barbara.....	Grace Line.....	August 11.....	August 12.....	Tons. 5	Tons.
F. H. Hillman.....	Standard Oil Co.....	August 11.....	August 12.....	15,500	
Joseph Seep.....	Standard Shipping Co.....	August 12.....	August 15.....	1,151	
Lobos.....	Pacific Steam Nav. Co.....	August 13.....	August 13.....		50
Takaoka Maru.....	Nippon Yusen Kaisha.....	August 14.....	August 14.....	261	
Liberator.....	U. S. Shipping Board.....	August 14.....	August 14.....	249	
Swiftsure.....	Farmers Loan & Trust Co.....	August 15.....	August 17.....	11,000	
Trewyn.....	Canadian Transport Co.....	August 16.....	August 18.....	654	
Neches.....	U. S. Government.....	August 16.....	August 17.....	7,285	
City of Panama.....	Panama Mail S. S. Co.....	August 17.....	August 17.....		1
Caldas.....	National Navigation Co.....	August 17.....	August 17.....		1
Martha.....	Chr. Hannevig.....	August 11.....	August 12.....		403

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Notices to Mariners.

THE PANAMA CANAL EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 15, 1929.

No. 579.

AIDS TO MARINERS

1. Effective August 13, 1929, the two ends of the Oil Crib, Pacific entrance of the Panama Canal, Balboa Harbor, are marked with fixed green, electric lights.

* * * * *

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 16, 1929.

No. 581.

The following is quoted from Notice to Mariners, Washington, D. C., August 3, 1929:

1. *Panama, Colon Harbor Approach, Margarita Bay, Buoy Discontinued.* The black spar buoy on the northern side of the entrance to Margarita Bay has been discontinued and is to be expunged from the charts.

Approximate position: $9^{\circ} 23' 00''$ N., $79^{\circ} 53' 30''$ W.

2. *Panama, Colon Harbor Approach, Manzanillo Bay, Buoy Moved.* The red spar buoy marking the shoal on the continuation of Coco Solo Mole has been moved and reestablished about 465 yards 238° from the light on the end of the mole which places it in 30 feet of water on the northern side of a 16-foot spot.

Position: $9^{\circ} 22' 13.5''$ N., $79^{\circ} 53' 38.5''$ W.

3. *Panama, Limon Bay, Torpedo Range Discontinued.* The torpedo range formerly extending from the vicinity of Canal Channel Gas Buoy 1, in Limon Bay toward Coco Solo Point and marked by four gasoline drums painted white, has been discontinued.

4. *Panama, Panama Bay Approach, Cape Mala Light Station, Radiobeacon to be Established.* About August 20, 1929, a radiobeacon will be established at Cape Mala Light Station.

The radiobeacon will transmit groups of 2 dashes on a frequency of 290 kilocycles continuously for the third and sixth ten-minute periods of each hour.

The radiobeacon will be maintained by the U. S. Lighthouse Service.

Position: $7^{\circ} 27' 45''$ N., $79^{\circ} 59' 30''$ W.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 19, 1929.

No. 583.

AID TO NAVIGATION.

The following is quoted from Hydrographic Bulletin No. 2083, dated August 7, 1929:

NICARAGUA.

Corinto Harbor, Beacons Established and Discontinued. The commanding officer of the U. S. S. *Galveston* reports that the following changes have been made in the beacons of Corinto Harbor:

Entrance Range Front Beacon No. 1, a square concrete structure 7 feet high, showing a fixed white light, 1,500 yards 65° from Cardon Head Lighthouse. Approximate position: Latitude $12^{\circ} 28' 13''$ N., longitude $87^{\circ} 11' 50''$ W.

Entrance Range Rear Beacon No. 2, a square white concrete structure 18 feet high, showing a flashing white light every 10 seconds, flash 2 seconds, eclipse 8 seconds, 327 yards $84^{\circ} 06'$ from beacon No. 1.

Note.—The beacon which formerly stood 100 yards eastward of beacon No. 1 has been discontinued. Dona Paula Range Front Beacon No. 3, a white concrete structure 7 feet high, 2,625 yards $126^{\circ} 30'$ from Cardon Head Lighthouse. Approximate position: Latitude $12^{\circ} 27' 08''$ N., longitude $87^{\circ} 11' 28''$ W.

Dona Paula Range Rear Beacon No. 4, a white concrete structure 10 feet high, 150 yards $130^{\circ} 26'$ from beacon No. 3.

Note.—The beacons marking the old range line about 500 yards further eastward will be removed. Isla Encantada Range Front Beacon No. 5, a square, white concrete structure 7 feet high, 4,270 yards 78° from Cardon Head Lighthouse. Approximate position: Latitude $12^{\circ} 28' 21''$ N., longitude $87^{\circ} 10' 25''$ W.

Isla Encantada Range Rear Beacon No. 6, a square white concrete structure, 7 feet high, 183 yards $65^{\circ} 10'$ from beacon No. 5.

Note.—The three beacons marking the old range line just northward of the above have been discontinued.

H. BURGESS,
Governor.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective August 13, 1929:

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.22
Brass, sheet, average.....	Lb.	.35
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.15
Metal, yellow.....	Lb.	.24
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.11
Oil, marine engine.....	Gal.	.54
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.13
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.15
Waste, cotton, white.....	Lb.	.16

Sailings of Panama Railroad Steamship Line.

Folowing are proposed dates of sailings for the remainder of 1929, of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the passenger ships *Ancon* and *Cristobal* are engaged, sailing alternately.

Steamer.	Leave New York 4 P. M.	Leave Port au Prince P. M.	Arrive Cristobal A. M.	Leave Cristobal 3 P. M.	Leave Port au Prince P. M.	Arrive New York A. M.
Cristobal.....	August 20.....	August 25.....	August 28.....	September 1.....	September 4.....	September 9.....
Ancon.....	September 4.....	September 9.....	September 12.....	September 16.....	September 19.....	September 24.....
Cristobal.....	September 17.....	September 22.....	September 25.....	September 29.....	October 2.....	October 7.....
Ancon.....	October 1.....	October 6.....	October 9.....	October 13.....	October 16.....	October 21.....
Cristobal.....	October 15.....	October 20.....	October 23.....	October 27.....	October 30.....	November 4.....
Ancon.....	October 29.....	November 3.....	November 6.....	November 10.....	November 13.....	November 18.....
Cristobal.....	November 12.....	November 17.....	November 20.....	November 24.....	November 27.....	December 2.....
Ancon.....	November 26.....	December 1.....	December 4.....	December 8.....	December 11.....	December 16.....
Cristobal.....	December 10.....	December 15.....	December 18.....	December 23.....	December 26.....	December 31.....
Ancon.....	December 24.....	December 29.....	January 1.....	January 5.....	January 8.....	January 13.....

Effective April 30, steamers sail on daylight saving time.

Due to discontinuance of the daylight saving time, departures after S. S. *Cristobal*, Sept. 17th, will be at 4 p. m. standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 15 years of operation.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., August 28, 1929. No. 4.

CANAL WORK IN JULY, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of July, 1929.

BALBOA HEIGHTS, C. Z., August 20, 1929.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of July, 1929:

NUMBER OF TRANSITS.

During the month 527 commercial vessels and 4 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 44 vessels belonging to the United States Government, 2 transits of a Panaman Government vessel, and 10 transits of vessels solely for repairs, on which no tolls were collected, making a total of 587 transits for the month, or a daily average of 18.93.

Tolls on the 527 commercial vessels amounted to \$2,259,582.37, and on the launches to \$12.00, a total of \$2,259,594.37, or a daily average on all traffic of \$72,890.14. Total commercial traffic for the past month shows an increase of 24 transits and \$131,776.40 in tolls as compared with the month of June, 1929, and an increase of 18 transits and \$150,499.18 in tolls over the corresponding month in 1928.

The total numbers of craft of all kinds transiting the Canal during the month of July, 1929, as compared with the same month on 1928 and 1927, are shown in the following tabulation:

	July, 1929.	July, 1928.	July, 1927.
Commercial vessels.....	527	509	509
Launches (under 20 tons measurement).....	4	10	16
Noncommercial vessels:			
United States Government.....	44	28	29
Panaman Government.....	2	3	2
For repairs.....	10	8	2
Totals.....	587	558	558

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Totals.
Gatun.....	3	3	6
Pedro Miguel.....	17	17	34
Miraflores.....	20	20	40
Totals.....	40	40	80

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year, 1929, to the end of July, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January...	540	603	2,422,770	2,771,280	2,372,061	2,858,835	\$2,212,752.50	\$2,502,815.12
February...	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March...	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April...	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May...	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
June...	481	503	2,227,865	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
July...	509	527	2,318,395	2,468,280	2,291,955	2,598,162	2,109,083.19	2,259,582.37
Totals...	3,658	3,755	16,529,321	17,573,563	16,864,140	18,431,772	15,121,750.37	16,023,664.05

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for July, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the fiscal year ended June 30, 1929:

	July, 1929.	July, 1928.	July, 1927.	Average per month for fiscal year 1929.
Number of vessels.....	527	509	509	534
Panama Canal net tonnage.....	2,468,280	2,318,395	2,406,955	2,486,483
United States net tonnage.....	1,907,298	1,771,887	1,883,138	1,899,487
Registered gross tonnage.....	3,118,081	2,922,904	3,072,255	3,122,066
Registered net tonnage.....	1,909,588	1,781,824	1,885,658	1,908,360
Tolls.....	\$2,259,582.37	\$2,109,083.19	\$2,215,515.99	\$2,260,614.74
Tons of cargo.....	2,598,162	2,291,955	2,450,468	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1929.
	July, 1929.	July, 1928.	July, 1927.	
Number of transits.....	17.00	16.41	16.42	17.57
Panama Canal net tonnage.....	79,622	74,787	77,644	81,747
Tolls.....	\$72,889.75	\$68,034.94	\$71,358.56	\$74,321.58
Tons of cargo carried.....	83,812	73,934	79,047	84,008

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of July, 1929, as compared with July, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	July, 1929.	July, 1928.	July, 1927.
Panama Canal net tonnage.....	4,684	4,554	4,729
United States net tonnage.....	3,619	3,481	3,700
Registered gross tonnage.....	5,917	5,742	6,036
Registered net tonnage.....	3,624	3,497	3,705
Tolls.....	\$4,287.63	\$4,143.58	\$4,346.08
Tons of cargo (including vessels in ballast).....	4,930	4,505	4,814
Tons of cargo (laden vessels only).....	5,878	5,431	6,126

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.951 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.721 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of July, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Argentine.....	\$1,268.00	\$1,268.00		
Belgian.....	5,177.50	4,792.00		\$385.50
British.....	538,850.80	555,328.00	\$16,477.20	
Chilean.....	16,165.00	17,112.00	947.00	
Colombian.....	1,727.45	1,485.00		242.45
Danish.....	16,865.00	17,657.00	792.00	
Danzig.....	10,760.13	9,486.40		273.73
Dutch.....	61,769.40	66,971.00	5,201.60	
French.....	41,327.05	41,476.00	148.95	
German.....	106,609.79	116,452.20	9,842.41	
Italian.....	28,147.50	30,563.00	2,715.50	
Japanese.....	76,150.60	70,107.20		6,043.40
Mexican.....	1,961.25	2,159.00	197.75	
Norwegian.....	127,092.67	133,927.60	6,834.93	
Panamanian.....	3,592.45	5,321.20	1,728.75	
Peruvian.....	5,422.50	5,415.00		7.50
Swedish.....	29,941.77	33,037.60	3,095.83	
United States.....	1,178,621.01	1,195,589.80	16,968.79	
Yugoslav.....	8,132.50	7,590.00		542.50
Totals.....	2,259,582.37	2,316,038.00	64,950.71	7,495.08
Net increase for all traffic.....			56,455.63	

* Naval vessel paying tolls at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$18,856.01
United States foreign trade.....	\$1,977.47
United States—Canal Zone trade.....	90.25
Net increase.....	16,968.79

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in July, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....		1.70	1.70
British.....	.92	1.34	1.13
Chilean.....	.55	.98	.75
Colombian.....	.59	1.31	.79
Danish.....	1.31	1.78	1.50
Danzig.....		1.91	1.91
Dutch.....	.76	1.49	1.24
French.....	.71	1.47	1.22
German.....	.95	1.36	1.18
Italian.....	.32	1.05	.90
Japanese.....	1.35	1.41	1.39
Mexican.....		.53	.53
Norwegian.....	1.32	1.56	1.45
Panamanian.....	1.12	.47	.80
Peruvian.....		1.40	1.40
Swedish.....	.72	2.60	1.68
United States.....	.98	1.50	1.28
Yugoslav.....	1.79		1.79
Averages, July, 1929.....	.98	1.45	1.25
Averages, July, 1928.....	.82	1.49	1.18
Averages, July, 1927.....	.90	1.58	1.29

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of July, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	3	13,231	\$14,108.75	50	252,856	\$261,046.40
Ballast.....	57	310,281	223,568.46	1	9,609	6,918.48
General cargo ships:						
Laden.....	197	911,253	840,200.30	191	906,838	865,704.65
Ballast.....	11	55,304	40,170.06	8	7,048	5,075.97
Noncargo-carrying ships:						
Dredge.....	1	1,049	755.28			
Naval.....				1		1,268.00
Tugs.....	2	337	455.40	3	101	72.72
Yachts.....	2	323	237.90			
Totals.....	273	1,291,828	1,119,496.15	254	1,176,452	1,140,086.22
Method of propulsion:						
Steam.....	208	1,001,646	891,162.18	211	971,453	951,641.67
Motor.....	64	239,133	227,578.69	43	204,999	188,444.55
Nonpropelled.....	1	1,049	755.28			
Totals.....	273	1,291,828	1,119,496.15	254	1,176,452	1,140,086.22

Of the 419 steam-driven vessels, 309 were oil burning, 109 coal burning, and 1 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of July, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cargo ships.....				31	3,434	\$4,292.50
Cruisers.....	3	15,300	\$7,650.00	14	18,590	9,250.00
Mine sweepers.....	2	1,900	950.00	2	1,900	950.00
Submarines.....	7	6,022	3,011.00	7	5,968	2,984.00
Survey ships.....				1	2,200	1,100.00
Tugs.....	1	1,000	500.00	1	1,000	500.00
U. S. Army vessels:						
Launches.....	2	20	15.00			
Mine planters.....	1	1,208	604.00	1	1,208	604.00
Transports.....	3	11,724	14,655.00	2	7,816	9,770.00
Tugs.....	3	138	103.50	3	138	103.50
Totals, U. S. Government.....	22		\$27,488.50	22		29,554.00
Panaman Government vessels:						
Transports.....	1	101	72.72	1	101	72.72
Vessels for repairs:						
Cargo ships.....	1	409	306.75			
Tankers.....	5	7,142	5,356.50	4	5,893	4,419.75
Grand totals.....	29		33,224.47	27		34,046.47

¹ Indicates displacement tonnage. ² Indicates Panama Canal net tonnage. ³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of July, 1929, carried cargo as follows: Atlantic to Pacific, 1,069 tons; Pacific to Atlantic, 3,232 tons; total, 4,301 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of July, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	3	10	\$7.50
Pacific to Atlantic.....	1	6	4.50
Totals.....	4	16	12.00

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals* of the Panama Canal during the month of July, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons	77,582	36,235	113,817
Local cargo shipped..... tons	6,235	1,053	7,288
Transit cargo arriving..... tons	2,652,755	2,670,558	5,323,313
Transit cargo clearing..... tons	2,644,712	2,666,029	5,310,741
Cargo received for transshipment..... tons	29,165	350	29,515
Cargo transshipped..... tons	29,795	152	29,947
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	82	29	111
Number of withdrawals.....	486	221	707
Tons received.....	2,766	210	2,976
Tons withdrawn.....	2,164	221	2,385
Packages received.....	7,436	1,885	9,321
Packages withdrawn.....	6,587	2,267	8,854
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	77	6	83
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons	21,505	750	22,255
Coal issued, miscellaneous:			
Panama Canal departments..... tons	87		87
U. S. Army, including vessels..... tons	281	1	282
U. S. Navy, including vessels..... tons		5	5
Individuals and companies..... tons	255		255
Transferred to Navy..... tons	756		756
Total sales and issues..... tons	22,884	756	23,640
Coal on hand, July 1, 1929..... tons	82,277		82,277
Coal on hand August 1, 1929..... tons	72,196		72,196
Coal received during month..... tons	12,803		12,803
Coal received from Navy..... tons		756	756
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls.	5,435.30	16,418.67	21,853.97
Panama Railroad Company..... bbls.	199.58		199.58
U. S. Army and Navy..... bbls.		409.68	409.68
Individuals and companies..... bbls.		142.58	142.58
Total sales and issues..... bbls.	5,634.88	16,970.93	22,605.81
Fuel oil received during July, 1929..... bbls.	79,075.34	60,202.82	139,278.16
Fuel oil on hand August 1, 1929..... bbls.	85,704.26	8,147.69	93,851.95
Diesel oil received during July, 1929..... bbls.		3,044.19	3,044.19
Diesel oil sold during July, 1929..... bbls.	147.63	2,544.19	2,691.82
Diesel oil on hand August 1, 1929..... bbls.	16,303.86	493.25	16,797.11
Miscellaneous transfers..... bbls.	1,885.62	898.43	2,784.05
Gasoline and kerosene pumped for The Panama Canal..... bbls.	2,126.31	4,008.88	6,135.19
Gasoline pumped for individuals and companies..... bbls.	801.86	6,654.07	7,455.93
Oil pumped for individuals and companies..... bbls.	594,152.08	329,224.57	923,376.65
Oil pumped for U. S. Shipping Board..... bbls.	305.88	4,695.00	5,000.88
Oil pumped for U. S. Navy..... bbls.	204.00	6,111.00	6,315.00
Total fuel oil, gasoline, and kerosene handled..... bbls.	684,333.60	429,068.50	1,113,402.10
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	25	1	26
Measured for Panama Canal net tonnage.....	5		5
Remeasured for Panama Canal net tonnage.....	21		21
Panama Canal net tonnage corrected.....	4	3	7
U. S. equivalent tonnage corrected.....	12	6	18
Services of harbor equipment:			
Tugs, total operating hours.....	467 $\frac{1}{2}$	326 $\frac{1}{2}$	794
Launches, total operating hours.....	1,533 $\frac{1}{2}$	1,614 $\frac{1}{2}$	3,148

* Includes 4,357 tons additional on inventory, cross section measurement.

* 302.80 barrels handled by Panama Canal pumps.

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	\$14,460.00	\$10,815.00	\$25,275.00
Pilotage	20,571.00	7,833.00	28,404.00
Seamen	12,712.00	11,732.00	24,444.00
Launch service	2,444.00	3,166.50	5,610.50
Wharfage	16,606.55	5,291.23	21,897.78
Ships measured	50.00		50.00
Miscellaneous	860.00	718.30	1,578.30
Ships repaired at Panama Canal shops:			
Commercial	60	24	84
U. S. Army and Navy	8	6	14
Panama Canal equipment	7	7	14
Totals	75	37	112
Vessels dry docked:			
Commercial	6	18	24
U. S. Army and Navy	1		1
Panama Canal equipment	1		1
Totals	8	18	26
Clearances issued	308	287	595
Bills of health issued	333	257	620

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships Entering.</i>						
All vessels, including those transiting Canal.	648	3,553,698	2,166,293	556	3,234,701	1,986,593
Vessels entering port but not transiting Canal.	90	375,632	225,958	13	51,896	33,592
Vessels transiting Canal and handling passengers and cargo at terminal ports	127	759,760	457,212	111	634,169	392,817
<i>Ships Clearing.</i>						
All vessels, including those transiting Canal.	643	3,532,272	2,151,207	556	3,244,780	1,997,132
Vessels clearing port but not transiting Canal.	90	375,827	225,145	13	51,896	33,592
Vessels transiting Canal and handling passengers and cargo at terminal ports	127	761,309	457,605	111	634,169	392,817

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,578	1,220	2,798	115	40	155
From Pacific ports	187	141	328	266	350	646
Total disembarking	1,765	1,361	3,126	381	420	801
Embarking:						
For Atlantic ports	1,654	1,093	2,747	149	212	361
For Pacific ports	323	286	609	254	147	441
Total embarking	1,977	1,379	3,356	443	359	802
Remaining on board:						
From Atlantic to Pacific ports	2,031	2,344	4,375	2,239	2,590	4,829
From Pacific to Atlantic ports	1,853	1,965	3,818	1,891	1,894	3,785
From Atlantic to Atlantic ports	861	267	1,128			
From Pacific to Pacific ports				41	564	605
Total remaining on board	4,745	4,576	9,321	4,171	5,048	9,219
Total arriving	6,510	5,937	12,447	4,552	5,463	10,020
Total departing	6,722	5,955	12,677	4,614	5,407	10,021

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	273	54	19.6
Pacific to Atlantic	254	66	25.0
Totals	527	120	22.8

In addition to the aforesaid, 90 passenger-carrying vessels called at the port of Cristobal and 3 at the port of Balboa without transiting the Canal, making a total of 213 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of July, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	\$3,496.20	\$15,938.20	\$39,321.00	\$226.40	\$9,958.21	\$68,990.01
Government vessels	170.13	1,113.23	18,938.36	19.64	935.49	21,176.85
P. R. R. vessels	14.85	165.83	1,620.86	686.72	462.34	2,950.60
Total sales, July, 1929	3,681.18	17,267.26	59,880.22	932.76	11,356.04	93,117.46
Total sales, July, 1928	3,242.14	14,054.59	46,338.19	933.54	9,124.77	73,693.23
Total sales, July, 1927	2,691.41	13,939.85	35,004.87	989.21	8,785.42	61,410.76
Sales at Balboa to:						
Commercial vessels	939.97	15,828.06	20,802.80	860.30	6,460.27	44,891.40
Government vessels	677.38	3,133.04	14,829.17	737.44	1,689.65	21,066.68
P. R. R. vessels				43.12		43.12
Total sales, July, 1929	1,617.35	18,961.10	35,631.97	1,640.86	8,149.92	66,001.20
Total sales, July, 1928	1,913.94	16,109.71	36,909.88	1,548.79	5,976.38	62,458.70
Total sales, July, 1927	1,609.13	14,796.73	44,371.58	340.14	5,616.69	66,734.27

The aggregate sales to Government vessels during the month was \$42,243.53; to Panama Railroad vessels, \$2,993.72; and to other commercial vessels, \$113,881.41; making the total sales to all vessels, \$159,118.66.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of July, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. †					
	North.	South.	Total.	North.	South.	Total.	July, 1929.	July, 1928.	July, 1927.
Gatun.....	234	252	486	13	12	25	511	501	503
Pedro Miguel.....	246	267	513	14	15	29	542	520	531
Miraflores.....	243	264	507	13	14	27	534	518	527
Number of vessels put through locks.									
Gatun.....	253	273	526	33	35	69	595	578	598
Pedro Miguel.....	255	273	528	49	52	101	629	623	628
Miraflores.....	255	273	528	52	56	108	636	622	634

* Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	48	49	51
Panama Canal equipment	6	34	40
Launches under 20 tons	3	6	5
Panaman Government vessels	2	2	2
Vessels for repairs	10	10	19

The total consumptions of water for lockages, maintenance, and loss in leakage was as follows in July, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	2,056,630,000	1,599,460,000	1,571,550,000
Maintenance.....			13,020,000
Leakage.....	30,000,000	8,750,000	20,000,000
Totals, July, 1929.....	2,086,630,000	1,608,210,000	1,604,570,000
Totals, June, 1929.....	1,935,760,000	1,845,570,000	1,552,940,000
Totals, July, 1928.....	2,074,850,000	1,744,930,000	1,567,360,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of July, 1929, are shown in comparative form in the following tabulation:

	July.		July—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	1,926	2,127	6,197	1,248	2,804
Maximum momentary discharge for the month.....	10,778	11,379	33,700	785	
Gatun Lake watershed, total yield.....	4,882	5,262	14,663	2,677	7,060
Gatun Lake watershed, net yield.....	4,396	4,665	14,156	1,898	6,514
Draft on Gatun Lake for lockages and power.....	2,955	2,812	2,955	1,244	2,253

* July 22, 1927.

* 1914 not included.

The discharge of the Chagres River at Alhajuela was 31 per cent below the July average, or 1,926 c. f. s. compared with a 28-year average of 2,804 c. f. s. While this month's discharge exceeds the minimum July of record by about 700 c. f. s., it is comparable to the low July discharges of 1928 and 1923 and can be classed with our dry Julys of record.

The total yield of the Gatun Lake watershed was 31 per cent below the 16-year July average, or 4,882 c. f. s. compared with an average of 7,060 c. f. s., and is one of the low July yields since the formation of Gatun Lake. Maximum and minimum total yields of record for July are 14,663 c. f. s. in 1927 and 2,677 c. f. s. in 1914, respectively. The lake varied from the minimum elevation of 83.90 feet on the 15th and 16th to the maximum of 84.82 feet on the 31st, averaged 84.21 feet, and ended at elevation 84.74 feet. The elevation of 84.74 feet at midnight of July 31st is the lowest value for this date since 1913 when the lake was being filled.

Miraflores Lake varied from elevation 52.74 feet on the 8th to 54.24 feet on the 28th, averaged 53.63 feet and ended at elevation 53.65 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 7th, 21st, 22d, 23d and 29th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,562,000 kilowatt hours, and the computed water consumption was 4,257,673,130 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 28,100 kilowatt hours, and the fuel oil consumption was 130.94 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 34 vessels during the month. There were 483 work orders issued during the month, as compared with 385 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 75 vessels at Cristobal and 37 at Balboa. Eight vessels were dry docked at Cristobal and 18 at Balboa. General repairs were started on the Panama Canal tugs *Cocoli* and *Tavernilla* during the month. Repairs were completed on the Panama Canal tug *Engineer* during the month. The Peruvian submarines *R-1*, *R-2*, *R-3*, and *R-4*, were dry docked for annual overhaul and underwater work.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. Sixteen thousand cubic yards of material were moved in connection with the grading of the Madden Road. At the Madden Dam the operation of diamond drills was continued throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 710,677,750 gallons.

DREDGING DIVISION.

A break occurred at Southwest La Pita slide during the night of July 30, 1929, the material entering the Canal prism over the berm. The amount of material entering the channel was about 2,000 cubic yards, consisting mostly of boulders. A dredge excavated 500 cubic yards of material at this point on the 31st.

A general surface movement over the lower central portion of South Cucaracha slide continued during July, a dipper dredge excavating 22,850 cubic yards from same.

There was no further movement of East Barge Repair slide during the month. A dipper dredge removed 52,150 cubic yards of material from this slide, and by the 15th of the month the slide was removed and the channel fronting this area was restored to normal.

There was no further movement of Cucaracha Signal Station slide during the month. A dipper dredge removed 48,700 cubic yards of material from this slide during July.

Several small breaks occurred in July, but the amount of material entering the channel was negligible. There was no interference with shipping on account of slides during the month.

The total excavation during July, 1929, was 618,965 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2.....	1,250	18,300	19,550
West Lirio slide.....	11,000	4,850	15,850
East Barge Repair slide.....	5,200	46,950	52,150
Cucaracha Signal Station slide.....	6,700	42,000	48,700
South Cucaracha slide.....	12,500	10,350	22,850
West Culebra slide.....	4,000	12,000	16,000
Southwest La Pita slide.....	100	400	500
Maintenance.....	25,300	20,350	45,650
Canal prism, Pacific entrance—			
Project No. 1 (extension).....	99,500		99,500
Project No. 1.....	20,500		20,500
Maintenance.....	7,700		7,700
Balboa inner harbor—			
Project No. 1.....			
Maintenance.....			
Plant excavation:			
Albrook Field.....	268,000		268,000
Dredging sand at Chame.....	2,015		2,015
Totals.....	463,765	155,200	618,965

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and twenty-six trips were made, and 26 Panama Canal, 25 U. S. Army, and 3,706 other vehicles, a total of 3,757, were ferried across the Canal.

MADDEN DAM PROJECT.

The Designing Engineer Division, Madden Dam Project, which was organized on June 17, 1929, with the appointment of Mr. E. S. Randolph as Designing Engineer, and an assistant engineer, proceeded with preliminary plans and organization. This division is in charge of design and field investigations for the dam. A preliminary cross section of gravity dam was completed for estimates in comparison of dam sites Nos. 1 and 5.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on July 31, 1929, totaled 21,906, composed of 7,601 Americans, 2,778 of whom were men, 2,228 women, and 2,595 children; 235 Europeans, 92 of whom were men, 37 women, and 106 children; and 14,070 West Indians, 4,144 of whom were men, 2,618 women, and 7,308 children. The total number of persons in quarters on July 31, 1928, was 21,331.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of July 17, 1929, with a comparison of the working force for the preceding month and for July, 1928:

	As of July 17, 1929.			Total employees.	
	Gold.	Silver.	Total.	June, 1929.	July, 1928.
Operation and Maintenance:					
Office.....	47	58	105	106	101
Electrical.....	155	172	327	312	328
Municipal Engineering.....	112	1,487	1,599	1,712	750
Lock operation.....	244	712	956	1,004	930
Dredging.....	195	1,056	1,251	1,204	1,107
Mechanical.....	475	926	1,401	1,327	1,281
Marine.....	213	643	856	856	922
Fortifications.....	27	290	317	365	399
Totals.....	1,468	5,344	6,812	6,886	5,818
Supply Department:					
Quartermaster.....	208	1,923	2,131	2,145	1,897
Subsistence.....	9	100	109	111	110
Commissary.....	238	1,265	1,503	1,511	1,374
Cattle Industry.....	4	184	188	161	139
Hotel Washington.....	8	101	109	107	100
Transportation.....	63	224	287	289	266
Totals.....	530	3,797	4,327	4,324	3,886
Accounting Department.....	209	7	216	210	203
Health Department.....	282	865	1,147	1,136	1,133
Executive Department.....	519	325	844	819	781
Totals.....	1,010	1,197	2,207	2,165	2,117
Panama Railroad Company:					
Superintendent.....	51	275	326	328	317
Transportation.....	67	123	190	188	183
Receiving and Forwarding Agency.....	101	1,363	1,464	1,537	1,162
Coaling Stations.....	49	229	278	284	306
Totals.....	268	2,020	2,288	2,337	1,968
Grand totals, July, 1929.....	3,276	12,358	15,631		
Grand totals, June, 1929.....	3,225	12,487		15,712	
Grand totals, July, 1928.....					13,789

Additions to the gold force on the Isthmus in July were as follows: Employed in the United States, 23; reemployed in the United States, 12; employed on the Isthmus, 29; reemployed on the Isthmus, 22; total, 86. Separations from the gold force totaled 53, as follows: Resigned, 31; discharged, 18; retired, 3; died, 4. At the end of the month there were on file 330 application from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 198 deaths occurred during the month of July, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.98 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 37; pneumonia (broncho and lobar), 28; diarrhea and enteritis, 17; nephritis (acute and chronic), 16; and syphilis, 10. There were 9 deaths from organic diseases of the heart, 7 from cancer, 2 from diphtheria, 2 from tetanus, and 1 from chicken-pox.* There were 18 deaths among non-residents. These are not included in the above statistics.

There were 246 live births, and 22 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 24.34 per 1,000 population. Deaths among children under 1 year of age numbered 43, giving an infant mortality rate based on the number of live births reported of 174.80.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during July, 1929, was 153, of whom 37 were employees (5 white and 32 colored), 15 were families of employees (1 white, 14 colored), 10 were Canal Zone agriculturists, 26 were other civilian nonemployees, and 65 were Army and Navy personnel.

* The actual cause of death was lobar pneumonia but under the U. S. Census Bureau regulation governing joint causes of death, this case is carried as chicken-pox.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled \$426,026.54, of which \$376,149.46 was for the Department of Operation and Maintenance and \$49,877.08 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to \$43,865.18.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of June, 1929, as compared with June, 1928, together with the figures for the fiscal year 1929 as compared with the fiscal year 1928.

It is impossible to submit figures for the month of July at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	June, 1929.	June, 1928.	Fiscal year ended June 30.	
			This year.	Last year.
Tolls.....	\$2,127,351.84	\$2,016,277.34	\$27,123,534.33	\$26,943,513.11
Other receipts.....	339,293.72	337,203.27	4,055,424.47	3,600,907.34
Total transit revenues.....	2,517,145.56	2,353,485.61	31,178,958.80	30,544,420.45
Total transit expenses.....	1,235,305.43	1,104,678.05	13,449,183.79	12,310,575.59
Net transit revenues.....	1,281,840.13	1,248,807.56	17,729,775.01	18,224,844.86
Three per cent capital charge.....	619,033.34	614,221.58	7,392,091.89	7,343,774.39
Transit surplus.....	662,833.79	634,585.98	10,337,683.12	10,881,070.47
Business revenues.....	1,395,771.67	1,466,862.57	17,236,785.02	16,929,247.24
Business expenses.....	1,637,249.01	1,526,222.68	16,498,934.76	16,192,527.81
Net business revenues.....	241,477.34	559,360.12	737,850.26	736,719.43
Three per cent capital charge.....	62,674.50	60,543.93	788,424.05	781,364.15
Business deficit.....	394,151.84	419,604.05	50,573.79	45,144.72
Combined revenues.....	3,912,917.23	3,820,348.18	48,415,743.82	47,473,667.69
Combined expenses.....	2,872,554.44	2,630,900.74	29,948,118.55	28,512,103.40
Net revenues.....	1,040,362.79	1,189,447.44	18,467,625.27	18,961,564.29
Three per cent capital charge.....	631,680.84	674,765.51	8,180,515.94	8,125,638.54
Combined surplus.....	358,681.95	514,681.93	10,287,109.33	10,835,925.75

* Indicates deficit.

Respectfully,

H. BURGESS,
Governor.

Tug "Relief" Returns from Long Towing Job.

The salvage steamer *Relief* of the Merritt, Chapman & Scott Corporation, transited the Canal on August 14, 1929, en route from Callao to Colon, on her return voyage from towing the dredge *Peru* from New York to Callao. The tow, which passed southbound through the Canal on July 28th, left New York on July 15th. The distance from New York to Callao by way of the Canal is 3,363 nautical miles.

The new dredge is to be used in connection with extensive harbor improvements at the port of Callao.

Nippon Yusen Kaisha Plans Cotton Service.

Recent press reports indicate that the Nippon Yusen Kaisha will inaugurate a fortnightly service from Port Houston, Texas, to the Far East, via the Panama Canal, through the cotton-moving season, beginning September 10, 1929.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sylvania ¹	18	23	30	19	7	24	19	15	20	19	13	British.				Gasoline, keros'te.	7,533	5,900	3,993
Defecto	18	19	30	19	7	40	19	16	00	19	16	American.				General, lumber.	6,200	5,632	4,086
Ebro	19	4	00	19	7	50	19	15	50	19	21	British.				General.	2,842	9,291	6,301
Jane																			
Christenson.	19	1	30	19	9	17	19	16	46	19	16	American.				Lumber, general.	7,370	6,615	4,966
Indra ²	19	7	00	19	9	25	19	17	50	19	19	Norwegian.				Wheat.	6,505	5,456	3,797
Arana	19	6	00	19	10	03	19	18	30	19	23	British.				General.	900	2,851	1,776
J. R. Gordon.	19	11	47	19	12	42	19	19	55	19	19	American.				Lumber.	7,200	6,581	4,784
Saralco	19	14	10	19	14	56	19	21	55	19	21	American.				Lumber.	3,678	3,934	2,628
Dalworth.	19	15	20	19	6	12	19	20	45	19	23	British.				Lumber.	6,300	6,524	4,686
Carl Legian	19	16	15	19	6	30	19	20	15	19	21	German.				General.	6,797	7,145	5,474
Mallinak	19	19	15	19	7	05	19	20	15	19	21	American.				Lumber.	4,692	4,112	2,846
Epiliso	19	19	15	19	7	05	19	20	15	19	21	American.				Lumber.	8,808	8,293	6,078
Aurineac.	19	9	00	19	8	16	19	16	15	19	23	American.				Sugar.	5,530	4,897	3,544
Lochmonar ²	19	14	50	19	8	50	19	17	18	19	21	Peruvian.				General.	9,633	10,772	7,581
Bogota	20	0	07	20	8	57	20	16	30	20	20	British.				General.	6,783	5,733	4,015
Pennsylvania	20	5	30	20	9	24	20	17	35	20	22	British.				General.	6,527	7,107	5,041
David	20	6	15	20	9	59	20	17	50	20	17	American.				General.	6,527	7,107	5,041
Mekley ¹	20	9	00	20	10	25	20	18	20	20	18	American.				Gasoline.	8,744	7,629	5,325
Lillian																			
Lockenbach.	20	9	30	20	11	33	20	19	00	20	19	American.				Lumber, general.	7,500	9,294	6,863
Hanley	20	12	45	20	13	30	20	21	25	20	21	American.				Lumber.	9,650	8,310	6,003
Port Curro	20	13	30	20	14	28	20	23	00	21	30	British.				Lumber.	4,660		
Borneveld	20	15	00	20	15	35	20	20	15	21	12	Dutch.				Gen., saltpetr.	8,274	7,820	5,980
St. Mihel	20	00	18	21	6	25	21	13	35	21	17	American.				Army supplies.	219		
Hampson																			
Roads	20	23	45	21	6	53	21	14	25	21	14	American.				Gasoline.	9,627	8,093	5,347
Oranget ¹	20	23	30	21	7	20	21	14	55	21	14	Norwegian.				Gasoline.	10,460	8,291	5,822
Nest Chief	21	1	53	21	7	41	21	16	10	21	18	American.				Nitrates.	2,546	3,256	2,010
Bendonit	21	4	45	21	8	14	21	17	10	21	18	British.				Lumber.	4,209	4,232	3,066
Noire Dame																			
de Fourviere	21	10	25	21	11	14	21	19	45			French.				General.	8,591	8,043	5,454
Smoll ¹	21	10	45	21	11	35	21	19	25			American.				Gasoline.	13,718	9,619	6,456
Challenger ²	21	16	30	21	17	30	21	22	11	21	22	American.				Lumber, pulp.	8,506		
Surry	21	16	00	22	6	22	22	12	35	21	23	British.				Frozen, general.	21,654	15,551	7,707
Acquia	21	3	00	22	6	22	22	12	35	21	23	American.				Iron ore.	21,654	15,551	7,707
Acquia	21	23	30	22	7	09	22	13	30	22	14	British.				General, wood.	426	4,093	2,261
La Peru	22	2	45	22	7	31	22	13	35	22	14	American.				Nitrates, general.	7,582	7,525	5,154
Rhodopis	22	23	40	22	8	24	22	16	30	22	16	German.							

¹ Sugar, copra, pineapples, coconut oil.² Motor ship.³ Tanker.⁴ Coffee, wood, sundries.

22	1	36	22	9	00	22	17	20	22	17	20	American.	States S. S. Co.	410	54	0	25	0	Portland, Oreg.	New York, N. Y.	Lumber.	7,203	6,755	4,890										
22	6	00	22	10	15	22	18	20	22	18	20	German	Hamburg-American Line	413	50	7	26	3	Corral, Chile	Hamburg, Germany	Nitrates, cotton	5,666	6,352	4,704										
22	9	30	22	10	15	22	18	25	22	18	25	American	Vacuum Oil Co.	425	57	2	27	0	Philadelphia, Pa.	Philadelphia, Pa.	Lubricating oil.	10,055	7,510	4,989										
17	21	00	22	13	21	22	20	45	23	8	07	British.	Can.-Nat. Steamships.	400	0	0	0	52	4	14	0	Auckland, N. Z.	Montreal, Quebec.	General.	1,955	6,228	4,491							
22	6	30	22	14	20	22	21	45	22	21	45	British.	Com'lth & Dom. Line.	466	9	0	0	59	8	23	2	Auckland, N. Y.	London, England.	General.	4,125	9,959	7,226							
23	00	05	23	6	30	23	13	05	23	16	40	German.	Hamburg-American Line	432	3	0	0	59	1	26	0	Hamburg, Germany	Hamburg, Germany	General.	7,541	8,454	6,344							
22	16	30	23	7	02	23	15	30	23	15	30	American	Nelson Line.	324	0	0	0	46	2	23	6	Baltimore, Md.	Baltimore, Md.	Lumber, general.	4,550	3,984	2,626							
23	6	30	23	7	15	23	15	35	23	15	35	Panama.	L. J. A. Ducret.	181	0	0	0	30	0	0	0	Cristobal, C. Z.	Cristobal, C. Z.	Ballast.	7,780	564	304							
23	5	00	23	8	03	23	18	20	23	18	20	American	Ore S. S. Corp.	419	1	0	0	57	2	29	6	Baltimore, Md.	Baltimore, Md.	Iron ore.	11,713	7,808	5,139							
23	6	45	23	8	43	23	18	25	23	18	25	American	Amer-Hawaiian Line.	404	6	0	0	53	9	23	6	Boston, Mass.	Boston, Mass.	General.	5,258	6,749	4,450							
23	9	15	23	9	15	23	17	25	23	17	25	American	U. S. Navy.	155	0	0	0	30	0	0	0	Balboa, C. Z.	Cristobal, C. Z.	Towing barge.	6,500	5,113	3,571							
23	7	00	23	9	28	23	19	03	23	19	00	American	Atlantic Refining Co.	304	9	0	0	51	0	24	0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	6,500	5,113	3,571							
23	10	00	23	11	01	23	20	03	23	20	05	American	Munson, McCork' Line.	409	5	0	0	51	2	25	0	Portland, Oreg.	Baltimore, Md.	Lumber, general.	8,500	6,566	4,960							
23	7	45	23	12	04	23	20	00	23	20	00	Norwegian.	Anglo-Saxon Pet. Co.	471	8	0	0	64	4	27	0	Los Angeles, Calif.	Land's End, Eng.	Gasoline.	12,418	9,562	6,004							
23	12	00	23	13	03	23	22	20	24	1	15	Swedish	Johnson Line.	195	0	0	0	54	0	25	6	Vancouver, B. C.	Stockholm, Sweden	General.	5,987	7,048	5,339							
23	22	25	24	6	03	24	16	15	24	16	15	Swedish	Ore S. S. Corp.	561	0	0	0	72	2	33	8	Braz Grande, Chile	Baltimore, Md.	Iron ore.	21,800	15,560	4,496							
23	8	14	23	24	6	36	24	14	35	24	13	American	U. S. Navy.	0	0	0	0	0	0	0	0	Cristobal, C. Z.	Cristobal, C. Z.	General.	0	0	0							
23	8	16	24	6	36	24	14	35	24	13	35	American	U. S. Navy.	0	0	0	0	0	0	0	0	Balboa, C. Z.	Cristobal, C. Z.	General.	0	0	0							
23	8	17	24	6	38	24	14	35	24	13	35	American	U. S. Navy.	0	0	0	0	0	0	0	0	Balboa, C. Z.	Cristobal, C. Z.	General.	0	0	0							
23	16	55	24	6	43	24	18	15	24	18	15	British	C. T. Dorring & Co.	407	4	52	2	25	0	0	0	La Libertad, Equa.	Philadelphia, Pa.	Crude oil	7,932	6,046	4,326							
24	4	00	24	7	37	24	18	50	24	19	45	British	F. & W. Ritson.	400	3	51	9	23	6	0	0	Liverpool, England	Liverpool, England	General.	6,775	5,403	3,960							
24	8	30	24	9	27	24	17	55	26	16	00	American	U. S. Navy.	483	1	61	0	21	0	0	0	Queinto, Va.	Queinto, Va.	Navy supplies.	1,176	0	0							
24	5	40	24	12	43	24	19	4	24	22	25	British	Shaw, Savill & Albion.	509	3	63	3	23	2	0	0	London, England	London, England	Frozen, general.	3,366	12,872	9,577							
24	13	00	24	14	56	24	21	30	25	13	25	German	Hamburg-American Line	227	0	34	4	13	0	0	0	Champerico, Guat.	Cristobal, C. Z.	Ballast.	1,633	1,041	0							
24	14	15	24	15	24	23	00	25	11	18	00	German	North German Lloyd.	431	0	56	4	26	0	0	0	Valparaiso, Chile	Hamburg, Germany	General.	7,919	7,196	4,956							
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22 Aug.

13 Submarine.

14 Transport.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 18	Calamares.	United Fruit Co.	Port Limon, Costa Rica.	August 18	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
August 19	Antillian.	Leyland S. S. Line	Port Limon, Costa Rica.	August 18	Calamares.	United Fruit Co.	New York via Habana.
August 19	British Union	Anglo-Saxon Pet. Co.	Curacao, D. W. I.	August 18	Ancon	Panama R. R. S. S. Line	New York via Haiti.
August 19	No. 9655 ^{1, 5}	Pan-American Airways	Managua via wayports.	August 18	Camden	United Fruit Co.	Curacao, D. W. I.
August 19	Pastors	United Fruit Co.	New York via Habana.	August 19	Heredia	United Fruit Co.	New Orleans via wayports.
August 20	Mary V. ^{1, 6}	H. C. Robinson.	Colon, R. P.	August 20	No. 8944 ^{1, 5}	Pan-American Airways	Managua via wayports.
August 21	Phoenixia	Hamburg-American Line	Hamburg via wayports.	August 20	No. 9137 ^{1, 5}	Pan-American Airways	Managua via wayports.
August 21	Antilles	French Line	Haïve via wayports.	August 20	No. 9776 ^{1, 5}	Pan-American Airways	Guayaquil via wayports.
August 21	Darien C-35 ^{1, 5}	Seadco Airplane Co.	Barranquilla, Colombia.	August 20	Antillian	Leyland S. S. Line	Liverpool via wayports.
August 21	Saxola	New York via Kingston.	Colon, R. P.	August 20	Mary V. ^{1, 6}	H. C. Robinson.	Cartagena, Colombia.
August 22	Abacucma ^{1, 7}	United Fruit Co.	Colon, R. P.	August 21	Pastors	United Fruit Co.	Port Limon, Costa Rica.

5 Air mail carrier 16 Motor schooner

Motor boat

十

the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.							
* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 22	Inapaquina ¹⁸	United Fruit Co.	Colon, R. P.	August 21	Phoenixia	Hamburg-American Line	Port Limon, Costa Rica.
August 22	Suriname	United Fruit Co.	New Orleans, La.	August 22	Artiles	French Line	Fort-de-France.
August 22	No. 9137 ¹⁹	Pan-American Airways	Curacao via wayports.	August 22	Darion C-35 ¹⁹	Scandia Airplane Co.	Barraquilla and waypts.
August 22	No. 9107 ¹⁹	Pan-American Airways	Managua via David.	August 22	No. 9185 ¹⁹	Pan-American Airways	Managua via wayports.
August 23	Amapala	Standard Fruit & S. Co.	New Orleans via Habana	August 22	Sixala	United Fruit Co.	New York via wayports.
August 23	Coppename	United Fruit Co.	Bocas, R. P.	August 22	Suriname	United Fruit Co.	Puerto Colombia.
August 23	No. 9776 ¹⁹	Pan-American Airways	Guayaquil via wayports.	August 22	Anahuacuna ¹⁸	United Fruit Co.	Colon, R. P.
August 23	Wauks	Standard Fruit & S. Co.	San Blas, R. P.	August 22	Inapaquina ¹⁸	Anglo-Saxon Pet. Co.	Curacao, D. W. I.
August 24	Manatui	United Fruit Co.	New York via wayports.	August 23	British Union	United Fruit Co.	New Orleans, La.
August 24	Teutonia	Hamburg-American Line	Tampico via wayports.	August 23	Coppename	United Fruit Co.	Colon, R. P.
August 24	No. 9685 ¹⁹	Pan-American Airways	Managua via David.	August 24	Inapaquina ¹⁸	A. L. Surgeon	Bluefields, Nicaragua.
August 24	Cartago	United Fruit Co.	New Orleans via Habana	August 24	Linda S. ²⁰	Pan-American Airways	Managua via wayports.
August 24	Linda S. ²⁰	A. L. Surgeon	Colon, R. P.	August 24	No. 9688 ¹⁹	Standard Fruit & S. Co.	New Orleans and waypts.
August 24	Inapaquina ¹⁸	United Fruit Co.	Colon, R. P.	August 24	Anapala	United Fruit Co.	New York via Kingston.
¹⁸ Motor boat.				PORT OF BALBOA.			
¹⁹ Air mail carrier.				²⁰ Motor schooner.			
August 20	Ginyo Maru.	Nippon Yusen Kaisha.	Valparaiso, Chile.	August 20	Ginyo Maru.	Nippon Yusen Kaisha.	Hongkong, China.
August 23	San Luis ²¹ .	Chiriqui Land Co.	Pto. Arnuelles, R. P.	August 23	Real ²¹ .	Hans Elliot.	Panama Bay, R. P.
August 23	Real ²¹ .	Bayano River, R. P.	Bayano River, R. P.	August 23	Sambu ²¹ .	Dcs Hermanos	Panama Bay, R. P.
August 23	Sambu	Bayano River, R. P.	Bayano River, R. P.	August 23	A. Valdez.	Chiriqui Land Co.	Panama Bay, R. P.
August 23	Dos Hermanos ²¹ .	Bayano River, R. P.	Bayano River, R. P.	August 24	San Luis ²¹ .		Pto. Arnuelles, R. P.

* Other than ships passing through the Canal.

²¹ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., September 4, 1929. No. 5.

Traffic Through the Panama Canal in August, 1929.

During the month of August, 1929, 541 commercial vessels and 6 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,327,437.86, and on the launches, \$39.15, or a total tolls collection of \$2,327,477.01.

The daily average number of commercial transits for the month was 17.45, and the average tolls collection was \$75,078.64, as compared with an average of 17 transits and \$72,889.75 in tolls for the previous month, and an average of 16.97 transits and \$70,937.72 in tolls for August, 1928.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 8 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 8 months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,993.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,037.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
Totals, first 8 months of calendar year 1929.....	4,296	18,351,101.91	17.68	75,518.94
Totals, first 8 months of calendar year 1928.....	4,184	17,320,819.68	17.14	70,986.96
Totals, first 8 months of calendar year 1927.....	3,830	16,788,746.86	15.76	69,089.49

As compared with the first eight months of the calendar year 1928, the corresponding period this year has had 112 more transits and \$1,030,282.23 more in tolls.

Transit of Mexico.

The steamship *Mexico*, recently purchased by the Alaska Steamship Company of Seattle from the Ward Line of New York, transited the Canal on September 1, 1929, en route from New York to Seattle where, after a complete overhaul, she is to be placed in the service of the purchasers between Seattle and Alaska. The newly acquired vessel is to take the place of the *Aleutian* which was sunk some time ago.

The *Mexico* is a four-deck steamer, 416 feet long, 50 feet beam, and of 6,362 gross tons. She was built in 1906 by William Cramp & Sons, of Philadelphia.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 31, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.	Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.							Nature.	Tons.	Gross.	Net.
Abraham Lincoln ²	24	6 05	25	6 09	25	13 29	26	13 50	Norwegian.				General, bananas	4,891	8,005	5,353
Port Victor	24	14 05	25	7 15	25	14 25	25	15 50	British.				General	9,500	9,336	6,082
Canada	24	17 15	25	7 20	25	15 15	25	16 00	American.				Ballast	8,201	6,207	
Camadote	25	10 15	25	10 30	25	18 14	26	00 02	British.				Talara, Peru	11,557	6,772	
San Valerio	25	10 15	25	11 00	25	19 05	26	23 15	British.				Ballast	6,672	4,339	
Steelmaker	25	12 10	25	12 20	25	19 05	26	23 15	American.				Steel, general	8,489	7,330	5,245
Durazo	24	21 30	25	13 25	25	20 35	26	22 00	German.				Guayaquil, Ecuador	217	1,633	1,041
Durazo	25	13 35	25	15 32	25	20 35	26	22 00	American.				General	7,115	5,410	3,627
Bernier	25	20 10	25	20 26	26	9 09	26	10 35	Norwegian.				General	5,410	4,232	
Grant	26	6 25	26	6 45	26	12 59	27	7 25	American.				Military supplies	431		
La Perla	26	6 25	26	7 30	26	14 35	27	2 51	American.				General	487	4,033	2,261
Greystone													Bananas, general			
Castle	26	6 30	26	8 40	26	15 35	26	17 05	British.				General	6,174	7,596	5,179
City of Lille	26	7 30	26	9 50	26	17 17	27	8 49	British.				General	6,139	8,555	6,107
Pollara	26	12 50	26	13 05	26	20 58	26	23 52	Norwegian.				General	5,443	5,451	3,820
Almagro	26	1 55	27	6 00	27	13 27	27	14 50	British.				General	993	2,826	1,770
Hedron	27	1 50	27	7 15	27	14 57	27	19 32	American.				Steel, general	10,449	8,312	6,097
Oakbank	27	7 45	27	8 30	27	15 36	27	23 40	British.				Asphalt	6,300	7,038	3,160
Tashmo	26	13 38	27	10 55	27	17 52	27	19 05	American.				General	2,776	3,954	2,628
Oleaus	27	12 30	27	12 45	27	19 23	27	20 46	American.				General	6,292	7,330	5,233
Santes Maru	27	13 45	27	13 55	27	20 45	27	21 40	Japanese.				General	2,550	7,875	5,821
Minnesota	27	21 25	28	6 20	28	12 56	28	13 50	American.				General	3,896	7,150	5,024
I. C. White	27	21 40	28	6 20	28	14 52	28	15 15	American.				General	7,875	6,616	4,614
Ipswich	27	22 23	28	7 40	28	15 17	28	16 30	American.				Steel	7,875	6,616	4,614
Elder Branch	28	00 30	28	7 25	28	14 22	28	15 00	British.				General	2,498	4,951	3,592
Forace													General			
Lukenbach	28	9 40	28	9 45	28	15 42	28	19 18	American.				General	5,260	8,699	6,363
Sunbeam	28	9 40	28	9 50	28	16 35	28	17 50	American.				Ballast	7,700	5,562	
Enton	28	10 15	28	11 10	28	17 31	29	00 04	British.				Oil, general	4,706	6,217	4,680
Aconagua	28	7 24	28	12 00	28	18 39	28	20 10	Chilean.				General	2,575	7,764	4,705
No. 113	28	7 24	28	12 00	28	18 39	28	20 10	Chilean.				General	2,575	7,764	4,705
Wilcox	28	13 45	28	13 55	28	21 10	29	8 15	American.				Ballast	3,896	6,994	5,053
Pacific Hemlock	28	16 55	28	17 15	29	11 24	29	12 30	American.				General, autos	6,619	6,590	4,916
Tamara	28	21 40	29	6 20	29	13 40	30	7 15	British.				General	4,200	13,592	9,383
Iserholm	28	1 15	29	6 20	29	14 03	29	16 15	German.				General	4,531	4,395	2,731
Westmor	28	22 10	26	7 00	29	14 50	29	20 45	British.				General	7,581	6,039	4,633
Helen Whittier	29	3 50	29	7 30	29	15 23	29	17 00	American.				Pulpate	2,800	6,667	4,949

¹ Tanker.² Motor ship.³ Transport.⁴ Barge.⁵ General, steel, tobacco.⁶ Cotton, quebracho, general.

	29	7 35	29	7 35	30	13 00	Panama	United Fruit Co.	105 0	15 3	5 7	Bahoa, C. Z.	Bananas	66	92	47
Anahuacua 7.	29	7 40	29	8 20	29	15 48	Swedish	Silfro, Ltd.	430 2	54 2	17 8	Taltal, Chile	Ballast	3,201	10,002	5,014
Sagaland	29	7 40	29	10 00	29	17 26	German	North German Lloyd	491 5	63 9	21 0	Vancouver, B. C.	Iron and general	6,600	5,458	7,743
Schwaben	29	1 10	29	10 20	29	19 10	British	C. F. Bowring & Co.	355 3	53 6	24 0	Vancouver, B. C.	Salt	1,860	8,817	6,063
Ronda	28	23 05	29	10 20	29	19 10	British	Pacific Steam Nav. Co.	402 0	59 3	20 0	Corral, Chile	General	1,625	9,641	6,989
Magellan	28	21 50	29	11 07	29	18 25	British	Furness, Withy & Co.	435 9	69 2	19 6	Vancouver, B. C.	General, bananas	6,656	7,591	5,601
Pacific	28	1 05	29	12 10	29	19 36	British	Johns on Line	426 9	56 2	24 0	Vancouver, B. C.	General	1,053	1,273	706
Enterprise 2	28	23 45	29	13 00	29	21 20	Swedish	Ore S. S. Corp.	449 1	57 2	20 0	Cruz Grande, Chile	General	7,786	6,051	4,612
Buenos Aires	29	11 30	29	16 50	30	9 11	American	Pacific Steam Nav. Co.	315 7	52 6	25 0	Champarico, Calif.	General	11,323	9,431	6,581
Finmore	22	15 30	30	6 06	30	13 06	British	Blue Diamond Co.	275 0	60 0	27 0	Los Angeles, Calif.	General	3,454	25,254	18,170
Acadula	22	23 30	30	6 20	30	13 26	British	Standard Transp. Co.	576 4	80 3	26 8	Shanghai, China	Kerosene, bulk	9,744	7,140	7,895
Norwegian	29	18 25	30	6 10	30	15 10	Norwegian	Panama-Pacific Line	480 3	62 7	20 0	San Francisco, Cal.	General	1,638	6,255	4,016
Vancouver	36	6 00	30	7 20	30	14 46	British	Standard Oil Co.	500 0	68 2	19 8	Los Angeles, Calif.	Ballast	11,224	7,895	7,895
Dixie Arrow	29	23 04	30	7 30	30	15 34	American	Standard Oil Co.	370 0	56 2	19 9	Los Angeles, Calif.	General	5,100	5,719	4,093
W. S. Rheem	30	00 30	30	8 25	30	16 05	American	Grace Line	416 9	53 1	21 2	Los Angeles, Calif.	General	1,956	7,477	5,162
Santa Inez	29	14 00	30	9 45	30	16 37	American	Citrus Service Trans. Co.	336 8	52 1	21 2	Tacoma, Wash	General	7,978	5,839	9,242
Hadnot	20	7 25	30	9 53	30	16 56	American	Quaker Line	447 0	58 0	24 6	Noumea, New Cal	General	155	1,183	742
Georgian	30	11 50	30	12 00	30	18 40	American	Nessiger's Maritimes	440 2	59 2	20 6	Los Angeles, Calif.	General	4,026	7,080	5,518
Lougar	30	6 45	30	13 40	30	20 36	French	Richfield Oil Co.	169 0	23 0	10 6	Los Angeles, Calif.	General	5,009	9,267	6,834
Pat Doherty	30	13 45	30	14 20	30	21 40	American	J. A. Bishop & W. A. Ord.	209 0	33 1	12 0	Los Angeles, Calif.	General	2,867	6,483	4,441
Carissima	25	5 55	31	6 15	31	16 45	Panama	Royal Nat. S. S. Co.	439 0	56 0	24 7	Atlatlida, Australia	General	6,251	5,885	4,073
Baralt	29	18 20	31	6 15	31	12 57	Dutch	Can. Nat. Steamships	461 0	61 0	22 3	Portland, Ore	General	8,965	7,484	5,212
Canadian	30	16 40	31	7 00	31	14 31	British	Hamburg-American Line	412 0	50 0	23 7	Belfast, Ireland	Wheat, lumber	6,805	5,014	3,494
Seattle	30	12 40	31	8 25	31	15 05	German	French Line	407 3	53 3	17 0	Baltimore, Md.	Lumber	9,000	5,748	3,955
Minnesota	30	10 50	31	9 45	31	16 10	French	J. & J. Denholm	400 2	61 0	32 0	Montreal, Canada	Gasoline	7,500	5,748	3,955
Earlsark	31	9 40	31	11 20	31	17 35	British	Com'lth & Dom. Line	429 5	58 2	17 4	New York, N. Y.	Nitrate	6,148	3,984	2,617
Port Napier	31	7 17	31	12 18	31	19 19	British	French Line	116 0	21 1	7 6	Queenstown, Ire	Lumber	2,101	8,079	5,580
La Marsellaise	31	8 15	31	13 05	31	20 45	French	National Navigation Co.	492 0	58 2	22 0	Vancouver, B. C.	General	53	211	124
Caldas	28	15 32	31	13 00	31	20 45	Colombian	Amer-Hawaiian Line	492 0	58 2	22 0	Buenaventura, Col.	General	4,950	10,491	7,601
Virginian	31	18 40	31	19 15	1	9 03	American					Portland, Ore	General			

* Tanker.

* Motor boat.

* Yacht.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Royal Arrow	24	19 50	25	6 10	25	15 05	25	15 05	25	15 05	American	Standard Transp. Co.	467 6	62 7	27 0	Los Angeles, Calif	New York, N. Y.	11,232	7,176	5,650	4,071
Cape Ortega	24	16 10	25	6 30	25	16 30	25	16 30	25	16 30	British	Lyle Shipping Co., Ltd.	493 7	52 4	24 2	Portland, Oreg	Belfast, Ireland	7,176	6,407	5,650	4,071
Calmar	24	17 45	25	7 05	25	16 30	25	16 30	25	16 30	American	Calmar S. S. Corp.	384 6	51 2	23 9	Gray's Har., Wash	Baltimore, Md	6,407	6,347	4,451	4,451
Canadian	24	23 30	25	7 30	25	17 30	25	21 10	British	Can. Nat. Steamships	399 8	52 2	22 6	Vancouver, B. C.	Montreal, Canada	Lumber, general	6,251	5,885	4,073		
Winner	25	00 32	25	8 30	25	18 25	25	18 25	American	Pennsylvania Ship. Co.	425 8	57 3	24 6	San Francisco, Cal.	New York, N. Y.	Gasoline	8,965	7,484	5,212		
Melton	25	6 30	25	8 41	25	19 25	25	20 15	British	Thompson S. S. Co.	393 1	53 0	26 0	Portland, Oreg	Queenstown, Ire d	Wheat	6,865	5,014	3,454		
Rio Azul	25	8 30	25	8 41	25	19 25	25	20 15	British	Thompson S. S. Co.	393 1	53 0	26 0	Portland, Oreg	Queenstown, Ire d	Wheat	6,865	5,014	3,454		
Tilington	25	8 30	25	10 05	25	19 30	25	21 35	British	Can-Amey S. S. Co.	420 1	56 5	25 0	Port Alberni, B. C.	Portland, Me.	Lumber	9,000	5,748	3,955		
Court	25	9 45	25	10 35	25	20 05	25	20 05	British	Thomas Dunlop & Sons.	400 2	52 3	25 0	Iquique, Chile	Sorel, Canada	Nitrate	7,500	5,748	3,955		
Queen Maud	25	9 45	25	10 35	25	20 05	25	20 05	British	Thomas Dunlop & Sons.	400 2	52 3	25 0	Iquique, Chile	Sorel, Canada	Nitrate	7,500	5,748	3,955		
Egmont	25	7 00	25	11 06	25	20 55	25	20 55	American	Roosevelt S. Co., S. B.	424 0	54 2	22 6	Cairns, Australia	New York, N. Y.	(9)	6,148	3,984	2,617		
Point Reyes	25	10 45	25	12 11	25	21 45	26	09 10	American	Swayne & Hoyt	324 0	46 2	23 6	Portland, Oreg	New Orleans, La	(10)	3,539	3,984	2,617		
Genl M. H.	25	12 00	25	13 14	25	21 50	25	21 50	American	Sudden & Christenson.	402 6	53 0	26 0	Pt. Angeles, Wash	Jacksonville, Fla.	Copper, lumber.	7,350	6,575	4,912		
Sherman	23	14 20	26	6 37	26	14 30	23	11 33	American	Panama Mail S. S. Co.	360 2	51 6	24 9	San Francisco, Cal.	New York, N. Y.	General.	1,848	5,710	4,023		
E. Salvador																					

* Tanker.

* Motor boat.

* Yacht.

* Wheat, lumber, shingles, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.			Entered Canal.			Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Teresa.	26	7 55	26	8 45	26	15 40	26	20 10	26	20 10	American.	Grace Line.	380 2	51 6	25 0	Talcahuano, Chile.	New York, N. Y.	(*)	3,533		
Stella.	26	00 35	26	8 48	26	15 30	26	20 10	26	20 10	Norwegian.	Panama Mail S. S. Co.	195 1	32 9	11 6	Champerico, Guat.	Cristobal, C. Z.		18	945	606
Stungentco.	26	9 40	26	10 25	26	17 35	26	17 35	26	17 35	American.	Transmarine Lines.	324 0	43 2	22 6	Seattle, Wash.	Port Newark, N. J.		3,985	3,984	2,617
Justin.	26	10 50	26	11 40	26	17 55	26	19 10	26	19 10	German.	North German Lloyd.	449 1	53 2	14 8	Champerico, Guat.	Galveston, Texas.		7,933	5,799	
Lighthorne.	26	14 15	26	15 08	26	21 57	26	22 40	26	22 40	American.	The Texas Co.	416 8	58 3	25 3	Los Angeles, Calif.	Providence, R. I.		8,338	6,976	5,702
Wind Rush.	26	16 30	26	17 06	27	12 05	27	12 05	27	12 05	American.	Shepard S. S. Co.	410 0	54 2	24 6	Longview, Wash.	New York, N. Y.		7,000		
Rialto.	26	19 30	27	7 10	27	14 00	27	22 45	27	22 45	Italian.	Nav. Libera Iristina.	436 6	55 4	27 0	Vancouver, B. C.	Trieste, Italy.		8,886	7,789	6,025
Walter A.	26	21 00	27	7 12	27	14 20	27	14 20	27	14 20	American.	Luckenbach Line.	446 5	53 1	28 0	Portland, Oreg.	Boston, Mass.		7,266	8,785	6,025
Guayquil.	27	3 45	27	7 48	27	15 45	28	10 20	28	10 20	American.	Panama R. R. S. S. Line.	251 0	43 6	18 0	Guayquil, Ecuador.	New York, N. Y.		2,044	2,874	1,944
Dakota.	27	11 20	27	12 00	27	19 00	27	22 00	27	22 00	American.	Amer.-Hawaiian Line.	407 7	53 7	26 0	Portland, Oreg.	Boston, Mass.		6,410	7,156	5,094
Robin Gray.	27	14 00	27	14 52	27	22 00	27	22 00	27	22 00	American.	Seas Shipping Co.	425 0	55 0	24 6	Vancouver, B. C.	Baltimore, Md.		7,060	7,472	5,542
Pacific.	27	14 20	27	15 23	27	23 07	27	23 07	27	23 07	British.	Furness, Withy & Co.	451 7	60 2	26 7	Los Angeles, Calif.	Glasgow, Scotland.		8,415	9,644	6,967
Mongolia.	27	13 00	28	6 14	28	13 10	28	14 00	28	14 00	American.	Panama-Pacific Line.	690 0	65 3	31 6	San Francisco, Cal.	New York, N. Y.		7,021	17,041	11,426
El Lobo.	27	16 00	28	6 55	28	14 15	28	14 15	28	14 15	British.	C. T. Bowring & Co.	385 2	51 0	23 0	La Libertad, Ecua.	Philadelphia, Pa.		6,163	4,851	3,326
Galdia.	24	16 15	28	7 14	28	15 32	28	15 32	28	15 32	Colombian.	Cia. Nacional de Nav.	116 0	21 1	8 0	Buenaventura, Cal.	Cristobal, C. Z.			211	124
Femia.	27	22 00	28	7 10	28	15 30	28	15 30	28	15 30	Swedish.	W. L. Comyn & Co.	305 7	50 6	23 6	Ogalla, Wash.	Port Talbot.		6,888	4,952	3,562
Bolivia.	28	6 35	28	7 50	28	18 20	28	22 55	28	22 55	Danish.	Hamburg-American Line.	393 7	55 9	27 4	Magallanes, Chile.	Hamburg, Germany.		9,931	7,133	5,263
Sommerstad.	28	6 45	28	8 09	28	16 10	28	22 50	28	22 50	Norwegian.	A. F. Klavness & Co.	381 0	55 2	25 6	Los Angeles, Calif.	Avonmouth, Eng.		7,728	5,994	3,876
Cal.	28	7 00	28	9 05	28	17 55	28	17 55	28	17 55	German.	Roland Line.	216 5	32 9	11 6	Salaverry, Peru	Cristobal, C. Z.		431	1,105	698
Cerigo.	28	8 00	28	9 12	28	17 55	28	17 55	28	17 55	German.	Hamburg-American Line.	239 2	34 6	11 6	Guayaquil, Ecuador.	Cristobal, C. Z.		432	1,572	1,011
Commercial.	28	7 45	28	9 40	28	18 50	28	22 05	28	22 05	American.	Moore & McCormack.	398 3	53 2	24 4	Cruz Grande, Chile	Baltimore, Md.		7,103	5,637	4,253
Traveler.	28	10 50	28	11 45	28	19 00	28	19 00	28	19 00	British.	Canadian Transp. Co.	380 2	53 6	24 0	Vancouver, B. C.	Philadelphia, Pa.		6,400	5,750	4,466
Clan.	28	15 45	28	16 34	29	12 25	29	13 25	29	13 25	British.	Clan Line Steamers.	437 6	56 0	24 3	Apia, Samoa.	United Kingdom.	(*)	8,187	7,094	5,331
MacWhirter.	29	13 15	29	6 23	29	14 20	29	14 20	29	14 20	British.	Donaldson Bros., Ltd.	387 0	53 7	26 6	Victoria, B. C.	Glasgow, Scotland.	(*)	5,495	6,719	4,979
Modavia.	29	18 30	29	6 45	29	15 50	29	22 45	29	22 45	French.	Desmarais Freres.	426 0	56 9	27 6	Los Angeles, Calif.	La Pallice, Spain.	(*)	9,000	7,105	5,068
Monique.	29	18 30	29	7 12	29	16 40	29	16 40	29	16 40	American.	The Texas Co.	416 8	56 1	26 0	Wilmington, Calif.	Port Arthur, Tex.			7,150	5,380
City of.	29	5 45	29	7 51	29	16 45	30	09 50	30	09 50	American.	Roosevelt S. S. Co., S.B.	401 9	54 2	24 0	Adelaide, Australia	Baltimore, Md.		5,630	7,097	5,268
Dalhart.	29	5 30	29	8 21	29	18 00	29	18 00	29	18 00	American.	Gulf Refining Co.	435 0	56 0	27 8	Port San Luis, Cal.	Port Arthur, Tex.		10,555		
Gulf State.	29	5 30	29	11 45	29	18 20	31	6 15	31	6 15	Dutch.	Royal Neth. S. S. Co.	202 9	33 1	12 0	Guayaquil, Ecuador.	Cristobal, C. Z.			1,183	742
Barth.	29	10 50	29	14 35	29	21 55	29	21 45	29	21 45	Dutch.	Holland-American Line.	450 0	58 0	29 0	Vancouver, B. C.	Rotterdam, Holland.		7,644	9,038	6,164
Gaasterdijk.	29	14 00	29	14 35	29	21 55	29	21 45	29	21 45	Dutch.	Holland-American Line.	450 0	58 0	29 0	Vancouver, B. C.	Rotterdam, Holland.				
Commercial.	29	14 30	29	15 10	29	23 45	30	2 20	30	2 20	American.	Moore & McCormack.	390 4	53 1	24 0	Cruz Grande, Chile	Baltimore, Md.		7,100	5,659	4,138
Spirit.	29	14 30	29	15 44	30	11 25	30	11 25	30	11 25	American.	Amer.-Hawaiian Line.	404 6	53 9	27 6	Seattle, Wash.	Boston, Mass.		7,274	6,779	4,921
Kansan.	29	17 30	30	6 44	30	14 30	30	16 40	30	16 40	British.	Foster, Hain & Reid.	400 0	52 1	23 6	Portland, Oreg.	Hampton Rls., Va.		7,124	5,857	4,350
Trewidien.	29	17 30	30	6 44	30	14 30	30	16 40	30	16 40	British.	Foster, Hain & Reid.	400 0	52 1	23 6	Portland, Oreg.	Hampton Rls., Va.				

* Motor ship.

** Copper, cotton, hides.

** Ties and paper pulp.

** Rice, coffee, and cocoa.

** Chrome ore, copra.

** Fresh fruit, general.

** Gasoline, kerosene.

Oriole	30	0	45	30	7	00	30	15	10	30	15	10	American	Quaker Line	410.5	54.2	24.4	Seattle, Wash	Wilmington, Del.	Lumber	7,050	6,755	4,873
Benary	30	1	45	30	7	46	30	16	10	30	17	30	British	Can.-Amer. Ship. Co.	420.2	54.0	24.6	Astoria, Oreg.	Rotterdam, Holland	(20)	7,056	6,413	4,219
George Wash- ington 11	30	1	30	30	8	05	30	16	50	30	16	50	Norwegian	Fred Olsen & Co.	425.5	55.3	27.9	Vancouver, B. C.	Hull, England	(21)	8,780	7,505	5,625
Orduna	30	9	40	30	10	20	30	18	15	31	4	35	British	Pacific Steam Nav. Co.	550.0	67.0	31.0	Coronel, Chile	Liverpool, England	General	7,400	17,146	12,015
San Jose	30	11	30	12	11	30	19	15	31	19	40	American	United Fruit Co.	336.0	44.6	18.6	San Francisco, Cal.	Port Limon, C. R.	General	849	3,675	2,659	
Plane West 18	30	12	52	30	15	50	30	19	15	31	19	40	Panama	United Fruit Co.	105.0	15.3		Balboa, C. Z.	Gatun, C. Z.	Towing barge			
Doris 18	30	12	52	30	15	50	30	19	15	31	19	40	Panama	United Fruit Co.	105.0	15.3		Balboa, C. Z.	Gatun, C. Z.	Ballast			
Anacahueta 18	30	13	00	31	6	08	31	15	10	31	15	10	Panama	United Fruit Co.	105.0	15.3		Balboa, C. Z.	Cristobal, C. Z.	General	4,071	12,457	7,420
Colombo	31	10	30	31	11	10	31	17	45	9-2	15	00	Italian	Navy Gen. Italiana	386.8	52.2	23.3	San Antonio, Chile	Genoa, Italy	General	6,733	5,700	4,138
Subotawan	31	10	50	31	11	43	31	18	55	31	18	55	American	Redwood Line, Inc.	386.8	52.2	23.3	San Francisco, Cal.	Mobile, Ala	General			
No. 5 19	31	10	50	31	11	43	31	18	55	31	18	55	American	U. S. Navy	386.8	52.2	23.3	Balboa, C. Z.	Cristobal, C. Z.	General			
No. 6 19	31	10	50	31	11	43	31	18	55	31	18	55	American	U. S. Navy	386.8	52.2	23.3	Balboa, C. Z.	Cristobal, C. Z.	General			

° Lumber, wheat, general,
2: Grain, lumber, general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 25.	Pastores.	United Fruit Co.	Port Limon, C. R.	August 25.	Wanks.	Standard Fruit & S. S. Co.	San Blas, R. P.
August 25.	Oranian	Leyland S. S. Line	Liverpool via waypoints.	August 25.	Tecolonia.	Hamburg-American Line.	Cartagena, Colombia.
August 26.	Suriname	United Fruit Co.	Puerto Colombia.	August 25.	Pastores.	United Fruit Co.	New York via Habana.
August 26.	No. 9688 ²²	Pan-American Airways	Managua via waypoints.	August 26.	Carliago.	United Fruit Co.	New Orleans via waypoints.
August 26.	Galeia.	Hamburg-American Line.	Hamburg via waypoints.	August 26.	Oranian	Leyland S. S. Line.	Port Limon, C. R.
August 26.	Ulua.	United Fruit Co.	New York via Habana.	August 26.	Suriname	United Fruit Co.	Bocas, R. P.
August 27.	El Paquiaco	Panaman Government	Colon, R. P.	August 27.	El Paquiaco	Panaman Government	Colon, R. P.
August 27.	Maravi	United Fruit Co.	New York, N. Y.	August 27.	Galeia.	Hamburg-American Line.	Port Limon, C. R.
August 27.	Cryssen	Royal Neth. S. S. Co.	Amsterdam and waypoints.	August 27.	Maravi	United Fruit Co.	Puerto Colombia.
August 28.	Cavina	Elders & Fyffes, Ltd.	Aroumoult via waypoints.	August 27.	No. 9107 ²²	Pan-American Airways	Guayaquil via waypoints.
August 28.	Ostobal	Panama R. R. S. S. Line.	New York via Haiti.	August 27.	No. 9137 ²²	Pan-American Airways	Curacao via waypoints.
August 28.	Zacapa	United Fruit Co.	New York via Kingston.	August 27.	No. 9064 ²²	Pan-American Airways	Managua via waypoints.
August 28.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.	August 28.	Ulua	United Fruit Co.	Port Limon, C. R.
August 28.	Anacuahuena ²³	United Fruit Co.	Colon, R. P.	August 28.	Cryssen.	Royal Neth. S. S. Co.	Port Limon, C. R.
August 28.	Cundinamarca C-33 ²²	Seadta Airplane Co.	Barranquilla, Colombia.	August 28.	Cavina	Elders & Fyffes, Ltd.	Bristol via waypoints.
August 28.	Darien C-35 ²²	Seadta Airplane Co.	Barranquilla, Colombia.	August 28.	Anacuahuena ²³	United Fruit Co.	Colon, R. P.
August 29.	William M. ²¹	G. I. Bryan	Colon, R. P.	August 28.	Inapaquina	United Fruit Co.	Colon, R. P.
August 29.	No. 9137 ²²	Pan-American Airways	Curacao via waypoints.	August 29.	Darten C-35 ²²	Seadta Airplane Co.	Barranquilla, Colombia.
August 29.	No. 9664 ²²	Pan-American Airways	Managua via waypoints.	August 29.	Zacapa	United Fruit Co.	New York via waypoints.
August 29.	Mayan	Gulf-Caribbean Line	New Orleans, La.	August 29.	William M. ²¹	G. I. Bryan	Bluefields, Nicaragua.
August 30.	Suriname	United Fruit Co.	Bocas, R. P.	August 29.	No. 9085 ²²	Pan-American Airways	David, R. P. & Managua.
August 30.	Atlantida	Standard Fruit & S. S. Co.	New Orleans via Habana.	August 30.	Suriname	United Fruit Co.	New Orleans, La.
August 30.	Cryssen.	Royal Neth. S. S. Co.	Port Limon, C. R.	August 30.	Mayan	Gulf-Caribbean Line.	Beaumont via waypoints.
August 30.	Saramacca	United Fruit Co.	New Orleans, La.	August 30.	Saramacca	United Fruit Co.	Port Limon and Bocas.
August 30.	No. 9107 ²²	Pan-American Airways	Guayaquil via waypoints.	August 30.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.
August 30.	Olivero.	Anglo-Saxon Pet. Co.	Curacao, D. W. I.	August 30.	Annetta I ²³	A. Tagarapulos	Colon, R. P.
August 30.	No. 9088 ²²	Pan-American Airways	David, R. P.	August 30.	Cundinamarca C-33 ²²	Seadta Airplane Co.	Buenaventura, Colombia.
August 30.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.	August 31.	No. 9088 ²²	Pan-American Airways	Managua via David.

* Other than ships passing through the Canal.

(Continued on page 68, column 1.)

(Continued on page 68, column 1.)

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 27, 1929.

No. 593.

The following is quoted from Notice to Mariners, Washington, D. C., August 10, 1929:

Colombia, Puerto Colombia, Light on Gas Buoy Extinguished. The master of the steamer *Marevia* reports under date of August 3, 1929, that the light on the gas buoy marking the wreck of the German steamer in Puerto Colombia Harbor is extinguished.

Approximate position: 11° 00' N., 75° 00' W.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 29, 1929.

No. 595.

Panama, Limon Bay, Colon Naval Radio Station Reestablished. The Colon Naval Radio Station (NAX) was reestablished in its new location on August 27th.

Position: North Tower, latitude 9° 17' 45.4" north; longitude 79° 54' 32.4" west; South Tower, latitude 9° 17' 40" north; longitude 79° 54' 33.4" west.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending August 25, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons
City of Panama	Pacific Steam Nav. Co.		August 17		3,128
Parismina	United Fruit Co.		August 11		47
Ruhr	Hamburg-American Line		August 12		762
Marques de Comillas	Spanish Line		August 14		200
Caldas	National Navigation Co		August 18		230
Tolosa	United Fruit Co.	August 11	August 11	25	225
San Francisco	Hamburg-American Line	August 11	August 11	7	357
Cuba	Hamburg-American Line	August 11	August 11	447	186
Anahuacuna	United Fruit Co.	August 11	August 12	43	(²)
Inapaquina	United Fruit Co.	August 11	August 12	35	(²)
Macabi	United Fruit Co.	August 11	August 12	1,088	27
Santa Barbara	Grace Line	August 12	August 12	38	(²)
Saramacca	United Fruit Co.	August 12	August 13	32	(²)
Noorderdyke	Pacific Steam Nav. Co.	August 12	August 13	607	17
Lobos	Pacific Steam Nav. Co.	August 12	August 13	39	238
Borgaa	Norway-Pacific Line	August 12	August 13	(¹)	98
Calamares	United Fruit Co.	August 12	August 14	20	66
Linda S.	R. Feuillebois	August 13	August 13	(¹)	33
William M	R. Feuillebois	August 13	August 13	(¹)	30
Losida	Pacific Steam Nav. Co.	August 14	August 14	10	76
Inapaquina	United Fruit Co.	August 14	August 14	41	(²)
Anahuacuna	United Fruit Co.	August 14	August 14	40	(²)
Witram	North German Lloyd	August 14	August 15	(¹)	90
Simon Bolivar	Royal Neth. S. S. Co.	August 14	August 14	81	7
Tokaoka Maru	Nippon Yusen Kaisha	August 14	August 14	450	(²)
Antillian	Leyland S. S. Line	August 14	August 15	691	3
Metapan	United Fruit Co.	August 14	August 15	417	763
Pacific President	Furness, Withy & Co.	August 14	August 16	10	388
Ancon	Panama R. R. S. S. Line	August 14	August 18	4,241	1,016
Coppename	United Fruit Co.	August 15	August 16	503	60
Wiegand	North German Lloyd	August 15	August 16	66	1
Pinn	Colombian Maritime Co.	August 15	August 16	197	(²)
Manazales	North German Lloyd	August 15	August 17	837	472
Sonora	French Line	August 15	August 18	270	218
Inapaquina	United Fruit Co.	August 16	August 16	18	(²)
Annetta I	A. Tagarapulis	August 16	August 16	45	(²)
Saramacca	United Fruit Co.	August 16	August 16	170	142
Esparta	United Fruit Co.	August 16	August 16	1,154	290
Atlantida	Standard Fruit & S. S. Co.	August 16	August 17	356	332
Essequibo	Pacific Steam Nav. Co.	August 16	August 17	26	8
Wanks	Standard Fruit & S. S. Co.	August 17	August 17	80	6
Simon Bolivar	Royal Neth. S. S. Co.	August 17	August 17	10	343
Macabi	United Fruit Co.	August 17	August 17	(¹)	543
Balboa	Johnson Line	August 17	August 17	(¹)	104
Milanese	Italo-Cilena Line	August 17	August 18	120	(²)
Patricia	Hamburg-American Line	August 17	August 18	171	436
Caenden	United Fruit Co.	August 17	August 18	9,436	(²)

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Heredia	United Fruit Co.	August 17	August 18	559	8
Calamares	United Fruit Co.	August 18	August 18	10	148
Venezuela	Panama Mail S. S. Co.	August 18		741	
Salvador	Pacific Steam Nav. Co.	August 18		575	
Trewyn	Hain S. S. Line	August 18		266	
Venezuela	Panama Mail S. S. Co.		August 18		252
Trewyn	Hain S. S. Line		August 18		(⁺)
Salvador	Pacific Steam Nav. Co.		August 23		1,143
British Union	British Tankers	August 19		9,969	(⁺)
Arana	Pacific Steam Nav. Co.	August 19	August 19	182	63
Ebro	Pacific Steam Nav. Co.	August 19	August 19	19	67
Santa Cruz	Grace Line	August 19	August 19	320	145
Antillian	Leyland Line	August 19	August 20	(⁺)	207
Pastores	United Fruit Co.	August 19	August 21	697	30
Cauca	Colombian Mar. Co.	August 19	August 24	206	97
Eclipse	Tampa Intercocean Line	August 20	August 20	200	(⁺)
Carl Legion	Hamburg-American Line	August 20	August 20	131	(⁺)
Apurimac	Peruvian Line	August 20	August 20	60	(⁺)
Bogota	Pacific Steam Nav. Co.	August 20	August 20	(⁺)	27
Lockmonar	Royal Mail S. S. Co.	August 20	August 20	(⁺)	50
Barneveld	Royal Neth. S. S. Co.	August 21	August 21	200	(⁺)
Phonicia	Hamburg-American Line	August 21	August 21	193	(⁺)
Orbita	Pacific Steam Nav. Co.	August 21	August 22	78	12
Almelo	Royal Neth. S. S. Co.	August 21	August 22	315	45
Notre Dame de Fourviere	French Line	August 21	August 22	369	236
Sivaola	United Fruit Co.	August 21	August 22	680	224
Virgilio	Italian Line	August 21	August 23	383	26
Nosa Prince	Nosa Line	August 22	August 22	84	200
Suriname	United Fruit Co.	August 22	August 22	628	2
Inapaquina	United Fruit Co.	August 22	August 22	41	(⁺)
Acajutla	Pacific Steam Nav. Co.	August 22		267	
Cellina	Nav. Libera-Triestina	August 22	August 23	266	(⁺)
Alaska	Seand.-South Pacific Co.	August 22	August 23	418	(⁺)
Lochgoil	Pacific Steam Nav. Co.	August 22	August 23	42	336
La Perla	United Fruit Co.	August 22	August 24	426	73
Anachucuna	United Fruit Co.	August 22	August 25	43	(⁺)
Margaret Johnson	Johnson Line	August 23	August 23	(⁺)	30
Coppename	United Fruit Co.	August 23	August 23	14	232
Inapaquina	United Fruit Co.	August 23	August 24	28	(⁺)
Targis	North German Lloyd	August 23	August 24	129	433
Moerdyk	Holland-American Line	August 23	August 24	521	(⁺)
Amapala	Standard Fruit & S. S. Co.	August 23	August 24	260	372
Wanks	Standard Fruit & S. S. Co.	August 23	August 25	82	9
Cartago	United Fruit Co.	August 24		418	
Managui	United Fruit Co.	August 24	August 24	91	322
Linda S.	R. Feuillebois	August 24	August 24	(⁺)	42
Abraham Lincoln	Norway-Pacific Line	August 24	August 25	277	220
Teutonia	Hamburg-American Line	August 24	August 25	(⁺)	233
Aachen	North German Lloyd	August 24	August 25	170	26
Oranian	Leyland S. S. Line	August 25		707	
Pastores	United Fruit Co.	August 25	August 25	17	56

* No cargo discharged.

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending August 31, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Apurimac	Peruvian Line	August 19	August 20	65	
Eclipse	U. S. Shipping Board	August 19	August 20	208	
Venezuela	Panama Mail S. S. Co.	August 20	August 20	32	2
St. Mihiel	U. S. Government	August 20	August 21	507	89
Ginyo Maru	Nippon Yusen Kaisha	August 20	August 20	116	30
Nosa Prince	N. O. & S. A. S. S. Co.	August 22	August 22	551	
Santa Elisa	Grace Line	August 22	August 22	1	
El Salvador	Grace Line	August 23	August 24	199	
Caldas	National Navigation Co.	August 24	August 28	5	
Cauca	National Navigation Co.	August 24	August 24		4
Abraham Lincoln	Fred Olsen & Co.	August 25	August 26	898	
Montebello	Union Oil Co. of California	August 25	August 26	11,430	
Grant	U. S. Government	August 26	August 27	23	208
Kenowia	U. S. Government	August 28	September 2	1,550	1,183
Anyo Maru	Nippon Yusen Kaisha	August 29	August 29	101	
Buenos Aires	Johnson Line	August 29	August 30	427	
Santa Inez	Grace Line	August 30	August 30		4
Caldas	National Navigation Co.	August 31	August 31		30

MOVEMENTS OF OCEAN VESSELS.—Continued from page 65.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 30	Annetta I. ²⁵	A. Tagarapulos	Colon, R. P.	August 31	Atlantida	Standard Fruit & S. S. Co.	New Orleans and waypts.
August 31	Wauks	Standard Fruit & S. S. Co.	San Blas, R. P.	August 31	Cryssen	Royal Neth. S. S. Co.	Amsterdam and wayports.
August 31	Parismina	United Fruit Co.	New Orleans via Habana.	August 31	Linda S. ²⁷	A. L. Surgeon	Bluefields, Nicaragua.
August 31	No. 9685 ²⁶	Pan-American Airways	Managua via David.				
August 31	Linda S. ²⁷	A. L. Surgeon	Colon, R. P.				
²⁵ Motor boat.				PORT OF BALBOA.			
August 25	Montebello	Union Oil Co. of Calif.	Los Angeles, California.	August 26	Montebello	Union Oil Co. of Calif.	Los Angeles, California.
August 29	Ayzo Maru	Nippon Yusen Kaisha	Hongkong, China.	August 29	Ayzo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
August 30	Dos Hermanos ²⁸	A. Valdez	Bayano River, R. P.	August 30	Dos Hermanos ²⁸	A. Valdez	Panama Bay, R. P.
August 30	Sambu ²⁸	Hans Elliot	Bayano River, R. P.	August 31	Sambu ²⁸	Hans Elliot	Panama Bay, R. P.
August 30	La Masoota ²⁸	Pacific Fruit Co.	Bayano River, R. P.	August 31	La Masoota ²⁸	Pacific Fruit Co.	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁸ Motor schooner.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., September 11, 1929. No. 6.

Tanker Traffic Through the Panama Canal in August, 1929.

During the month of August, 1929, 109 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 582,447, on which tolls of \$523,926.53 were collected. Cargo amounted to 601,263 tons. In point of net tonnage, tanker traffic increased 11.8 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 21.3 per cent over the cargo tonnage of August, 1928. The 601,263 tons of cargo carried in tank ships during the past month was the heaviest month's tonnage for this class of ships since September, 1927, when 697,042 tons were passed through.

Tanker vessels comprised 20.1 per cent of the total commercial transits through the Canal during the month; made up 22.7 per cent of the total Panama Canal net tonnage; were the source of 22.5 per cent of the total tolls collected; and carried 22.4 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of August, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulation, with comparative totals for the two preceding months and for August, 1928:

Nationality.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Belgian.....	1	5,410	\$3,895.20	.....
British.....	10	47,669	35,889.53	8,500
Danish.....	1	5,623	4,048.56	.....
Danzig.....	2	12,054	8,678.88	.....
French.....	2	10,423	7,504.56	.....
German.....	1	3,234	3,493.75	6,033
Japanese.....	1	1,658	1,193.76	.....
Norwegian.....	3	15,161	13,231.20	11,323
United States.....	29	158,436	116,796.03	8,500
Totals, August, 1929.....	50	259,668	194,731.47	34,356
Totals, July, 1929.....	60	323,512	237,677.21	19,964
Totals, June, 1929.....	52	284,668	216,210.04	60,059
Totals, August, 1928.....	46	252,089	185,213.15	21,702
<i>Pacific to Atlantic.</i>				
British.....	10	49,891	52,892.50	96,363
Danish.....	1	6,024	6,295.00	12,238
Danzig.....	1	6,127	6,585.00	11,200
French.....	1	5,068	5,471.25	9,190
Norwegian.....	6	30,002	31,687.50	56,912
Swedish.....	1	6,295	6,486.25	11,924
United States.....	39	219,372	219,777.56	369,080
Totals, August, 1929.....	59	322,779	329,195.06	566,907
Totals, July, 1929.....	51	262,465	267,964.88	462,463
Totals, June, 1929.....	47	255,980	261,993.75	465,875
Totals, August, 1928.....	49	268,675	273,926.30	474,011

¹ Creosote.

² Includes 6,535 tons of coconut oil and 7,000 tons of molasses.

Of the tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for August, 1928.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
August, 1929.	36	185,410	\$134,683.91	7,400
July, 1929.	46	249,097	184,098.41	19,964
June, 1929.	33	204,823	150,165.87	10,212
August, 1928.	34	187,964	135,334.08	
<i>From Los Angeles.</i>				
August, 1929.	43	236,932	\$237,282.96	401,565
July, 1929.	36	190,089	194,298.90	347,537
June, 1929.	40	215,723	218,943.75	384,793
August, 1928.	32	170,030	173,221.25	301,968

"Donau's" Fast Voyage.

The new cargo ship *Donau*, owned and operated by the North German Lloyd in its service between Europe and the west coast of North America, transited the Canal on September 4, 1929, on the homeward lap of her initial voyage in this service. On her outward voyage the new vessel is said to have averaged nearly 16 knots in her run up the west coast from the Canal, arriving at Seattle two days ahead of schedule. The vessel is 520 feet long, 63 feet beam, and of 12,125 deadweight tons. She has reciprocating engines and burns pulverized coal. Like the new motor ships *Havel* and *Saale*, which preceded her in this service, the *Donau* has large refrigerated space and has accommodations for 15 passengers.

Traffic by Nationality for August, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of August, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for August, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	2	11,621	9,471	15,531	8,614	\$8,367.12	
British	61	339,085	248,849	406,596	248,685	289,006.81	230,961
Chilean	2	7,768	6,066	10,889	6,233	7,582.50	3,531
Colombian	4	574	554	880	550	673.70	486
Danish	6	29,558	23,132	36,247	23,303	25,316.46	20,563
Danzig	2	12,054	10,475	17,683	10,033	8,678.88	
Dutch	6	26,788	18,781	31,110	18,729	23,476.25	14,773
French	7	34,924	27,047	44,271	26,310	30,042.06	12,955
German	18	70,278	48,865	79,325	47,661	61,046.85	52,207
Greek	1	4,047	3,455	5,269	3,222	4,318.75	6,310
Italian	4	25,682	17,887	34,370	19,571	22,358.75	5,849
Japanese	7	35,299	26,861	44,030	26,792	32,950.01	37,494
Nicaraguan	1	140	151	270	237	113.25	
Norwegian	16	69,888	46,354	78,072	46,620	54,793.70	70,099
Panaman	5	2,961	1,711	3,270	1,720	2,033.79	3,248
Swedish	8	40,174	27,904	64,523	34,342	29,878.09	26,614
United States	117	596,230	454,405	734,821	453,326	519,022.43	373,571
Totals, August, 1929.	267	1,307,072	971,968	1,607,157	975,948	1,119,659.40	858,661
Totals, August, 1928.	271	1,264,859	960,408	1,586,980	967,722	1,084,905.51	752,508
Totals, August, 1927.	298	1,387,511	1,079,237	1,751,014	1,073,081	1,167,476.40	669,187

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	63	308,356	232,986	379,459	236,343	\$291,217.25	408,246
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	2,735
Colombian.....	4	574	554	880	550	631.13	447
Danish.....	4	21,123	16,218	26,306	16,391	20,272.50	39,639
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,200
Dutch.....	6	25,294	17,668	29,641	17,606	22,085.00	34,616
Finnish.....	1	1,675	1,648	1,817	1,523	2,010.00	3,050
French.....	6	30,782	25,637	39,184	23,573	32,046.25	43,981
German.....	18	70,237	48,999	81,057	49,262	60,447.13	87,544
Italian.....	3	18,294	14,724	25,573	14,634	18,405.00	21,027
Japanese.....	3	15,614	13,724	19,632	13,631	16,998.90	25,585
Norwegian.....	16	66,275	54,428	90,144	54,260	68,035.00	115,619
Panaman.....	9	3,561	2,257	3,709	2,232	2,462.58	620
Peruvian.....	1	3,544	3,510	4,763	3,089	4,302.00	5,530
Swedish.....	7	31,127	22,684	56,051	27,524	28,355.00	76,194
United States.....	130	640,215	504,544	808,594	503,365	625,101.97	937,573
Yugoslav.....	1	4,163	3,593	5,687	3,562	4,491.25	8,463
Totals, August, 1929.....	274	1,251,667	971,908	1,588,746	976,531	1,207,778.46	1,822,069
Totals, August, 1928.....	255	1,172,387	896,159	1,470,265	902,489	1,114,163.80	1,672,828
Totals, August, 1927.....	245	1,126,103	878,468	1,437,303	879,491	1,106,564.15	1,760,760

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	11,621	9,471	15,531	8,614	\$8,367.12	.....
British.....	124	647,441	481,835	786,055	485,028	580,224.06	639,207
Chilean.....	3	12,473	9,532	18,199	10,209	11,915.00	6,266
Colombian.....	8	1,148	1,108	1,760	1,100	1,304.83	933
Danish.....	10	50,681	39,350	62,553	39,694	45,588.96	60,202
Danzig.....	3	18,181	15,743	26,622	15,040	15,263.88	11,200
Dutch.....	12	52,082	36,449	60,751	36,338	45,561.25	49,389
Finnish.....	1	1,675	1,648	1,817	1,523	2,010.00	3,050
French.....	13	65,707	52,684	83,455	49,883	62,088.31	56,936
German.....	36	140,515	97,864	160,382	96,923	121,493.88	139,751
Greek.....	1	4,047	3,455	5,269	3,222	4,318.75	6,310
Italian.....	7	43,976	32,611	59,943	34,205	40,763.75	26,876
Japanese.....	10	50,913	40,585	63,662	40,423	49,948.91	63,079
Nicaraguan.....	1	140	151	270	237	113.25	.....
Norwegian.....	32	136,164	100,782	168,216	100,880	122,828.70	185,718
Panaman.....	14	6,522	3,968	6,979	3,952	4,496.37	3,868
Peruvian.....	1	3,544	3,510	4,763	3,089	4,302.00	5,530
Swedish.....	15	71,301	50,588	120,574	61,866	58,233.09	102,808
United States.....	247	1,236,445	958,949	1,543,415	956,691	1,144,124.40	1,311,144
Yugoslav.....	1	4,163	3,593	5,687	3,562	4,491.25	8,463
Totals, August, 1929.....	541	2,558,739	1,943,876	3,195,903	1,952,479	2,327,437.86	2,680,730
Totals, August, 1928.....	526	2,437,246	1,856,567	3,057,243	1,870,211	2,199,069.31	2,425,336
Totals, August, 1927.....	543	2,513,614	1,957,705	3,188,317	1,952,572	2,274,040.55	2,429,947

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending September 7, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Nora.....	W. R. Grace & Co.....	September 1..	September 2..	13,788	.....
Frost.....	Hans Ericson.....	September 1..	September 2..	200	.....
Guatemala.....	Panama Mail S. S. Co.....	September 3..	September 3..	29	21
Stella.....	Alf Jakhell.....	September 4..	September 4..	.....	36
Tatsuno Maru.....	Nippon Yusen Kaisha.....	September 4..	September 5..	115	.....
Colombia.....	Panama Mail S. S. Co.....	September 4..	September 5..	112	.....
Santa Barbara.....	W. R. Grace & Co.....	September 5..	September 5..	1	.....
Baarn.....	Royal Neth. S. S. Co.....	September 6..	September 6..	74	.....
Cauca.....	National S. S. Co.....	September 7..	September 7..	.....	30
President Harrison.....	Dollar Line.....	September 7..	September 7..	.....	4

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 7, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
El Panquaco ²	1	6 15	1	6 15	1	12 40	2	20 20	Panaman	Panaman Government.	125.0	23.0	10.0	Colon, R. P.	Panama, R. P.	Ballast.	288	780	161
Martha ³	8-23	15 35	1	6 03	1	13 53	1	15 30	Norwegian.	H. C. Stevenson.	181.0	30.0	10.0	Cristobal, C. Z.	Pto. Armuelles, R. P.	General.	260	780	504
Orion	8-31	19 55	1	7 03	1	14 33	1	16 03	Danish	Isbrandtsen Moller.	303.0	43.0	19.3	Minatitlan, Mexico.	La Paz, Mexico.	Case oil.	2,150	2,800	1,723
Imperial Prince.	1	6 40	1	8 20	1	14 55	1	16 03	British	Furness-Princes Line.	430.5	58.0	24.3	New York, N. Y.	Shanghai, China.	General.	5,699	8,594	6,091
Mexico	1	4 55	1	9 55	1	16 58	1	21 28	American	Alaska Steamship Co.	227.0	52.0	19.0	Cristobal, C. Z.	Seattle, Wash.	General.	900	6,357	4,411
Cerigo	8-28	17 55	1	9 40	1	16 58	1	18 15	German	Hamburg-American Line	400.0	34.0	13.8	New York, N. Y.	Guayaquil, Ecuador.	General.	168	1,572	1,044
Oil field ¹	1	10 20	1	10 45	1	18 28	1	23 18	British	Hunting & Son.	365.2	51.3	17.6	Amsterdam, Holland	Los Angeles, Calif.	Ballast.	5,485	3,700	2,700
Herman Franch.	1	12 23	1	12 30	1	19 28	1	20 38	American	Drifton Lumber Corp.	255.0	52.0	16.0	Newport News, Va.	Los Angeles, Calif.	Ballast.	5,349	2,950	2,450
Abron	1	14 55	1	15 00	1	21 56	1	23 18	American	Redwood Line.	381.0	52.2	22.0	Freeport, Texas.	San Francisco, Calif.	Ballast.	6,025	5,732	4,131
Chetopa.	1	15 55	1	16 10	1	23 17	2	00 22	American	Nelson Line.	326.0	46.2	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,066	3,984	2,628
Thlas ¹ ³	1	17 20	1	17 30	2	9 53	2	15 35	Danish	Baltic American Pet. Co.	409.0	63.0	18.6	Rotterdam, Holland	Talara, Peru.	Ballast.	9,018	5,929	5,929
McComick.	1	21 53	2	6 15	2	13 08	2	14 25	American	Munson, McCor'k Line.	401.0	53.2	21.0	New York, N. Y.	San Francisco, Cal.	General.	5,800	7,082	5,167
Silverhazel ³	2	1 05	2	6 30	2	14 13	2	19 30	British	Kerr Steamship Co.	425.0	53.0	21.0	New York, N. Y.	Manila, P. I.	General.	5,850	8,218	6,037
Dorsetar	2	7 50	2	8 20	2	15 20	2	16 30	British	Blue Star Line.	439.8	64.0	20.0	South Shields, Eng.	Vancouver, B. C.	Ballast.	11,673	8,143	8,143
San Jose.	2	11 35	2	12 30	2	18 29	3	2 10	American	United Fruit Co.	339.0	44.6	18.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, general.	630	3,675	2,359
Jefferson Myers	2	13 15	2	13 40	2	19 55	2	21 12	American	Quaker Line.	440.0	56.0	18.8	Philadelphia, Pa.	Seattle, Wash.	Steel, iron, gen.	4,151	8,300	6,020
Call	8-28	17 55	2	14 00	2	21 17	2	22 40	German	Roland Line.	216.5	32.9	12.4	Cristobal, C. Z.	Guayaquil, Ecuador.	General.	312	1,105	698
Marore.	2	11 13	2	19 45	3	9 52	3	11 01	American	Ore S. S. Corp.	550.3	72.2	22.0	Baltimore, Md.	San Francisco, Calif.	Ballast.	15,551	4,297	4,297
Guatemala.	1	16 30	3	6 15	3	13 58	3	23 29	American	Panama Mail S. S. Co.	360.2	51.6	23.0	New York, N. Y.	San Francisco, Cal.	General.	2,500	5,776	4,681
N. T. Nilsen																			
Alonso ⁴	2	8 15	3	6 15	3	15 26	4	3 24	Norwegian.	Melson Melson.	431.7	57.2	33.10	Larvik, Norway.	Hobart, Tasmania	Ballast.	10,388	7,609	7,609
S-12 ⁵			3	7 10	3	15 13			American	U. S. Navy.	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Mallard ⁶			3	7 25	3	15 18			American	U. S. Navy.	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Towing pontoon.			
Florence																			
Lukenbach.	3	2 50	3	8 50	3	16 05	3	17 05	American	Lukenbach Line.	401.0	52.0	21.6	Houston, Texas.	Tacoma, Wash.	General.	4,783	6,002	4,621
Ivo Racic	3	10 30	3	14 41	3	22 40	3	23 59	Yugoslav	Yugoslav Lloyd.	350.0	49.0	23.7	(?)	Iquique, Chile.	General.	5,000	4,470	3,288
Corvus	3	15 10	3	15 10	3	23 12	4	4 54	American	Isthmian S. S. Lines.	410.0	54.2	24.2	Baltimore, Md.	Seattle, Wash.	Steel, general.	7,570	6,604	4,635
American.	3	15 17	3	15 52	3	23 40	4	3 53	American	Amer.-Hawayan Line.	404.6	53.9	19.0	Boston, Mass.	Seattle, Wash.	General.	3,510	6,777	4,761
Sylvan Arrow ¹	3	9 35	3	15 52	4	9 22	4	10 44	American	Standard Transp. Co.	467.0	62.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	9,698	6,862	6,862
California	3	15 30	4	6 15	4	13 52	4	15 00	American	Texas S. S. Co.	500.0	68.1	23.0	Port Arthur, Tex.	Los Angeles, Calif.	Ballast.	10,853	8,271	8,271
Island King ³	3	8 20	4	6 18	4	14 55			British	British Col. Cement Co.	165.0	28.0	14.0	Rouen, France.	Victoria, B. C.	Gypsum.	600	653	385
Vancouver																			
Maru	4	6 15	4	6 35	4	14 19	4	15 55	Japan	Kokusai Kisen Kaisha.	385.0	51.0	26.0	Sydney, C. B.	Yawata, Japan.	General.	6,727	5,919	4,389
S-13 ³			4	7 30	4	14 56			American	U. S. Navy.	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-20 ³			4	7 30	4	16 32			American	U. S. Navy.	219.3	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
F. J.																			
Lukenbach.	4	5 08	4	7 40	4	15 53	4	16 50	American.	Lukenbach Line.	446.0	56.0	24.6	Boston, Mass.	Tacoma, Wash.	General.	5,339	8,508	6,179

¹ Tanker.² Transport.³ Motor ship.⁴ Whaler.⁵ Submarine.⁶ Mine sweeper.⁷ Kastel Sucrue, Yugoslav.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Nature.	Tons.				Gross.	Net.		
Calliope ^{1 1}	31	15 00	1	6 28	1	13 35	1	13 35	Danzig	Baltic Amer. Pet. Co.	470 0	63 2	27 0	Los Angeles, Calif	Hamburg, Germany	Gasoline	11,200	9,001	5,927	
Tamahuia ^{1 1}	31	20 30	1	7 02	1	14 50	1	14 50	American	Richfield Oil Co.	500 0	71 2	28 8	Los Angeles, Calif	New York, N. Y.	Gasoline	14,959	10,172	7,209	
Hurundi	1	1 00	1	8 57	1	16 15	1	21 40	British	N. Z. Shipping Co.	470 0	62 2	22 6	San Francisco, Cal	London, England	Frozen, general	5,742	7,333	5,182	
Paul Shoup ^{1 1}	1	8 15	1	9 05	1	16 20	1	21 40	American	Associated Oil Co.	424 2	52 2	26 6	San Francisco, Cal	New York, N. Y.	Gasoline, lub oil	9,078	7,324	4,292	
Archangelos	1	11 30	1	12 06	1	19 35	1	21 00	Greek	S. Livanos & Co.	400 5	52 0	25 2	Tacoma, Wash	Aceos	Nitrates	8,400	7,340	5,453	
Saxons ^{1 1}	1	14 45	1	15 40	2	12 50	2	12 50	British	Blue Star Line	420 0	55 0	22 0	Seattle, Wash	Buenos Aires, Arg	Frozen, general	2,500	7,340	5,453	
Atlantia ^{1 1}	1	20 25	2	6 20	2	14 10	2	14 10	Norwegian	Anglo-Saxon Pet. Co.	441 6	57 5	26 6	Seattle, Wash	Land's End, Eng	Gasoline	9,070	7,580	5,312	
Dallwood ^{1 1}	2	5 51	2	7 02	2	14 30	3	17 40	American	Philippine Government	320 9	46 0	19 0	Seattle, Wash	London, England	Ballast	9,070	7,580	5,312	
Paul																				
Luckenbach.	2	6 15	2	7 51	2	17 35	2	17 35	American	Luckenboth Line	471 1	50 2	27 2	Portland, Oreg	Mobile, Ala	Lumber, general	9,531	9,027	6,539	
Teno	2	6 40	2	8 11	2	16 40	2	21 25	Chilean	Chilean Line	422 8	56 2	23 4	Talcahuano, Chile	New York, N. Y.	General	2,812	7,764	4,672	
Cities Service																				
Empire ^{1 1}	2	6 45	2	9 00	2	19 30	2	19 30	American	Cities Service Trans. Co.	464 7	60 2	27 4	Los Angeles, Calif	Baltimore, Md	Gasoline	11,500	8,561	5,995	
Kenowis ^{1 1}	28	12 00	2	9 37	2	18 50	2	18 50	American	U. S. Army	390 0	54 2	18 0	Los Angeles, Calif	New York, N. Y.	Army supplies	132			
Paris City	2	11 00	2	11 42	2	20 35	3	3 08	British	Sir W. R. Smith & Sons	411 5	55 0	28 2	Vancouver, B. C.	Liverpool, Eng	General	9,050	6,673	4,764	
Heinrich Arp.	1	1 50	2	11 58	2	20 15	3	12 15	German	Colombian Mar. Co.	237 0	37 5	14 3	Buenaventura, Col	New York, N. Y.	Coffee, hides, gen	680	1,718	1,167	
Canca ^{1 1}	2	12 55	2	13 25	2	20 35	2	20 35	Colombian	Ch. Nacional de Nav.	107 0	22 9	11 0	Buenaventura, Col	Cristobal, C. Z.	General	295	238	163	
Laurelwood ^{1 1}	2	13 05	2	14 08	2	21 10	2	21 10	British	J. T. Jacobs & Co.	436 0	59 5	26 6	Los Angeles, Calif	Ellesmere, England	Gasoline	9,347	7,655	5,129	
Vaba ^{1 1}	2	13 10	2	14 22	2	22 10	2	22 10	American	Ad. Oriental Tankline	390 0	54 2	25 0	Manila, P. I.	New Orleans, La	Coconut oil	6,705	6,205	4,284	
Bucaneer ^{1 1}	2	15 10	2	16 01	2	18 30	2	18 30	American	H. C. Downey	324 0	46 2	23 6	Balboa, C. Z.	Cristobal, C. Z.	Lumber	4,000	3,984	2,612	
Sagittellco	2	14 35	3	6 27	3	13 35	3	13 35	British	Anglo-American Pet. Co	407 0	59 2	27 0	Seattle, Wash	Newark, N. J.	Lumber	7,415	6,239	4,350	
San Roberto ^{1 1}	2	14 35	3	6 27	3	13 35	3	13 35	British	Anglo-American Pet. Co	407 0	59 2	27 0	Seattle, Wash	Newark, N. J.	Lumber	7,415	6,239	4,350	
Canadotte ^{1 1}	2	21 30	3	6 47	3	14 50	3	14 50	British	Imperial Oil Co.	510 0	68 2	30 0	Talara, Peru	Montreal, Canada	Crude oil	15,700	11,556	6,772	
Levant Arrow ^{1 1}	3	5 25	3	7 24	3	15 17	3	15 17	American	Standard Transp. Co.	468 3	62 7	27 3	Los Angeles, Calif	New York, N. Y.	Gasoline	11,161	9,841	6,946	
Pennmar	3	3 18	3	7 56	3	18 45	3	18 45	American	Calmar S. S. Corp	385 3	51 2	23 4	Tacoma, Wash	Philadelphia, Pa.	Lumber	5,622	6,224	4,465	
Bantu	3	5 30	3	9 05	3	20 45	3	20 45	American	Isthmian S. S. Lines	300 0	47 0	26 0	Antofagasta, Chile	South Carolina ^{1 1}	Nitrates	5,817	4,607	3,032	
Oregonian	3	15 55	3	16 39	3	20 45	3	20 45	American	Amer-Hawaiian Line	404 6	53 9	27 0	Portland, Oreg	Boston, Mass	General	6,450	6,754	4,800	
Lebore	4	5 00	4	5 45	4	15 50	4	15 50	American	Ore S. S. Corp	549 6	72 2	34 3	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	14,325	4,635	
Donau	3	20 20	4	6 58	4	14 55	4	14 55	German	North German Lloyd	520 8	63 5	27 0	Los Angeles, Calif	Rotterdam, Holland	General	9,747	11,007	7,698	
Buffalo Bridge	3	20 15	4	8 04	4	16 45	4	16 45	American	Nelson Line	324 0	46 2	22 0	San Francisco, Cal	Norfolk, Va	Lumber, general	4,400	3,985	2,630	
Nebraska	4	7 40	4	8 36	4	18 20	5	18 20	British	Royal Mail S. P. Co.	450 0	58 0	26 2	Victoria, B. C.	Rotterdam, Holland	General	6,972	8,878	6,583	
Hegira	4	9 00	4	10 09	4	18 25	4	18 25	American	Hogra S. S. Co.	440 0	50 9	28 7	Everett, Wash	Baltimore, Md	Lumber	9,000	8,353	6,113	
Australia ^{1 1}	4	9 45	4	10 52	4	19 55	4	19 55	American	Texas S. S. Co.	509 7	50 3	31 6	Los Angeles, Calif	Baltimore, Md	Gasoline	17,476	12,514	8,427	
Barbuda Cutes.	4	12 55	4	13 47	4	20 55	4	20 55	American	Sudden & Christenson.	400 5	54 7	24 6	Portland, Oreg	Baltimore, Md	Lumber	7,358	6,694	4,861	
Colombia	4	15 50	5	6 19	5	14 00	6	9 07	American	Panama Mail S. S. Co.	389 0	54 7	22 0	San Francisco, Cal	New York, N. Y.	General	1,452	6,015	4,281	
Gen. G. W.																				
Getty	5	6 24	5	6 24	5	14 10	6	9 00	American	U. S. Army	98 0	22 0		Balboa, C. Z.	Cristobal, C. Z.	Gasoline	10,800	7,496	5,263	
Larry Doheny	5	3 30	5	6 58	5	15 40	7	20 45	American	Richfield Oil Co.	436 0	59 2	27 0	Long Beach, Calif	Bayonne, N. J.	Gasoline	10,800	7,496	5,263	
Harvester	5	6 10	5	7 27	5	15 10	5	15 10	American	Texas S. S. Co.	416 8	56 1	26 0	Los Angeles, Calif	New York, N. Y.	Gasoline	8,329	6,977	5,183	
Tanker.																				

^{1 1} For orders.^{1 2} Commercial launch.^{1 3} Transport.^{1 4} Cable ship.^{1 5} Motor ship.^{1 6} Tanker.

Tatsumo Maru...	4 11 17	5	7 40	5 16 15	5 20 34	Japanese...	Nippon Yusen Kaisha...	445 0	58 0	25 6	Manila, P. I.	Boston, Mass	General	9,781	8,015	5,716
Lena	5 4 17	5 8 13	5 17 10	5 17 10	American...	Lukenbach Line...	Dinon S. S. Corp	425 0	53 8	25 3	Los Angeles, Calif	Boston, Mass	General	5,927	7,217	5,295
Pacific Spruce...	5 5 00	5 8 35	5 17 45	5 17 45	American...	F & W. Riton	F & W. Riton	410 5	54 2	24 4	Seattle, Wash	New York, N. Y.	General	8,056	6,624	4,757
Apple Branch...	5 6 00	5 9 05	5 18 20	5 19 30	British...	S. Bromund	S. Bromund	370 0	51 5	23 6	Cornel, Chile	Liverpool, England	General	5,934	5,112	3,511
Florida...	5 9 00	5 10 06	5 18 50	5 19 30	Norwegian...	Isthmian S. S. Lines	Isthmian S. S. Lines	275 7	40 2	19 3	Lobos Tierra, Peru	London, England	General	2,000	9,492	4,676
Chickasaw City	5 5 00	5 11 07	5 19 30	5 19 30	American...	United Fruit Co	United Fruit Co	395 5	55 0	26 7	Seattle, Wash	Avonmouth, Eng	Lumber, general	7,936	7,822	5,237
Limon...	5 12 35	5 13 09	5 19 55	7 10 30	American...	United Fruit Co	United Fruit Co	330 6	44 5	19 0	San Francisco, Cal	Port Lincoln, C. R.	Frozen, general	423	3,684	2,234
Canadian	5 19 00	6 6 20	6 14 10	6 15 20	British...	Can. Nat. Steamships	Can. Nat. Steamships	400 0	52 0	22 8	Melbourne, Auslia.	Montreal, Canada	Logs, sugar	5,232	5,914	4,195
Commander...	6 8 29	6 8 29	6 15 05	7 15 05	American...	U. S. Navy	U. S. Navy	243 0	35 3	18 6	Balboa, C. Z.	Cristobal, C. Z.	(19)	8,993	7,067	5,286
Nagara 19...	6 10 45	6 11 38	6 19 20	6 19 20	Danish...	East Asiatic Co.	East Asiatic Co.	410 0	55 0	28 0	Seattle, Wash	Copenhagen, Den.	General	7,181	9,154	6,966
Amant 19...	6 12 15	6 13 23	6 21 25	6 23 00	American...	Amer-Hawaiian Line	Amer-Hawaiian Line	460 0	57 2	27 0	Seattle, Wash	Boston, Mass	Nitrates	9,700	8,271	6,249
Savere...	6 14 00	6 15 12	6 22 50	6 23 50	British...	Bank Line, Ltd	Bank Line, Ltd	277 4	31 7	11 0	Tecpilla, Chile	Gibraltar 17	Coffee, hides	276	1,151	663
Urbe...	6 22 30	6 23 07	6 30 15	6 31 50	American...	Colombian Mar. Co.	Colombian Mar. Co.	384 0	43 5	22 0	Buenaventura, Col	Cristobal, C. Z.	(20)	3,100	2,823	1,730
Canadian Miller	7 2 00	7 8 05	7 19 40	7 19 40	British...	U. S. Navy	U. S. Navy	251 0	43 5	22 0	Kahului, T. H.	New York, N. Y.	Lumber general	6,297	5,892	4,186
Laguna 19...	7 2 00	7 8 05	7 19 40	7 19 40	British...	Can. Nat. Steamships	Can. Nat. Steamships	400 0	53 2	23 6	Vancouver, B. C.	Montreal, Canada	General	8,518	7,135	4,640
Fernandez 19...	7 7 25	7 8 15	7 19 15	7 19 15	Norwegian...	Pacific Line	Pacific Line	420 5	54 2	28 0	Dartford, England	Liverpool, England	Soya beans	7,237	6,082	4,222
New York, A. S.	7 7 00	7 9 08	7 20 18	7 20 18	American...	Texas S. S. Co.	Texas S. S. Co.	416 8	56 0	26 6	San Francisco, Cal	Baltimore, Md.	Gasoline	8,448	6,807	5,049
Santa Rita...	7 7 26	7 10 48	7 21 38	7 21 38	American...	Grace Line	Grace Line	370 0	53 2	22 0	Valparaiso, Chile	New York, N. Y.	General	2,914	4,254	4,098
Knut Nelson 19...	7 11 05	7 12 12	7 23 00	7 23 00	Norwegian...	Fred Olsen & Co.	Fred Olsen & Co.	435 9	56 2	28 0	Vancouver, B. C.	Oslo, Norway	General	7,926	8,016	5,854
Holmpark...	7 11 05	7 12 12	7 23 00	7 23 00	British...	J. & J. Denholm	J. & J. Denholm	423 0	56 0	26 0	Liquique, Chile.	Azores 17	Nitrates	8,950		

18 Survey boat.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

19 Wheat, barley, general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

20 Canned pineapples.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL										* DEPARTURES									
ARRIVALS										Line.									
Date.	Vessel.	From	Date.	Vessel.	Line.	Date.	Vessel.	From	Date.	Vessel.	Line.	Date.	Vessel.	From	Date.	Vessel.	From	Date.	Vessel.
September 1	Maravi	Puerto Colombia	September 1	Oilgron	Anglo-Saxon Pet. Co	September 1	Ula	Puerto Colombia	September 1	Ula	Standard Fruit & S. S. Co.	September 1	Ula	Standard Fruit & S. S. Co.	September 1	Ula	Standard Fruit & S. S. Co.	September 1	Ula
September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula
September 1	Musicien	T. & J. Harrison	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula
September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula	Puerto Colombia	September 1	Ula
September 2	Wanda	Managua via David	September 2	Wanda	Managua via David	September 2	Wanda	Managua via David	September 2	Wanda	Managua via David	September 2	Wanda	Managua via David	September 2	Wanda	Managua via David	September 2	Wanda
September 2	Tora	Managua via David	September 2	Tora	Managua via David	September 2	Tora	Managua via David	September 2	Tora	Managua via David	September 2	Tora	Managua via David	September 2	Tora	Managua via David	September 2	Tora
September 2	N. 9688	Managua via David	September 2	N. 9688	Managua via David	September 2	N. 9688	Managua via David	September 2	N. 9688	Managua via David	September 2	N. 9688	Managua via David	September 2	N. 9688	Managua via David	September 2	N. 9688
September 2	St. Helens	Managua via David	September 2	St. Helens	Managua via David	September 2	St. Helens	Managua via David	September 2	St. Helens	Managua via David	September 2	St. Helens	Managua via David	September 2	St. Helens	Managua via David	September 2	St. Helens
September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane	Managua via David	September 3	Mexican Army plane
September 3	Anahuena 23	Managua via David	September 3	Anahuena 23	Managua via David	September 3	Anahuena 23	Managua via David	September 3	Anahuena 23	Managua via David	September 3	Anahuena 23	Managua via David	September 3	Anahuena 23	Managua via David	September 3	Anahuena 23
September 4	Oranian	Managua via David	September 4	Oranian	Managua via David	September 4	Oranian	Managua via David	September 4	Oranian	Managua via David	September 4	Oranian	Managua via David	September 4	Oranian	Managua via David	September 4	Oranian
September 4	Santa Marta	Managua via David	September 4	Santa Marta	Managua via David	September 4	Santa Marta	Managua via David	September 4	Santa Marta	Managua via David	September 4	Santa Marta	Managua via David	September 4	Santa Marta	Managua via David	September 4	Santa Marta
September 4	Dart C-35	Managua via David	September 4	Dart C-35	Managua via David	September 4	Dart C-35	Managua via David	September 4	Dart C-35	Managua via David	September 4	Dart C-35	Managua via David	September 4	Dart C-35	Managua via David	September 4	Dart C-35
September 4	Nora B.	Managua via David	September 4	Nora B.	Managua via David	September 4	Nora B.	Managua via David	September 4	Nora B.	Managua via David	September 4	Nora B.	Managua via David	September 4	Nora B.	Managua via David	September 4	Nora B.
September 4	Macoris	Managua via David	September 4	Macoris	Managua via David	September 4	Macoris	Managua via David	September 4	Macoris	Managua via David	September 4	Macoris	Managua via David	September 4	Macoris	Managua via David	September 4	Macoris
September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23	Managua via David	September 4	Inapaquina 23

21 Air mail carrier 22 Tug. 23 Motor boat. 24 Motor schooner.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.					* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—	Date.	Vessel.	Line.
September 5.	Magallanes.	Spanish Line.	Barcelona via wayports.	September 5.	Darien C-35 ²⁵ .	Scadta Airplane Co.	Barraquilla, Colombia.	September 5.	Scadta Airplane Co.	Barraquilla, Colombia.
September 5.	No. 9776 ²⁵ .	Pan-American Airways	Curacao via wayports.	September 5.	Mexican Army plane.	Mexican Government.	Colombian ports.	September 5.	Mexican Government.	Colombian ports.
September 5.	No. 9664 ²⁵ .	Pan-American Airways	Managua via wayports.	September 5.	Santa Marta.	United Fruit Co.	New York via Kingston.	September 5.	United Fruit Co.	New York via Kingston.
September 5.	Juan.	United Fruit Co.	New Orleans, La.	September 5.	Oranian.	Levyland Line.	Liverpool via wayports.	September 5.	Levyland Line.	Liverpool via wayports.
September 5.	Coppename.	United Fruit Co.	New Orleans, La.	September 6.	Coppename.	United Fruit Co.	Puerto Colombia.	September 5.	United Fruit Co.	Puerto Colombia.
September 5.	Carnania ²⁶ .	R. Foullebois	Colon, R. P.	September 6.	Saramacca.	United Fruit Co.	New Orleans, La.	September 5.	United Fruit Co.	New Orleans, La.
September 6.	Mary V. ²⁶ .	H. C. Robinson	Colon, R. P.	September 6.	Inapaguina ²⁷ .	United Fruit Co.	Colon, R. P.	September 6.	United Fruit Co.	Colon, R. P.
September 6.	Saramacca.	United Fruit Co.	Port Limon, C. R.	September 6.	Ataqueyuma ²⁷ .	United Fruit Co.	Colon, R. P.	September 6.	United Fruit Co.	Colon, R. P.
September 6.	No. 9107 ²⁵ .	Standard Fruit & S. S. Co	New Orleans via Habana.	September 6.	Mary V. ²⁶ .	French Line.	Cartagena, Colombia.	September 6.	H. C. Robinson.	Cartagena, Colombia.
September 7.	Amapala.	Pan-American Airways	Guayaquil via wayports.	September 7.	Macoris.	H. Blackwood	Havre via wayports.	September 6.	French Line.	Havre via wayports.
September 7.	Mayari.	United Fruit Co.	New York via wayports.	September 7.	Nora B. ²⁶ .	Pan-American Airways	Bluefields, Nicaragua.	September 7.	H. Blackwood.	Bluefields, Nicaragua.
September 7.	Magdalena.	Hamburg-American Line.	Port Limon, C. R.	September 7.	No. 9638 ²⁵ .	Standard Fruit & S. S. Co	Managua via wayport.	September 7.	Pan-American Airways	Managua via wayport.
September 7.	Wanda.	Pan-American Airways	San Blas, R. P.	September 7.	Amapala.	United Fruit Co.	New Orleans and waypts.	September 7.	Standard Fruit & S. S. Co	New Orleans and waypts.
September 7.	No. 9685 ²⁵ .	Pan-American Airways	Managua via wayport.	September 7.	Mayari.	United Fruit Co.	New York via Kingston.	September 7.	United Fruit Co.	New York via Kingston.
September 7.	Heredia.	United Fruit Co.	New Orleans & Habana.	September 7.	Juan.	United Fruit Co.	Belize.	September 7.	United Fruit Co.	Belize.
25 Air mail carrier. 26 Motor schooner. 27 Motor boat.					PORT OF BALBOA.					
September 1.	Nora.	Grace Line.	Los Angeles, California.	September 2.	Nora.	Grace Line.	Los Angeles, Calif.	September 1.	Grace Line.	Los Angeles, Calif.
September 1.	Frost ²⁸ .	West India Oil Co	Talara, Peru.	September 2.	Frost ²⁸ .	West India Oil Co	Puntarenas, C. R.	September 1.	West India Oil Co	Puntarenas, C. R.
September 3.	Hague Maru.	Osaka Shosen Kaisha.	Pto. Armauelles, R. P.	September 5.	San Luis ²⁹ .	Chiriqui Land Co.	Panama Bay, R. P.	September 3.	Chiriqui Land Co.	Panama Bay, R. P.
September 6.	Samu ²⁹ .	Hans Eliot.	Sca.	September 6.	Samu ²⁹ .	Hans Eliot.	Panama Bay, R. P.	September 6.	Hans Eliot.	Panama Bay, R. P.
September 6.	Dos Hermanos ²⁹ .	A. Valdez.	Bayano River, R. P.	September 6.	Dos Hermanos ²⁹ .	A. Valdez.	Panama Bay, R. P.	September 6.	A. Valdez.	Panama Bay, R. P.
September 6.	Big Bill ²⁹ .	L. L. Maduro.	Panama Bay, R. P.	September 6.	Big Bill ²⁹ .	L. L. Maduro.	Panama Bay, R. P.	September 6.	L. L. Maduro.	Panama Bay, R. P.
September 6.	Cretinola ²⁹ .	Chiriqui Land Co.	Pto. Armauelles, R. P.	September 6.	Cretinola ²⁹ .	Chiriqui Land Co.	Panama Bay, R. P.	September 6.	Chiriqui Land Co.	Panama Bay, R. P.
September 6.	Chiriqui Land Co.			September 7.	Hague Maru.	Osaka Shosen Kaisha.	Darten, Manchuria.	September 6.	Osaka Shosen Kaisha.	Darten, Manchuria.
28 Motor ship. 29 Motor schooner.					* Other than ships passing through the Canal.					

Commercial Traffic Through the Panama Canal in August, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of August, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for August, 1928, and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	34	444,975	339,056	546,015	338,273	\$384,330.03	270,479
East coast of United States to west coast of South America:							
Belgian	1	6,211	4,522	7,130	4,013	4,471.92	.....
British	5	17,224	13,549	23,441	14,134	14,221.94	5,951
Chilean	2	7,768	6,066	10,889	6,233	7,582.50	3,531
Danish	1	3,468	2,256	3,718	2,307	2,820.00	1,371
German	1	1,167	998	1,428	813	1,247.50	464
Norwegian	1	1,676	928	1,733	968	1,160.00	.....
Swedish	3	13,931	10,824	36,067	12,810	10,030.32	.....
United States	12	56,906	44,759	75,529	44,841	46,699.95	20,209
Totals	26	108,351	83,902	159,935	86,119	88,234.13	31,526
Europe to west coast of United States:							
Belgian	1	5,410	4,949	8,401	4,601	3,895.20	.....
British	5	22,567	18,177	29,867	18,221	16,252.60	7,786
Danzig	1	5,927	5,207	8,744	5,026	4,267.44	.....
French	2	10,423	9,017	14,824	8,174	7,504.56	.....
German	4	19,105	13,685	22,416	13,634	17,106.25	16,643
Norwegian	4	18,828	12,468	20,515	12,515	14,011.12	19,168
Panaman	1	242	210	592	213	174.24	.....
Swedish	2	11,146	6,812	11,200	8,566	8,515.00	15,028
Totals	20	93,648	70,525	116,559	70,950	71,726.41	58,625
Europe to west coast of South America:							
British	8	49,667	38,100	62,924	39,131	45,232.13	22,345
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch	2	11,636	8,243	13,856	8,151	10,303.75	9,499
French	2	8,903	6,212	10,129	6,200	7,765.00	4,695
German	5	26,497	19,635	29,806	18,148	24,509.35	20,544
Greek	1	4,047	3,455	5,269	3,222	4,318.75	6,310
Italian	3	19,628	12,856	27,309	15,111	16,070.00	3,781
Norwegian	2	8,821	5,036	8,630	5,165	6,357.50	12,982
Swedish	1	4,891	4,019	6,508	5,001	3,521.52	.....
Totals	25	140,219	102,874	173,370	105,136	122,489.44	80,156
East coast of United States to Far East:							
British	5	28,326	17,165	28,297	17,318	21,456.25	27,196
Japanese	4	21,999	17,065	27,162	16,676	21,331.25	31,861
Norwegian	5	27,091	18,796	31,757	18,839	23,495.00	34,734
United States	4	16,246	11,460	18,476	11,383	14,180.50	23,089
Totals	18	93,662	64,486	105,692	64,216	80,463.00	116,880
Europe to west coast Canada:							
British	8	50,421	36,162	54,648	33,797	42,380.80	18,550
Danish	1	5,663	5,188	6,913	5,218	6,485.00	6,260
Dutch	2	13,668	9,950	15,694	9,932	12,437.50	4,926
French	2	10,434	7,461	12,429	7,490	9,326.25	6,304
German	2	13,178	8,018	14,122	8,391	10,022.50	10,063
Italian	1	6,054	5,031	7,061	4,460	6,288.75	2,068
Totals	16	99,418	71,810	110,867	69,288	86,940.80	48,171
Cristobal to west coast of South America:							
Colombian	4	574	554	880	550	673.70	486
Dutch	2	1,484	588	1,560	646	735.00	348
German	5	4,532	2,777	5,500	2,890	3,471.25	2,486
Totals	11	6,590	3,919	7,940	4,086	4,879.95	3,320

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to Australasia:							
British.....	8	61,502	45,305	73,464	45,862	\$56,631.25	62,524
French.....	1	5,162	4,357	6,889	4,446	5,446.25	1,956
Swedish.....	1	5,346	3,468	5,788	4,300	4,335.00	4,677
Totals.....	10	72,010	53,130	86,141	54,608	66,412.50	69,157
East coast of United States to Australasia:							
British.....	6	37,917	24,990	40,087	25,138	31,237.50	31,725
Danish.....	1	4,691	2,705	4,532	2,772	3,381.25	6,532
United States.....	2	10,382	7,501	12,063	7,502	9,376.25	6,877
Totals.....	9	52,990	35,196	56,682	35,412	43,995.00	45,134
Foreign vessels in ballast— United States inter- coastal:							
British.....	2	7,704	6,603	10,621	6,595	5,546.88	.....
Danish.....	1	5,595	4,728	7,691	4,713	4,100.40	.....
Japanese.....	1	1,653	1,456	2,334	1,342	1,193.76	.....
Nicaraguan.....	1	140	151	270	237	113.25	.....
Norwegian.....	1	3,755	2,075	3,549	2,098	2,593.75	.....
Totals.....	6	18,952	15,013	24,465	14,985	13,548.04	.....
East coast of United States to Philippine Islands:							
British.....	3	16,273	11,717	18,890	11,717	14,646.25	17,371
United States.....	2	11,673	9,215	13,439	9,223	11,518.75	15,875
Totals.....	5	27,946	20,932	32,329	20,940	26,165.00	33,246
East coast of Central America to west coast of United States:							
United States.....	4	9,009	8,368	13,477	8,213	10,406.95	2,232
Cristobal to Panama:							
Panaman.....	3	116	118	217	123	130.08	128
United States.....	1	95	95	.....	.....	71.25	.....
Totals.....	4	211	213	217	123	202.05	128
East coast of United States to west coast Canada:							
United States.....	3	13,280	10,018	16,021	9,956	12,522.50	21,043
East coast of Canada to Australasia:							
British.....	3	14,056	10,986	17,987	10,988	13,732.50	11,426
Cristobal to west coast of Central America:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	2,206
Norwegian.....	1	606	485	855	482	606.25	1,180
Totals.....	3	2,047	1,771	3,153	1,786	2,213.75	3,386
Around the World:							
United States.....	3	26,875	18,846	31,551	18,846	23,557.50	10,673
East coast of Canada to west coast of South America:							
British.....	2	13,868	11,948	22,713	11,472	9,984.96	.....
South American intercoastal:							
British.....	1	4,345	3,757	6,094	3,664	4,696.25	8,500
Norwegian.....	1	4,389	3,788	6,409	3,788	3,160.08	.....
Totals.....	2	8,734	7,545	12,503	7,452	7,856.33	8,500
East coast of South America to Far East:							
Japanese.....	2	11,642	8,340	14,534	8,774	10,425.00	5,633
East coast of United States to Hawaiian Islands:							
United States.....	1	1,740	1,542	2,647	1,542	1,927.50	1,858
Cristobal to west coast of United States:							
Panaman.....	1	2,603	1,383	2,461	1,384	1,728.75	3,120
East coast of South America to west coast of United States:							
United States.....	1	5,049	3,545	5,603	3,547	4,431.25	1,236

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of South America to west coast of Canada:							
Norwegian.....	1	4,723	2,728	4,624	2,765	\$3,410.00	2,035
Canadian intercoastal:							
British.....	1	4,121	3,278	5,752	3,551	4,097.50	1,500
East coast of Central America to Australasia:							
British.....	1	5,017	3,160	5,154	3,154	3,950.00	6,300
West Indies to Far East:							
Danish.....	1	4,418	3,585	5,702	3,583	4,481.25	6,400
Europe to Hawaiian Islands:							
Swedish.....	1	4,860	2,781	4,960	3,665	3,476.25	6,909
Europe to west coast of Central America:							
German.....	1	5,799	3,752	6,053	3,785	4,690.00	2,007
Europe to Balboa:							
Danish.....	1	5,623	4,670	7,691	4,710	4,048.56	.....
Africa to Far East:							
British.....	1	4,633	2,666	4,359	2,639	3,332.50	7,581
Grand totals, August, 1929.	267	1,307,072	971,968	1,607,157	975,948	1,119,659.40	858,661
Grand totals, August, 1928.	271	1,264,859	960,408	1,586,980	967,722	1,084,905.51	752,508
Grand totals, August, 1927.	298	1,387,511	1,079,237	1,751,014	1,073,081	1,167,476.40	669,187

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	92	479,693	374,090	599,833	373,589	\$467,325.20	700,871
West coast of South America to east coast of United States:							
British.....	9	42,051	34,880	61,479	37,021	43,600.00	69,282
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	2,735
Danish.....	1	4,519	3,595	5,886	3,658	4,493.75	8,750
Japanese.....	1	4,611	4,223	5,838	4,219	5,278.75	8,250
Norwegian.....	2	5,097	3,901	6,408	3,856	4,876.25	9,250
Swedish.....	3	10,430	8,793	32,276	9,816	10,991.25	44,637
United States.....	17	72,766	57,066	96,622	56,862	70,610.21	137,913
Totals.....	34	144,179	115,924	215,819	119,408	144,182.71	280,817
West coast of United States to Europe:							
British.....	15	63,602	48,628	79,250	50,645	60,785.00	107,152
French.....	2	9,792	8,040	12,972	7,646	10,050.00	16,868
Norwegian.....	7	33,799	28,389	47,912	28,277	35,486.25	63,417
Swedish.....	2	11,828	8,619	14,499	10,817	10,773.75	19,501
Totals.....	26	119,021	93,676	154,633	97,379	117,095.00	206,938
West coast of Canada to Europe:							
British.....	11	62,265	45,466	70,668	43,607	56,832.50	79,896
Danish.....	1	5,317	4,219	6,645	4,244	5,273.75	8,773
Dutch.....	2	12,024	10,367	16,738	10,335	12,958.75	16,793
French.....	2	10,643	9,061	12,360	7,394	11,326.25	16,043
German.....	3	19,854	12,269	21,174	12,678	15,336.25	24,251
Italian.....	1	6,025	5,056	7,098	4,498	6,320.00	8,836
Norwegian.....	3	15,472	12,713	20,427	12,787	15,891.25	23,511
Swedish.....	1	5,337	2,861	5,210	3,747	3,576.25	5,988
United States.....	1	5,241	3,838	6,157	3,801	4,797.50	7,922
Totals.....	25	142,179	105,850	166,477	103,091	132,312.50	192,013
West coast of South America to Europe:							
British.....	7	36,931	29,307	48,584	29,928	36,618.50	47,637
Danish.....	1	5,263	3,368	5,497	3,425	4,210.00	9,878
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,200
Dutch.....	2	11,786	6,713	11,343	6,628	8,391.25	16,663
Finnish.....	1	1,675	1,648	1,817	1,523	2,010.00	3,060
French.....	1	4,984	4,249	6,713	4,198	5,311.25	7,950
German.....	8	39,540	29,373	47,154	29,132	36,722.50	60,868
Italian.....	2	12,269	9,668	18,475	10,136	12,085.00	12,191
Norwegian.....	1	3,879	2,962	4,854	2,950	3,702.50	6,607
Totals.....	24	122,454	92,561	153,376	92,927	115,636.00	176,044

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Cristobal:							
Colombian.....	4	574	554	880	550	\$631.13	447
Dutch.....	2	1,484	588	1,560	646	735.00	1,160
German.....	4	3,148	2,361	4,217	2,394	2,951.25	2,425
United States.....	1	327	323	828	563	242.25	.....
Totals.....	11	5,533	3,826	7,485	4,153	4,559.63	4,032
Balboa to Cristobal:							
Panaman.....	8	958	874	1,248	848	733.83	.....
Australasia to Europe:							
British.....	6	45,870	31,660	50,983	31,614	39,575.00	30,766
French.....	1	5,364	4,287	7,139	4,335	5,358.75	3,120
Totals.....	7	51,234	35,947	58,122	35,949	44,933.75	33,886
West coast of United States to east coast of Central America:							
Norwegian.....	1	2,268	1,859	3,124	1,868	2,323.75	2,866
United States.....	5	11,368	10,457	16,786	10,282	13,018.20	2,758
Totals.....	6	13,636	12,316	19,910	12,150	15,341.95	5,624
West coast of Canada to east coast of United States:							
British.....	4	19,413	14,068	22,547	14,057	17,585.00	29,239
United States.....	2	8,003	6,007	9,507	5,846	7,508.75	11,547
Totals.....	6	27,416	20,075	32,054	19,903	25,093.75	40,786
Philippine Islands to east coast of United States:							
British.....	1	2,759	2,041	3,391	2,039	2,551.25	5,200
Japanese.....	1	5,856	4,435	7,007	4,327	5,543.75	7,835
United States.....	3	15,620	13,925	19,646	13,802	17,277.80	23,533
Totals.....	5	24,235	20,401	30,044	20,168	25,372.80	36,568
West coast of Central America to Cristobal:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	851
German.....	2	1,896	1,239	2,459	1,273	1,261.85	.....
Norwegian.....	1	606	485	855	482	606.25	18
Totals.....	5	3,943	3,010	5,612	3,059	3,475.60	869
Canadian intercoastal:							
British.....	4	17,118	12,491	20,759	12,843	15,613.75	24,649
Australasia to east coast of United States:							
British.....	1	3,804	3,037	4,865	3,028	3,796.25	4,284
United States.....	2	11,126	9,156	12,743	8,945	11,445.00	11,778
Totals.....	3	14,930	12,193	17,608	11,973	15,241.25	16,062
Hawaiian Islands to east coast of United States:							
United States.....	3	11,265	8,457	13,835	8,449	10,571.25	18,921
West coast of United States to east coast of South America:							
United States.....	3	18,717	15,152	24,429	15,042	14,999.01	9,830
West coast of South America to east coast of Canada:							
Danish.....	1	6,024	5,036	8,278	5,064	6,295.00	12,238
Peruvian.....	1	3,544	3,510	4,763	3,089	4,302.00	5,530
United States.....	1	6,089	6,073	8,208	6,184	7,306.80	12,500
Totals.....	3	15,657	14,619	21,249	14,337	17,903.80	30,268
West coast of South America to Egypt:							
Japanese.....	1	5,147	5,066	6,787	5,085	6,176.40	9,500
Norwegian.....	1	5,153	4,119	6,564	4,046	5,148.75	9,950
Yugoslav.....	1	4,163	3,593	5,687	3,562	4,491.25	8,463
Totals.....	3	14,463	12,778	19,038	12,693	15,816.40	27,913

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Australasia to east coast of Canada:							
British.....	2	8,605	6,571	10,950	6,694	\$8,213.75	3,590
West coast of United States to Cristobal:							
Panaman.....	1	2,603	1,383	2,461	1,384	1,728.75	620
West coast of United States to east coast of Canada:							
Swedish.....	1	3,532	2,411	4,066	3,144	3,013.75	6,068
West coast of Central America to east coast of United States:							
German.....	1	5,799	3,752	6,053	3,785	4,175.28	.....
West coast Canada to Egypt:							
British.....	1	4,497	3,551	3,685	3,563	4,438.75	5,700
Grand totals, August, 1929	274	1,251,667	971,908	1,588,746	976,531	1,207,778.46	1,822,069
Grand totals, August, 1928	255	1,172,387	896,159	1,470,265	902,489	1,114,163.80	1,672,828
Grand totals, August, 1927	245	1,126,103	878,468	1,437,303	879,491	1,106,564.15	1,760,760

Notices to Mariners.

THE PANAMA CANAL EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 9, 1929.

No. 600.

The following was received by the Hydrographic Office from the office of the Commandant, Fifteenth Naval District, Balboa, C. Z.:

Installation of Lights on Colon Radio Station Towers.—Beginning September 7, 1929, the two 200-foot antennae supports at the Colon Radio Station, position: North Tower, latitude 9° 17' 45.4" north, longitude 79° 54' 32.4" west; South Tower, latitude 9° 17' 40.0" north, longitude 79° 54' 33.4" west will be illuminated from sunset to sunrise with lights of the following characteristics:

Each tower will have a cluster of 4 red, 50-watt lights at 200-foot elevation, 1 red, 50-watt light at 133-foot elevation, and 1 red, 50-watt light at 66-foot elevation. (Signed) J. R. Y. BLAKELY.

NOTE: The Colon Radio Station was reestablished in its new location near Fort Davis on August 27, 1929, see Notice No. 595 of August 29, 1929.

J. L. SCHLEY,
Acting Governor.

THE PANAMA CANAL EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 10, 1929.

No. 602.

The following is quoted from Notice to Mariners, Washington, D. C., August 31, 1929:

1. *Colombia, Cartagena Harbor Entrance, Light Buoy Moved.*—The second officer of the American steamer *Metapan* reports that the light buoy showing a flashing red light, formerly moored about 600 yards 77° from Fort San Fernando Light has been moved and reestablished on the southern side of the newly dredged channel on a line joining the starboard hand seaward light buoy with Carreya Shoal Light Buoy and about 400 yards 50° from the northeastern extremity of Fort San Jose.

2. *Colombia, West Coast, Buenaventura River, Soldado Point, Light Established.*—A flashing light (color not stated) showing 1 flash every 5 seconds, flash .05 seconds, eclipse 4.5 seconds, has been established on Soldado Point.

Approximate position: 3° 48' 03" N., 77° 11' 33" W.

Further information will be published when received.

3. *Colombia, West Coast, Buenaventura River, Palmas Island Light, Characteristic Changed.*—Palmas Island Light has been changed from flashing to group flashing with two flashes every 8 seconds.

Approximate position: 3° 54' N., 77° 22' W.

4. *Panama, Gulf of Panama, Perlas Islands, San Jose Island Light, Arc of Visibility.*—The commanding officer of the U. S. S. *Niagara* reports that San Jose Light is visible over an arc of 217° from 291° to 148°.

Approximate position: 8° 12' 50" N., 79° 07' 55" W.

5. *Panama, Gulf of Panama, Perlas Islands, Pedro Gonzales Island, Shoal Southward.*—The commanding officer of the U. S. S. *Niagara* reports that a 6-fathom shoal has been located southward of Pedro Gonzales Island, in latitude 8° 21' 12" N., longitude 79° 08' 30" W.

6. *Panama, Gulf of Panama, Perlas Islands, Pacheca Island Light, Arc of Visibility.*—The commanding officer of the U. S. S. *Niagara* reports that Pacheca Island Light is visible over an arc of 214° 30' from 105° to 319° 30'.

Approximate position: 8° 39' 48" N., 79° 03' 32" W.

J. L. SCHLEY,
Acting Governor.

United States Intercoastal Traffic by Commodities for August, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for August, 1929, and the totals for August, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	1		1
Agricultural implements	571	17	588
Alfalfa		444	444
Alfalfa meal		337	337
Ammonia	51		51
Asbestos	597		597
Asphalt	1,719	219	1,938
Automobiles	1,096		1,153
Automobile accessories	2,661	10	2,671
Bamboo	15		15
Bark:			
Cascara		30	30
Other		16	16
Beans		2,057	2,057
Borax		1,283	1,283
Bricks	363		363
Burlap	1,569	67	1,636
Canned:			
Fish	334	9,475	9,809
Fruit	90	23,423	23,513
Meat	55		55
Milk		102	102
Soup	541		541
Vegetables	367	2,563	2,930
Miscellaneous	2,356	2,668	5,024
Carbon black	234	30	264
Celite filtercel		481	481
Cement	661		661
Charcoal	156	125	281
Chemicals	2,074	842	2,916
China and fire clay	269		269
Coal	2,384		2,384
Cocoa	136		136
Cocoanuts	25	141	166
Coffee	14		14
Coke	1,000		1,000
Cold storage:			
Butter	45		45
Cheese	85	70	155
Eggs		200	200
Fish	100		100
Lard	190		190
Other	699	10	709
Confectionery	962	19	981
Copra	522	69	591
Cork	102		102
Cotton	190	124	314
Cyanide	20		20
Drugs	1,417	35	1,452
Dyewoods	200		200
Earthenware	32	69	101
Eggs, dried		469	469
Explosives	50	21	71
Fertilizer	2,562		2,562
Flour	204	4,593	4,797
Fruits:			
Dried		5,965	5,965
Fresh	31	725	756
Fuller's earth	18		18
Furniture	450	41	491
General	43,708	14,439	58,147
Glass and glassware	2,481	89	2,570
Glue	25	20	45
Granite	43		43
Hair		93	93

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Hardwoods.....	1,056	32	1,088
Hay.....		646	646
Hemp.....		1,202	1,202
Honey.....		144	144
Hops.....		27	27
Horns and hoofs.....		16	16
Jute.....	186		186
Lime.....	40		40
Linoleum.....	1,147		1,147
Liquors.....	147	4	151
Lumber.....	1,259	225,286	226,545
Malt.....	62		62
Manufactured goods:			
Iron and steel.....	130,166	422	130,588
Machinery.....	3,708	380	4,088
Railroad material.....	4,887		4,887
Tinplate.....	13,322	593	13,915
Textiles.....	3,987	200	4,187
Miscellaneous.....	9,229	3,082	12,311
Marble.....	127		127
Matches.....	214		214
Metals:			
Antimony.....		186	186
Copper.....	50	5,790	5,840
Iron.....	1,114		1,114
Lead.....	27	250	277
Scrap.....	132	190	322
Tin.....		50	50
Zinc.....		1,088	1,088
Other.....	15	316	331
Milk, powdered.....	1,650	676	2,326
Molasses.....	188		188
Nitrates.....	1,880		1,880
Oats.....	77		77
Oils:			
Coconut.....		11	11
Cottonseed.....	234		234
Crude.....	192	38,108	38,300
Gas oil, fuel oil.....		1,000	1,000
Gasoline, benzine, naphtha.....	13	255,978	255,991
Kerosene.....		29,071	29,071
Linseed.....	130		130
Lubricating and greases.....	12,213	10,150	22,363
Olive.....	85		85
Vegetable.....	343	12	355
Wood.....		60	60
Other.....		100	100
Ores:			
Chrome.....	55		55
Copper.....		515	515
Magnesite.....	18	2,581	2,599
Manganese.....		1,157	1,157
Zinc.....		10	10
Paint.....	752	14	766
Paper.....	7,792	3,680	11,472
Paper pulp.....		9,078	9,078
Paper roofing.....	82		82
Peanuts.....	62	279	341
Peas.....		100	100
Phosphates.....	1,229		1,229
Plaster.....	25	25	50
Porcelain.....	111	2,739	2,850
Rags.....	39	307	346
Rice.....	34	9	43
Rope.....	323	112	435
Rosin.....	1,437		1,437
Rubber:			
Manufactured.....	1,634	5	1,639
Raw.....	18		18
Scrap.....		15	15
Salt.....	103	60	163
Sand.....	1,032		1,032
Seeds:			
Grass.....		21	21
Hemp.....		223	223
Other.....	70	178	248
Shells.....	1,001	41	1,042
Silk.....		397	397
Skins and hides.....	41	1,626	1,667
Slag.....	2,600		2,600
Slate.....	1,023		1,023
Soap.....	2,205	316	2,521
Soda.....	348	16	364
Soda, ash.....	1,921		1,921
Soda, bicarbonate.....	331		331

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Soda, caustic.....	272	.....	272
Starch.....	118	.....	118
Sugar.....	18	14,691	14,709
Sulphur.....	1,048	.....	1,048
Syrup.....	341	.....	341
Talc.....	.....	101	101
Tallow.....	.....	335	335
Tar.....	150	6	156
Tea.....	77	39	116
Tobacco.....	2,868	23	2,891
Toys.....	381	67	448
Turpentine.....	37	.....	37
Waste.....	273	413	686
Wax.....	43	81	124
Wheat.....	.....	809	809
Wine.....	27	22	49
Wool.....	65	4,384	4,449
Zinc oxide.....	22	.....	22
Totals, August, 1929.....	291,381	690,983	982,364
Totals, August, 1928.....	243,405	595,539	838,944
Totals, August, 1927.....	227,472	821,643	1,049,115

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Official Circulars.

Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 31, 1929.

To all concerned.—Effective September 2, 1929, and during my absence from the Isthmus, Lieut. Colonel J. L. Schley, U. S. A., Engineer of Maintenance, will be acting Governor.

H. BURGESS,
Governor.

Duties of President of Panama Railroad Company.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., August 31, 1929.

To all concerned.—Effective September 2, 1929, and during my absence from the Isthmus, Lieut. Colonel J. L. Schley, U. S. A., 2d Vice President, will perform such duties of the President as relate to the operation of the Company on the Isthmus.

H. BURGESS,
President.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., September 18, 1929. No. 7.

Canal Traffic During the First Fifteen Days of September.

During the first 15 days of September, 254 commercial vessels and 13 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,110,422.34, and on the launches \$121.75, or a total tolls collection of \$1,110,544.09.

The daily average of transits of commercial vessels was 16.93 and the average tolls collection \$74,028.15, as compared with an average of 17.4 transits and \$74,468.88 for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,371.74, as compared with \$4,279.82 for the first 15 days of August.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 8½ months of the current calendar year, with the daily average of transits and tolls, together with the totals for the first 8½ months of the calendar years 1928 and 1927: .

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September (first 15 days).....	254	1,110,422.34	16.93	74,028.15
Totals, first 8½ months of calendar year, 1929.....	4,550	19,461,524.25	17.65	75,432.26
Totals, first 8½ months of calendar year, 1928.....	4,416	18,337,214.93	17.05	70,800.06
Totals, first 8½ months of calendar year, 1927.....	4,093	17,900,440.71	15.86	69,381.55

As compared with the first 8½ months of the calendar year 1928, the corresponding period this year has had 134 more transits and \$1,124,309.32 additional in tolls.

Vaccination.

THE PANAMA CANAL, HEALTH DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 16, 1929.

To all steamship company agents:

In view of the increased number of cases of smallpox in Panama during the past few days, and in order to obviate possible quarantine restrictions against the Ports of The Panama Canal by other countries, the Health Department suggests that you rigidly enforce the following, during the present prevalence of the disease:

Do not issue a ticket for any outgoing passenger unless he presents a certificate of successful vaccination issued, or *approved* by a physician of The Panama Canal Health Department.

Do not allow a transit passenger to go ashore in Panama unless he presents positive evidence of a successful vaccination within five (5) years, or is vaccinated on board before going ashore.

Do not allow a member of the crew to go ashore unless he presents positive evidence of a successful vaccination just prior to the voyage he may then be on, or is vaccinated on board before going ashore.

J. F. SILER,
Chief Health Officer

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, September 14, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at Port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Tyneric	7	16.15	8	6.10	8	13.20	British	Andrew Weir & Co	400.1	52.0	24.6	New York, N.Y.	Hongkong, China.	Case oil, general.	6,800	4,580
Phako	7	17.45	8	7.23	8	15.13	British	N. Z. Shipping Co.	450.0	58.0	30.4	Liverpool, England	Bluff, N. Z.	General.	8,370	6,060
Vaculine	8	13.45	8	14.05	8	20.55	British	Vacuum Oil Co.	460.0	62.8	16.8	London, England	San Francisco, Cal.	Ballast.		6,180
Montgomery City	8	15.40	8	15.50	8	22.55	American	Isthmian S. S. Lines	424.2	56.2	27.0	Philadelphia, Pa.	Java.	General.	8,020	5,480
Jamaica	8	14.15	9	6.05	9	14.09	British	Pacific Steam Nav. Co.	220.0	34.0	10.0	Cristobal, C. Z.	Valparaiso, Chile.	Ballast.	1,187	622
Champerio	8	17.21	9	6.08	9	15.43	British	Pacific Steam Nav. Co.	290.1	41.7	19.0	Liverpool, England	Champerio, Guatemala.	General.	2,052	1,592
Malakand	8	16.50	9	6.13	9	15.36	British	Com. H. & Dom. Line	470.0	58.3	27.3	London, England	Dunedin, N. Z.	General.	6,250	5,651
Texmar	8	18.25	9	7.10	9	14.06	American	Calmair Line	410.5	54.3	25.0	Baltimore, Md.	Seattle, Wash.	Steel, general.	8,029	6,909
Oregon	9	23.40	9	7.30	9	15.06	American	Texas S. S. Co.	425.8	57.0	17.0	Port Arthur, Tex.	Los Angeles, Calif.	Ballast.	7,218	5,184
Limont	9	5.05	9	8.30	9	15.59	American	United Fruit Co.	330.6	44.0	19.0	Port Limon, C. R.	San Francisco, Cal.	Bananas, general.	222	3,084
S-14			9	8.45	9	15.55	American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Bahoa, C. Z.	Ballast.		2,234
Shuoli	9	10.40	9	10.35	9	17.48	American	Sun Oil Co.	480.0	65.0	22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	9,619	6,456
Kosmos No. 1	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 2	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 3	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 4	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 5	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 6	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
Kosmos No. 7	9	11.15	9	13.30	9	21.03	Norwegian	Kosmos Co.	115.0	24.0	12.6	Sandifjord, Norway	Wellington, N. Z.	Ballast.	254	68
La Paz	9	1.10	9	13.45	9	21.07	British	Pacific Steam Nav. Co.	406.0	54.0	18.5	Hull, England	Corral, Chile	General.	3,222	7,216
Kosmos	9	11.10	9	15.15	10	12.45	Norwegian	Kosmos Co.	554.0	77.6	34.0	Sandifjord, Norway	Wellington, N. Z.	Ballast.	18,536	12,676
Gustaf E.																
Reuter	9	18.40	10	6.10	10	13.34	Swedish	Red A. B. Bent	418.0	55.0	18.0	Gothenburg, Sweden	Los Angeles, Calif.	Ballast.	6,384	4,497
Felix Taussig	9	22.40	10	7.20	10	15.19	American	Isthmian S. S. Lines	395.0	55.0	28.3	Baltimore, Md.	Vancouver, B. C.	Steel, general.	8,452	7,056
Susolanco	10	6.25	10	7.30	10	16.08	American	Transmarine Lines	324.0	46.0	23.0	Mobile, Ala.	Portland, Oreg.	General.	4,445	3,984
Vikingsfar	10	00.10	10	8.35	10	16.27	British	Blue Star Line	400.0	52.3	9.1	Tyne, England	Vancouver, B. C.	Ballast.	6,870	4,909
Amerikland	10	9.50	10	10.00	10	17.18	Swedish	Ore S. S. Corp.	561.0	72.0	21.0	Baltimore, Md.	Cruz Grande, Chile	Ballast.	15,560	4,496
David																
McKady	10	10.10	10	10.45	10	18.05	American	Tidewater Oil Co.	430.0	59.2	19.0	New York, N. Y.	San Francisco, Cal.	Ballast.		7,029
Chastine	10	12.20	10	13.39	10	20.50	American	A. P. Moller	367.0	49.0	22.3	New York, N. Y.	Sourabaya, Java.	General.	4,998	5,526
Maersk	10	21.10	11	6.15	11	14.55	Danish	Neelson Line	380.0	53.0	19.6	Baltimore, Md.	Seattle, Wash.	General.	3,185	5,953
Sacramento	10	22.15	11	7.25	11	15.01	American	Amer-Hawaiian Line	404.6	53.9	19.0	Boston, Mass.	Tacoma, Wash.	General.	3,918	6,736
Robert																
Luckenbach	11	6.18	11	8.20	11	15.35	American	Luckenbach Line	445.0	58.0	22.0	Boston, Mass.	Portland, Oreg.	General.	5,510	8,695
West Keas	11	11.50	11	12.05	11	19.02	American	Sacks S. S. Co.	410.5	54.3	19.7	Wilmington, Del.	Seattle, Wash.	General.	3,525	6,372
Heluan	10	19.15	11	14.00	11	21.50	German	Hamburg-American Line	440.0	53.1	23.0	Hamburg, Germany	Valparaiso, Chile.	General.	3,605	7,621

^a Motor ship.

^a Submarine.

^a Tanker.

^a Whaler.

C. O. Sail- man's	11 13.45	11 13.50	11 21.15	11 22.45	British	Inter. Petroleum Co.	565.0	73.0	25.0	New York, N. Y.	Los Angeles, Calif.	Ballast	16,780	9,885
Thompson	11 15.05	11 15.25	11 22.30	12 1.16	Greek	S. Livanos	405.0	54.2	24.6	London, England	Iquique, Chile	Cement	6,026	4,568
Hampton														
Roads	11 15.32	11 15.45	11 23.08	12 00.02	American	Richfield Oil Co.	431.0	59.2	19.0	Norfolk, Va.	Los Angeles, Calif.	Ballast	8,093	5,347
City of														
Florence	11 21.10	12 6.31	12 13.04	13 8.30	British	Ellerman & Bucknall	448.8	56.2	26.0	Baltimore, Md.	Adelaide, Australia	General	5,292	6,831
Royal Arrow	12 5.50	12 7.30	12 13.58	12 15.00	American	Standard Transp. Co.	467.6	62.7	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast	9,699	6,857
Trinidad	12 5.45	12 9.03	12 17.01	12 18.45	Yugoslav	Jugoslavend Oilfield	425.0	58.2	25.6	Sunderland, Eng.	Arica, Chile	Ballast	7,731	5,759
El Cervo	12 9.50	12 10.10	12 17.29	12 18.45	British	Anglo-Andal. Oilfield	407.4	52.2	18.6	Philadelphia, Pa.	La Libertad, Peru	Ballast	6,046	4,326
India Arrow	12 10.35	12 10.50	12 18.15	12 23.00	American	Standard Transp. Co.	468.3	62.7	15.0	Boston, Mass.	Los Angeles, Calif.	Ballast	10,084	7,426
Plodon	12 11.10	12 11.20	12 18.20	12 22.15	British	Anglo-Saxon Pet. Co.	412.0	53.3	18.0	Montreal, Canada	Los Angeles, Calif.	Ballast	6,325	4,253
Snedard	12 14.33	12 15.00	12 23.26	12 22.15	Norwegian	Fern Line	377.6	54.0	23.0	Boea Grande, Fla.	Yokohama, Japan	Phosphate, wax	6,075	4,534
China Arrow	12 15.03	12 15.23	12 23.15	12 23.23	American	Standard Transp. Co.	468.0	62.0	16.0	New York, N. Y.	Los Angeles, Calif.	Ballast	10,084	7,388
Ebro	12 15.10	12 15.31	12 23.15	12 23.23	British	Pacific Steam Nav. Co.	450.3	56.0	25.3	New York, N. Y.	Talcahuano, Chile	General	3,742	9,291
Martha	10 20.47	13 6.05	13 12.53	13 13.50	British	H. C. Stevenson	183.0	30.0	13.0	Cristobal, C. Z.	Buenaventura, Col.	General	550	780
Santore	12 16.38	13 7.15	13 14.53	13 15.35	American	Ore S. Corp.	449.1	57.2	19.6	Baltimore, Md.	Cruz Grande, Chile	Ballast	7,808	5,139
Callandria	12 20.50	13 7.25	13 16.55	13 18.05	British	R. M. Thomson	400.4	52.0	27.0	Port Arthur, Tex.	Auckland, N. Z.	Oil	5,810	4,777
Liverna	13 3.40	13 8.30	13 15.58	13 17.10	Italian	N. V. Libera-Triestina	404.2	52.0	14.0	Genoa, Italy	Vancouver, B. C.	Ballast	5,852	4,254
Altair	13 7.30	13 8.30	13 17.34	13 18.40	American	Standard Transp. Co.	429.3	59.0	19.6	Providence, R. I.	Los Angeles, Calif.	Ballast	7,695	5,402
Commerical														
Guide	13 6.15	13 9.30	13 16.56	13 18.05	American	Moore & McCormack	429.3	55.0	19.0	Norfolk, Va.	Valparaiso, Chile	General, coal	2,938	4,752
Atlantic Sun	13 8.15	13 10.40	13 17.45	13 18.54	American	Sun Oil Co.	407.0	59.2	19.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	7,508	5,283
London														
Importer	12 13.50	13 13.42	13 20.18	13 21.45	British	Furness, Withy & Co.	450.0	58.0	18.9	Manchester, Eng.	Vancouver, B. C.	General, bananas	1,463	8,529
Navy						U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.	Ballast	7,484	5,212
Meton	13 17.22	13 17.35	14 10.14	14 11.19	American	Pennsylvania Ship. Co.	428.1	57.0	20.0	New York, N. Y.	San Francisco, Cal.	Ballast	515	430
Baden Baden	2-17 1.55	14 6.00	14 14.18	14 23.10	Panama	Hans Joachim Lau	155.0	29.0	11.6	Cristobal, C. Z.	Puntarenas, C. R.	General	5,000	5,708
Sir Karl	14 2.15	14 6.15	14 13.35	14 14.10	American	Redwood Line	381.0	52.2	21.1	New Orleans, La.	Sulphur, pipe, general	Ballast	8,045	5,592
Knudsen	14 8.00	14 8.15	14 16.11	14 17.15	Norwegian	Anglo-Saxon Pet. Co.	450.0	59.2	21.0	Thameshaven, Eng.	Los Angeles, Calif.	Ballast	2,635	17,041
Mongola	14 8.35	14 9.00	14 15.18	14 23.51	American	Panama-Pacific Line	600.6	65.3	26.0	New York, N. Y.	San Francisco, Cal.	General	1,718	2,352
Corinto	10 17.45	14 9.00	14 17.12	14 21.06	American	Panama Mail S. S. Co.	261.1	40.0	16.9	Cristobal, C. Z.	San Francisco, Cal.	General	1,718	2,352
Kai	16 3.30	14 9.18	14 17.14	18 5.54	Danish	W. Hansen	261.1	40.1	12.0	Baltimore, Md.	Callao, Peru	Ballast	5,633	3,335
Ojaren	14 7.25	14 10.10	14 18.04	14 22.15	Swedish	Caucasian Oil Co.	385.0	55.0	18.6	Borrow, England	Los Angeles, Calif.	Ballast	1,821	2,656
Onondaga	14 9.25	14 10.15	14 18.18	14 19.25	American	Ford Motor Co.	251.0	43.6	18.0	Chester, Pa.	San Francisco, Cal.	Automobile parts	4,394	7,380
Alaskan	14 10.48	14 11.00	14 19.08	14 20.00	American	Amer-Hawaiian Line	415.0	53.0	20.10	Boston, Mass.	Portland, Ore.	General	7,380	5,339
Wm. H.														
Doheny	14 7.15	14 11.38	14 20.05	14 21.22	American	Huasteca Petroleum Co.	435.0	56.2	22.11	Baltimore, Md.	Los Angeles, Calif.	Ballast	7,406	5,111
Phrygia	13 17.45	14 13.25	14 20.36	14 22.15	German	Hamburg-American Line	374.0	53.0	18.7	Hamburg, Germany	San Francisco, Cal.	General	3,062	5,417

THROUGH THE CANAL--PACIFIC TO ATLANTIC.

* Tanker. * Launch.

Point San Pablo	7 14.56	8 6.12	8 13.00	8 13.30	American	Swayne & Hoyt	324.0	46.2	23.6	Portland, Ore.	New Orleans, La.	Lumber, general	3,471	3,994
San Francisco														
Maru	7 20.15	8 6.50	8 14.05	8 19.10	Japanese	Kokusan Kisen Kaisha	385.0	51.0	26.4	Portland, Ore.	Hull, England	Wheat	7,860	7,004
Quebec City	7 20.20	8 7.05	8 14.15	8 19.15	British	Sir W. R. Smith & Sons	400.5	54.3	25.0	Tacoma, Wash.	Garston, England	Lumber	7,000	5,405
Pacific	7 20.30	8 7.31	8 14.55	8 14.55	American	Argonaut S. S. Co.	399.7	56.2	24.6	Englewood, B. C.	Providence, R. I.	Lumber	7,623	6,517
Wilmington	8 3.00	8 8.14	8 15.30	8 15.30	American	Argonaut S. S. Co.	415.1	55.7	27.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	8,600	7,731
Wilmington	8 3.15	8 8.48	8 17.20	8 20.50	Dutch	Royal Neth. S. S. Co.	473.5	65.3	29.6	Corral, Chile	Hamburg, Germany	General	12,960	11,038

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	Gross	Net.
K. R. Kingsbury ¹	8	8 25	8	9 25	8	17 45	American	Standard Oil Co. of Cal.	440.0	50.2	25.9		Los Angeles, Calif.	Baltimore, Md.	Gasoline	11,000	9,033	5,938
Manizales	8	9 39	8	11 18	8	19 00	German	North German Lloyd	216.5	32.9	16.4		Guayaquil, Ecuador	Santa Marta, Col.	General	1,206	1,132	741
Santa Maria ²	8	14 19	9	6 12	9	12 55	American	Grace Line	465.0	64.0	26.0		Talcahuano, Chile	New York, N. Y.	General	5,620	10,626	6,680
Bohemian	9	2 30	9	6 44	9	14 10	American	Atlantic Refining Co.	425.0	57.0	27.4		Los Angeles, Calif.	Philadelphia, Pa.	Gasoline, benzol	9,372	7,204	4,739
Club Edwin ³	8	20 10	9	7 30	9	14 30	British	Dodd, Thomson & Co.	435.0	55.0	24.0		Portland, Oreg.	Dublin, Ireland	Wheat	7,445	7,474	4,686
Dwight ⁴	9	3 00	9	7 49	9	15 40	American	Pennsylvania Ship. Co.	435.0	54.0	26.0		Los Angeles, Calif.	New York, N. Y.	Gasoline	9,191	7,441	5,099
Alsoska	7	20 00	9	8 18	9	17 50	American	C. R. McCormick Co.	409.6	54.1	28.0		Portland, Oreg.	Baltimore, Md.	Lumber, general	7,703	6,627	4,935
Mary	9	14 44	9	15 47	10	14 50	American	Luckenbach Line	410.5	54.3	24.0		Los Angeles, Calif.	Fall River, Mass.	Kerosene dis late	6,814	6,500	4,311
California	9	11 45	10	6 15	10	13 55	American	Panama-Pacific Line	574.4	80.3	30.0		San Francisco, Cal.	New York, N. Y.	General	7,607	22,506	17,565
Thalia ⁵	9	22 32	10	6 49	10	15 10	Danzig	Varied Tank Rederi	470.9	63.2	27.0		Talara, Peru	Hamburg, Germany	Naphtha	11,300	9,018	5,929
Sun ⁶	10	5 20	10	7 38	10	16 20	American	Sun Oil Co.	480.6	66.0	28.5		Los Angeles, Calif.	Chester, Pa.	Gasoline	13,656	9,620	6,476
Corinto	9	15 37	10	8 05	10	17 45	American	Panama Mail S. S. Co.	261.1	40.0	13.2		San Francisco, Cal.	Cristobal, C. Z.	General	234	2,352	1,549
Askadden ⁷	10	4 00	10	8 22	10	19 45	Norwegian	Skagland Line	265.7	42.4	20.0		Chingha, Peru	London, England	Guano	3,600	2,832	1,912
Wise Katan	9	20 50	10	8 39	10	17 45	American	Quaker Line	410.5	54.3	24.0		Astoria, Oreg.	New York, N. Y.	Lumber, general	6,415	5,573	4,016
Edenton	7	17 17	10	9 25	10	19 25	American	Rosevelt S. S. Co., S. B.	400.6	54.2	26.6		Manila, P. I.	New York, N. Y.	Sugar, general	8,454	7,478	5,906
Martina ⁸	7	6 30	10	9 27	10	20 47	Panamanian	Chr. Hennings	133.2	30.1	10.6		Pt. Armudeus, R. P.	Cristobal, C. Z.	Ballast	7,480	7,480	5,004
Hawaii	10	2 00	10	9 59	10	20 30	American	Amer.-Hawaiian Line	404.6	53.9	30.0		Portland, Oreg.	Boston, Mass.	General	6,438	6,766	4,767
Dorothy M.	10	3 00	10	10 21	10	22 45	American	Luckenbach Line	448.9	60.2	31.0		Portland, Oreg.	Boston, Mass.	Lumber, general	10,000	9,291	6,861
Henry D	10	6 00	10	12 12	10	22 45	American	Union Sulphur Co.	356.0	51.6	24.6		Westport, Oreg.	New York, N. Y.	Lumber	2,600	5,637	2,925
Whiton	10	12 15	10	13 14	10	23 45	American	Argonaut S. S. Co.	404.6	53.9	26.6		Hilo, T. H.	New Orleans, La.	Raw sugar	7,420	6,745	4,562
Santa Cecilia	11	2 30	11	6 07	11	15 30	American	Ore S. S. Corp.	550.3	72.2	34.0		Cruz Grande, Chile	New York, N. Y.	Iron ore	21,457	15,476	4,354
Bethore	10	17 00	11	6 39	11	19 24	German	Hamburg-American Line	329.0	50.9	23.0		Iquique, Chile	Azores ⁹	Nitrates	5,300	5,529	3,760
Aragona	9	10 00	11	7 21	11	16 10	Japanese	Japanese Government	443.0	68.0	27.0		Los Angeles, Calif.	New York, N. Y.	Cruiser			10,420
Isawa	9	10 00	11	7 50	11	20 10	Japanese	Japanese Government	434.0	68.0	25.6		Los Angeles, Calif.	New York, N. Y.	Cruiser			9,300
Pacific	10	23 00	11	8 19	11	20 30	British	Furness, Withy & Co.	435.9	60.2	27.0		Vancouver, B. C.	London, England	General	7,907	9,633	6,998
Exporteur ¹⁰	11	6 00	11	8 53	11	22 15	Yugoslav	Baburiza & Co.	365.0	49.0	24.0		Caleta Junin, Chile	Azores ⁹	Nitrates	6,930	4,517	3,417
Epidaurio	10	18 47	11	9 19	11	18 50	British	N. Z. Shipping Co.	480.8	50.3	22.6		Wellington, N. Z.	London, England	Frozen, general	2,633	11,443	8,417
Rialme	11	4 00	11	10 45	11	23 25	German	Hamburg-American Line	468.6	58.3	26.2		Vancouver, B. C.	Hamburg, Germany	General	8,965	9,624	6,732
Sachsen	11	15 47	11	16 32	12	11 15	British	Can. Nat. Steamships	400.0	52.0	15.6		Dunedin, N. Z.	Montreal, Canada	General	1,017	5,954	4,139
Conqueror	11	15 45	11	17 26	12	12 45	American	Transmarine Lines	324.0	46.2	23.0		Seattle, Wash.	New York, N. Y.	Lumber	3,865	3,984	2,628
Sulamerico	11	15 45	12	6 35	12	12 45	American	Panama Government	124.0	23.6			Cristobal, C. Z.	Y.	Revenue cutter			
Panama	11	22 00	12	7 08	12	14 43	Norwegian	Stand.-So.-Pacific Co.	368.5	58.7	23.4		Balboa, C. Z.	Land's End, Eng. ⁷	General	7,129	5,413	3,965

⁹ Motor ship.¹⁰ Tanker.

George W. Barnes ¹	12	7	00	12	8	17	12	15	20	12	16	35	American.	Pan-Am. Pet. & Tr. Co.	416.8	56.1	26.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	8,929	6,745	4,759
Svealand ⁶	12	8	10	12	9	10	12	18	35	12	18	35	Swedish	Axel Brastrom & Sons.	550.1	72.2	31.0	Cruz Grande, Chile	New York, N. Y.	Iron ore.	22,146	15,425	4,420
Maradak	12	11	00	12	11	34	12	18	50	12	18	50	American.	Charles S. S. Co.	324.0	46.2	24.0	San Francisco, Cal.	Boston, Mass.	Lumber, general.	4,062	3,934	2,628
Nevadon	12	12	15	12	13	33	12	20	15	12	20	15	American.	Amer.-Hawainian Line.	460.0	57.8	26.0	Seattle, Wash.	Baltimore, Md.	General.	8,346	6,829	4,627
Dochet	12	19	30	13	6	56	13	13	55	13	13	55	American.	Redwood Line.	336.8	52.2	22.6	San Francisco, Cal.	Mobile, Ala.	General.	6,011	5,705	4,167
Caldas ⁶	12	22	30	13	6	56	13	15	55	13	15	55	Colombian.	National Navigation Co.	116.0	21.1	10.0	Buenaventura, Col.	Cristobal, C. Z.	General.	231		
San Mateo.	12	20	35	13	7	00	13	14	05	13	14	05	American.	United Fruit Co.	315.2	44.2	19.6	San Francisco, Cal.	Port Limon, C. R.	Frozen, general.	662	3,496	2,141
Old.	12	4	00	13	7	43	13	15	10	13	15	10	British.	Pacific Steam Nav. Co.	204.8	41.9	15.4	Callao, Peru	New York, N. Y.	General.	1,047	2,746	1,626
Delaware Sun	12	4	45	13	7	48	13	15	45	13	15	45	American.	Sun Oil Co.	480.0	65.0	28.6	Antofagasta, Chile	Chester, Pa.	Gasoline.	12,749	9,402	6,211
Nexa Queen.	12	22	30	13	8	40	13	16	55	13	16	55	Belgian.	Wessel, Duval & Co.	324.0	42.0	24.4	Los Angeles, Calif.	New Orleans, C. R.	Nitrate.	9,600	9,068	6,586
Atago Maru ⁶	12	21	00	13	6	16	14	13	10	14	22	00	American.	Nippon Yusen Kaisha.	406.5	54.1	25.6	Manila, P. I.	Boston, Mass.	Nitrate, beans	4,656	8,158	5,676
Suric ¹	13	21	15	14	6	49	14	16	25	14	17	25	British.	Pacific Steam Nav. Co.	330.0	48.2	23.0	Tacubano, Wash.	Liverpool, England	General.	7,270	7,331	5,091
Asral ¹	13	22	05	14	7	15	14	16	25	14	17	25	American.	Transmarine Lines	406.5	54.1	25.6	Los Angeles, Calif.	Port Newark, N. J.	Lumber.	3,953	3,984	2,628
Oropesa.	14	5	10	14	7	55	14	16	25	14	17	25	British.	Pacific Steam Nav. Co.	330.0	48.2	23.0	Tacubano, Wash.	New York, N. Y.	Gasoline.	10,437	8,913	6,210
Hesperos.	14	1	30	14	8	27	14	19	00	14	20	10	Norwegian.	Brigaard, Klostner.	339.8	60.3	38.7	Tacubano, Wash.	Antwerp, Belgium.	Lumber, general.	7,150	5,063	3,230
King City.	14	7	55	14	13	14	18	00	14	18	00	14	British.	Sir W. R. Smith & Sons.	400.5	54.1	25.6	Victoria, B. C.	Glasgow, Scotland.	General.	7,800	6,933	3,397
Nordlys.	14	10	15	14	11	09	14	19	05	14	19	05	Danish.	Wessel, Duval & Co.	362.0	51.3	23.7	Iquique, Chile	Baltimore, Md.	Nitrates	6,200	4,952	3,468
Durazzo.	14	11	35	14	13	00	14	19	55	14	19	55	German.	Hamburg-American Line	221.1	34.0	13.5	Guayaquil, Ecuador	Cristobal, C. Z.	Sack goods	471	1,633	1,041
Sonunc ⁸	14	12	15	14	13	12	14	20	35	14	20	35	American.	U. S. Army	448.0	53.0	25.2	Guayaquil, Ecuador	Brooklyn, N. Y.	War Dept. goods	163		
Greylock.	14	13	35	14	14	11	14	21	45	14	21	45	American.	Puerto Colombia.	430.7	54.3	25.6	Seattle, Wash.	Baltimore, Md.	Lumber, general.	5,926	7,946	5,098
Defiance ²	8	19	17	14	14	51	14	22	45	14	22	45	American.	Roosevelt S. Co., S. B.	456.1	56.0	24.0	Manila, P. I.	New York, N. Y.	General.	7,682	8,313	5,901

* Tanker.

* Transport.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 8	Tolosa	United Fruit Co.	Port Limon, C. R.	September 8.	Wanks	Standard Fruit & S. Co.	San Blas, R. P.
September 8	Mecabi	United Fruit Co.	New York.	September 8.	Magdalena	Hamburg-American Line	Hamburg via wayports.
September 9	Calameres	United Fruit Co.	Managua via Habana.	September 8	Tolosa	United Fruit Co.	New York via Habana.
September 9	No. 9688 ⁹	Pan-American Airways	Managua via David.	September 9	Horedia	United Fruit Co.	New Orleans and waypts.
September 9	Coppename	United Fruit Co.	Puerto Colombia.	September 9	Magallanes	Spanish Line	Barcelona via wayports.
September 9	Linda S. ¹⁰	A. L. Surgeon	Colon, R. P.	September 9	Mecabi	United Fruit Co.	Puerto Colombia.
September 10	Smaraad	Royal Neth. S. S. Co.	New Orleans, La.	September 9	Coppename	United Fruit Co.	Bocas, R. P.
September 10	Stuyvesant	Elders & Fyffes, Ltd	Hamburg via wayports.	September 10	No. 9776 ⁹	Pan-American Airways	Curacao via wayports.
September 11	Ariguan	Pan-American Airways	Avonmouth via wayports	September 10	No. 9107 ⁹	Pan-American Airways	Guayaquil via wayports.
September 11	Metapan	United Fruit Co.	Balboa, C. Z.	September 10	No. 9684 ⁹	Pan-American Airways	Managua via wayports.
September 11	Metapan	United Fruit Co.	New York via Kingston.	September 10	No. 9685 ⁹	Pan-American Airways	Managua via wayports.
September 11	Atlantida	Scadla Airplane Co.	Baranquilla, Colombia.	September 10	Linda S. ¹⁰	A. L. Surgeon	Bluefields, Nicaragua.
September 11	Atlantida	Leyland S. S. Line	Liverpool via wayports.	September 11	Calameres	United Fruit Co.	Port Limon, C. R.
September 12	Ariguan	Panama R. S. S. Line	New York via Haiti.	September 11	Stuyvesant	Royal Neth. S. S. Co.	Port Limon, C. R.
September 12	No. 9685 ⁹	Pan-American Airways	Managua via wayports.	September 11	Elders & Fyffes, Ltd	Bristol via wayports.	Bristol via wayports.
September 12	No. 9776 ⁹	Pan-American Airways	Curacao via wayports.	September 12	Ariguan	Scadla Airplane Co.	Baranquilla, Colombia.
September 13	Atlantida	Standard Fruit & S. S. Co.	New Orleans via Habana.	September 12	Darien C-35 ⁹	Pan-American Airways	David, R. P.
September 13	Coppename	United Fruit Co.	Bocas R. P.	September 12	Metapan	United Fruit Co.	New York via wayports.

* Air mail carrier.

* Motor schooner.

* Schooner.

* Other than ships passing through the Canal.

(Continued on page 96, column 2.)

* **Silk the Principal Item in "Dorothy Luckenbach."**

The steamer *Dorothy Luckenbach*, owned and operated by the Luckenbach Steamship Line in the United States intercoastal trade, transited the Canal from the Pacific to the Atlantic on September 10, 1929, with 10,000 tons of general cargo aboard, valued at approximately \$5,000,000. The principal item of cargo reported by the master of the vessel was 144 tons of raw silk valued at \$3,000,000, loaded at Seattle for New York.

Cargo Through Canal During August, 1929.

On pages 94 and 95 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in August, 1929. This cargo, segregated according to direction, as compared with August, 1928, and the differences, is shown in the following tabulation:

	August, 1929.	August, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	858,661	752,508	+106,153
Pacific to Atlantic.....	1,822,069	1,672,828	+149,241
Totals.....	2,680,730	2,425,336	+255,394

As shown above, cargo tonnage from the Atlantic to the Pacific increased 106,153 tons over August, 1928, while that in the opposite direction gained 149,241 tons, making an increase in both directions over the corresponding month a year ago of 255,394 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-two and five-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and gulf seaboard of the United States, and 29.1 per cent in Europe. Cargo originating in the United States was 16,750 tons, or 3.2 per cent, greater than the tonnage from the United States in August, 1928, although the proportion of the whole tonnage in August, 1928, was greater (69.1 per cent). Cargo from Europe showed a heavy relative as well as an actual increase over the tonnage originating in that area in August, 1928, the actual increase amounting to 76,776 tons, or 44.3 per cent.

Destination.—Forty-four per cent of the Pacific-bound cargo was destined to the United States; 20 per cent to Asia; 15.4 per cent to Australasia; and 14.1 per cent to South America. Tonnage to the United States, Australasia, and South America, increased 47,488 tons, or 14.3 per cent; 14,953 tons, or 12.8 per cent; and 18,130 tons, or 17.7 per cent, respectively, over the amounts destined to these areas in August, 1928. The percentage of the total cargo to the United States and South America was also somewhat higher last month than in August, 1928, while that to Australasia was approximately the same. Tonnage to Asia decreased 12,047 tons, or 6.6 per cent, under August, 1928. The proportion of the total cargo to this region also showed a marked decrease under August, 1928.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 58.7 per cent came from the west coast of the United States; 27.9 per cent from South America; 7.3 per cent from Canada; 2.9 per cent from Australasia; and 2.0 per cent from Asia. Tonnage from the United States, South America, and Australasia, increased both relatively and in actual ton-

nage as compared with August, 1928. The actual increases amounted to 135,120 tons, or 14.4 per cent; 49,353 tons, or 10.7 per cent; and 7,938 tons, or 17.4 per cent, respectively. Increased shipments of California mineral oils was primarily responsible for the increased tonnage from the United States, while increased nitrate and iron ore tonnage from South America was the cause of the heavy increase from that area. Cargo from Canada and Asia decreased both relatively as well as in actual tonnage—the decreases amounting to 33,523 tons, or 20.2 per cent, and 20,852 tons, or 36.8 per cent.

Destination.—Segregated according to destination, 59.6 per cent of the cargo in this direction went to the United States, and 33.3 per cent to Europe, these two destinations accounting for about 93 per cent of the cargo tonnage from the Pacific to the Atlantic. Tonnage to the United States increased 198,458 tons, or 22.3 per cent, over August, 1928, while that to Europe decreased 50,748 tons, or 7.7 per cent. Cargo to the United States also showed an increase in its relation to the whole cargo tonnage, while that to Europe showed a decrease from 39.2 per cent in August, 1928, to 33.3 per cent in August of this year. Increased shipments of mineral oils, iron ore, and nitrates, contributed largely to the high tonnage to the United States.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 87.4 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12.6 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for August, 1929, or August, 1928, are listed in the following tabulation, showing differences:

Commodity.	August, 1929.	August, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	10,830	10,249	+581
Asphalt.....	18,184	7,511	+10,673
Automobiles.....	23,387	18,779	+4,608
Automobile accessories.....	10,150	6,659	+3,491
Cement.....	48,220	26,631	+21,589
Coal and coke.....	14,205	17,879	-3,674
Cotton.....	8,176	15,962	-7,786
Manufactured goods:			
Iron and steel.....	213,031	186,714	+26,317
Machinery.....	15,949	17,840	-1,891
Railroad material.....	20,425	10,424	+10,001
Textiles.....	13,356	9,452	+3,904
Tinplate.....	20,156	13,789	+6,367
Miscellaneous.....	13,699	15,171	-1,472
Metals, various.....	20,556	22,716	-2,160
Oils, mineral.....	72,398	69,494	+2,904
Paper.....	29,571	18,454	+11,117
Phosphates.....	31,344	37,168	-5,824

The above 17 commodity groups comprise 67.9 per cent of the cargo moving from the Atlantic to the Pacific. Eleven of the items showed increases over August, 1928, while the balance showed decreases. Iron and steel, cement, paper, asphalt, and railroad material, made the heaviest gain over the corresponding month last year.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify almost 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of August, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	August, 1929.	August, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Asphalt.....	11,104	2,382	+8,722
Barley.....	40,690	66,414	-25,724
Canned goods (fish, fruit, vegetables, etc.).....	55,836	78,188	-22,352
Cold storage (food products) *.....	18,396	9,497	+8,899
Copra.....	20,947	10,707	+10,240
Fruit, dried.....	13,631	11,111	+2,520
Fruit, fresh.....	11,538	7,375	+4,163
Lumber.....	371,798	350,802	+20,996
Metals (principally copper).....	67,250	51,810	+15,440
Nitrates.....	164,283	152,549	+11,734
Oils, mineral.....	554,837	475,301	+79,536
Ores (principally iron).....	175,769	123,733	+52,036
Paper pulp.....	15,725	1,057	+14,668
Sugar.....	63,588	61,393	+2,195
Wheat.....	94,832	121,899	-27,067

* Does not include fresh fruit.

The above 15 commodity groups comprise over 92 per cent of the cargo from the Pacific to the Atlantic during August, 1929. As will be noted above, shipments of mineral oils, ores, and lumber increased heavily over August, 1928, while wheat, barley, and canned goods registered the heaviest decrease. Lumber tonnage through the Canal during the past month was the heaviest since May, 1928, and the second heaviest month's tonnage for lumber since the opening of the Canal. Mineral tonnage in this direction in August, 1929, was the heaviest since October, 1927.

(Continued on page 94.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from August 26, to September 9, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Cartago.....	United Fruit Co.....		August 26.....		141
Acajutla.....	Pacific Steam Nav. Co.....		August 30.....		1,064
Champerico.....	Pacific Steam Nav. Co.....		September 9.....		2,052
Suriname.....	United Fruit Co.....	August 26.....	August 26.....	(²)	68
Santa Teresa.....	Grace Line.....	August 26.....	August 26.....		(²)
Tashmoo.....	Nelson Line.....	August 26.....	August 27.....	504	(²)
Galacia.....	Hamburg-American Line.....	August 26.....	August 27.....	191	50
Almargo.....	Pacific Steam Nav. Co.....	August 26.....	August 27.....	162	76
El Salvador.....	Panama Mail S. S. Co.....	August 26.....	August 28.....	377	51
Ulua.....	United Fruit Co.....	August 26.....	August 28.....	9	93
Stella.....	Panama Mail S. S. Co.....	August 26.....	September 4.....	18	(²)
Maravi.....	United Fruit Co.....	August 27.....	August 27.....	727	64
Guayaquil.....	Panama R. R. S. S. Line.....	August 27.....	August 28.....	589	202
Crynssen.....	Royal Neth. S. S. Co.....	August 27.....	August 28.....	49	26
Bolivia.....	Orient S. S. Co.....	August 28.....	August 28.....	61	8
Aconagua.....	Chilean Line.....	August 28.....	August 28.....	(¹)	11
Magellan.....	Pacific Steam Nav. Co.....	August 28.....	August 29.....	4	159
Iserholm.....	Hamburg-American Line.....	August 28.....	August 29.....	121	96
Inapaquina.....	United Fruit Co.....	August 28.....	August 29.....	31	(²)
Zacapa.....	United Fruit Co.....	August 28.....	August 29.....	366	189
Anachucuna.....	United Fruit Co.....	August 28.....	August 31.....	43	(²)
Caldas.....	National Navigation Co.....	August 28.....	August 31.....	(¹)	53
Cali.....	Roland Line.....	August 28.....	September 1.....	485	313
Cerigo.....	Hamburg-American Line.....	August 28.....	September 1.....	477	168
Cristobal.....	Panama E. R. S. S. Line.....	August 28.....	September 1.....	3,177	946
Schwaben.....	North German Lloyd.....	August 29.....	August 29.....	(¹)	80
Buenos Aires.....	Johnson S. S. Line.....	August 29.....	August 29.....	166	(²)
Mayan.....	Gulf-Caribbean S. S. Co.....	August 29.....	August 30.....	548	127
William M.....	Feuillebois.....	August 29.....	August 30.....	(¹)	30
Baralt.....	Royal Neth. S. S. Co.....	August 29.....	August 31.....	550	154
Saramacca.....	United Fruit Co.....	August 30.....	August 30.....	697	21
Suriname.....	United Fruit Co.....	August 30.....	August 30.....	87	160
Orduna.....	Pacific Steam Nav. Co.....	August 30.....	August 31.....	4	(²)
Seattle.....	Hamburg-American Line.....	August 30.....	August 31.....	3	371
Atlantida.....	Standard Fruit & S. S. Co.....	August 30.....	August 31.....	138	430
Crynssen.....	Royal Neth. S. S. Co.....	August 30.....	August 31.....	(¹)	823
Minnesota.....	French Line.....	August 30.....	August 31.....	70	228
Annetta I.....	Tagarapolis.....	August 30.....	August 31.....	42	(²)
San Jose.....	United Fruit Co.....	August 30.....	August 31.....	1,047	94

* No cargo discharged.

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Inapaquina	United Fruit Co.	August 30	August 31	23	
Olivigor	Anglo-Saxon Pet. Co.	August 30	September 2	4,542	(²)
Linda S.	Feuillebois	August 31	August 31	(¹)	32
La Margeilles	French Line	August 31	August 31	117	(²)
Parismina	United Fruit Co.	August 31	September 1	908	95
Wanks	Standard Fruit & S. S. Co.	August 31	September 1	108	4
Colombo	Nav. Gen. Italiana	August 31	September 2	71	1
Ulua	United Fruit Co.	September 1	September 1	17	442
Maravi	United Fruit Co.	September 1	September 1	23	513
Guatemala	Panama Mail S. S. Co.	September 1	September 2	550	317
Musicien	Leyland S. S. Line	September 1	September 2	416	(²)
Swiftwind	C. D. Mallory & Co.	September 1	September 3	1,128	(²)
Heinrich Arp	Colombian Maritime Co.	September 1	September 3	231	(²)
Teno	Chilean Line	September 2	September 2	19	(²)
Waunta	Standard Fruit & S. S. Co.	September 2	September 2	275	(²)
Tolosa	United Fruit Co.	September 2	September 4	744	22
Cauca	National Navigation Co.	September 2	September 7	328	82
Nora B.	Blackwood	September 3	September 3	(¹)	5
Anachucuna	United Fruit Co.	September 3	September 4	45	(²)
Magdalena	Hamburg-American Line	September 3	September 4	325	2
Porta	North German Lloyd	September 3	September 4	23	431
Nebraska	Royal Mail S. S. Co.	September 4	September 4	(¹)	34
Inapaquina	United Fruit Co.	September 4	September 4	25	(²)
Donau	North German Lloyd	September 4	September 4	(²)	101
Tatsuno Maru	Nippon Yusen Kaisha	September 4	September 4	190	(²)
Oroya	Pacific Steam Nav. Co.	September 4	September 5	109	3
Santa Marta	United Fruit Co.	September 4	September 5	602	192
Macoris	French Line	September 4	September 7	249	465
Nosa King	N. O. & S. A. S. S. Line	September 5	September 5	244	16
Coppename	United Fruit Co.	September 5	September 5	740	(²)
Colombia	Panama Mail S. S. Co.	September 5	September 6	231	202
Baarn	Royal Neth. S. S. Co.	September 5	September 6	254	46
Larry Doheny	Richfield Oil Co.	September 5	September 7	800	(²)
Limon	United Fruit Co.	September 5	September 7	635	186
Juan	United Fruit Co.	September 5	September 7	1,100	115
Magallanes	Spanish Line	September 5	September 9	138	447
Saramacca	United Fruit Co.	September 6	September 6	(¹)	99
Buenaventura	Panama R. R. S. S. Line	September 6	September 7	1,081	
Drechtidijk	Holland-American Line	September 6	September 7	15	364
Amapala	Standard Fruit & S. S. Co.	September 6	September 7	397	372
Inapaquina	United Fruit Co.	September 6	September 8	25	(²)
Anachucuna	United Fruit Co.	September 6	September 8	46	(²)
Uribe	Estrada G. Hermanos	September 7	September 7	277	
Mayari	United Fruit Co.	September 7	September 7	41	371
Santa Rita	Grace Line	September 7	September 8	340	201
Knute Nelson	Fred Nelson & Co.	September 7	September 8	(¹)	216
Wanks	Standard Fruit & S. S. Co.	September 7	September 8	98	(²)
Magdalena	Hamburg-American Line	September 7	September 8	(¹)	386
Heredia	United Fruit Co.	September 7	September 9	412	24
Amsterdam	Royal Neth. S. S. Co.	September 8	September 8	74	(²)
Tolosa	United Fruit Co.	September 8	September 8	10	186
Calamares	United Fruit Co.	September 9	September 9	594	
Santa Maria	Grace Line	September 9	September 9	20	60
Coppename	United Fruit Co.	September 9	September 9	221	41
Macabi	United Fruit Co.	September 9	September 9	836	192
Linda S.	Feuillebois	September 9	September 9	(¹)	
La Paz	Pacific Steam Nav. Co.	September 9	September 9	15	228

* No cargo discharged,

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending September 14, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Absaroka	Charles R. McCormick	September 8	September 9	1,008	
S. A. Perkins	James Griffiths & Sons	September 9	September 13	7,573	
Edenton	U. S. Shipping Board	September 9	September 10	50	
Corinto	Panama Mail S. S. Co.	September 9	September 10	16	
Atargo Maru	Nippon Yusen Kaisha	September 12	September 13	457	

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, August 1923.—Continued from page 92.
(Figures represent tons of 2,240 pounds.)

From—	South America.					North America.					Asia.					Australasia.			Grand totals.	Per cent of total cargo.				
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.*	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.†	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.†	Total, Asia.	Australia.			New Zealand.	Australasia.†		
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports.....	13,404	1,413	463	7,292	3,998	26,570	240,614	1,259	1,735	542	4,183	248,333	39,311	21,691	15,177	10,009	86,278	34,728	8,952	.....	43,680	404,861	47.1	
South Atlantic ports.....							3,560					3,560	1,162			80	1,242					4,802	0.6	
Gulf ports.....	1,230	68	107	338		1,743	47,207	199	1,322		480	49,208	44,653	22,676	2,078	194	69,606	6,532				6,532	127,056	14.8
Totals, United States.....	14,634	1,481	570	7,630	3,998	28,313	291,331	1,458	1,735	1,864	4,663	301,101	85,131	14,367	17,255	10,373	157,126	41,260	8,952	.....	50,212	536,752	62.5	
CRISTOBAL, C. Z.‡																								
East coast of Canada.....									1	7,933	128	12,444							3,000	4,400	4,026		17,536	2.0
West Indies.....	10					10	6					1,500	6	6,400			6,400					11,426	12,926	1.5
East coast of Central America.....							1,316		1			1,317						10,601				10,601	11,918	1.4
Totals, North America.....	15,120	3,094	1,629	8,183	5,389	33,415	297,085	2,959	9,669	1,992	4,663	316,368	85,131	50,767	17,255	10,373	163,526	54,861	13,352	4,026	72,239	585,548	68.2	
EUROPE:																								
British Isles.....	16,488	30		2,345	5,385	24,243	4,650	5,780		16		10,446							43,645			43,645	78,339	9.1
Belgium.....	4,933	207	331	2,408	1,091	9,023	37,041	3,606	1,118	30	3,603	45,398							9,500			9,500	63,923	7.4
France.....	553			284	171	1,093	2,733	2,921	452	868		5,774							1,956			1,956	8,238	1.0
Germany.....	4,500	138	294	1,413	2,454	8,804	6,370					10,593										19,800	2.3	
Holland.....	1,379	132	52	1,349	330	3,272	2,971	266				3,327										6,506	0.8	
Italy.....				1,157		5,157	286					286										1,443	0.1	
Norway and Sweden.....	5,443				1,557	5,443	9,561	47	4,354	1,453		15,415					4,677					4,677	25,553	3.0
Spain and Portugal.....	180			47	135	3,369	3,300					6,600										6,962	0.8	
Europe †.....	1,060		19	130	23,669	24,899	8,754	1,381	4,125	135		14,395										39,294	4.6	
Totals, Europe.....	31,571	517	746	7,931	34,402	78,218	75,636	16,901	10,049	2,502	6,909	112,047						4,677	53,145	1,956	59,778	250,043	29.1	
East coast of South America.....																								
Africa.....	8,500	270		157		8,927	5,337		23		125	5,485	1,032	15		30	1,077				15,489	1.8		
												7,581					7,581				7,581	0.9		
Grand totals.....	53,191	3,881	2,375	16,321	39,792	120,560	378,109	19,860	7,414	4,494	11,697	433,900	83,744	50,782	17,255	10,403	172,184	59,538	66,497	5,982	132,017	858,661	100.0	
Per cent of total cargo:																								
August, 1923.....	6.8	0.5	0.3	1.9	4.6	14.1	44.0	2.3	2.3	0.5	1.4	50.5	10.9	5.9	2.0	1.2	20.0	7.0	7.7	0.7	15.4	100.0	.....	
August, 1925.....	6.3	1.0	0.8	1.9	3.6	13.6	40.4	1.8	3.0	0.2	1.0	46.4	11.3	5.3	2.1	5.7	24.4	8.8	5.5	1.2	15.6	100.0	.....	
August, 1927.....	10.0	1.0	1.0	3.6	1.0	16.6	42.7	3.7	1.4	1.1	1.3	50.2	9.6	4.6	2.7	0.2	17.1	8.8	7.3		16.1	100.0	.....	
* General cargo not routed so as to allow segregation between definite ports.																								
† Includes both local and transit cargo.																								

* General cargo not routed so as to allow segregation between definite ports.

† Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, August, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.										Europe.										Grand totals.	Per cent of total cargo.				
	UNITED STATES.					North America.					Europe.															
	North Atlantic ports.		South Atlantic ports.		Total, United States.	East coast of Canada.	West Indies.	E. coast Cen. Amer.	Cristobal, C. Z.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.			Total, Europe.	East coast of South America.	Egypt.	Africa.
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	United States.	East coast of Canada.	West Indies.	E. coast Cen. Amer.	Cristobal, C. Z.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.	Total, Europe.			East coast of South America.	Egypt.	Africa.	
SOUTH AMERICA:																										
Chile.....	178,285	24,500	11,531	214,316		1,252		449	216,017	19,707	17,229	7,331	6,945	3,291	11,254	1,187	43	62,290	129,277	56,279	913			373,263	20.5	
Colombia.....	2,125			2,125				2,680	4,805											11				4,816	0.3	
Ecuador.....	15,683			15,683				3,230	18,915											754				19,824	1.1	
Peru.....	44,426			44,426	30,210	51		192	74,879	23,429	5,576									557	32,327	515		107,721	5.9	
West coast of S. America.....	1,626			1,626				56	1,682	199										369	568			2,250	0.1	
Totals, S. A.	242,147	24,500	11,531	278,178	30,210	1,303		6,607	316,298	43,335	22,805	7,343	8,323	3,291	11,518	2,511	588	63,216	162,937	726,279	913			507,874	27.9	
NORTH AMERICA:																										
W. coast of Can.	41,634			42,632	26,622	1,144		2,038	70,405	31,606	678	480	5,175	1,881	859					16,278	60,591	1,268		39	132,303	7.3
W. coast of U.S.	378,791	11,928	100,264	690,983	3,454	3,953	4,399	3,000	703,789	213,005	8,460	1,986	24,348	14,429	5,821					71,849	349,213	9,934		2,243	1,070,622	58.7
Hawaii.....	11,921			19,730					19,730																19,730	0.1
Totals, N. A.	632,386	11,928	109,078	753,392	30,076	5,037	4,514	5,038	793,167	244,611	9,138	2,466	29,523	16,310	6,680					88,127	409,804	11,202		5,725	1,224,898	67.2
ASIA:																										
China.....	2,264			2,264			8	1	2,273																2,273	0.1
Japan.....	886			886			193	93	1,172																1,172	0.1
Philippines.....	20,930			32,094					32,094																32,094	1.8
Far East.....	220			220					220																220	0.0
Totals, Asia.	24,300			35,464			201	94	35,759																35,759	2.0
AUSTRALASIA:																										
Australia.....	11,481			15,765					16,610																16,610	0.9
New Zealand.....	2,416			2,416	170				2,586	21,948											21,948				24,534	1.3
Australasia.....	1,037			1,037					1,037	3,042											5,120	11,307			12,384	0.7
Totals, Ausasia.	14,984			19,268	1,015				20,283	24,990											5,120	33,255			53,538	2.9
Grand totals	913,817	36,428	136,057	1,086,302	61,301	6,001	4,514	11,789	1,170,507	312,936	91,943	2,473	39,986	24,658	9,971	12,037	7,173	8,356	156,463	605,996	11,928	27,913	5,725	1,822	609,100	0.0
Per cent of total cargo:																										
August, 1929.....	50.1	2.0	7.5	59.6	3.4	0.4	0.2	0.6	64.2	17.2	1.8	0.1	2.2	1.4	0.5	0.7	0.4	0.5	8.5	33.3	0.7	1.5	0.3	100.0	0.0	
August, 1928.....	49.6	1.1	2.4	53.1	4.1	1.1	0.5	1.3	60.1	22.5	0.8	0.1	0.6	2.5	1.9	0.5	0.6	0.1	9.6	39.2	0.3	0.3	0.4	100.0	0.0	
August, 1927.....	58.3	6.5	1.4	66.2	1.8	1.6	0.1	2.9	72.5	13.3	0.6	0.1	1.1	1.3	0.3	0.4	0.3	0.5	7.1	24.9	0.8	1.3	0.5	100.0	0.0	

* General cargo not rosted so as to allow segregation between definite ports.

* Includes both local and transit cargo.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 89.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 13	Stuyvesant	Royal Neth. S. S. Co.	Port Limon, C. R.	September 12	Atlantian	Leyland S. S. Line	Port Limon, C. R.
September 13	Suriname	United Fruit Co.	New Orleans, La.	September 13	Coppename	United Fruit Co.	New Orleans, La.
September 13	No. 9107 ¹²	Pan-American Airways	Guayaquil via wayports.	September 13	William M. ¹³	G. I. Bryan	Bluefields, Nicaragua
September 13	William M. ¹³	G. I. Bryan	Colon, R. P.	September 14	Cundinamarca C-33 ¹²	Sedtia Airplane Co.	Barraquilla, Colombia
September 13	United Fruit Co.	Puerto Colombia.	Puerto Colombia.	September 14	Suriname	United Fruit Co.	Port Limon and Bocas
September 13	Sedtia Airplane Co.	Blas, C. Z.	Blas, C. Z.	September 14	Atlantian	Standard Fruit & S. S. Co.	New Orleans and waypts.
September 14	Wanks	San Blas, R. P.	San Blas, R. P.	September 14	No. 9683 ¹²	Pan-American Airways	Managua via wayports.
September 14	Cartago	New Orleans via Habana.	New Orleans via Habana.	September 14	Snaraged	United Fruit Co.	Galveston, Texas.
September 14	No. 9685 ¹²	Pan-American Airways	Managua via wayports.	September 14	Macabi	United Fruit Co.	New York via Kingston.
				September 14	Stuyvesant	Royal Neth. S. S. Co.	Amsterdam and wayports.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 9	S. A. Perkins	James Griffiths & Son	Seattle, Washington.	September 13	Dos Hermanos ¹⁴	A. Valdez	Panama Bay, R. P.
September 13	Dos Hermanos ¹⁴	A. Valdez	Bayano River, R. P.	September 13	A. B. de Obarrío ¹⁴	Pacific Fruit Co.	Panama Bay, R. P.
September 13	A. B. de Obarrío ¹⁴	Pacific Fruit Co.	Bayano River, R. P.	September 13	Samba ¹⁴	Hans Elliot	Panama Bay, R. P.
September 13	Samba ¹⁴	Hans Elliot	Bayano River, R. P.				

¹² Air mail carrier. ¹³ Schooner.

¹⁴ Motor schooner.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., September 25, 1929. No. 8.

CANAL WORK IN AUGUST, 1929.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of August, 1929.

BALBOA HEIGHTS, C. Z., September 19, 1929.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of August, 1929:

NUMBER OF TRANSITS.

During the month 541 commercial vessels and 6 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 28 vessels belonging to the United States Government, 1 transit of a Panaman Government vessel, and 4 transits of vessels solely for repairs, on which no tolls were collected, making a total of 580 transits for the month, or a daily average of 18.71.

Tolls on the 541 commercial vessels amounted to \$2,327,437.86, and on the launches to \$39.15, a total of \$2,327,477.01, or a daily average on all traffic of \$75,079.90. Total commercial traffic for the past month shows an increase of 14 transits and \$67,855.49 in tolls as compared with the previous month, and an increase of 15 transits and \$128,368.55 in tolls over the corresponding month in 1928.

The total numbers of craft of all kinds transiting the Canal during the month of August, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	August, 1929.	August, 1928.	August, 1927.
Commercial vessels	541	526	543
Launches (under 20 tons measurement)	6	6	17
Noncommercial vessels:			
United States Government	28	24	34
Panaman Government	1		
Colombian Government		1	
For repairs	4	6	2
Totals	580	563	596

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Totals.
Gatun	8	8	16
Pedro Miguel	33	39	72
Miraflores	33	39	72
Totals	74	86	160

COMMERCIAL TRAFFIC. ¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year, 1929, to the end of August, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January...	540	603	2,422,770	2,771,280	2,372,061	2,858,835	\$2,212,752.50	\$2,502,815.12
February...	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March...	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.37	2,343,865.55
April...	531	540	2,394,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May...	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
June...	481	503	2,227,865	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
July...	509	527	2,318,395	2,468,280	2,291,955	2,598,162	2,109,083.19	2,259,582.37
August...	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
Totals...	4,184	4,296	18,966,567	20,132,302	19,289,476	21,112,502	17,320,819.68	18,351,101.91

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Nonecommercial traffic."

The following is a summary of the commercial traffic for August, 1929, as compared with the corresponding months in 1928 and 1927, and the monthly averages for the fiscal year ended June 30, 1929:

	August, 1929.	August, 1928.	August, 1927.	Average per month for fiscal year 1929.
Number of transits.....	541	526	543	534
Panama Canal net tonnage.....	2,558,739	2,437,246	2,513,614	2,486,483
United States net tonnage.....	1,943,876	1,856,567	1,957,705	1,899,487
Registered gross tonnage.....	3,195,903	3,057,243	3,188,317	3,122,066
Registered net tonnage.....	1,952,479	1,870,211	1,952,572	1,908,360
Tolls.....	\$2,327,437.86	\$2,199,069.31	\$2,274,040.55	\$2,260,614.74
Tons of cargo.....	2,680,730	2,425,336	2,429,947	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1929.
	August, 1929.	August, 1928.	August, 1927.	
Number of transits.....	17.45	16.97	17.52	17.57
Panama Canal net tonnage.....	82,540	78,621	81,084	81,747
Tolls.....	\$75,078.64	\$70,937.72	\$73,356.15	\$74,321.58
Tons of cargo carried.....	86,475	78,236	78,385	84,008

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of August, 1929, as compared with August, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	August, 1929.	August, 1928.	August, 1927.
Panama Canal net tonnage.....	4,730	4,633	4,629
United States net tonnage.....	3,593	3,530	3,605
Registered gross tonnage.....	5,907	5,812	5,872
Registered net tonnage.....	3,609	3,555	3,596
Tolls.....	\$4,302.10	\$4,180.74	\$4,187.92
Tons of cargo (including vessels in ballast).....	4,955	4,611	4,475
Tons of cargo (laden vessels only).....	5,802	5,525	6,000

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.937 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of August, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	\$8,367.12	\$6,972.60		\$1,394.52
British	580,224.06	622,709.80	\$42,485.74	
Chilean	11,915.00	12,473.00	558.00	
Colombian	1,304.83	1,098.40		206.43
Danish	45,588.96	46,153.80	564.84	
Danzig	15,263.88	13,359.40		1,904.48
Dutch	45,561.25	52,082.00	6,520.75	
Finnish	2,010.00	1,675.00		335.00
French	62,088.31	61,537.80		550.51
German	121,493.98	137,437.00	15,943.02	
Greek	4,318.75	4,047.00		271.75
Italian	40,763.75	43,976.00	3,212.25	
Japanese	49,948.91	50,249.80	300.89	
Nicaraguan	113.25	84.00		29.25
Norwegian	122,828.70	130,507.60	7,678.90	
Panaman	4,496.37	6,060.80	1,564.43	
Peruvian	4,302.00	3,544.00		758.00
Swedish	58,233.09	63,772.20	5,539.11	
United States	1,144,124.40	1,166,478.60	22,354.20	
Yugoslav	4,491.25	4,163.00		328.25
Totals	2,327,437.86	2,428,381.80	106,722.13	5,778.19
Net increase for all traffic			100,943.94	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	\$17,851.97
United States foreign trade	2,753.73
United States—Canal Zone trade	1,748.50
Net increase	22,354.20

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in August, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	.83	1.32	1.09
Chilean	.45	.58	.50
Colombian	.85	.99	.91
Danish	1.13	1.87	1.53
Danzig		1.82	1.82
Dutch	.55	1.37	.95
Finnish		1.81	1.81
French	.53	1.43	1.03
German	.74	1.40	1.05
Greek	1.55		1.55
Italian	.22	1.15	.61
Japanese	1.12	1.64	1.28
Norwegian	1.26	1.75	1.52
Panaman	1.20	.23	.72
Peruvian		1.56	1.56
Swedish	1.24	2.45	1.96
United States	.85	1.50	1.24
Yugoslav		2.03	2.03
Averages, August, 1929	.85	1.48	1.20
Averages, August, 1928	.85	1.45	1.18
Averages, August, 1927	.86	1.57	1.29

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of August, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	6	28,475	\$28,101.84	57	308,796	\$319,127.30
Ballast.....	44	231,193	166,629.63	2	13,983	10,067.76
General cargo ships:						
Laden.....	196	977,753	874,784.55	201	917,706	870,584.75
Ballast.....	17	69,072	49,677.99	9	10,719	7,623.95
Noneargo-carrying ships:						
Tugs.....	2	69	74.40	4	443	360.30
Yachts.....	2	510	390.99	1	20	14.40
Totals.....	267	1,307,072	1,119,659.40	274	1,251,667	1,207,778.46
Method of propulsion:						
Steam.....	188	930,267	820,131.42	209	972,241	940,786.00
Motor.....	75	376,501	299,269.08	61	277,433	264,743.96
Motor schooner.....	3	209	187.65			
Sail.....				1	1,675	2,010.00
Nonpropelled.....	1	95	71.25	3	318	238.50
Totals.....	267	1,307,072	1,119,659.40	274	1,251,667	1,207,778.46

Of the 397 steam-driven vessels, 294 were oil burning, 99 coal burning, and 4 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of August, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers.....	2	12,100	\$6,050.00	4	16,875	\$8,437.50
Mine sweepers.....	2	1,900	950.00	2	1,900	950.00
Submarines.....	3	2,562	1,281.00	3	2,562	1,281.00
Survey ships.....	1	2,600	1,300.00			
Tankers.....	1	5,121	3,840.75	1	5,004	6,004.80
Transports.....				1	3,992	4,990.00
Tugs.....	2	2,000	1,000.00	2	2,000	1,000.00
U. S. Army vessels:						
Transports.....	2	9,672	12,090.00	2	9,672	12,090.00
Totals, U. S. Government.....	13		26,511.75	15		34,753.30
Panaman Government vessels:						
Transports.....				1	101	72.72
Vessels for repairs:						
General cargo ships.....				1	409	306.75
Tankers.....	1	1,637	1,227.75	2	2,887	2,165.25
Grand totals.....	14		27,739.50	19		37,298.02

* Indicates displacement tonnage. * Indicates Panama Canal net tonnage. * Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of August, 1929, carried cargo as follows: Atlantic to Pacific, 1,177 tons; Pacific to Atlantic, 8,769 tons; total, 9,946 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net) transiting the Canal during the month of August, 1929. These launches, although paying tolls, are excepted from the statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	3	15	\$12.15
Pacific to Atlantic.....	3	30	27.00
Totals.....	6	45	39.15

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of August, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	68,291	66,549	134,840
Local cargo shipped..... tons..	11,079	1,180	12,259
Transit cargo arriving..... tons..	2,685,788	2,685,456	5,371,244
Transit cargo clearing..... tons..	2,678,749	2,678,885	5,357,634
Cargo received for transshipment..... tons..	32,435	440	32,875
Cargo transhipped..... tons..	25,698	631	26,329
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	95	25	120
Number of withdrawals.....	512	192	704
Tons received.....	1,574	174	1,748
Tons withdrawn.....	1,673	162	1,835
Packages received.....	11,164	2,059	13,223
Packages withdrawn.....	9,518	1,562	11,080
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	60	3	63
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	17,875	370	18,245
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	108	5	113
U. S. Army, including vessels..... tons..	16	1	17
Individuals and companies..... tons..	200		200
Transferred to Navy..... tons..	10,376		10,376
Total sales and issues..... tons..	28,575	376	28,951
Coal on hand August, 1, 1929..... tons..	72,196		72,196
Coal on hand September 1, 1929..... tons..	43,621		43,621
Coal received from Navy..... tons..		376	376
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls..	5,165.05	18,097.19	23,262.24
Panama Railroad Company..... bbls..	239.44		239.44
U. S. Army and Navy..... bbls..		117.16	117.16
Individuals and companies..... bbls..		364.51	364.51
Total sales and issues..... bbls..	5,404.49	18,578.86	23,983.35
Fuel oil received during August, 1929..... bbls..		54,959.70	54,959.70
Fuel oil on hand September 1, 1929..... bbls..	80,876.68	44,207.40	125,084.08
Diesel oil received during August, 1929..... bbls..		41,655.00	41,655.00
Diesel oil sold during August, 1929..... bbls..	106.46	2,002.40	2,108.86
Diesel oil on hand September 1, 1929..... bbls..	16,163.40	40,145.85	56,309.25
Miscellaneous transfers..... bbls..	327.43	754.14	1,081.57
Gasoline and kerosene pumped for The Panama Canal..... bbls..	7,371.70	12,642.28	20,013.98
Gasoline pumped for individuals and companies..... bbls..	795.15	6,036.55	6,831.70
Oil pumped for individuals and companies..... bbls..	578,980.09	458,654.54	1,037,634.63
Oil pumped for U. S. Shipping Board..... bbls..		12,372.71	12,372.71
Oil pumped for U. S. Navy..... bbls..	56,406.70	53,703.00	110,109.70
Total fuel oil, gasoline, and kerosene handled..... bbls..	649,392.02	661,359.18	1,310,751.20
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	28	8	36
Measured for Panama Canal net tonnage.....	9	5	14
Remeasured for Panama Canal net tonnage.....	22	3	25
Panama Canal net tonnage corrected.....	2	8	10
U. S. equivalent tonnage corrected.....	7	19	26
Service of harbor equipment:			
Tugs, total operating hours.....	464½	336½	801
Launches, total operating hours.....	1,476½	1,733½	3,210

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue.....	\$14,108.75	\$11,063.75	\$25,172.50
Pilotage.....	20,151.00	8,316.00	28,467.00
Seamen.....	12,160.00	12,420.00	24,580.00
Launch service.....	1,938.50	3,124.50	5,063.00
Wharfage.....	17,152.66	5,782.18	22,934.84
Ships measured.....	75.00	108.00	183.00
Miscellaneous.....	1,794.80	293.50	2,088.30
Ships repaired at Panama Canal shops:			
Commercial.....	55	17	72
U. S. Army and Navy.....	8	7	15
Panama Canal equipment.....	5	8	13
Totals.....	68	32	100
Vessels dry docked:			
Commercial.....	10	6	16
U. S. Army and Navy.....	1	1	2
Panama Canal equipment.....	1	3	4
Totals.....	12	10	22
Clearances issued.....	333	273	606
Bills of health issued.....	342	273	615

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships Entering.</i>						
All vessels, including those transiting Canal.	663	3,609,844	2,188,431	558	3,351,192	2,063,455
Vessels entering port but not transiting Canal	98	316,233	189,497	8	48,324	32,099
Vessel transiting Canal and handling passengers and cargo at terminal ports.....	122	773,362	467,578	103	639,571	389,253
<i>Ships Clearing.</i>						
All vessels, including those transiting Canal.	658	3,617,515	2,194,507	560	3,335,049	2,047,977
Vessels clearing port but not transiting Canal	95	309,695	185,647	8	48,324	32,099
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	121	767,480	465,195	103	633,454	384,877

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,374	994	2,368	84	113	197
From Pacific ports.....	218	187	405	248	276	524
Total disembarking.....	1,592	1,181	2,773	332	389	721
Embarking:						
For Atlantic ports.....	1,776	1,334	3,110	87	259	346
For Pacific ports.....	280	150	430	314	364	678
Total embarking.....	2,056	1,484	3,540	401	623	1,024
Remaining on board:						
From Atlantic to Pacific ports.....	2,034	2,936	4,970	2,230	2,973	5,203
From Pacific to Atlantic ports.....	1,576	2,356	3,932	1,707	2,284	3,991
From Atlantic to Atlantic ports.....	792	151	943			
From Pacific to Pacific ports.....				36	644	680
Total remaining on board.....	4,402	5,443	9,845	3,973	5,901	9,874
Total arriving.....	5,994	6,624	12,618	4,305	6,290	10,595
Total departing.....	6,453	6,927	13,385	4,374	6,524	10,898

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	267	66	24.7
Pacific to Atlantic.....	274	56	20.4
Totals.....	541	122	22.5

In addition to the aforesaid, 95 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 220 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of August, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$3,598.41	\$15,169.61	\$33,357.99	\$85.43	\$7,349.06	\$59,560.50
Government vessels.....	166.28	1,459.05	15,670.07		2,107.98	19,403.38
P. R. R. vessels.....		100.70	2,479.02	1,044.64	200.44	3,824.80
Total sales, August, 1929....	3,764.69	16,729.36	51,507.08	1,130.07	9,657.48	82,788.68
Total sales, August, 1928....	3,357.34	13,465.26	38,033.07	1,160.09	6,884.06	62,899.82
Total sales, August, 1927....	2,478.31	13,525.62	33,574.69	967.58	5,998.04	56,544.24
Sales at Balboa to:						
Commercial vessels.....	917.36	9,409.75	14,602.26	476.91	3,998.82	29,405.10
Government vessels.....	358.66	1,763.03	7,124.80	1,036.81	1,088.82	11,372.12
Total sales, August, 1929....	1,276.02	11,172.78	21,727.06	1,513.72	5,087.64	40,777.22
Total sales, August, 1928....	2,170.09	19,971.90	28,848.44	741.57	5,528.07	57,260.07
Total sales, August, 1927....	2,199.59	13,786.01	46,025.62	657.65	4,445.05	67,113.92

The aggregate sales to Government vessels during the month was \$30,775.50; to Panama Railroad vessels, \$3,824.80; and to other commercial vessels, \$88,965.60; making the total sales to all vessels, \$123,565.90.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of August, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. ¹			Aug., 1929.	Aug., 1928.	Aug., 1927.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	256	243	499	9	8	17	516	515	530
Pedro Miguel.....	260	260	520	20	19	39	559	535	560
Miraflores.....	260	257	517	19	14	33	550	536	549
Number of vessels put through locks.									
Gatun.....	272	266	538	31	24	55	593	587	624
Pedro Miguel.....	272	267	539	63	59	122	661	615	666
Miraflores.....	272	267	539	63	58	121	660	616	660

¹ Includes tolls-paying craft under 20 tons measurement.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	31	37	37
Panama Canal equipment.....	16	72	72
Launches under 20 tons.....	3	8	7
Panaman Government vessels.....	1	1	1
Vessels for repairs.....	4	4	4

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in August, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	2,077,880,000	1,698,880,000	1,612,290,000
Maintenance.....	9,990,000		19,060,000
Leakage.....	30,000,000	8,750,000	20,000,000
Totals, August, 1929.....	2,117,870,000	1,707,630,000	1,651,350,000
Totals, July, 1929.....	2,086,630,000	1,608,210,000	1,604,570,000
Totals, August, 1928.....	2,142,910,000	1,733,530,000	1,627,800,000

HYDROGRAPHY.

The hydrographic condition in the Canal Zone and vicinity during the month of August, 1929, are shown in comparative form in the following tabulation:

	August.		August—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alajuela.....	3,306	3,410	4,724	1,579	3,038
Maximum momentary discharge for the month.....	23,180	11,889	36,100	818	.....
Gatun Lake watershed, total yield.....	8,559	9,862	11,656	5,084	8,287
Gatun Lake watershed, net yield.....	8,111	9,385	11,089	4,437	7,755
Draft on Gatun Lake for lockages and power.....	2,968	2,862	2,968	1,390	2,293

* August 21, 1911.

* August, 1914, not included.

The discharge of the Chagres River at Alajuela was 9 per cent above the August average, or 3,306 c. f. s. compared with a 29-year average of 3,038 c. f. s. The maximum momentary discharge for the month was 23,180 c. f. s. at elevation 100.98 feet on the 9th, and the minimum, 1,500 c. f. s. at elevation 92.70 feet on the 2d.

The total yield of the Gatun Lake watershed was 3 per cent above the 16-year August average, or 8,559 c. f. s. compared with an average of 8,287 c. f. s. Maximum and minimum total yields of record for August are 11,656 c. f. s. in 1917 and 5,084 c. f. s. in 1919, respectively. The lake varied from minimum elevation of 84.62 feet on the 2d and 3d to the maximum of 85.80 feet on the 8th, averaged 85.44 feet, and ended at elevation 85.62 feet.

Miraflores Lake varied from elevation 53.06 feet on the 24th to 54.40 feet on the 31st, averaged 53.64 feet, and ended at elevation 53.64 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 4th, 9th, 15th and 17th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,476,800 kilowatt hours, and the computed water consumption was 4,162,435,413 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 48,200 kilowatt hours, and the fuel oil consumption was 112.23 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 38 vessels during the month. There were 405 work orders issued during the month, as compared with 483 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 68 vessels at Cristobal and 32 at Balboa. Twelve vessels were dry docked at Cristobal and 10 at Balboa. The work on the general repairs to the Panama Canal tug *Cocoli* was completed during August, and that on the *Favorite* was carried forward. The annual overhaul of the United States Navy's submarine *S-10* was completed during the month. The United States Army's mine planter *Graham* was docked for general overhaul.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. Twenty-five thousand cubic yards of material

were moved and 8 culverts constructed in connection with the grading of the Madden Road. At the site of the Madden Dam the operation of diamond drills was continued throughout August.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 699,323,750 gallons.

DREDGING DIVISION.

The general movement along the water front of West Culebra slide continued during August, 1929, with an average movement of three feet toward the Canal between stations 1773-00 and 1794-0 W., and a maximum movement of five feet on stations 1790-00 and 1791-00. The reference points over this slide also showed a movement toward the Canal of from 0.5 to 3.3 feet. The amount of material entering the prism was small.

On August 7, 1929, an additional break occurred within the limits of Southwest La Pita slide between stations 1671-00 and 1675-00 W. Approximately 200,000 cubic yards of material were involved in this slide, of which 20,000 entered the Canal prism, the toe extending out beyond the west prism line for 75 feet on a frontage of 100 feet. A drill boat worked five days on this slide on subaqueous drilling and blasting. Two dipper dredges removed 16,900 cubic yards of material from this slide, 700 cubic yards of which was mined rock.

There was no interference with shipping on account of slides during the month.

The total excavation during August, 1929, was 503,190 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
West Lirio Slide.....	16,950	20,150	37,100
South Cucaracha slide.....	2,500	13,250	15,750
South La Pita slide.....	2,400	14,500	16,900
Maintenance.....	52,300	29,000	81,300
Canal prism, Pacific entrance—			
Project No. 1.....		5,400	5,400
Project No. 1 (extension).....	127,900		127,900
Maintenance.....	12,800	1,200	14,000
Plant excavation:			
Albrook Field.....	204,300		204,300
Dredging sand at Chame.....	540		540
Totals.....	419,690	83,500	503,190

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and fourteen trips were made, and 75 Panama Canal, 34 U. S. Army, and 3,315 other vehicles, a total of 3,424, were ferried across the Canal.

MADDEN DAM PROJECT.

Studies of the relative merits of dam sites No. 1 and No. 5 were continued. An additional 2-inch core hole was started on the axis of site No. 5, on the left bank of the Chagres, to check the geological structure. Detailed programs for drilling and for surveys were mapped out.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on August 31, 1929, totaled 21,993, composed of 7,623 Americans, 2,761 of whom were men, 2,245 women, and 2,617 children; 234 Europeans, 92 of whom were men, 36 women, and 106 children; and 14,136 West Indians, 4,173 of whom were men, 2,634 women, and 7,329 children. The total number of persons in quarters on August 31, 1928, was 21,446.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of August 21, 1929, with a comparison of the working force for the preceding month and for August, 1928:

	As of August 21, 1929.			Total employees.	
	Gold.	Silver.	Total.	July, 1929.	August, 1928.
Operation and Maintenance:					
Office	49	59	108	105	100
Electrical	154	179	333	327	310
Municipal Engineering	107	1,550	1,657	1,599	764
Lock Operation	243	712	955	956	917
Dredging	195	1,056	1,251	1,251	1,084
Mechanical	493	980	1,473	1,401	1,298
Marine	209	625	834	856	924
Fortifications	26	308	334	317	372
Totals	1,476	5,469	6,945	6,812	5,769
Supply Department:					
Quartermaster	213	1,999	2,212	2,131	1,913
Subsistence	9	100	109	109	108
Commissary	240	1,282	1,522	1,503	1,391
Cattle Industry	3	176	179	188	133
Hotel Washington	9	96	105	109	105
Transportation	64	220	284	287	265
Totals	538	3,873	4,411	4,327	3,915
Accounting Department	205	6	211	216	204
Health Department	290	854	1,144	1,147	1,141
Executive Department	515	322	837	844	778
Totals	1,010	1,182	2,192	2,207	2,123
Panama Railroad Company:					
Superintendent	51	299	350	326	304
Transportation	64	120	184	190	186
Receiving and Forwarding Agency	102	1,220	1,322	1,494	1,331
Coaling Stations	49	230	279	278	292
Totals	266	1,869	2,135	2,288	2,113
Grand totals, August, 1929	3,290	12,393	15,683		
Grand totals, July, 1929	3,276	12,358		15,634	
Grand totals, August, 1928	3,080	10,840			13,920

Additions to the gold force on the Isthmus in August were as follows: Employed in the United States, 11; reemployed in the United States, 6; employed on the Isthmus, 29; reemployed on the Isthmus, 12; total, 58. Separations from the gold force totaled 55, as follows: Resigned, 44; discharged, 9; retired, 2; died, 0. At the end of the month there were on file 334 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 159 deaths occurred during the month of August, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.44 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar) 24; tuberculosis (various organs), 17; diarrhea and enteritis, 15; nephritis (acute and chronic), 12; apoplexy, 12; and organic diseases of the heart, 12. There were 10 deaths from syphilis, 5 from cancer, and one each from typhoid fever, leprosy, and acute anterior poliomyelitis. There were 18 deaths among nonresidents. These are not included in the above statistics.

There were 266 live births, and 17 stillbirths reported during the month. Including stillbirths this is equivalent to an annual birth rate of 24.16 per 1,000 population. Deaths among children under 1 year of age numbered 33, giving an infant mortality rate based on the number of live births reported, of 124.06.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during August, 1929, was 88, of whom 19 were employees (3 white and 16 colored), 10 were families of employees (2 white and 8 colored), 7 were Canal Zone agriculturists, 12 were other civilian nonemployees, and 40 were Army and Navy personnel.

There were 2 deaths from malaria among residents, one a colored child of a Canal Zone farmer, and one employee, a man who contracted the disease in an unsanitary area of the Republic of Panama and who received no treatment after his return to Colon until he entered the hospital in a serious condition.

Smallpox in Panama City, beginning with one case in the month of June, introduced from the interior of Panama, developed 17 cases in July and 20 in August, with indications at the end of August of a greater number of cases in September. Ar-

rangements were made for extensive vaccinations in Panama, Colon, and the Canal Zone and requisitions for vaccine were cabled to the United States. To the end of August no deaths had occurred and the cases generally were of a mild form. No infections of United States citizens have been reported.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled \$457,335.45, of which \$437,160.97 was for the Department of Operation and Maintenance and \$20,174.48 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to \$36,884.75.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of July, 1929, as compared with July, 1928.

It is impossible to submit the figures for the month of August at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	July, 1929.	July, 1928.
Tolls.....	\$2,259,581.87	\$2,107,332.79
Other receipts.....	366,008.43	293,750.55
Total transit revenues.....	2,625,590.30	2,401,083.34
Total transit expenses.....	1,097,936.52	1,053,305.70
Net transit revenues.....	1,527,653.78	1,347,777.64
Three per cent capital charge.....	620,105.38	615,809.74
Transit surplus.....	907,548.40	731,967.90
Business revenues.....	1,775,355.28	1,275,026.00
Business expenses.....	1,673,221.23	1,193,523.82
Net Business revenues.....	102,134.05	81,502.18
Three per cent capital charge.....	61,519.59	60,102.79
Business surplus.....	40,614.46	21,399.39
Combined revenues.....	4,400,945.58	3,676,109.34
Combined expenses.....	2,771,157.75	2,246,829.52
Net revenues.....	1,629,787.83	1,429,279.82
Three per cent capital charge.....	681,624.97	675,912.53
Combined surplus.....	948,162.86	753,367.29

Respectfully,

J. L. SCHLEY,
Acting Governor.

New Rainfall Records on Atlantic Side.

Rainfall along the Atlantic coast of the Isthmus during the months of June, July, and August was considerably above the average, as recorded at the Cristobal hydrographic station, and at Colon on August 11th, all local records were broken by a fall of 6 inches of rain in one and one-half hours. The most notable feature of this heavy rainfall was the precipitation in the space of one hour of 5.16 inches of the total recorded. The previous high record for one hour stood at 4.90 inches. The total rainfall at Colon for the month of August was 23.78 inches.

Although the heaviest recorded over such a short space of time, the rainfall of August 11th was by no means the most excessive experienced on the Atlantic side. During the forty-eight hours ending at midnight on October 24, 1923, 27.9 inches had fallen at Gatun, 27.6 at Colon, and 26.1 at Monte Lirio. All rainfall records for the Isthmus for the month of October were broken in only four days from October 22 to 25, 1923.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 21, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Urbe	6	22.30	15	6.08	15	14.00	15	15.20	Colombian.	Colombian Mar. Co.	227.4	31.7	12.2	Cristobal, C. Z.	Buenaventura, Col.	General	400	1,154	663
Point Bonita	14	19.20	15	6.15	15	13.17	15	14.27	American.	Gulf-Pacific Line	324.0	46.0	17.0	Tampa, Florida	San Francisco, Cal.	General	1,880	3,984	2,617
Glanougan-shire	14	13.05	15	6.05	15	14.12	15	15.20	British	Royal Mail S. P. Co.	445.0	58.0	23.7	Antwerp, Belgium	Vancouver, B. C.	General	5,391	8,225	5,982
Remuera	15	3.10	15	7.20	15	14.59	15	22.12	British	N. Z. Shipping Co.	485.0	62.3	29.0	London, England	Auckland, N. Z.	General	6,653	11,911	8,945
Mytilus	14	20.35	15	7.10	15	14.56	15	16.05	Norwegian.	Anglo-Saxon Ste. Co.	412.0	53.0	19.4	Hamburg, Germany	Los Angeles, Calif.	Ballast	6,124	4,479	4,479
Misty Law	15	2.00	15	8.25	15	16.10	15	16.50	British	N. Z. Shipping Co.	400.0	53.0	20.6	Montreal, Canada	Brisbane, Australia	General	3,400	5,746	4,128
Quecus	14	23.00	15	8.20	15	16.10	15	17.20	British	Isthmian S. S. Lines	385.0	52.0	22.6	New York, N. Y.	Talara, Peru	General	5,394	5,138	3,673
Canadian	15	6.05	15	9.50	15	16.50	15	18.20	British	Can. Nat. Steamships	400.0	52.0	24.9	Montreal, Canada	Wellington, N. Z.	General	4,550	5,853	4,058
Explorer	15	6.18	15	10.25	15	17.35	15	18.41	British	Alfred Holt & Co.	454.7	54.1	24.0	Philadelphia, Pa.	Shanghai, China	General oil	4,113	7,602	5,489
Pacific Pine	15	12.05	15	12.15	15	18.16	15	20.35	American	Dunsmuir S. S. Corp.	410.5	54.3	20.0	New York, N. Y.	Tacoma, Wash.	General	4,438	6,583	4,808
Soldat	15	13.20	15	13.38	15	18.56	15	23.18	Norwegian.	A. F. Klavens & Co.	390.0	53.5	17.8	Rotterdam, Holland	Los Angeles, Calif.	Ballast	6,126	4,194	4,194
Villager	15	14.15	15	17.00	16	9.40	16	14.00	Norwegian.	Westfal, Larsen & Co.	398.0	54.7	15.2	Newcastle, Eng.	Los Angeles, Calif.	Ballast	6,873	5,155	5,155
Sidney M. Hauptman.	15	16.15	16	6.15	16	12.41	16	14.00	American.	Munson, McCor'k Line.	401.0	53.2	22.0	Baltimore, Md.	Tacoma, Wash.	General, steel	5,872	7,083	5,167
Javanese	16	1.00	16	7.15	16	13.47	16	14.45	British	Turner Prince Line.	441.0	60.0	24.8	Boston, Mass.	Manila, P. I.	General	6,041	9,240	6,145
Prince	16	5.30	16	7.40	16	13.37	16	15.50	American	Tampa Intercean Co.	434.0	57.0	23.0	Mobile, Ala.	Manila, P. I.	General	7,094	7,982	5,911
Hanover	16	6.03	16	8.25	16	15.14	16	17.03	American	United Fruit Co.	315.2	44.2	19.0	Port Limon, C. R.	San Francisco, Cal.	Bananas	427	3,496	2,141
San Mateo	15	13.30	16	9.15	16	16.15	16	17.20	American	Gracia Line.	384.0	50.0	17.10	New York, N. Y.	Callao, Peru	General	1,029	5,534	3,868
Santa Cruz	16	6.35	16	10.10	16	16.52	16	18.10	Japanese.	Nippon Yusen Kaisha.	440.0	57.0	24.3	Baltimore, Md.	Kobe, Japan	General	6,169	8,135	5,389
Asuka Maru	15	20.20	16	10.50	16	17.39	16	18.31	American.	Ore S. S. Corp.	450.0	57.2	20.1	Baltimore, Md.	Cruz Grande, Chile	Ballast	7,801	5,139	5,139
Fetore	16	9.25	16	11.12	16	18.31	17	13.44	American.	Roosevelt S. S. Co., S. B.	417.0	51.0	21.0	New York, N. Y.	Addelaide, Australia	General	3,597	7,043	5,167
Areturus	16	11.35	16	12.45	16	19.39	16	21.05	British	Atlantic Refining Co.	381.5	51.0	18.0	Philadelphia, Pa.	La Libertad, Ecu.	Ballast	2,955	4,851	3,326
El Lobo	16	13.10	16	13.30	16	21.05	16	22.23	American.	Nelson Line	324.0	46.2	19.0	Charleston, S. C.	Seattle, Wash.	General	2,955	4,851	3,326
Sanized	15	5.35	16	14.19	16	21.12	16	22.23	German.	North German Lloyd	216.5	33.0	11.1	Cartagena, Colom.	Guayaquil, Ecuador	Gasoline, general	229	1,132	741
Manzales	16	2.05	17	6.15	17	13.54	17	14.55	British	Pacific Steam Nav. Co.	303.0	43.0	15.3	New York, N. Y.	Pimental, Peru	General	789	2,844	1,748
Alvarado	17	2.55	17	6.20	17	13.58	17	14.00	British	Richfield Oil Co.	410.0	53.5	18.6	London, England	Los Angeles, Calif.	Ballast	6,016	4,094	4,094
Oliphenter	17	4.00	17	7.15	17	14.24	17	16.10	British	F. & W. Ritson	390.0	51.0	19.9	Newcastle, Eng.	Valparaiso, Chile	General	2,330	4,927	3,597
Cedar Branch	17	5.30	17	7.20	17	15.04	17	16.40	American	Quaker Line	409.8	54.0	24.0	Philadelphia, Pa.	Seattle, Wash.	General	4,511	6,821	4,927
Willwello	17	6.25	17	8.25	17	15.42	17	16.40	American	Standard Transp. Co.	430.0	58.2	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast	7,345	5,164	5,164
Atlas	17	6.25	17	8.25	17	15.42	17	16.40	American	U. S. Navy	243.0	36.0	19.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	6,270	11,197	8,149
Niagara	16	19.05	17	10.13	17	18.35	17	18.00	British	Shaw, Savill & Albion.	477.0	63.1	29.8	Liverpool, England	Dunedin, N. Z.	General	3,291	7,334	6,018
Taroon	16	22.25	17	11.40	17	18.34	17	20.10	British	Royal Neth. S. S. Co.	400.6	58.6	23.0	Hamburg, Germany	Corral, Chile	General	3,291	7,334	6,018
Bodegraven	16	9.05	17	12.30	17	19.48	17	21.00	Dutch.	Luckenbach & Reed.	448.9	60.2	26.5	New Orleans, La.	Seattle, Wash.	General	7,380	9,265	6,863
Harry	17	12.15	17	13.30	17	20.51	17	22.05	American	Foster, Hain & Line.	400.0	52.0	19.6	Norfolk, Va.	Auckland, N. Z.	General	2,368	6,004	4,469
Lockenbach	17	14.40	17	14.30	17	21.36	18	00.19	British										
Tredinnick	17	14.40	17	14.30	17	21.36	18	00.19	British										

* Survey ship.

* Motor ship.

* Tanker.

Gundtlic.	17	16	40	17	18	55	18	11	07	18	12	05	Yugoslav Lloyd	409	0	53	0	26	0	Blyth, England	Iquique, Chile	Coal, general	6,493	6,584	4,570
Steele	17	15	40	18	6	10	18	13	34	18	14	30	Ore S. S. Corp	550	3	72	2	20	3	Baltimore, Md	Cruz Grande, Chile	Ballast	15,551	4,297	
Dean Emery	17	17	25	18	6	21	18	13	40	18	14	30	Pan-American Pkt. Co.	420	3	72	2	22	10	New York, N. Y.	Los Angeles, Calif.	Ballast	7,709	5,477	
Edwin Christenson.	18	2	30	18	7	25	18	14	47	18	16	10	Arrow Line	410	0	54	2	18	8	Jacksonville, Fla.	San Francisco, Cal.	General	3,770	6,603	4,932
Georgian.	18	3	40	18	7	28	18	14	57	18	16	10	Amer-Hawaiian Line	434	3	57	7	19	8	Boston, Mass.	Tacoma, Wash.	General	4,922	7,983	5,912
Evanger.	18	1	03	18	8	24	18	16	24	18	17	45	Westl. Larsen & Co.	365	4	52	7	17	0	Buenos Aires, Arg.	Los Angeles, Calif.	Gen. maize, coffee	3,685	5,746	4,092
Waukena City.	18	6	20	18	8	30	18	16	35	18	17	45	Texas S. S. Co.	420	4	54	5	25	10	Port Arthur, Texas	Chingwangtao, China	Case oil, general	7,800	6,870	5,043
Lewis	18	7	30	18	9	40	18	17	20	18	18	20	Lockenbach Line	466	0	68	2	26	9	Boston, Mass.	Seattle, Wash.	General	7,706	11,487	8,762
Luckenbach.	17	22	35	18	11	20	18	17	55	18	19	09	French Line	418	0	56	0	17	0	Havre, France	Vancouver, B. C.	General	912	7,157	4,933
Indiana	18	11	50	18	12	05	18	18	50	18	20	05	Associated Oil Co.	424	7	58	2	21	6	New York, N. Y.	Los Angeles, Calif.	Ballast	7,333	5,182	
Paul Shoup	18	12	05	18	14	10	18	21	10	18	22	35	H. Hogarth & Sons	330	0	50	2	16	8	Glasgow, Scotland	Tacabuan, Chile	(s)	2,500		
Baron Ramsay	18	16	30	18	16	45	19	9	40	19	10	35	Williams S. S. Line	410	0	55	0	20	0	New York, N. Y.	Tacoma, Wash.	General	4,200	7,717	8,703
Willboro	18	12	55	19	6	00	19	14	14	19	15	05	Pacific Steam Nav. Co.	511	0	60	2	26	2	Liverpool, England	Talcabuan, Chile	General	4,992	12,417	8,305
Oroun.	18	19	00	19	7	00	19	14	17	19	17	00	Grace Line	360	2	51	6	23	6	New York, N. Y.	Talcabuan, Chile	General	2,414	5,726	4,086
Santa Teresa	18	19	00	19	7	00	19	14	17	19	17	00	Grace Line	360	2	51	6	23	6	New York, N. Y.	Talcabuan, Chile	General	6,793	7,407	3,680
Peru	19	2	30	19	10	10	19	17	06	19	23	46	East Asiatic Co.	425	0	65	0	24	11	Nakskov, Denmark	Vancouver, B. C.	Ballast	9,441	6,224	
Java	19	6	30	19	11	00	19	18	09	19	22	15	British Malacca Co.	471	4	62	5	16	0	Boston, Mass.	Los Angeles, Calif.	General	3,617	9,305	6,790
Havel	19	10	50	19	12	00	19	18	50	19	24	35	North German Lloyd	429	0	61	0	20	0	Hamburg, Germany	Portland, Oreg.	General	827	3,984	2,612
Seward.	19	20	05	20	6	12	20	13	31	20	14	30	Transmarine Line	364	0	46	2	18	10	Newark, N. J.	Los Angeles, Calif.	General	7,305	7,296	5,445
Handicap	19	20	35	20	6	12	20	14	30	20	15	45	Brugsard Kusterud	415	0	54	7	24	4	Antwerp, Belgium	San Diego, Calif.	General	7,305	7,296	5,445
President	20	5	55	20	7	15	20	15	29	20	21	40	Dollar Line	600	0	65	0	29	6	New York, N. Y.	San Francisco, Cal.	General	4,123	17,081	11,314
Johnson	20	0	00	20	7	20	20	16	26	20	17	40	Shepard S. S. Co.	410	0	54	2	17	0	Boston, Mass.	Seattle, Wash.	General	3,491	6,625	4,841
Sea Thrush.	20	16	15	20	8	35	20	17	11	20	18	30	U. S. Navy	225	0	41	0	20	0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	5,208	6,609	4,973
Shaville	20	2	00	20	9	30	20	17	39	20	19	35	Chilean Line	410	0	54	0	22	0	Baltimore, Md	Chancal, Chile	General	4,974	7,141	5,468
Paul Kirdorf	19	18	55	20	13	20	20	07	20	21	00	52	Hamburg-American Line	385	0	51	0	23	7	Hamburg, Germany	San Antonio, Chile	General	7,531	6,219	4,611
Emil Kirdorf	19	16	40	20	15	30	20	23	10	21	00	52	Kokutai Kisen Kaisha	200	0	33	0	11	6	Tampa, Fla.	Guayaquil, Ecuador	Phosphate, iron	338	1,183	742
Barat	19	16	40	20	6	05	21	14	31	21	15	30	Royal Neth. S. S. Co.	410	0	54	0	17	9	Cristobal, C. Z.	Guayaquil, Ecuador	General	2,087	6,624	5,040
Wet Camargo.	20	8	35	21	6	10	21	13	34	21	14	40	McComick S. S. Co.	410	0	54	0	17	9	Buenos Aires, Arg.	Buenaventura, Col.	General	174	211	124
Caldas	20	13	53	21	6	00	21	15	26	21	31	Colombian	116	0	21	9	8		Cristobal, C. Z.	Buenaventura, Col.	General	8,482	8,324	6,036	
Pomona.	20	12	50	21	7	15	21	15	24	21	16	35	Isthmian S. S. Lines	440	0	56	0	20	10	New York, N. Y.	Vancouver, B. C.	General	2,564	10,786	3,751
Dinteldijk	20	20	00	21	7	35	21	16	20	21	22	15	Holland-American Line	385	0	60	0	20	10	Rotterdam, Holland	Vancouver, B. C.	General	3,383	3,719	
Gadsbye	20	23	25	21	8	30	21	17	04	21	18	18	American	364	9	51	0	19	6	Kingston, Jamaica	San Francisco, Cal.	Ballast	2,350	5,113	3,571
Point Breeze	20	25	25	21	8	30	21	17	04	21	18	18	American	364	9	51	0	19	6	Kingston, Jamaica	San Francisco, Cal.	Ballast	2,350	5,113	3,571
Regent Stephen	21	7	55	21	9	45	21	17	27	22	00	46	Atlantic Refining Co.	391	9	51	0	20	0	Philadelphia, Pa.	Brisbane, Australia	General	7,237	6,329	4,345
Kretagne	21	11	00	21	11	10	21	18	48	21	19	10	King Line	400	7	54	8	23	00	Tampica, Mexico	Yokohama, Japan	Asphalt	4,500	3,820	2,967
Portland	20	17	40	21	14	45	21	15	21	22	15	German	462	2	61	2	21	2	I. P. Moller	Vancouver, B. C.	General	5,590	9,139	6,664	
Portexan.	21	15	53	21	16	15	21	23	15	22	3	50	Amer-Hawaiian Line	472	0	57	0	21	7	Boston, Mass.	Portland, Oreg.	General	4,987	9,258	6,944

s Asphalt, greases, lubricating oil.

* Gunboat.

* Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

14	19	40	15	6	17	15	13	15	15	13	15	Com'lth & Dom. Line	477	3	63	3	Auckland, N. Z.	London, England	Frozen, general	5,190	10,678
14	22	05	15	7	13	15	14	50	15	17	56	Grace Line	403	0	52	3	Bahia Blanca, Arg.	Montreal, Canada	General	8,802	6,804
14	23	30	15	7	39	15	16	50	17	17	55	Sir W. R. Smith & Sons	411	4	55	0	Astoria, Oreg.	London, England	General	8,926	6,952
15	00	15	8	07	15	15	15	30	15	15	30	Shaw, Savill & Albion	500	4	62	2	Pt. Chalmers, N. Z.	London, England	Frozen, general	3,000	13,590
15	3	15	15	8	26	15	17	00	15	17	00	Pacific Steam Nav. Co.	215	0	35	5	Champerno, Guat	Cristobal, C. Z.	General	209	1,270
15	3	30	15	9	10	15	17	47	15	17	47	Stand. Oil Co. of N. Y.	410	0	56	0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,857	8,201

* Motor ship.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Bessa.	14	22	30	15	9	30	15	18	20	W. Wilhelmian.	419.0	56	2	30	0	Land's End, Eng. ¹⁰	General	10,216	
Glenmor.	15	15	50	15	16	37	16	11	10	Moor Line, Ltd.	375.0	52	6	26	0	Dublin, Ireland	Wheat	7,367	4,638
Santa Cecilia.	15	20	00	16	6	20	16	14	00	Grace Line	409.0	55	2	23	5	New York, N. Y.	General	5,026	4,905
Baldwin.	16	00	30	16	6	54	16	15	00	Pennsylvania Ship. Co.	416.9	56	2	26	0	Los Angeles, Calif.	Gasoline	8,666	4,870
Marian Otis.	15	19	32	16	7	18	16	17	20	Arrow Line	409.6	54	1	24	6	Baltimore, Md.	Lumber	7,305	6,171
Chandler.	16	3	30	16	7	45	16	16	15	Pacific Steam Nav. Co.	370.0	57	8	23	0	New York, N. Y.	General	2,342	6,176
Essequibo.	15	23	20	16	8	24	16	17	40	Arbor Shipping Co.	370.0	51	4	24	0	Azores ¹⁰	Nitrates	7,072	
Cerarus.	15	23	45	16	9	15	16	18	05	Watts, Watts & Co., Ltd.	400.0	52	5	22	0	London, England	Lumber	1,839	6,363
Willades.	16	10	20	16	10	25	16	19	05	U. S. Navy	245.0	36	0			Cristobal, C. Z.			
Niagara.	17	00	20	17	6	22	17	13	40	Hopemount Ship. Co.	407.2	50	8	22	0	Los Angeles, Calif.	Gasoline	10,492	5,488
Hopemount.	16	14	15	17	6	38	17	13	10	Osaka Shosen Kaisha	410.0	54	0	22	0	Hong Kong, China.	General	4,434	6,538
Havanna Maru.	17	00	20	17	7	37	17	16	40	Hamburg-American Line	422.0	55	0	24	0	San Francisco, Cal.	General	6,378	5,514
Albert Vogler.	17	1	30	17	8	15	17	18	05	Bon Line, Ltd.	390.2	54	2	24	0	New York, N. Y.	Barley	7,882	4,445
Benvencke.	17	1	35	17	8	25	17	18	50	Seaton Corp.	409.5	54	2	24	8	Saunders, Wash.	Lumber	5,800	6,162
Willamgo.	17	5	00	17	9	27	17	19	55	Quaker Line	410.5	54	0	24	8	Tacoma, Wash.	Lumber	7,305	6,510
Pacific Fir.	17	5	52	17	9	35	17	20	30	Dixon S. S. Corp.	380.6	48	2	22	1	Bellingham, Wash.	Lumber, general	2,988	3,333
Lycia.	16	22	50	17	9	47	17	20	30	Lyle Shipping Co.	380.6	48	2	22	9	New York, N. Y.	General	1,790	5,926
Ecuador.	16	16	50	17	11	24	17	18	30	Panama Mail S. S. Co.	431.0	59	2	26	8	New York, N. Y.	Light gas oil	10,660	7,825
Aurora.	17	14	40	17	15	26	17	18	15	Standard Transp. Co.	380.0	8	5			Balboa, C. Z.			
Pat.	17	.....	.....	17	.....	.....	17	.....	.....	Chas. Morgan.									
J. W. Van Dyke.	17	16	15	18	6	11	18	14	25	Atlantic Refining Co.	384.9	51	0	25	3	Los Angeles, Calif.	Gasoline	6,746	5,174
Edgar F.	17	20	45	18	6	43	18	15	25	Luckenbach Line.	425.0	57	3	27	6	Portland, Ore.	General	7,017	8,568
Luckenbach.	17	20	45	18	6	43	18	15	25	Luckenbach Line.	425.0	57	3	27	6	Portland, Ore.	General	7,017	8,568
Katrina.	17	23	59	18	7	19	18	16	05	Luckenbach Line.	446.0	56	1	28	6	Portland, Ore.	General	7,422	8,508
Luckenbach.	18	3	30	18	8	10	18	17	50	Hamburg-American Line	468.5	58	8	27	5	Baltimore, Md.	General	9,795	6,179
Hessen.	18	3	45	18	8	29	18	17	47	Fearnley & Eger.	382.7	53	4	26	2	Valparaiso, Chile	General	7,492	6,680
Ferbank.	18	3	55	18	9	35	18	18	25	Amer-Hawaiian Line.	407.7	53	2	26	0	Bangkok, Siam	Rice	7,317	4,265
Iowa.	18	8	55	18	9	35	18	18	25	Swayze & Hoyt.	324.0	46	2	19	0	Portland, Ore.	General	3,192	3,984
Pont Fernin.	18	13	02	18	13	31	18	20	50	Quaker Mail S. P. Co.	410.3	58	3	26	6	Portland, Ore.	General	7,440	8,856
Narenta.	18	15	15	18	13	31	18	22	35	Quaker Line	450.0	55	5	28	0	Vancouver, B. C.	General	9,205	6,559
Peter Kerr.	18	16	20	19	6	49	19	14	00	Quaker Line	415.0	55	1	28	0	Portland, Ore.	Lumber, copper	7,440	8,856
Roxane.	19	1	00	19	7	42	19	15	12	La Com. Aux. Des Nav.	445.3	52	1	28	0	Los Angeles, Calif.	General	9,205	7,704
San Lamberto.	19	1	30	19	7	42	19	15	12	Anglo-Mexican Pet. Co.	395.3	55	2	21	0	Antofagasta, Chile	Gasoline	10,100	6,894
Tuscaloosa.	19	6	50	19	8	15	19	16	40	Royal Neth. S. S. Co.	292.9	33	1	11	5	Guayaquil, Ecuador	Ballast	503	1,183
Barat.	19	10	45	19	8	15	19	16	40	Royal Neth. S. S. Co.	292.9	33	1	11	5	Cristobal, C. Z.	General	503	1,183
Tuscaloosa.	19	10	45	19	8	15	19	16	40	Royal Neth. S. S. Co.	292.9	33	1	11	5	Cristobal, C. Z.	General	503	1,183
City.	19	13	45	19	11	20	19	18	55	Isthmian S. S. Lines.	424.2	56	2	26	0	Kamchatka, Alaska	General	7,564	7,611
España.	19	13	45	19	11	20	19	18	55	United Fruit Co.	386.6	44	6	17	4	San Francisco, Cal.	General.	493	3,683

10 For orders.

11 Commercial launch.

12 Survey ship

13 Motor ship

14 Tanker.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 15.	Calanares	United Fruit Co.	Port Limon, C. R.	September 15	Wanks	Standard Fruit & S. Co.	San Blas, R. P.
September 16.	No. 9688 ¹⁴	Pan-American Airways	Managua via wayport.	September 15	Calanares	United Fruit Co.	New York via Habana.
September 16.	Estores	United Fruit Co.	New York via Habana.	September 16	Carmania ¹⁵	R. Feuillebois	Colon, R. P.
September 18.	Sivada	United Fruit Co.	New York via Kingston.	September 16	Cartago	United Fruit Co.	New Orleans and waypts.
September 18.	Linda S. ¹⁵	A. L. Surgeon	Colon, R. P.	September 16	Ancon	Panama R. R. S. S. Line	New York via Haiti.
September 18.	Cundinamarca C-33 ¹⁴	Seadair Airplane Co.	Barraquilla, Colombia.	September 17.	No. 9107 ¹⁴	Pan-American Airways	Guayaquil via wayports.
September 18.	Air mail carrier.						

* Tanker.

** Submarine.

* Mine sweeper.

* Nitrates, copper, general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 15.	Calanares	United Fruit Co.	Port Limon, C. R.	September 15	Wanks	Standard Fruit & S. Co.	San Blas, R. P.
September 16.	No. 9688 ¹⁴	Pan-American Airways	Managua via wayport.	September 15	Calanares	United Fruit Co.	New York via Habana.
September 16.	Estores	United Fruit Co.	New York via Habana.	September 16	Carmania ¹⁵	R. Feuillebois	Colon, R. P.
September 18.	Sivada	United Fruit Co.	New York via Kingston.	September 16	Cartago	United Fruit Co.	New Orleans and waypts.
September 18.	Linda S. ¹⁵	A. L. Surgeon	Colon, R. P.	September 16	Ancon	Panama R. R. S. S. Line	New York via Haiti.
September 18.	Cundinamarca C-33 ¹⁴	Seadair Airplane Co.	Barraquilla, Colombia.	September 17.	No. 9107 ¹⁴	Pan-American Airways	Guayaquil via wayports.
September 18.	Air mail carrier.						

* Air mail carrier.

* Motor schooner.

* Other than ships passing through the Canal.

* Nitrates, copper, general.

* Mine sweeper.

* Nitrates, copper, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 19.	Perou.	French Line.	St. Nazaire via wayports.	September 17.	No. 9137 ¹⁶	Pan-American Airways.	Curacao via wayports.
September 18.	Gymeric.	Andrew Weir & Co.	Caracas Bay, D. W. I.	September 17.	No. 9684 ¹⁶	Pan-American Airways.	Managua via wayports.
September 19.	Saramacca.	United Fruit Co.	New Orleans via wayports.	September 18.	Padores.	United Fruit Co.	Port Limon, C. R.
September 19.	Soela.	United Fruit Co.	New Orleans via wayports.	September 18.	Linda S. ¹⁸	A. L. Surgeon.	Bluefields, Nicaragua.
September 19.	No. 9664 ¹⁶	Pan-American Airways.	Managua via wayports.	September 19.	No. 9685 ¹⁶	Pan-American Airways.	Managua via wayports.
September 20.	Atlantian.	Port Limon, C. R.	Curaco via wayports.	September 19.	Stacola.	United Fruit Company.	New York via wayports.
September 20.	Suriname.	Leyland S. S. Line.	Port Limon, C. R.	September 19.	Saramacca.	United Fruit Co.	Puerto Colombia.
September 20.	Anapala.	Standard Fruit & S. S. Co.	New Orleans via wayports.	September 20.	Inapaquina ¹⁷	United Fruit Co.	Colon, R. P.
September 20.	No. 9107 ¹⁶	Pan-American Airways.	Guayaquil via wayports.	September 20.	Perou.	French Line.	Colon, R. P.
September 20.	Inapaquina ¹⁷	United Fruit Co.	Colon, R. P.	September 20.	Suriname.	United Fruit Co.	Havre via wayports.
September 20.	Anachucuna ¹⁷	United Fruit Co.	Colon, R. P.	September 20.	Gymeric.	Andrew Weir & Co.	New Orleans, La.
September 21.	Wanks.	Standard Fruit & S. S. Co.	San Blas, R. P.	September 21.	No. 9688 ¹⁶	Pan-American Airways.	Curacao, D. W. I.
September 21.	Manaquí.	United Fruit Co.	Puerto Colombia.	September 21.	Anapala.	Standard Fruit & S. S. Co.	Managua via wayports.
September 21.	Pacarina.	Pan-American Airways.	Managua via wayports.	September 21.	Atlantian.	Leyland S. S. Line.	New Orleans and waypts.
September 21.	No. 9685 ¹⁶	United Fruit Co.	New Orleans via wayports.	September 21.	Manaquí.	United Fruit Co.	Liverpool via wayports.
September 21.	Anastia I. ¹⁷	United Fruit Co.	Colon, R. P.	September 21.	Anastia I. ¹⁷	A. Tagrapulos.	New York via Kingston.
September 21.	Inapaquina ¹⁷	United Fruit Co.	Colon, R. P.				Colon, R. P.
¹⁶ Air mail carrier.				¹⁷ Motor boat.			
				PORT OF BALBOA.			
				¹⁸ Motor schooner.			
September 19.	Dos Hermanos ¹⁹	A. Valdez.	Bayano River, R. P.	September 17.	S. A. Perkins.	James Griffiths & Sons.	San Francisco, California.
September 19.	Sambu ¹⁹	Haus Elliot.	Bayano River, R. P.	September 20.	Dos Hermanos ¹⁹	A. Valdez.	Panama Bay, R. P.
September 20.	A. B. de Obarrio ¹⁹	Pacific Fruit Co.	Bayano River, R. P.	September 20.	Sambu ¹⁹	Haus Elliot.	Panama Bay, R. P.
				September 20.	A. B. de Obarrio ¹⁹	Pacific Fruit Co.	Panama Bay, R. P.
¹⁹ Motor schooner.				* Other than ships passing through the Canal.			

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., October 2, 1929. No. 9.

Traffic Through the Panama Canal in September, 1929.

During the month of September, 1929, 523 commercial vessels and 11 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,201,789.40, and on the launches, \$43.89, or a total tolls collection of \$2,201,833.29.

The daily average number of commercial transits for the month was 17.43, and the average tolls collection was \$73,392.98, as compared with an average of 17.45 transits and \$75,078.64 in tolls for the previous month, and an average of 16.23 transits and \$70,374.35 in tolls for September, 1928. The average amount of tolls paid by each of the commercial transits was \$4,209.92, as compared with \$4,302.10 for the month of August, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 9 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 9 months of the calendar years 1928 and 1927.

	Totals for months.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
Totals, first 9 months of calendar year 1929	4,819	20,552,891.31	17.65	75,285.31
Totals, first 9 months of calendar year 1928	4,671	19,432,050.24	17.05	70,919.89
Totals, first 9 months of calendar year 1927	4,370	19,083,179.20	16.01	69,901.76

As compared with the first 9 months of the calendar year 1928, the corresponding period this year has had 148 more transits and \$1,120,841.07 more in tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 20, 1929.

No. 604.

CAPE MALA RADIO BEACON.

A Radio Beacon was established at Cape Mala, R. P., September 11, 1929.

Position of center line of towers: North Tower, latitude 7° 28' 08.8"; longitude 79° 59' 59.8". South Tower, latitude 7° 28' 06.7"; longitude 80° 00' 00.3".

Azimuth of aerial, 16° 37' from the true north. Period of operation, lasts 10 minutes, beginning on the first and third quarter of the hour. Frequency, 295 kilocycles. Characteristics, groups of 2 dashes repeated.

Height of towers 80 feet; elevation of top towers about 125 feet.

J. L. SCHLEY,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, September 28, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Orazio ²	20	8 00	22	5 55	22	13 12	22	21 48	Italian.	Nav. Gen. Italiana	484 0	61 8	24 2	Genoa, Italy.	Valparaiso, Chile.	General	1,032	12,977	9,373
Silverash ¹	21	20 25	22	6 10	22	14 01	22	21 48	British.	Silver Line	425 6	55 0	20 8	New York, N. Y.	Manila, P. I.	General	5,640	8,219	5,861
Tamahua ¹	21	23 05	22	7 18	22	14 53	22	15 05	American.	Richfield Oil Co.	500 0	71 2	20 0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,667	8,542	
Mallinak ¹	22	4 45	22	8 10	22	15 25	22	16 15	American.	Mallinak Transport Co.	333 0	48 0	17 0	Baltimore, Md.	Seattle, Wash.	Fertilizer	2,000	4,112	2,846
Inkum ¹	22	5 45	22	8 35	22	16 06	22	17 00	British.	Con'lth & Dom. Line.	400 0	52 0	23 0	New York, N. Y.	Brisbane, Australia	General	4,208	6,067	4,419
Salvador ¹	15	17 55	22	9 40	22	17 06	22	18 30	British.	Pacific Steam Nav. Co.	215 0	33 0	16 11	Cristobal, C. Z.	Champerico, Guat.	General	1,064	1,270	735
Durazzo ¹	14	19 55	22	10 07	22	17 08	22	18 35	German.	Hamburg-American Line	227 0	34 0	13 0	Cristobal, C. Z.	Guayquil, Ecuador	General	272	1,633	1,041
City of Corinth ¹	22	00 15	22	10 22	22	17 26	22	18 35	British.	Amer.-Australian Line	391 0	54 2	25 0	New York, N. Y.	Fremantle, Australia	General	3,903	7,103	5,358
Nikola Pasic ¹	22	8 30	22	11 00	22	18 04	22	19 06	Yugoslav.	Dubrovacka Plovidba	390 6	52 0	14 3	Oran, Algeria	Talal, Chile	Ballast	5,302	6,264	4,706
Slijstad ¹	22	10 00	22	12 05	22	18 42	22	19 46	Norwegian.	Fern Line	375 0	54 0	23 10	Tampa, Fla.	Sakshin, Korea	Phosphate, cotton.	6,510	6,264	4,706
Australia ¹	22	13 05	22	12 05	22	18 42	22	19 46	American.	Texas S. S. Co.	509 7	70 3	17 0	Baltimore, Md.	Los Angeles, Calif.	Ballast	12,514	8,427	
Margara ¹	22	14 55	23	6 25	23	15 14	23	16 30	Chilean	Torres & Ward, Ltd.	238 0	31 0	12 0	Amsterdam, Holland	Valparaiso, Chile	Ballast	1,549	993	
Suraileo ¹	23	2 10	23	6 30	23	15 12	23	16 30	American	Transmarine Line	324 0	46 2	23 6	Mobile, Ala.	Portland, Oreg.	General	3,904	3,984	2,628
Victolite ¹	22	21 25	23	6 20	23	14 51	23	20 00	British	Imperial Oil Co.	510 0	68 2	20 0	Montreal, Canada	Talara, Peru	Ballast	11,575	7,033	
Cities Service Empire ¹	23	1 50	23	7 20	23	15 32	23	16 30	American	Cities Service-Trans. Co.	465 0	60 2	17 0	Baltimore, Md.	Los Angeles, Calif.	Ballast	8,561	5,997	
Robin Adair ¹	23	4 10	23	8 20	23	17 15	23	18 28	American	Argonaut S. S. Co.	424 8	55 2	27 2	New York, N. Y.	San Diego, Calif.	Steel, general	8,743	7,470	5,599
Esparita ¹	23	7 12	23	9 45	23	17 39	24	1 40	American	United Fruit Co.	330 6	41 6	18 4	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	434	3,083	2,373
Major Pullen ¹	23	9 55	24	6 05	24	12 53	24	14 00	American.	U. S. Army	450 0	57 0	17 2	Cristobal, C. Z.	Gatun, C. Z.	Ballast	2,227	8,805	6,497
Leme ²	23	13 05	24	6 10	24	13 15	24	17 15	Italian	Nav. Libera-Trestina	333 0	54 0	22 8	Naples, Italy	Vancouver, B. C.	General	2,908	6,585	4,631
Wido ²	23	13 05	24	6 10	24	13 15	24	17 15	German	North German Lloyd	408 3	55 3	18 4	Bremen, Germany	Valparaiso, Chile	General	6,522	4,389	
Glitter ²	24	5 55	24	7 10	24	14 00	24	15 15	Norwegian.	Fearnley & Eger	426 3	54 0	18 6	Rio de Janeiro.	Los Angeles, Calif.	Ballast	7,506	5,261	
Oregonstar ²	24	7 40	24	8 30	24	15 38	24	18 30	British	Blue Star Line	450 7	57 0	29 6	Liverpool, England	Vancouver, B. C.	Ballast	8,557	7,956	4,866
Oregonstar ²	24	7 45	24	9 30	24	17 25	24	18 30	American	Calmar S. S. Corp.	450 7	57 0	29 6	Baltimore, Md.	Seattle, Wash.	Steel, general	9,033	5,438	
K. R. Kingsbury ¹	24	11 10	24	11 15	24	17 45	24	18 30	American	Standard Oil Co.	440 0	58 0	21 0	Baltimore, Md.	San Francisco, Cal.	Ballast	1,100	5,710	4,023
El Salvador ¹	23	5 55	24	13 40	24	20 03	25	1 25	American	Panama Mail S. S. Co.	360 2	51 0	23 0	New York, N. Y.	San Francisco, Cal.	General, coffee	5,932	6,537	4,837
Bolton Castle ¹	24	13 40	24	16 25	25	9 25	25	10 26	British	Barber S. S. Line	424 0	53 0	27 0	New York, N. Y.	Hongkong, China.	Case oil, general	7,150	5,330	
Santa Clara ¹	24	18 30	25	6 10	25	13 48	25	15 00	American	Pureing Sigh & Co.	416 8	56 1	20 0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	3		
Illinois ¹	24	18 30	25	6 10	25	13 48	25	15 00	American	Texas S. S. Co.	416 8	56 1	20 0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,150	5,330	
Southern Cloud ¹	24	18 35	25	6 20	25	13 56	25	16 55	British	So. Whaling & Seal. Co.	116 0	24 0	12 0	Sandford, Norway	Pt. Chalmers, N.Z.	Ballast			
Southern Sun ¹	24	18 35	25	6 20	25	13 56	25	16 55	British	So. Whaling & Seal. Co.	116 0	24 0	12 0	Middlesboro, Eng.	Pt. Chalmers, N.Z.	Ballast			
Southern Sea ¹	24	18 35	25	6 20	25	13 56	25	16 55	British	So. Whaling & Seal. Co.	116 0	24 0	12 0	Middlesboro, Eng.	Pt. Chalmers, N.Z.	Ballast			
Southern Princess ¹	24	18 35	25	6 30	25	15 16	25	16 55	British	So. Whaling & Seal. Co.	530 0	66 0	30 5	Liverpool, England	Pt. Chalmers, N.Z.	Ballast			
Southern Sky ¹	24	18 35	25	6 30	25	15 00	25	16 55	British	So. Whaling & Seal. Co.	116 0	24 0	12 0	Middlesboro, Eng.	Pt. Chalmers, N.Z.	Ballast			
Southern Barrier ¹	24	18 35	25	6 20	25	15 00	25	16 55	British	So. Whaling & Seal. Co.	116 0	24 0	12 0	Middlesboro, Eng.	Pt. Chalmers, N.Z.	Ballast			

¹ Motor ship.² Tanker.³ Launch.⁴ Whaler.

J. L. Lucken- bach	24	20	45	25	7	35	25	14	51	25	16	00	American	Lockenbach Line	448	9	60	2	25	0	New York, N. Y.	Seattle, Wash.	General	6,000	9,294	6,861
Peninsular	24	21	00	25 <td>7<td>30</td><td>25<td>15<td>39</td><td>25<td>16<td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td></td></td></td></td></td>	7 <td>30</td> <td>25<td>15<td>39</td><td>25<td>16<td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td></td></td></td></td>	30	25 <td>15<td>39</td><td>25<td>16<td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td></td></td></td>	15 <td>39</td> <td>25<td>16<td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td></td></td>	39	25 <td>16<td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td></td>	16 <td>55<td>American</td><td>Amer-Hawaiian Line</td><td>407</td><td>7</td><td>53</td><td>7</td><td>20</td><td>0</td><td>Boston, Mass.</td><td>Seattle, Wash.</td><td>General</td><td>3,793</td><td>7,107</td><td>5,041</td></td>	55 <td>American</td> <td>Amer-Hawaiian Line</td> <td>407</td> <td>7</td> <td>53</td> <td>7</td> <td>20</td> <td>0</td> <td>Boston, Mass.</td> <td>Seattle, Wash.</td> <td>General</td> <td>3,793</td> <td>7,107</td> <td>5,041</td>	American	Amer-Hawaiian Line	407	7	53	7	20	0	Boston, Mass.	Seattle, Wash.	General	3,793	7,107	5,041
Yugo Slavia	24	21	15	25 <td>8<td>15</td><td>25<td>16<td>35</td><td>25<td>17<td>35</td><td>Yugoslav</td><td>Baburizza & Co.</td><td>410</td><td>0</td><td>49</td><td>0</td><td>25</td><td>10</td><td>Svanska, England.</td><td>Valparaiso, Chile</td><td>General</td><td>6,500</td><td>6,686</td><td>4,188</td></td></td></td></td></td>	8 <td>15</td> <td>25<td>16<td>35</td><td>25<td>17<td>35</td><td>Yugoslav</td><td>Baburizza & Co.</td><td>410</td><td>0</td><td>49</td><td>0</td><td>25</td><td>10</td><td>Svanska, England.</td><td>Valparaiso, Chile</td><td>General</td><td>6,500</td><td>6,686</td><td>4,188</td></td></td></td></td>	15	25 <td>16<td>35</td><td>25<td>17<td>35</td><td>Yugoslav</td><td>Baburizza & Co.</td><td>410</td><td>0</td><td>49</td><td>0</td><td>25</td><td>10</td><td>Svanska, England.</td><td>Valparaiso, Chile</td><td>General</td><td>6,500</td><td>6,686</td><td>4,188</td></td></td></td>	16 <td>35</td> <td>25<td>17<td>35</td><td>Yugoslav</td><td>Baburizza & Co.</td><td>410</td><td>0</td><td>49</td><td>0</td><td>25</td><td>10</td><td>Svanska, England.</td><td>Valparaiso, Chile</td><td>General</td><td>6,500</td><td>6,686</td><td>4,188</td></td></td>	35	25 <td>17<td>35</td><td>Yugoslav</td><td>Baburizza & Co.</td><td>410</td><td>0</td><td>49</td><td>0</td><td>25</td><td>10</td><td>Svanska, England.</td><td>Valparaiso, Chile</td><td>General</td><td>6,500</td><td>6,686</td><td>4,188</td></td>	17 <td>35</td> <td>Yugoslav</td> <td>Baburizza & Co.</td> <td>410</td> <td>0</td> <td>49</td> <td>0</td> <td>25</td> <td>10</td> <td>Svanska, England.</td> <td>Valparaiso, Chile</td> <td>General</td> <td>6,500</td> <td>6,686</td> <td>4,188</td>	35	Yugoslav	Baburizza & Co.	410	0	49	0	25	10	Svanska, England.	Valparaiso, Chile	General	6,500	6,686	4,188
Point Gorda	24	22	50	25 <td>8</td> <td>40</td> <td>25<td>16<td>35</td><td>25<td>17<td>40</td><td>American</td><td>Swayne & Hoyt</td><td>324</td><td>0</td><td>46</td><td>2</td><td>22</td><td>6</td><td>Lake Charles, La.</td><td>Tacoma, Wash.</td><td>Sulphur, pipe, gen.</td><td>4,080</td><td>3,984</td><td>2,643</td></td></td></td></td>	8	40	25 <td>16<td>35</td><td>25<td>17<td>40</td><td>American</td><td>Swayne & Hoyt</td><td>324</td><td>0</td><td>46</td><td>2</td><td>22</td><td>6</td><td>Lake Charles, La.</td><td>Tacoma, Wash.</td><td>Sulphur, pipe, gen.</td><td>4,080</td><td>3,984</td><td>2,643</td></td></td></td>	16 <td>35</td> <td>25<td>17<td>40</td><td>American</td><td>Swayne & Hoyt</td><td>324</td><td>0</td><td>46</td><td>2</td><td>22</td><td>6</td><td>Lake Charles, La.</td><td>Tacoma, Wash.</td><td>Sulphur, pipe, gen.</td><td>4,080</td><td>3,984</td><td>2,643</td></td></td>	35	25 <td>17<td>40</td><td>American</td><td>Swayne & Hoyt</td><td>324</td><td>0</td><td>46</td><td>2</td><td>22</td><td>6</td><td>Lake Charles, La.</td><td>Tacoma, Wash.</td><td>Sulphur, pipe, gen.</td><td>4,080</td><td>3,984</td><td>2,643</td></td>	17 <td>40</td> <td>American</td> <td>Swayne & Hoyt</td> <td>324</td> <td>0</td> <td>46</td> <td>2</td> <td>22</td> <td>6</td> <td>Lake Charles, La.</td> <td>Tacoma, Wash.</td> <td>Sulphur, pipe, gen.</td> <td>4,080</td> <td>3,984</td> <td>2,643</td>	40	American	Swayne & Hoyt	324	0	46	2	22	6	Lake Charles, La.	Tacoma, Wash.	Sulphur, pipe, gen.	4,080	3,984	2,643
Teno	24	17	55	25 <td>9</td> <td>28</td> <td>25<td>17</td><td>52</td><td>25<td>18</td><td>25</td><td>Chilean</td><td>Cia. Sud. Amer. de Vap.</td><td>428</td><td>5</td><td>56</td><td>0</td><td>25</td><td>4</td><td>New York, N. Y.</td><td>Valparaiso, Chile</td><td>General</td><td>1,953</td><td>7,764</td><td>4,672</td></td></td>	9	28	25 <td>17</td> <td>52</td> <td>25<td>18</td><td>25</td><td>Chilean</td><td>Cia. Sud. Amer. de Vap.</td><td>428</td><td>5</td><td>56</td><td>0</td><td>25</td><td>4</td><td>New York, N. Y.</td><td>Valparaiso, Chile</td><td>General</td><td>1,953</td><td>7,764</td><td>4,672</td></td>	17	52	25 <td>18</td> <td>25</td> <td>Chilean</td> <td>Cia. Sud. Amer. de Vap.</td> <td>428</td> <td>5</td> <td>56</td> <td>0</td> <td>25</td> <td>4</td> <td>New York, N. Y.</td> <td>Valparaiso, Chile</td> <td>General</td> <td>1,953</td> <td>7,764</td> <td>4,672</td>	18	25	Chilean	Cia. Sud. Amer. de Vap.	428	5	56	0	25	4	New York, N. Y.	Valparaiso, Chile	General	1,953	7,764	4,672
Willabeo	25	5	20	25 <td>10</td> <td>25<td>17</td><td>52</td><td>25</td><td>20</td><td>05</td><td>American</td><td>States S. S. Co.</td><td>468</td><td>5</td><td>53</td><td>5</td><td>30</td><td>10</td><td>Baltimore, Md.</td><td>Portland, Ore.</td><td>General</td><td>4,389</td><td>8,400</td><td>6,162</td></td>	10	25 <td>17</td> <td>52</td> <td>25</td> <td>20</td> <td>05</td> <td>American</td> <td>States S. S. Co.</td> <td>468</td> <td>5</td> <td>53</td> <td>5</td> <td>30</td> <td>10</td> <td>Baltimore, Md.</td> <td>Portland, Ore.</td> <td>General</td> <td>4,389</td> <td>8,400</td> <td>6,162</td>	17	52	25	20	05	American	States S. S. Co.	468	5	53	5	30	10	Baltimore, Md.	Portland, Ore.	General	4,389	8,400	6,162	
Annie Johnson	24	17	20	25 <td>11</td> <td>05</td> <td>25</td> <td>18</td> <td>25</td> <td>21</td> <td>40</td> <td>Swedish</td> <td>Johnson Line</td> <td>392</td> <td>2</td> <td>61</td> <td>0</td> <td>23</td> <td>0</td> <td>Stockholm, Sweden</td> <td>Vancouver, B. C.</td> <td>General</td> <td>5,926</td> <td>6,650</td> <td>4,919</td>	11	05	25	18	25	21	40	Swedish	Johnson Line	392	2	61	0	23	0	Stockholm, Sweden	Vancouver, B. C.	General	5,926	6,650	4,919	
Narva	25	6	20	25 <td>11</td> <td>05</td> <td>25</td> <td>18</td> <td>25</td> <td>21</td> <td>40</td> <td>Swedish</td> <td>Royal Mail S. P. Co.</td> <td>450</td> <td>0</td> <td>62</td> <td>0</td> <td>23</td> <td>6</td> <td>Newport, England.</td> <td>Vancouver, B. C.</td> <td>General</td> <td>9,319</td> <td>5,854</td> <td></td>	11	05	25	18	25	21	40	Swedish	Royal Mail S. P. Co.	450	0	62	0	23	6	Newport, England.	Vancouver, B. C.	General	9,319	5,854		
Max Albrecht	23	17	18	25 <td>14</td> <td>03</td> <td>25<td>21</td><td>18</td><td>25</td><td>22</td><td>45</td><td>British</td><td>Donaldson Line</td><td>415</td><td>0</td><td>54</td><td>3</td><td>20</td><td>7</td><td>Glasgow, Scotland</td><td>Vancouver, B. C.</td><td>General</td><td>1,328</td><td>6,809</td><td>4,842</td></td>	14	03	25 <td>21</td> <td>18</td> <td>25</td> <td>22</td> <td>45</td> <td>British</td> <td>Donaldson Line</td> <td>415</td> <td>0</td> <td>54</td> <td>3</td> <td>20</td> <td>7</td> <td>Glasgow, Scotland</td> <td>Vancouver, B. C.</td> <td>General</td> <td>1,328</td> <td>6,809</td> <td>4,842</td>	21	18	25	22	45	British	Donaldson Line	415	0	54	3	20	7	Glasgow, Scotland	Vancouver, B. C.	General	1,328	6,809	4,842
Benjamin	25	13	40	25 <td>16</td> <td>50</td> <td>26<td>9</td><td>51</td><td>26</td><td>15</td><td>15</td><td>German</td><td>Mineralwerke Alb/chi</td><td>381</td><td>0</td><td>55</td><td>0</td><td>16</td><td>6</td><td>Hamburg, Germany</td><td>Los Angeles, Calif</td><td>Ballast</td><td>6,072</td><td>4,091</td><td></td></td>	16	50	26 <td>9</td> <td>51</td> <td>26</td> <td>15</td> <td>15</td> <td>German</td> <td>Mineralwerke Alb/chi</td> <td>381</td> <td>0</td> <td>55</td> <td>0</td> <td>16</td> <td>6</td> <td>Hamburg, Germany</td> <td>Los Angeles, Calif</td> <td>Ballast</td> <td>6,072</td> <td>4,091</td> <td></td>	9	51	26	15	15	German	Mineralwerke Alb/chi	381	0	55	0	16	6	Hamburg, Germany	Los Angeles, Calif	Ballast	6,072	4,091	
Franklin	25	4	00	26 <td>6</td> <td>12</td> <td>26<td>14</td><td>35</td><td>27</td><td>13</td><td>20</td><td>Norwegian</td><td>Fred Olsen & Co.</td><td>452</td><td>0</td><td>59</td><td>5</td><td>17</td><td>6</td><td>Oslo, Norway</td><td>Vancouver, B. C.</td><td>General</td><td>1,275</td><td>9,082</td><td>6,140</td></td>	6	12	26 <td>14</td> <td>35</td> <td>27</td> <td>13</td> <td>20</td> <td>Norwegian</td> <td>Fred Olsen & Co.</td> <td>452</td> <td>0</td> <td>59</td> <td>5</td> <td>17</td> <td>6</td> <td>Oslo, Norway</td> <td>Vancouver, B. C.</td> <td>General</td> <td>1,275</td> <td>9,082</td> <td>6,140</td>	14	35	27	13	20	Norwegian	Fred Olsen & Co.	452	0	59	5	17	6	Oslo, Norway	Vancouver, B. C.	General	1,275	9,082	6,140
Nimanco	25	11	10	26 <td>6</td> <td>25</td> <td>26<td>14</td><td>37</td><td>28</td><td>13</td><td>10</td><td>British</td><td>British Government</td><td>88</td><td>0</td><td>22</td><td>0</td><td>12</td><td>0</td><td>Dartmouth, Eng.</td><td>Suva, Fiji Islands.</td><td>Ballast</td><td>154</td><td>86</td><td></td></td>	6	25	26 <td>14</td> <td>37</td> <td>28</td> <td>13</td> <td>10</td> <td>British</td> <td>British Government</td> <td>88</td> <td>0</td> <td>22</td> <td>0</td> <td>12</td> <td>0</td> <td>Dartmouth, Eng.</td> <td>Suva, Fiji Islands.</td> <td>Ballast</td> <td>154</td> <td>86</td> <td></td>	14	37	28	13	10	British	British Government	88	0	22	0	12	0	Dartmouth, Eng.	Suva, Fiji Islands.	Ballast	154	86	
Anchucuna	26	6	40	26 <td>6</td> <td>40</td> <td>27<td>13</td><td>15</td><td></td><td></td><td></td><td>Panaman</td><td>United Fruit Co.</td><td>105</td><td>0</td><td>15</td><td>3</td><td>5</td><td></td><td>Cristobal, C. Z.</td><td>Balboa, C. Z.</td><td>Bananas</td><td>62</td><td>92</td><td>47</td></td>	6	40	27 <td>13</td> <td>15</td> <td></td> <td></td> <td></td> <td>Panaman</td> <td>United Fruit Co.</td> <td>105</td> <td>0</td> <td>15</td> <td>3</td> <td>5</td> <td></td> <td>Cristobal, C. Z.</td> <td>Balboa, C. Z.</td> <td>Bananas</td> <td>62</td> <td>92</td> <td>47</td>	13	15				Panaman	United Fruit Co.	105	0	15	3	5		Cristobal, C. Z.	Balboa, C. Z.	Bananas	62	92	47
Victorias	26	7	20	26 <td>7</td> <td>35</td> <td>26<td>15</td><td>39</td><td>26</td><td>18</td><td>10</td><td>American</td><td>Tampa Inter-ocean Co.</td><td>440</td><td>0</td><td>56</td><td>0</td><td>22</td><td>0</td><td>New Orleans, La.</td><td>Manila, P. I.</td><td>(*)</td><td>5,390</td><td>8,328</td><td>6,036</td></td>	7	35	26 <td>15</td> <td>39</td> <td>26</td> <td>18</td> <td>10</td> <td>American</td> <td>Tampa Inter-ocean Co.</td> <td>440</td> <td>0</td> <td>56</td> <td>0</td> <td>22</td> <td>0</td> <td>New Orleans, La.</td> <td>Manila, P. I.</td> <td>(*)</td> <td>5,390</td> <td>8,328</td> <td>6,036</td>	15	39	26	18	10	American	Tampa Inter-ocean Co.	440	0	56	0	22	0	New Orleans, La.	Manila, P. I.	(*)	5,390	8,328	6,036
Henderson	26	6	10	26 <td>8</td> <td>40</td> <td>26<td>16</td><td>35</td><td>26</td><td>18</td><td>10</td><td>American</td><td>U. S. Navy</td><td>483</td><td>0</td><td>61</td><td>0</td><td>21</td><td>0</td><td>Quantico, Va.</td><td>San Francisco, Cal.</td><td>General, auto.</td><td>290</td><td></td><td></td></td>	8	40	26 <td>16</td> <td>35</td> <td>26</td> <td>18</td> <td>10</td> <td>American</td> <td>U. S. Navy</td> <td>483</td> <td>0</td> <td>61</td> <td>0</td> <td>21</td> <td>0</td> <td>Quantico, Va.</td> <td>San Francisco, Cal.</td> <td>General, auto.</td> <td>290</td> <td></td> <td></td>	16	35	26	18	10	American	U. S. Navy	483	0	61	0	21	0	Quantico, Va.	San Francisco, Cal.	General, auto.	290		
Sacramento	26	5	00	26 <td>9</td> <td>53</td> <td>26<td>17</td><td>10</td><td></td><td></td><td></td><td>American</td><td>Stock, Rederiaktbolag</td><td>226</td><td>2</td><td>40</td><td>10</td><td>13</td><td>5</td><td>Boston, Mass.</td><td>Balboa, C. Z.</td><td>Ballast</td><td></td><td>7,011</td><td>5,039</td></td>	9	53	26 <td>17</td> <td>10</td> <td></td> <td></td> <td></td> <td>American</td> <td>Stock, Rederiaktbolag</td> <td>226</td> <td>2</td> <td>40</td> <td>10</td> <td>13</td> <td>5</td> <td>Boston, Mass.</td> <td>Balboa, C. Z.</td> <td>Ballast</td> <td></td> <td>7,011</td> <td>5,039</td>	17	10				American	Stock, Rederiaktbolag	226	2	40	10	13	5	Boston, Mass.	Balboa, C. Z.	Ballast		7,011	5,039
Sacramento	26	12	20	26 <td>15</td> <td>10</td> <td>26<td>21</td><td>50</td><td>27</td><td>00</td><td>10</td><td>Swedish</td><td>Panama Pacific Line</td><td>375</td><td>0</td><td>54</td><td>6</td><td>15</td><td>0</td><td>Oslo, Norway</td><td>Los Angeles, Calif</td><td>Ballast</td><td>3,007</td><td>24,506</td><td>17,565</td></td>	15	10	26 <td>21</td> <td>50</td> <td>27</td> <td>00</td> <td>10</td> <td>Swedish</td> <td>Panama Pacific Line</td> <td>375</td> <td>0</td> <td>54</td> <td>6</td> <td>15</td> <td>0</td> <td>Oslo, Norway</td> <td>Los Angeles, Calif</td> <td>Ballast</td> <td>3,007</td> <td>24,506</td> <td>17,565</td>	21	50	27	00	10	Swedish	Panama Pacific Line	375	0	54	6	15	0	Oslo, Norway	Los Angeles, Calif	Ballast	3,007	24,506	17,565
California	27	6	00	27 <td>8</td> <td>03</td> <td>27<td>23</td><td>13</td><td>28</td><td>11</td><td>00</td><td>American</td><td>Armore S. S. Co.</td><td>370</td><td>4</td><td>50</td><td>3</td><td>28</td><td>0</td><td>New York, N. Y.</td><td>San Francisco, Cal.</td><td>General</td><td>3,455</td><td>6,199</td><td>4,513</td></td>	8	03	27 <td>23</td> <td>13</td> <td>28</td> <td>11</td> <td>00</td> <td>American</td> <td>Armore S. S. Co.</td> <td>370</td> <td>4</td> <td>50</td> <td>3</td> <td>28</td> <td>0</td> <td>New York, N. Y.</td> <td>San Francisco, Cal.</td> <td>General</td> <td>3,455</td> <td>6,199</td> <td>4,513</td>	23	13	28	11	00	American	Armore S. S. Co.	370	4	50	3	28	0	New York, N. Y.	San Francisco, Cal.	General	3,455	6,199	4,513
Sanita Rita	26	5	40	27 <td>9</td> <td>32</td> <td>27<td>16</td><td>25</td><td>27</td><td>19</td><td>15</td><td>Norwegian</td><td>Grace Line</td><td>390</td><td>0</td><td>53</td><td>0</td><td>22</td><td>2</td><td>New York, N. Y.</td><td>Valparaiso, Chile</td><td>General</td><td>2,446</td><td>6,255</td><td>4,099</td></td>	9	32	27 <td>16</td> <td>25</td> <td>27</td> <td>19</td> <td>15</td> <td>Norwegian</td> <td>Grace Line</td> <td>390</td> <td>0</td> <td>53</td> <td>0</td> <td>22</td> <td>2</td> <td>New York, N. Y.</td> <td>Valparaiso, Chile</td> <td>General</td> <td>2,446</td> <td>6,255</td> <td>4,099</td>	16	25	27	19	15	Norwegian	Grace Line	390	0	53	0	22	2	New York, N. Y.	Valparaiso, Chile	General	2,446	6,255	4,099
Endley City	27	9	20	27 <td>11</td> <td>00</td> <td>27<td>17</td><td>36</td><td>27</td><td>19</td><td>10</td><td>American</td><td>Isthmian S. S. Lines</td><td>335</td><td>3</td><td>53</td><td>0</td><td>27</td><td>6</td><td>New York, N. Y.</td><td>Shanghai, China.</td><td>General</td><td>8,003</td><td>7,330</td><td>5,239</td></td>	11	00	27 <td>17</td> <td>36</td> <td>27</td> <td>19</td> <td>10</td> <td>American</td> <td>Isthmian S. S. Lines</td> <td>335</td> <td>3</td> <td>53</td> <td>0</td> <td>27</td> <td>6</td> <td>New York, N. Y.</td> <td>Shanghai, China.</td> <td>General</td> <td>8,003</td> <td>7,330</td> <td>5,239</td>	17	36	27	19	10	American	Isthmian S. S. Lines	335	3	53	0	27	6	New York, N. Y.	Shanghai, China.	General	8,003	7,330	5,239
St. Michel	27	8	05	27 <td>14</td> <td>35</td> <td>27<td>22</td><td>30</td><td></td><td></td><td></td><td>American</td><td>U. S. Army</td><td>436</td><td>0</td><td>58</td><td>0</td><td>23</td><td>6</td><td>New York, N. Y.</td><td>Balboa, C. Z.</td><td>Army supplies</td><td>673</td><td></td><td></td></td>	14	35	27 <td>22</td> <td>30</td> <td></td> <td></td> <td></td> <td>American</td> <td>U. S. Army</td> <td>436</td> <td>0</td> <td>58</td> <td>0</td> <td>23</td> <td>6</td> <td>New York, N. Y.</td> <td>Balboa, C. Z.</td> <td>Army supplies</td> <td>673</td> <td></td> <td></td>	22	30				American	U. S. Army	436	0	58	0	23	6	New York, N. Y.	Balboa, C. Z.	Army supplies	673		
Elmworth	27	2	00	27 <td>20</td> <td>35</td> <td>28</td> <td>9</td> <td>26</td> <td>28</td> <td>14</td> <td>45</td> <td>British</td> <td>R. G. Lane, Ltd</td> <td>400</td> <td>0</td> <td>53</td> <td></td> <td></td> <td></td> <td>Emden, Germany.</td> <td>Panama, C. R.</td> <td>Patent fuel</td> <td>5,499</td> <td>5,958</td> <td>4,114</td>	20	35	28	9	26	28	14	45	British	R. G. Lane, Ltd	400	0	53				Emden, Germany.	Panama, C. R.	Patent fuel	5,499	5,958	4,114
Breckenridge	27	18	45	28 <td>6</td> <td>05</td> <td>28<td>13</td><td>44</td><td>28</td><td>18</td><td>10</td><td>British</td><td>U. S. Army</td><td>401</td><td>0</td><td>54</td><td>3</td><td>25</td><td>6</td><td>Cristobal, C. Z.</td><td>Gatun, C. Z.</td><td>Ballast</td><td>7,046</td><td>4,637</td><td>2,853</td></td>	6	05	28 <td>13</td> <td>44</td> <td>28</td> <td>18</td> <td>10</td> <td>British</td> <td>U. S. Army</td> <td>401</td> <td>0</td> <td>54</td> <td>3</td> <td>25</td> <td>6</td> <td>Cristobal, C. Z.</td> <td>Gatun, C. Z.</td> <td>Ballast</td> <td>7,046</td> <td>4,637</td> <td>2,853</td>	13	44	28	18	10	British	U. S. Army	401	0	54	3	25	6	Cristobal, C. Z.	Gatun, C. Z.	Ballast	7,046	4,637	2,853
Andinos	27	18	45	28 <td>6</td> <td>05</td> <td>28<td>13</td><td>44</td><td>28</td><td>18</td><td>10</td><td>British</td><td>Texas Oil Co.</td><td>401</td><td>0</td><td>54</td><td>3</td><td>25</td><td>6</td><td>Pt. Arthur, Texas.</td><td>Dairen, China.</td><td>Oil products</td><td>7,046</td><td>4,637</td><td>2,853</td></td>	6	05	28 <td>13</td> <td>44</td> <td>28</td> <td>18</td> <td>10</td> <td>British</td> <td>Texas Oil Co.</td> <td>401</td> <td>0</td> <td>54</td> <td>3</td> <td>25</td> <td>6</td> <td>Pt. Arthur, Texas.</td> <td>Dairen, China.</td> <td>Oil products</td> <td>7,046</td> <td>4,637</td> <td>2,853</td>	13	44	28	18	10	British	Texas Oil Co.	401	0	54	3	25	6	Pt. Arthur, Texas.	Dairen, China.	Oil products	7,046	4,637	2,853
Christenson	27	22	40	28 <td>7</td> <td>15</td> <td>28<td>15</td><td>07</td><td>28</td><td>16</td><td>25</td><td>American</td><td>Sudden & Christenson.</td><td>409</td><td>0</td><td>54</td><td>2</td><td>18</td><td>8</td><td>Baltimore, Md.</td><td>San Francisco, Cal.</td><td>General</td><td>3,715</td><td>4,966</td><td>3,534</td></td>	7	15	28 <td>15</td> <td>07</td> <td>28</td> <td>16</td> <td>25</td> <td>American</td> <td>Sudden & Christenson.</td> <td>409</td> <td>0</td> <td>54</td> <td>2</td> <td>18</td> <td>8</td> <td>Baltimore, Md.</td> <td>San Francisco, Cal.</td> <td>General</td> <td>3,715</td> <td>4,966</td> <td>3,534</td>	15	07	28	16	25	American	Sudden & Christenson.	409	0	54	2	18	8	Baltimore, Md.	San Francisco, Cal.	General	3,715	4,966	3,534
Dilworth	28	1	15	28 <td>7</td> <td>15</td> <td>28<td>15</td><td>07</td><td>28</td><td>16</td><td>25</td><td>American</td><td>Tidewater Oil Co.</td><td>435</td><td>0</td><td>56</td><td>0</td><td>17</td><td>3</td><td>New York, N. Y.</td><td>San Francisco, Cal.</td><td>Ballast</td><td>5,099</td><td>4,244</td><td></td></td>	7	15	28 <td>15</td> <td>07</td> <td>28</td> <td>16</td> <td>25</td> <td>American</td> <td>Tidewater Oil Co.</td> <td>435</td> <td>0</td> <td>56</td> <td>0</td> <td>17</td> <td>3</td> <td>New York, N. Y.</td> <td>San Francisco, Cal.</td> <td>Ballast</td> <td>5,099</td> <td>4,244</td> <td></td>	15	07	28	16	25	American	Tidewater Oil Co.	435	0	56	0	17	3	New York, N. Y.	San Francisco, Cal.	Ballast	5,099	4,244	
Herman F.	28	2	05	28 <td>7</td> <td>25</td> <td>28<td>15</td><td>55</td><td>28</td><td>17</td><td>05</td><td>American</td><td>Texas Gulf Sulphur Co.</td><td>409</td><td>0</td><td>54</td><td>2</td><td>18</td><td>6</td><td>Galveston, Tex.</td><td>Portland, Ore.</td><td>Sulphur</td><td>3,950</td><td>4,734</td><td>3,445</td></td>	7	25	28 <td>15</td> <td>55</td> <td>28</td> <td>17</td> <td>05</td> <td>American</td> <td>Texas Gulf Sulphur Co.</td> <td>409</td> <td>0</td> <td>54</td> <td>2</td> <td>18</td> <td>6</td> <td>Galveston, Tex.</td> <td>Portland, Ore.</td> <td>Sulphur</td> <td>3,950</td> <td>4,734</td> <td>3,445</td>	15	55	28	17	05	American	Texas Gulf Sulphur Co.	409	0	54	2	18	6	Galveston, Tex.	Portland, Ore.	Sulphur	3,950	4,734	3,445
Larry Doheny	28	2	25	28 <td>8</td> <td>25</td> <td>28<td>16</td><td>37</td><td>28</td><td>17</td><td>05</td><td>American</td><td>Richfield Oil Co.</td><td>430</td><td>0</td><td>59</td><td>0</td><td>20</td><td>0</td><td>New York, N. Y.</td><td>Los Angeles, Calif</td><td>Ballast</td><td>5,198</td><td>4,129</td><td></td></td>	8	25	28 <td>16</td> <td>37</td> <td>28</td> <td>17</td> <td>05</td> <td>American</td> <td>Richfield Oil Co.</td> <td>430</td> <td>0</td> <td>59</td> <td>0</td> <td>20</td> <td>0</td> <td>New York, N. Y.</td> <td>Los Angeles, Calif</td> <td>Ballast</td> <td>5,198</td> <td>4,129</td> <td></td>	16	37	28	17	05	American	Richfield Oil Co.	430	0	59	0	20	0	New York, N. Y.	Los Angeles, Calif	Ballast	5,198	4,129	
Alaska	28	5	45	28 <td>8</td> <td>30</td> <td>28<td>16</td><td>37</td><td>28</td><td>18</td><td>10</td><td>Norwegian</td><td>Scand-Sco, Pacific Co.</td><td>410</td><td>0</td><td>59</td><td>0</td><td>22</td><td>3</td><td>Norroping, Sweden</td><td>Talcahuano, Chile</td><td>General</td><td>5,404</td><td>4,797</td><td>3,437</td></td>	8	30	28 <td>16</td> <td>37</td> <td>28</td> <td>18</td> <td>10</td> <td>Norwegian</td> <td>Scand-Sco, Pacific Co.</td> <td>410</td> <td>0</td> <td>59</td> <td>0</td> <td>22</td> <td>3</td> <td>Norroping, Sweden</td> <td>Talcahuano, Chile</td> <td>General</td> <td>5,404</td> <td>4,797</td> <td>3,437</td>	16	37	28	18	10	Norwegian	Scand-Sco, Pacific Co.	410	0	59	0	22	3	Norroping, Sweden	Talcahuano, Chile	General	5,404	4,797	3,437
Lake Gorin	28	5	55	28 <td>9</td> <td>45</td> <td>28<td>17</td><td>15</td><td>28</td><td>21</td><td>50</td><td>American</td><td>Ford Motor Co.</td><td>290</td><td>0</td><td>43</td><td>0</td><td>20</td><td>6</td><td>Chester, Pa.</td><td>Portland, Ore.</td><td>Auto, parts</td><td>2,536</td><td>1,803</td><td>1,470</td></td>	9	45	28 <td>17</td> <td>15</td> <td>28</td> <td>21</td> <td>50</td> <td>American</td> <td>Ford Motor Co.</td> <td>290</td> <td>0</td> <td>43</td> <td>0</td> <td>20</td> <td>6</td> <td>Chester, Pa.</td> <td>Portland, Ore.</td> <td>Auto, parts</td> <td>2,536</td> <td>1,803</td> <td>1,470</td>	17	15	28	21	50	American	Ford Motor Co.	290	0	43	0	20	6	Chester, Pa.	Portland, Ore.	Auto, parts	2,536	1,803	1,470
Cauca	20	20	58	28 <td>11</td> <td>55</td> <td>28<td>20</td><td>00</td><td>29</td><td>6</td><td>35</td><td>Colombian</td><td>National Navigation Co.</td><td>107</td><td>0</td><td>22</td><td>0</td><td>8</td><td>7</td><td>Cristobal, C. Z.</td><td>Buenaventura, Col.</td><td>General</td><td>44</td><td>163</td><td>164</td></td>	11	55	28 <td>20</td> <td>00</td> <td>29</td> <td>6</td> <td>35</td> <td>Colombian</td> <td>National Navigation Co.</td> <td>107</td> <td>0</td> <td>22</td> <td>0</td> <td>8</td> <td>7</td> <td>Cristobal, C. Z.</td> <td>Buenaventura, Col.</td> <td>General</td> <td>44</td> <td>163</td> <td>164</td>	20	00	29	6	35	Colombian	National Navigation Co.	107	0	22	0	8	7	Cristobal, C. Z.	Buenaventura, Col.	General	44	163	164
Sanita Veronica	28	12	50	28 <td>13</td> <td>00</td> <td>28<td>20</td><td>15</td><td>29</td><td>5</td><td>15</td><td>American</td><td>Isthmian S. S. Lines</td><td>251</td><td>0</td><td>43</td><td>6</td><td>23</td><td>0</td><td>Baltimore, Md.</td><td>Ililo, T. H.</td><td>General</td><td>3,032</td><td>1,740</td><td>1,542</td></td>	13	00	28 <td>20</td> <td>15</td> <td>29</td> <td>5</td> <td>15</td> <td>American</td> <td>Isthmian S. S. Lines</td> <td>251</td> <td>0</td> <td>43</td> <td>6</td> <td>23</td> <td>0</td> <td>Baltimore, Md.</td> <td>Ililo, T. H.</td> <td>General</td> <td>3,032</td> <td>1,740</td> <td>1,542</td>	20	15	29	5	15	American	Isthmian S. S. Lines	251	0	43	6	23	0	Baltimore, Md.	Ililo, T. H.	General	3,032	1,740	1,542
Saint Joseph	28	7	20	28 <td>14</td> <td>15</td> <td>28<td>21</td><td>15</td><td>28</td><td>22</td><td>30</td><td>French</td><td>French Line</td><td>398</td><td>0</td><td>50</td><td>0</td><td>18</td><td>2</td><td>Havre, France</td><td>Talcahuano, Chile</td><td>General</td><td>1,973</td><td>4,187</td><td>3,353</td></td>	14	15	28 <td>21</td> <td>15</td> <td>28</td> <td>22</td> <td>30</td> <td>French</td> <td>French Line</td> <td>398</td> <td>0</td> <td>50</td> <td>0</td> <td>18</td> <td>2</td> <td>Havre, France</td> <td>Talcahuano, Chile</td> <td>General</td> <td>1,973</td> <td>4,187</td> <td>3,353</td>	21	15	28	22	30	French	French Line	398	0	50	0	18	2	Havre, France	Talcahuano, Chile	General	1,973	4,187	3,353
Sabotawan	28	14	50	28 <td>15</td> <td>05</td> <td>28<td>22</td><td>28</td><td>28</td><td>23</td><td>25</td><td>American</td><td>Redwood Line</td><td>387</td><td>0</td><td>52</td><td>2</td><td>23</td><td>0</td><td>Mobile, Ala.</td><td>San Francisco, Cal.</td><td>General</td><td>5,999</td><td>4,158</td><td>3,076</td></td>	15	05	28 <td>22</td> <td>28</td> <td>28</td> <td>23</td> <td>25</td> <td>American</td> <td>Redwood Line</td> <td>387</td> <td>0</td> <td>52</td> <td>2</td> <td>23</td> <td>0</td> <td>Mobile, Ala.</td> <td>San Francisco, Cal.</td> <td>General</td> <td>5,999</td> <td>4,158</td> <td>3,076</td>	22	28	28	23	25	American	Redwood Line	387	0	52	2	23	0	Mobile, Ala.	San Francisco, Cal.	General	5,999	4,158	3,076
Buddy	28	14	50	28 <td>15</td> <td>05</td> <td>28<td>22</td><td>28</td><td>28</td><td>23</td><td>25</td><td>American</td><td>J. N. Grayson</td><td>387</td><td>0</td><td>52</td><td>2</td><td>23</td><td>0</td><td>Cristobal, C. Z.</td><td>Gatun, C. Z.</td><td>Ballast</td><td></td><td></td><td>1</td></td>	15	05	28 <td>22</td> <td>28</td> <td>28</td> <td>23</td> <td>25</td> <td>American</td> <td>J. N. Grayson</td> <td>387</td> <td>0</td> <td>52</td> <td>2</td> <td>23</td> <td>0</td> <td>Cristobal, C. Z.</td> <td>Gatun, C. Z.</td> <td>Ballast</td> <td></td> <td></td> <td>1</td>	22	28	28	23	25	American	J. N. Grayson	387	0	52	2	23	0	Cristobal, C. Z.	Gatun, C. Z.	Ballast			1

Laurel Branch	21	16	20	22	6	30	22	14	26	22	15	50	British	F. & W. Ritson	360	0	46	0	23	4	Valparaiso, Chile	Liverpool, England	General	5,387 <th rowspan="2">4,182</th> <th rowspan="2">3,047</th>	4,182	3,047
Texas	22	3	00	22 <td>6</td> <td>52</td> <td>22<td>15</td><td>45</td><td>23</td><td>20</td><td>15</td><td>French</td><td>French Line</td><td>409</td><td>0</td><td>52</td><td>3</td><td>27</td><td>6</td><td>Vancouver, B. C.</td><td>Bordeaux, France</td><td>(*)</td><td>7,877</td><td>6,824</td><td>4,885</td></td>	6	52	22 <td>15</td> <td>45</td> <td>23</td> <td>20</td> <td>15</td> <td>French</td> <td>French Line</td> <td>409</td> <td>0</td> <td>52</td> <td>3</td> <td>27</td> <td>6</td> <td>Vancouver, B. C.</td> <td>Bordeaux, France</td> <td>(*)</td> <td>7,877</td> <td>6,824</td> <td>4,885</td>	15	45	23	20	15	French	French Line	409	0	52	3	27	6	Vancouver, B. C.	Bordeaux, France	(*)	7,877	6,824	4,885
Benalder	22	3	00	22 <td>7</td> <td>40</td> <td>22<td>16</td><td>30</td><td>23</td><td>19</td><td>05</td><td>British</td><td>Ben Line Steamers, Ltd.</td><td>400</td><td>0</td><td>51</td><td>8</td><td>23</td><td>0</td><td>Portland, Ore.</td><td>Grangemouth, Eng.</td><td>Lumber</td><td>5,400</td><td>5,419</td><td>3,995</td></td>	7	40	22 <td>16</td> <td>30</td> <td>23</td> <td>19</td> <td>05</td> <td>British</td> <td>Ben Line Steamers, Ltd.</td> <td>400</td> <td>0</td> <td>51</td> <td>8</td> <td>23</td> <td>0</td> <td>Portland, Ore.</td> <td>Grangemouth, Eng.</td> <td>Lumber</td> <td>5,400</td> <td>5,419</td> <td>3,995</td>	16	30	23	19	05	British	Ben Line Steamers, Ltd.	400	0	51	8	23	0	Portland, Ore.	Grangemouth, Eng.	Lumber	5,400	5,419	3,995
Cal	22	7	30	22 <td>8</td> <td>45</td> <td>22<td>17</td><td>35</td><td>22</td><td>20</td><td>10</td><td>German</td><td>Roland Line</td><td>216</td><td>5</td><td>32</td><td>9</td><td>12</td><td>5</td><td>Guayquil, Ecuador</td><td>Cristobal, C. Z.</td><td>General</td><td>902</td><td>1,105</td><td>698</td></td>	8	45	22 <td>17</td> <td>35</td> <td>22</td> <td>20</td> <td>10</td> <td>German</td> <td>Roland Line</td> <td>216</td> <td>5</td> <td>32</td> <td>9</td> <td>12</td> <td>5</td> <td>Guayquil, Ecuador</td> <td>Cristobal, C. Z.</td> <td>General</td> <td>902</td> <td>1,105</td> <td>698</td>	17	35	22	20	10	German	Roland Line	216	5	32	9	12	5	Guayquil, Ecuador	Cristobal, C. Z.	General	902	1,105	698
Mark	22	7	20	22 <td>9</td> <td>02</td> <td>22<td>17</td><td>35</td><td>22</td><td>20</td><td>10</td><td>German</td><td>Hamburg-American Line</td><td>392</td><td>2</td><td>32</td><td>5</td><td>25</td><td>0</td><td>Marelaus, Chile</td><td>Hamburg, Germany</td><td>General</td><td>7,451</td><td>5,543</td><td>3,832</td></td>	9	02	22 <td>17</td> <td>35</td> <td>22</td> <td>20</td> <td>10</td> <td>German</td> <td>Hamburg-American Line</td> <td>392</td> <td>2</td> <td>32</td> <td>5</td> <td>25</td> <td>0</td> <td>Marelaus, Chile</td> <td>Hamburg, Germany</td> <td>General</td> <td>7,451</td> <td>5,543</td> <td>3,832</td>	17	35	22	20	10	German	Hamburg-American Line	392	2	32	5	25	0	Marelaus, Chile	Hamburg, Germany	General	7,451	5,543	3,832

10 Sulphate ammonia, machinery, general.

9 Cotton, case oil, general.

8 Gunboat.

7 Transport.

6 Motor boat.

5 Yacht.

4 Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

* Sulphate ammonia, machinery, general.

* Cotton, cuss oil, general.

* Gunboat.

* Transport.

* Motor boat.

* Yacht.

* Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Laurel Branch.	21	16	20	22	6	30	22	14	26	22	15	50	British	F. & W. Ritson.	360	0	49	0	23	4	Valparaiso, Chile	Liverpool, England	General	5,387	4,182	3,047
Texas	22	3	00	22	6	52	22	15	43	23	20	15	French	French Line	409	0	52	3	27	6	Vancouver, B. C.	Bordeaux, France.	(*)	7,877	6,824	4,085
Benader	22	5	30	22	7	40	22	16	30	22	19	05	British	Ben Line Steamers, Ltd.	400	0	51	8	23	0	Grangemouth, Eng.	Grangemouth, Eng.	Lumber	5,460	5,419	3,995
Cal	22	7	20	22	8	45	22	16	50				German	Roland Line	216	5	32	9	12	5	Guayquil, Ecuador	Cristobal, C. Z.	General	902	1,105	693
Altmark	22	7	30	22	9	02	22	17	35	22	20	10	German	Hamburg-American Line	392	2	52	3	25	0	Magellanes, Chile.	Hamburg, Germany	General	7,451	5,543	3,832

** Lumber, copper, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Belgium	22	9 00	22	9 39	22	17 45	22	17 45	Belgium	Soc. Anonyme D'Arm.	450.0	61.0	28.0	Los Angeles, Calif	Land's End, Eng. ¹⁰	Gasoline	8,796	5,410
Gulf ¹²	22	10 10	22	11 09	22	19 25	22	19 25	American	Ore S. S. Corp.	449.1	57.2	29.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,600	7,847
Solana ¹	22	12 45	22	13 28	22	20 05	22	20 05	American	Associated Oil Co.	419.5	56.5	25.0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,200	5,185
Marine	22	12 45	22	13 28	22	20 05	22	20 05	American	Ore S. S. Corp.	550.3	57.2	26.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,651	15,551
Marine	22	18 45	22	19 25	22	19 35	22	19 35	American	Sun Oil Co.	420.3	59.2	26.0	Los Angeles, Calif	Chester, Pa.	Gasoline	9,400	7,709
Trevanion	22	18 45	22	19 25	22	19 35	22	19 35	British	Canadian Transp. Co.	369.7	51.1	22.0	Chenaimis, B. C.	St. Lawrence, Can	Lumber	5,320	5,216
Zacharisa	22	11 00	22	12 03	22	20 35	22	20 35	Greek	P. W. Richardson & Co.	390.0	50.0	25.0	Tecopa, Wash.	Azores ¹⁶	Nitrates	6,900	6,006
Plow City	22	11 00	22	12 03	22	20 35	22	20 35	American	Charles Nelson Co.	324.0	46.2	23.0	Seattle, Wash.	Baltimore, Md	Lumber, general	3,983	3,681
San Jilisa	23	14 06	23	15 03	23	21 43	23	21 43	American	Grace Line	360.3	51.7	25.0	Talcahuano, Chile	New York, N. Y.	General	4,998	3,057
Dixie Arrow ¹	23	17 00	24	6 03	24	13 40	24	13 40	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif	New York, N. Y.	Gasoline	11,268	9,744
Edward	24	2 00	24	6 47	24	14 35	24	14 35	American	Luckenbach Line.	431.6	57.2	28.0	Seattle, Wash.	Boston, Mass	General	7,119	8,543
Wilfaro	24	7 00	24	8 11	24	15 30	24	15 30	American	Williams S. S. Line	386.8	52.2	22.0	Tacoma, Wash.	Norfolk, Va.	Lumber, general	5,645	6,427
Lanaster	24	6 20	24	10 16	24	17 30	24	17 30	American	Argonaut S. S. Co.	434.3	57.7	26.0	Tacoma, Wash.	Baltimore, Md	Lumber, general	5,243	7,935
El Lobo ¹	24	14 20	24	15 18	24	22 42	25	2 10	British	C. T. Bowring & Co.	385.2	51.0	22.8	La Libertad, Peru	Philadelphia, Pa.	Crude oil	6,138	4,851
Pacific Pioneer ¹²	24	14 46	25	6 04	25	14 23	25	14 23	British	Furness, Withy & Co.	435.0	60.1	27.6	Victoria, B. C.	Glasgow, Scotland	General	8,141	9,630
Samurai ¹³	24	15 45	25	6 16	25	15 45	25	15 45	American	Clifford Galloway	34.0	10.9		Bahia, C. Z.	Cristobal, C. Z.	Ballast	7,695	4,723
Haymer ¹²	24	17 15	25	6 40	25	15 40	25	15 40	Norwegian	W. L. Conyn & Co.	381.6	51.0	26.0	Olympia, Wash.	Ostend, Belgium	Wheat, lumber	6,289	4,723
California ¹²	24	17 15	25	7 06	25	16 08	25	16 08	American	Amer.-Hawaiian Line	445.6	59.8	28.5	Portland, Oreg	Boston, Mass	General	8,737	8,567
Floreana	24	19 00	25	8 16	25	18 15			Colombian	Colombian Transp. Co.	150.0	27.7	9.7	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides	279	410
Glan	24	22 03	25	9 25	25	17 30	25	19 05	British	Cayzer Irvine & Co.	418.0	52.4	25.3	Mackay, Australia.	London, England	Copra, sugar, ore	7,080	
MacFadyen.	25	6 00	25	10 00	25	18 55			French	French Line	399.9	50.3	25.0	San Antonio, Chile	Le Havre, France	General	6,952	
Saint Louis	25	9 50	25	12 04	25	19 10			German	Hamburg-American Line	239.2	34.6	13.2	Guayaquil, Ecuador	Cristobal, C. Z.	General ⁽¹⁷⁾	650	1,572
Cerigo	26	2 00	26	5 52	26	16 25	26	16 25	American	Rail Espinosa	38.0	9.2		Bahia, C. Z.	Gatun Lake, C. Z.	Ballast	14	12
Chloro	26	2 00	26	5 52	26	16 25	26	16 25	American	Ore S. S. Corp.	549.6	72.2	34.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	15,538
Pat Dolney ¹	25	15 10	26	6 33	26	13 55	26	13 55	American	Richfield Oil Co.	430.2	59.2	27.0	Los Angeles, Calif	New York, N. Y.	Gasoline	9,126	7,978
Hakodate Maru	25	19 45	26	7 11	26	16 05	26	18 00	Japanese	Nippon Yusen Kaisha.	400.0	54.5	23.0	Yokohama, Japan	London, England	General	5,976	5,824
Martha ¹²	25	10 30	26	8 03	26	16 55			Panaman	Chr. Hansen	183.2	30.0	11.0	Pto. Armuelles, R. P.	Cristobal, C. Z.	Ballast	5,780	504
Castle Town	26	4 00	26	8 01	26	16 55	26	16 55	American	Charles Nelson Co.	321.7	50.0	22.0	Seattle, Wash.	Boston, Mass	Lumber	4,460	3,872
Patrick Henry	25	13 40	26	9 34	26	19 55	27	10 35	American	Tampa Interocean Co.	439.6	60.2	28.6	Manila, P. I.	New Orleans, La.	Gasoline ⁽¹⁸⁾	9,019	8,987
San Valerio ¹	26	7 15	26	8 58	26	18 40	26	22 20	British	Anglo-Mexican Pet. Co.	420.0	54.6	25.6	Los Angeles, Calif	Lizards, Eng ¹⁶	General	8,489	6,722
Quevregland	26	8 30	26	9 15	26	18 25	26	20 10	German	Hamburg-American Line	309.4	51.2	26.3	Mogallanes, Chile	Hamburg, Germany	General	8,127	6,571
Swan Eleanor	26	8 50	26	10 01	26	19 55	26	20 40	British	U. S. Navy	402.3	52.3	24.8	Tecopa, Chile	Moult, Ala.	Nitrates	7,600	5,808
Asberille ¹⁶	26	17 10	26	13 07	26	20 03			American	U. S. Dupont Co.	225.0	41.9		Bahia, C. Z.	Cruiser			
Steel Mariner	26	17 10	26	13 07	26	20 03			American	Isbman S. S. Lines	425.0	56.2	25.0	Seattle, Wash.	Baltimore, Md	Lumber, general	6,833	7,011
Virgilio ¹⁶	16	7 15	26	13 18	26	21 55	28	11 10	Italian	Navy Gen. Italiana	562.7	61.8	24.7	Valparaiso, Chile	Genoa, Italy	General	2,536	12,941
Baron Jedburgh	26	13 20	26	14 07	26	22 25	27	2 00	British	H. Hogarth & Sons	410.0	54.3	24.6	Jinnu, Chile.	Azores ¹⁶	Nitrates	7,700	6,014

¹⁰ Copra, sugar, general.¹¹ For orders.¹² Coffee, cocoa, ivory nuts, etc.¹³ Cruiser.¹⁴ Commercial launch.¹⁵ Yacht.¹⁶ Motor ship.¹⁷ Tanker.

Hadnot ¹	26	12	49	27	6	16	27	14	38	American.	Cities Service Trans. Co.	416.0	56.2	27.6	Los Angeles, Calif.	Baltimore, Md.	8,960	6,706	4,653	Gasoline.	
San Francisco ²	26	23	45	27	6	49	27	13	35	British.	British Navy.	431.6	43.6	16.6	San Francisco, Calif.	Hamburg, B. W. I.	5,800	5,896	4,675	General.	
San Francisco ³	26	23	45	27	13	10	27	15	00	German.	Hamburg-American Line	432.3	59.1	23.3	Vancouver, B. C.	Bombay, Germany	11,223	11,223	4,675	Gasoline.	
Panama Arrow ⁴	26	13	35	27	7	12	27	14	00	American.	Standard Transp. Co.	408.3	66.2	23.3	Boston, Mass.	Boston, Mass.	3,652	3,974	7,385	General.	
San Pedro ⁵	26	13	35	27	7	55	27	15	45	American.	Swayze & Hoyt.	324.0	46.2	21.0	San Francisco, Calif.	New Orleans, La	7,613	7,613	2,672	Gasoline.	
New Jersey ⁶	27	4	00	27	8	51	27	16	30	American.	Texas S. S. Co.	417.8	59.1	26.3	San Francisco, Calif.	Port Arthur, Tex.	6,668	6,668	5,244	General.	
New York ⁷	27	8	17	27	9	10	27	17	35	American.	Amer-Hawaiian Line	471.2	59.5	24.8	Seattle, Wash.	Boston, Mass.	7,613	7,613	6,633	General.	
New York ⁸	27	8	17	27	9	10	27	17	35	American.	North German Lloyd.	438.0	54.6	25.4	San Francisco, Calif.	Hamburg, Germany	8,011	8,011	4,744	General.	
Gottingen ⁹	27	6	00	27	9	45	27	18	45	American.	United Fruit Co.	325.2	48.1	20.0	San Antonio, Cal.	Port Limon, C. R.	699	6,023	2,261	General.	
La Perla ¹⁰	27	9	30	27	10	51	27	19	45	American.	Hain S. S. Co.	400.0	52.1	24.5	Caleta Colcsa, Chile	Azores ¹⁶	7,850	6,005	4,416	Nitrates.	
Trebartha ¹¹	27	9	30	27	10	51	27	19	45	British.	Redwood Line, Inc.	336.8	52.2	22.7	San Francisco, Cal.	Mobile, Ala.	6,329	5,696	4,125	Lumber, general.	
Manhattan ¹²	27	10	30	27	11	11	27	19	35	American.	Northwood, Lilly & Co.	424.2	56.2	26.0	San Francisco, B. C.	London, England	7,064	7,011	5,450	General.	
Island ¹³	27	11	00	27	11	50	27	20	44	American.	Pacific Steam Nav. Co.	560.0	67.4	31.2	Vancouver, B. C.	Liverpool, England	7,592	16,844	11,735	General.	
Knoxville City ¹⁴	27	19	45	28	6	17	28	14	00	British.	North German Lloyd.	469.8	58.8	25.0	Valparaiso, Chile.	Hamburg, Germany	7,412	7,816	5,755	General.	
Orbita ¹⁵	27	19	45	28	6	17	28	14	00	German.	Standard Transp. Co.	447.6	62	27	0	Los Angeles, Calif.	New York, N. Y.	11,241	9,698	6,783	Gasoline.
Standard ¹⁶	28	3	30	28	7	22	28	17	15	American.	Anglo Saxon Pet. Co.	425.0	57.0	27.3	Los Angeles, Calif.	Oracazo, D. W. I.	7,129	5,078	4,047	Ballast.	
Arrow ¹⁷	28	3	10	28	8	07	28	16	00	Norwegian.	Sea S. S. Co., Hull	375.0	51.2	25.5	Portland, Ore.	Bulk wheat	7,588	5,300	3,873	General.	
Calote ¹⁸	27	23	30	28	8	49	28	18	55	British.	Christenson S. S. Co.	410.0	54.2	23.6	Portland, Ore.	Baltimore, Md.	7,374	6,379	4,810	Lumber.	
Kilmea ¹⁹	28	2	58	28	9	13	28	18	50	American.	States S. S. Co.	410.0	54.1	24.9	Portland, Ore.	Wilmington, Del.	6,957	6,484	4,675	Drums.	
Dorothy Cabill. ²⁰	28	6	12	28	9	58	28	19	45	American.	W. A. Stathatos Co.	401.9	52.0	25.6	Iniquie, Chile.	Azores ¹⁶	8,000	5,780	4,047	Nitrates.	
West Montop. ²¹	28	7	15	28	10	03	28	20	05	Greek.	United Fruit Co.	105.0	15.3	7.6	Bahoa, C. Z.	Gatun Lake, C. Z.	6,389	4,676	3,234	Ballast.	
Martha ²²	27	13	15	28	10	18	28	20	05	Panama.	Hamburg Tankers Co.	333.0	48.4	24.8	Portland, Ore.	Land's End, Eng. ¹⁶	4,171	4,171	2,827	Gasoline.	
Anacchuena ²³	28	11	30	28	12	36	28	21	45	German.	Mallory Transport Co.	369.8	48.0	20.7	Portland, Ore.	Newark, N. J.	4,800	4,472	3,287	Lumber.	
Taigha ²⁴	28	11	35	28	12	41	28	21	45	American.											

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All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 22	Midus	Royal Neth. S. S. Co.	Curacao, D. W. I.	September 22	Inapaquina ²⁰	United Fruit Co.	Colon, R. P.
September 22	Pastors	United Fruit Co.	Port Limon, C. R.	September 22	Wanka	Standard Fruit & S. Co.	San Blas, R. P.
September 22	Galeña	Hamburg-American Line.	Tampico via waypoints.	September 22	Basia	United Fruit Co.	Manzanillo
September 23	Grunevald	Hamburg-American Line.	Hamburg via waypoints.	September 22	Panthers	United Fruit Co.	New York via Habana.
September 23	Saramacca	United Fruit Co.	Puerto Colombia.	September 22	Starfallers ²¹	Pan-American Pac. Co.	Aruba, D. W. I.
September 23	Alta	Pan-African Airways	Managua via waypoints.	September 22	Colima	Hamburg-American Line	Cartagena, Colombia.
September 23	Alta	United Fruit Co.	Managua via H. O.	September 22	Panama	United Fruit Co.	New Orleans via waypoints
September 23	Josecelia	Royal Neth. S. S. Co.	New Orleans via waypoints.	September 23	Prisaina	Hamburg-American Line	Port Orleans, C. R.
September 24	Caden	United Fruit Co.	Willemstad, D. W. I.	September 23	Grunevald	United Fruit Co.	Bocas, R. P.
September 24	Inapaquina ²⁰	United Fruit Co.	Hamburg via waypoints.	September 24	Saramacca	United Fruit Co.	Colon, R. P.
September 24	Anachucma ²⁰	United Fruit Co.	Colon, R. P.	September 24	Anachucma ²⁰	United Fruit Co.	Colon, R. P.
September 24	Annetta I ²⁰	A. Tagarapulos	Colon, R. P.	September 24	Annetta I ²⁰	A. Tagarapulos	Colon, R. P.
September 25	Griobald	Panama R. R. S. S. Line	New York via Haiti.	September 24	No. 9137 ¹⁹	Pan-American Airways	Curacao via waypoints.
September 25	Carare	Elders & Fyffes Line	Avonmouth via waypoints	September 24	No. 9107 ¹⁹	Pan-American Airways	Guayaquil via waypoints.
September 25	Zacapa	United Fruit Co.	New York via Kingston.	September 24	No. 9088 ¹⁹	Pan-American Airways	Managua via waypoints.
				September 25	Venezuela	Royal Neth. S. S. Co.	Port Limon, C. R.

49 Air mail carrier.

boat. 21 Tug.

* Other than ships passing through the Canal.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.		
Date.	Vessel.	Line.	From—	Date.	Vessel.	For—
September 25	Darien C-35 ²²	Scadta Airplane Co.	Barranquilla, Colombia.	September 25	Ulua	United Fruit Co.
September 26	Coppename	United Fruit Co.	New Orleans, La.	September 25	Carare	Elders & Fyffes Line
September 26	No. 9688 ²²	Pan-American Airways	Managua via wayports.	September 26	No. 9688 ²²	Pan-American Airways
September 26	No. 9187 ²²	Pan-American Airways	Curacao via wayports.	September 26	Darien C-35 ²²	Scadta Airplane Co.
September 26	Daytonian	Leyland S. S. Line	Liverpool via wayports.	September 26	Zacapa	United Fruit Co.
September 26	Atlantida	Standard Fruit & S. S. Co.	New Orleans and Habana.	September 26	Camden	United Fruit Co.
September 27	Saramacca	United Fruit Co.	Boeas, R. P.	September 26	Coppename	United Fruit Co.
September 27	Venezuela	Royal Neth. S. S. Co.	Port Limon, C. R.	September 26	Midas	Royal Neth. S. S. Co.
September 27	No. 9107 ²²	Pan-American Airways	Guayaquil via wayports.	September 26	Mary V. ²³	H. C. Robinson
September 27	No. C-35 ²²	Scadta Airplane Co.	Buenaventura, Colombia.	September 27	Saramacca	United Fruit Co.
September 28	Mary V. ²¹	H. C. Robinson	Colon, R. P.	September 28	Daytonian	Leyland S. S. Line
September 28	Maravi	United Fruit Co.	Santa Marta, Colombia.	September 28	No. 9688 ²²	Pan-American Airways
September 28	Linda S. ²¹	A. L. Surgeon	Colon, R. P.	September 28	Venezuela	Royal Neth. S. S. Co.
September 28	Wail's	Standard Fruit & S. S. Co.	San Blas, R. P.	September 28	Atlantida	Standard Fruit & S. S. Co.
September 28	Heredia	United Fruit Co.	New Orleans and Habana.	September 28	Maravi	United Fruit Co.
				September 28	Jose	United Fruit Co.
				September 28	Linda S. ²¹	A. L. Surgeon

²² Air mail carrier. ²³ Motor schooner.

PORT OF BALBOA.

September 22	Chilal	Chile S. S. Co.	Tocopilla, Chile.	September 22	Chilal	Chile S. S. Co.
September 22	Caliente	Anglo-Chilean Nitrate Co.	Tocopilla, Chile.	September 22	Sambu ²⁴	Haus Elliot.
September 27	Sambu ²⁴	Anglo-Chilean Nitrate Co.	Bayano River, R. P.	September 28	Des Hermanos ²⁴	A. Valdez
September 27	Des Hermanos ²⁴	Haus Elliot	Bayano River, R. P.	September 28	Cycmola ²³	Chiriqui Land Co.
September 28	Cycmola ²³	A. Valdez	Pto. Armulles, R. P.	September 28	Real ²⁴	Haus Elliot.
September 28	Real ²⁴	Chiriqui Land Co.	Bayano River, R. P.	September 28	A. B. de Obarrio ²⁴	Pacific Fruit Co.
September 28	A. B. de Obarrio ²⁴	Pacific Fruit Co.	Bayano River, R. P.			

²⁴ Other than ships passing through the Canal.²⁴ Motor schooner.²⁵ Motor yacht.

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of January 1, 1930, will go to the printer November 15, 1929. All changes or corrections in the present directory should be forwarded to the Telephone Supervisor, Balboa Heights, not later than November 7, 1929. Proof corrections will be made to December 1, 1929.

Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination, During Fiscal Year Ended June 30, 1929.

A statement of all commodities passing through the Panama Canal, showing origin and destination, during the fiscal year ended June 30, 1929, is shown in Tables I and II on pages 122 to 133 of this issue. From the cargo declarations submitted by masters of vessels it has been possible to classify over 86 per cent of the cargo passing from the Atlantic to the Pacific during the year, and almost 99 per cent of that passing from the Pacific to the Atlantic.

PRINCIPAL COMMODITIES—ATLANTIC TO PACIFIC.

Commodities shipped to the Pacific which aggregated more than 100,000 tons in any of the fiscal years 1929, 1928, 1927, or 1926, are listed in the following tabulation:

Commodity.	Fiscal year ended June 30—			
	1929.	1928.	1927.	1926.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Manufactures of iron and steel.....	2,349,566	1,855,532	1,971,964	1,525,280
Mineral oils.....	806,744	717,080	649,379	721,817
Cement.....	379,968	280,032	222,817	283,328
Cotton.....	331,652	259,225	361,241	226,092
Phosphates.....	281,168	198,826	183,521	162,254
Tinplate.....	261,899	143,610	194,111	202,773
Automobiles (exclusive of accessories).....	250,688	124,553	127,882	125,820
Railroad material.....	239,074	188,561	189,858	150,993
Sulphur.....	238,231	207,257	211,625	188,889
Coal and coke.....	227,883	252,740	186,522	315,632
Paper.....	224,276	183,263	150,722	101,493
Machinery.....	188,442	215,334	172,150	134,411
Sugar.....	150,402	44,951	282,912	158,997
Textiles.....	137,886	124,658	91,967	78,770
Tobacco.....	126,433	78,043	81,457	65,174
Canned goods (fish, fruit, vegetables, etc.).....	121,472	87,136	44,192	36,769
Ammonia.....	108,862	91,776	134,977	108,104
All other.....	3,454,874	3,256,657	3,326,030	3,450,501
Total.....	9,882,520	8,310,134	8,583,327	8,037,097

Total cargo from the Atlantic to the Pacific during the year showed an increase of 1,572,386 tons as compared with the fiscal year 1928, and an increase of 816,586 tons over the previous high record for a year's cargo tonnage passing through the Canal from the Atlantic to the Pacific (calendar year 1928). Of the 17 commodities shown in the foregoing tabulation, 15 show increases and 2 decreases. Manufactures of iron and steel, the commodity of the heaviest tonnage from the Atlantic to Pacific, increased 494,034 tons, the larger part of which gain was the United States intercoastal trade. Shipments of automobiles increased 126,135 tons, more than doubling the shipments of the previous fiscal year. The trades contributing to the larger portion of the increase in automobile shipments were from the east coast of the United States to the west coast of South America; and from the United States to the Far East, in order named. Another heavy increase was

that of sugar—from 44,951 tons in 1928 to 150,402 tons in 1929—the larger part of which shipments originated in the West Indies, and were destined to the Far East and Canada.

PACIFIC TO ATLANTIC.

Commodity.	Fiscal year ended June 30—			
	1929.	1928.	1927.	1926.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Mineral oils.....	5,197,813	5,619,076	7,143,165	5,930,716
Lumber.....	3,311,875	3,673,832	3,139,113	3,200,311
Nitrate.....	2,554,565	2,565,572	1,174,384	1,878,050
Wheat.....	2,365,555	3,035,884	1,477,376	1,187,384
Ores (principally iron).....	1,750,548	1,600,483	1,648,862	1,622,758
Canned goods (fish, fruit, vegetables, etc.).....	921,217	771,793	714,696	595,952
Sugar.....	717,931	577,781	427,035	318,032
Metals, various.....	671,500	626,683	508,807	449,278
Food products in cold storage.....	315,675	288,952	245,520	221,068
Fruit, dried.....	304,956	272,644	200,433	150,229
Barley.....	260,142	237,262	344,341	313,535
Fruit, fresh.....	211,854	93,457	97,969	63,495
Beans.....	154,782	127,168	73,569	54,565
Wool.....	150,712	167,931	129,906	146,092
Coffee.....	136,369	132,862	113,313	104,739
Copra.....	119,586	83,143	81,685	76,223
Rice.....	113,606	47,756	71,870	20,664
Flour.....	110,183	112,191	90,988	64,301
Cotton.....	109,825	95,724	107,311	65,850
All other.....	1,301,792	1,190,381	1,374,545	1,537,019
Total.....	20,780,486	21,320,575	19,164,888	18,000,351

* Does not include fresh fruit.

The Pacific-to-Atlantic cargo movement during 1929 decreased 540,089 tons from that in the previous fiscal year. Shipments of wheat, mineral oils, and lumber, three items of the heaviest tonnage for several years, decreased 670,329 tons, 421,263 tons, and 361,957 tons, respectively, in comparing 1929 with 1928. Nitrate also showed a slight decrease, while ores (principally iron), one of the five larger commodities, increased some 150,000 tons. Of the 14 Pacific-to-Atlantic commodities ranging between 100,000 and 1,000,000 tons in 1929, 12 increased and 2 decreased as compared with the previous fiscal year. The trade between North America and Europe absorbed practically all of the loss in wheat tonnage, while the two principal sources of mineral oils in the Pacific area—California and South America (Ecuador and Peru)—both contributed to the loss in mineral oil shipments. The loss in lumber was primarily in the United States intercoastal trade, and to a smaller extent in the trade between the west coast of Canada and the east coast of the United States.

CARGO FROM THE ATLANTIC TO PACIFIC—ORIGIN AND DESTINATION.

During the fiscal year 1929, 66.2 per cent of the cargo passing through the Canal Pacific-bound originated on the eastern and Gulf seaboard of the United States, and 24.1 per cent in Europe. During the past four fiscal years these areas have contributed over 90 per cent of the cargo moving in this direction.

Four areas absorbed all of the cargo in this direction, as follows: West coast of North America, 48.6 per cent; Asia, 22.2 per cent; Australasia, 14.7 per cent; and South America, 14.5 per cent.

The following graphs and figures show the tonnage and percentage of same from and to the principal regions or origin and destination for the fiscal year 1929, together with the percentages for the fiscal year 1928, 1927, and 1926:

		Long tons.	Percent of total—			
		1929.	1929.	1928.	1927.	1926.
<i>Origin:</i>						
United States		6,539,077	66.2	64.1	67.4	66.8
Europe		2,385,875	24.1	25.6	22.1	25.5
All other		957,568	9.7	10.3	10.5	7.7
<i>Destination:</i>						
North America		4,800,541	48.6	49.3	48.0	48.6
Asia		2,192,624	22.2	20.6	21.6	18.3
Australasia		1,456,572	14.7	15.6	17.7	17.6
South America		1,432,783	14.5	14.5	12.7	15.5

The total cargo in long tons through the Canal from the Atlantic to Pacific during the past four years has been: 1929, 9,882,520; 1928, 8,310,134; 1927, 8,583,327; and 1926, 8,037,097.

CARGO FROM THE PACIFIC TO ATLANTIC—ORIGIN AND DESTINATION.

During the fiscal year 1929 four regions furnished the total cargo tonnage from the Pacific to the Atlantic through the Canal, as follows: West coast of North America, 63.8 per cent; west coast of South America, 29.0 per cent; Australasia, 3.6 per cent; and Asia, 3.6 per cent.

Approximately 54.1 per cent of the cargo Atlantic-bound through the Canal in the fiscal year 1929 was destined to the eastern seaboard of the United States, and 39.5 per cent to Europe. These two regions have absorbed over 91 per cent of the Atlantic-bound cargo during the past four fiscal years.

The following graphs and figures show the tonnage and percentage of same from and to the principal regions of origin and destination for the fiscal year 1929, together with the percentages for the fiscal years 1928, 1927, and 1926:

		Long tons.	Percent of total—			
		1929.	1929.	1928.	1927.	1926.
<i>Origin:</i>						
North America		13,262,071	63.8	69.0	71.6	67.5
South America		6,008,169	29.0	25.5	23.1	27.2
Australasia		756,205	3.6	3.2	3.0	3.5
Asia		754,041	3.6	2.3	2.3	1.8
<i>Destination:</i>						
United States		11,240,345	54.1	54.0	60.0	64.0
Europe		8,214,705	39.5	36.4	29.4	28.7
All other		1,325,436	6.4	9.6	10.6	7.3

The total cargo in long tons through the Canal from the Pacific to the Atlantic during the past four years has been: 1929, 20,780,486; 1928, 21,320,575; 1927, 19,164,888; and 1926, 18,000,351.

TOTAL CARGO.

Total cargo in long tons through the Canal during the past four years has been: 1929, 30,663,006; 1928, 29,630,709; 1927, 27,748,215; and 1926, 26,037,448. The total amount of cargo passing through the Canal during the past fiscal year established a new high record over any previous calendar or fiscal year.

Table I.—Classification of Cargo Passing Through the Panama Canal

ATLANTIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to west coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to west coast of Central America.	East coast of United States to west coast of South America.	East coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to west coast of United States.
Airplanes	409		24	43		18	100	
Agricultural implements	14,836	25	260	7,264	845	3,313	18,260	
Ammonia	1,179			5	20,588	57,328	170	
Ammunition	346						80	
Asbestos	3,484			65	41	28		
Asphalt	2,922		34	3,805	256	9,667	12,564	
Automobiles	17,112		1,323	37,464	6,071	27,921	99,748	278
Automobile accessories	5,032		260	9,368	1,845	28,838	27,676	
Bananas								32,629
Bark:								
Quebracho								
Quillay				300				
Barley	118							
Beans	456		14	22	21	14	345	191
Blood and tankage								
Bones and bone meal	367	20		69		52		19
Borax	1,029							
Bricks	4,373		41	5,880	75	1,155		
Burlap	1,574		292	2,135				
Calcium carbide	724		67	3	50		30	
Canned goods:								
Fish	8,294	16	192	130	16	541	335	
Fruit	5,021		150	284	24		152	
Meats	776	11	129	303	7	111	80	
Milk	476		64	2,371	345	259		
Soups	16,228			150				
Vegetables	13,518		161	217	43	220	409	
Other	36,894	43	724	1,756	558	395	2,546	
Carbon black	1,096			270		2,747		
Cement	11,191		298	8,150	49	2,019	1,013	
Chalk	23				4			
Charcoal	2,798			1,058				
Chemicals	23,644	3	132	5,098	3,514	5,829	1,523	
China and fire clay	2,670			150		658	92	
Coal	36,210	1,545	10,787	7,250	10	9	1,300	73
Cocoa	1,756			264	71	131	765	1,134
Coconuts	92							281
Coffee	1,816		223			4	48	10,730
Coke	6,050		10	9,247				
Cold storage:								
Butter	100			10		10		
Cheese	306			23				
Lard	6,271	20	30	2,516		5		6
Meat	199			50	5			
Other	3,000			103		105	5	
Confectionery	6,573		43	2	13	201	108	
Copra	25							
Cork	1,484	65		6				
Corn	129			17		423	28	294
Cotton	2,548			386		328,020	30	
Cotton seed oil cake	28					887		
Crawate								
Cyamide	816		47			80	178	
Drugs	11,898		766	147	286	1,080	612	
Dyes	153				213	6,553		281
Dye-woods	10			18		1,341		
Earthenware	1,864		8			145		
Explosives	701			666	31	167	61	
Extract quebracho				20				
Fertilizer	1,603		340		4,300	15,450		
Flour	2,842	1	30	2,714	1,089	66,376	336	15
Fruits:								
Dried	483			79		1		
Fresh	355			524				888
Fuller's earth	3,563							
Furniture	4,986		22	21	38	2		7
General	563,331	1,788	9,462	64,962	20,520	93,239	67,857	1,599
Glass and glassware	21,456		107	922	554	522	804	
Glue	237			31				
Granite	212							
Graphite	47					10		

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PACIFIC.

(Figures represent tons of 2,240 pounds.)

[illegible]

Table 1.—Classification of Cargo Passing Through the Panama Canal

ATLANTIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to west coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to west coast of Central America.	East coast of United States to west coast of South America.	East coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to West coast of United States.
Guano	205					2,705	20	
Gum	86							
Hair	286							
Hardwoods	11,601		10	72	200	331	564	179
Hats								
Hay	100							
Hemp	965					25	85	
Hops								
Horns and hoofs						24		
Indigo					3	1,144		
Inks	509			177		585	143	
Ivory nuts								
Jute	1,376			368				
Leather	26			21	5	224		
Lime	71			84		1,204	16	
Linoleum	12,871			30		57	356	
Liquors	1,331				105	570	375	2
Livestock				14		5		
Lumber	33,040	72	4,157	5,518	7	479	1,140	4
Malt	1,426		75	226				
Manufactured goods:								
Iron and steel	1,389,642	7,325	6,421	73,982	54,081	226,243	38,186	1,708
Machinery	60,612	10	547	19,954	5,785	24,193	15,031	70
Railroad material	42,259	2,375	2,568	45,249	6,672	63,596	1,366	
Tinplate	118,721	183	104	7,918	4,587	86,370		
Textiles	47,262	13	641	10,788	5,043	4,658	2,989	
Other	100,484		681	7,277	2,582	11,175	14,589	
Marble	3,574					15		
Matches	1,657							
Metals:								
Copper	1,025			26	8	307		
Gold and silver				35		2,178		
Iron	18,334	100	25	484	424	48,604	1,260	7
Lead	1,557			243		2,407		
Scrap	4,534			161		79,232	40	
Tin	185			164	40	6,844		
Zinc	422			453	630	6,356		
Other	923			520	60	4,337	106	
Milk, powdered	384		25	215		301		
Molasses	1,581	19						
Musical instruments	208			27			93	
Nitrates	131				20	325		
Nuts	133					20		
Oats	216			315	18	83		
Oil:								
Coconut	35			19		18		
Cottonseed	1,521			208		1		
Crude	14,481			105	150	9,309	723	
Gas and fuel	91			12,467		8,379	5,486	
Gasoline, benzine, and naphtha	1,612			6,166	12,762	49,276	68,056	
Kerosene	517		42	878	24,290	208,776	50,395	
Linseed	981							
Lubricating and greases	55,886	81	465	16,129	4,689	53,890	49,784	
Olive	206							
Vegetable	3,001	43		71		650	50	
Wood	283	64		150				
Other	915	35	20	241		507		
Ore:								
Copper	1,575							
Iron	494			880			60	
Lead	2,600				28			
Magnesite	104			756				
Manganese	408							
Tin				58	78	260		
Zinc	25			14	150			
Other	2,499			10				
Paints and varnishes	6,815		25	616	59	101	1,522	2
Paper	68,592	14	156	1,722	1,049	6,786	11,958	
Paper pulp	221					1,102	22	
Paper roofing	593			18	24	438		

Table I.—Classification of Cargo Passing Through the Panama Canal

ATLANTIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to west coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to west coast of Central America.	East coast of United States to west coast of South America.	East coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to west coast of United States.
Patent fuel				150				
Peanuts	981							
Phosphates	14,857	2,119		94	2,070	193,152	4,157	
Plaster	136						586	
Porcelain	1,768			141	38	20		
Potash	40							
Rags	637				906	22		231
Rice	7,335	20		2,572				9
Rope	3,077		36	164	7	51		
Rosin	8,818	46	11	1,182	189	33,132	1,193	
Rubber:								
Manufactured	16,047		17	1,155	348	979	657	
Raw	948					14		
Scrap	90					42	33	
Salt	2,400					150	740	
Saltpetre	40							
Sand	5,103			49				
Seeds:								
Bird	15						10	
Cotton	71			92		100		
Flax								
Grass							107	
Other	145							
Shells	16,210	863					50	
Silk	50			4			19	
Silversand								
Skins and hides	157					82	2	
Slag	4,970						3,276	
Slate	5,013							
Soap	32,463		55	66	2,065	159	33	
Soda	4,903			246	201	1,515		
Soda-ash	13,998		35	138		262		
Soda:								
Bicarbonate	1,867				50	1,272		
Caustic	9,751		21	90	571	15,498	2,321	
Starch	548			151	35	204	110	
Sugar	5,083			1,560	2,834	512		
Sulphur	102,666	21,301		102		33	112,558	
Syrup	3,873			101	242	95	86	
Talc	170							
Tallow	92							
Tar	1,620			13			30	
Tartar	26							
Tea	429			40		20		
Tobacco	29,111		3	79	564	81,716	12,559	
Toys	1,651							
Turpentine	1,368			641	939	238	926	
Vegetables	402			30				
Waste	776			36	13	392		
Wax	1,567		59	4,197	1,232	18,214	146	
Wheat	154			678				
Wines	343			151		189		
Wool	214					32		
Zinc oxide	248				27			
Totals	3,184,141	38,220	42,239	404,928	197,512	1,913,663	641,269	50,156

New Around-the-World Service of the Lloyd Royal Belge.

The Lloyd Royal Belge is reported about to begin an around-the-world service with the sailing of the *Caucasier* from Antwerp this month. The service, which is to operate on a monthly basis, is scheduled to proceed eastbound from Antwerp, via Suez, returning homeward via the Panama Canal, making stops at principal ports in the Far East and on the west coast of North America.

This will be the first regular service around the world moving from

Showing Origin and Destination, Fiscal Year Ended June 30, 1929.—Continued.

PACIFIC.—Continued.

(Figures represent tons of 2,240 pounds.)

Cristobal, C. Z. to west coast of Central America.	Cristobal, C. Z. to west coast of South America.	East coast of Canada to west coast of Canada.	East coast of Canada to Australasia.	Europe to west coast of United States.	Europe to west coast of Canada.	Europe to west coast of Central America.	Europe to west coast of South America.	Europe to Australasia.	West Indies to west coast of United States.	East coast of South America to west coast of United States.	Miscellaneous.	Totals.
				127		16,985	18,650					35,912
				2,953	1,550	2,218	2,722	24,846			30,430	981
20	76	326	3,906	26	16		10	100				281,168
		210	84	1,452	117	100	1,656	550				5,106
				6,416	134			1,230			10,769	6,232
3	1,799			5,048		265						18,589
5	16			1,438	10	122	8,358				205	7,109
	338			92	54		302					21,874
							220					3,804
												45,129
	20	57	1,895	70			2,308	492				24,045
			66	94				10				1,132
	1	60	363	10,265	3,602	95	73	27,468			14,426	165
				1,689								59,643
				16,577			41					1,729
												21,770
14	58			81						710	55	871
				420	44		409					1,208
				30						1,000		1,000
				1,362			140	150		20		157
				4			519	596		4,348		6,145
15				41,236	1,801							17,123
				12			135					1,192
					1,008		2,040	85,600		42	123	43,037
22	281	25		340	215							568
		193		117	35	9	126				23	96,894
				106	92		464	127			18	5,616
	7			127			2,618	2,299				35,769
												9,828
												17,185
98												3,287
161				160	153		910	181				29,817
	14	210		2,491			25					3,788
	53	135					137	52	54,226		85,810	150,402
22				298		12	25				1,214	238,231
	29	436		72		3						4,937
				54	75		28					327
12												104
				126	13		17					1,819
				253								279
	335	318		181	112		3,484	100			14	5,033
33	133	25			26		689	3,986	87		422	129,433
10			20	264	51		3					1,996
10	120										20	4,285
	5			182	78							707
				120								1,337
377	1,113		240	30		10	1,698	40			29	28,712
	77				25	36	117	380				1,707
656	155			116	353	219	3,783	2,816				8,539
15	6				31		180				98	1,076
				40	106		13				290	466
109,963	85,207	59,628	142,894	668,864	128,962	99,697	845,760	583,977	62,325	81,344	541,741	9,882,520

west to east. Several around-the-world services moving westward are now operating through the Panama Canal with regular or fairly regular sailings, namely, the Dollar Steamship Line, the Osaka Shosen Kaisha, the Roosevelt Line, Furness, Withy & Company (Prince Line), Kerr Line (Silver Line), the Bank Line, and the Barber Steamship Company.

The Lloyd Royal Belge, considered the leading shipping organization under the Belgian flag, is credited in *Lloyd's Register* with the ownership of 25 vessels aggregating approximately 125,000 gross tons.

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Airplanes.....								
Agricultural implements.....	1,098	58	8	3			21	
Alfalfa.....	1,471			362				
Alfalfa meal.....	9,700			597				
Asphalt.....	1,961		87	33,133				6
Automobiles.....	1,224	35	39	66	138			3
Automobile accessories.....	444			6				
Balsam.....								
Bamboo.....	225							
Bananas.....								
Bark:								
Cascara.....	161			227			19	
Peruvian.....				25				
Quillay.....								
Other.....	60							
Barley.....	2,814		18	211,886				8,130
Beans.....	69,410	5,878	1,964	1,495				
Beeswax.....								
Borax.....	13,136			51,038				125
Bran.....	643							
Burlap.....	1,729			18				
Camphor.....	1,558						5	
Canned goods:								
Fish.....	131,721	990	2,818	36,601	146	266	4,227	30,934
Fruit.....	333,486	3,239	2,502	157,678	240		2,904	4,468
Meat.....	3,365	135	55	374			100	
Milk.....	7,783	5	1,672	634			73	390
Soup.....			281					
Vegetables.....	68,922	1,003	440	878	73		89	
Miscellaneous.....	77,507	522	1,934	16,763	163		229	824
Carbon black.....	530							
Celite filterco.....	8,359			1,976	8			
Cement.....	584	450	178		100			
Charcoal.....	827							
Chemicals.....	7,358		43	1,139	31			
China and fire clay.....	117							
Cocoa.....	280		13	98				
Cocoa leaves.....								
Coconuts.....	4,155							
Coffee.....	2,028	25	3,715	804				
Cold storage:								
Beef.....				7				
Butter.....	90		118		2			
Cheese.....	1,868			107				
Eggs.....	983		422	209	138			78
Fish.....	50		32	2,761				1,678
Lard.....	170		447	301	3			
Meat.....	210			52				
Mutton.....				65				23
Other.....	283		162	228				
Confectionery.....	12		17		8			
Copra.....	356		25	19,142				
Corn.....	255			127				11,042
Cotton.....	23,528		29	35,744				
Cotton seed oil cake.....				1,914				
Cotton seed meal.....				3,388				
Drugs.....	912			175				
Dyes.....	21							
Dye woods.....	58		44	1,454				
Earthenware.....	609							
Eggs, dried.....	900							
Explosives.....	334	159	32	508				
Fertilizer.....	319							
Fishmeal.....	565			1,000				45
Flour.....	77,385	400	2,060	14,294	156			4,296
Fruit, dried.....	133,700	466		161,690	200			7,341
Fruit, fresh.....	3,492		1,256	170,161	9,083			1,586
Fuller's earth.....				125				10,243
General.....	150,324	3,227	3,565	23,367	1,878	118	1,203	3,894
Glass and glassware.....	1,573	12	31	475	28			567
Glue.....	225			11				

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Graphite.....								
Guano.....	380							
Gum:								
Kauri.....								
Yucca.....								
Other.....								
Hair.....	770			12				19
Hardwoods.....	4,006	281	247	2,996			4	742
Hats.....	30							
Hay.....	6,568			193				468
Hemp.....	11,391							
Honey.....	1,533		6	2,940				300
Hops.....	357		5				32	
Horns and hoofs.....			5	8				5
Indigo.....								
Infusorial earth.....	715		203	1,315	2			
Iodine.....								
Ivory nuts.....				16				
Jute.....	700		10					
Kapok.....	53							
Leather.....	102	22						
Lime.....	25			450				
Linoleum.....	743							
Liquors.....	24			427				242
Livestock.....				272			20	251
Lumber.....	2,237,124	26,277	2,296	351,099	3,742	364,464	101,432	137,863
Marble.....	16							
Manufactured goods:								
Iron and steel.....	7,798	629	387	659	137			224
Machinery.....	7,927	677	1,059	1,002	742		26	35
Railroad material.....	421	500	5					
Textiles.....	2,343	27	350	10				
Miscellaneous.....	30,335	51	726	2,861	11			61
Matches.....	139							
Metal:								
Antimony.....	2,615							
Copper.....	79,513			72,223				1,150
Gold and silver.....			2					
Iron.....	603							45
Lead.....	4,882		5	4,229				56,161
Scrap.....	4,717			1,381				38
Tin.....	1,347			1,350				1,865
Zinc.....	7,284		6	4,182				38,788
Other.....	711			226				58
Milk, powdered.....	6,001		1	25				81
Molasses.....	18							
Nitrates.....	274							
Nuts.....	3,475		18	301				
Oats.....			30	500	16			8,091
Oil:								
Coconut.....	126		9					
Cottonseed.....							1	
Crude.....	237,799		35,119	16,983				
Gas and fuel.....	206,986	19,079	22,378	24,870	5,307			
Gasoline, benzine, and naphtha.....	2,426,619	31,784	2,961	1,005,400	5			
Kerosene.....	155,319	46,457	163	26,027	5			
Lubricating and greases.....	16,134	133	205	4,723	251			
Vegetable.....	528		34	19				
Whale.....				37				449
Wood.....	639			56				
Other.....	569			487			2	3,186
Ore:								
Antimony.....	292							
Chrome.....								
Copper.....	7,243			4,890			1,000	24
Gold and silver.....								
Iron.....	29							
Lead.....	100							360
Magnesite.....	19,616			17				
Manganese.....	483			150				

Showing Origin and Destination, Fiscal Year Ended June 30, 1929.—Continued.

ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

West coast of South America to east coast of United States.	West coast of South America to east coast Canada.	West coast of South America to Cristobal, C. Z.	West coast of South America to Europe.	West coast Central America to Cristobal, C. Z.	West coast of Central America to Europe.	Far East to east coast of United States.	Australasia to east coast of United States.	Australasia to Europe.	Philippine Islands to east coast of United States.	Miscellaneous.	Totals.
10,050	2	9,467				1,710		5,800			1,710 25,699
							1,759	1,423		270	3,452
							131				131
							509	169	20		698
2,812	413	284	4,114	12		42	159				5,137
17	80	7	4,839	534		2	13,642	372	4,630	950	36,752
	157										136
	1	60				712	5,051	5,154	2,682	40	7,386
	22	1,951	184	63				1,020	73	119	25,091
								173			8,211
32	37	184		3				55			557
		24		7						2	324
											33
331	270	607									2,235
5,821	13,701	5,244				82				65	1,208
								14			24,847
82	5	5						16	8		806
	5						4	11			164
											149
											475
250	50	2						17		50	743
348	5			7	220		2,477			4	1,082
				25			1,417	98	2,052	83,413	3,011
											3,311,875
											16
2,149	4					24	70			105	12,186
905	159	22	8			1	26	79		872	13,540
	112								24	235	1,297
19	62	57	56			3,129	10			14	5,883
						2,877	22			385	37,523
											139
69		196				2,560					5,440
151,249	23,578	153,037					100			541	481,391
1,314	29	117	122								1,584
		19					4,999				5,666
14,351	115	1,080						2,939			83,762
62		916						545		50	7,709
		17,075				666	497	68		30	22,928
		1,571	60				8	3,700			55,599
838	15	4,208					158	1,204			7,421
		16						5,945			12,107
902,824	17,950	5,662	1,528,952			12,030				38	18,714
											30,762
		500	32,251			348				98,903	2,554,565
										10	4,152
								326		2,401	44,115
		416							67,655		68,206
318,015	344,640	526								151	855
7,986	34,626	47,408									999,964
										40,696	361,928
		4	101,701	49						8,758	3,577,281
		13		15						9,138	237,124
25		602	710	2		7,650	25				21,516
			630		3,000		2	1,750	771	24	12,092
							20,166	180			24,462
14		62	172			6,840	172				7,707
						4,993	110			3	9,598
1,637		1,267				525					3,721
				10			22,260	14,700			36,970
27,928	2,306	19,964					286	3,300			66,941
607	19	177									803
1,480,846							9,667			1,000	1,491,542
131		12,259									12,850
											19,633
7,632		1,134					7,290				16,689

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Ore—Continued:								
Tin	120							
Zinc	1,519			150				1,856
Other	375			45				
Paint	1,127		25	5				
Paper	50,556	588	426	49	586		10	
Paper pulp	43,674			1,085		8,658	107	
Peanuts	3,239	31	153	36	8	4,364	41	
Peas	1,740		100	164				20
Phosphates	885		25					
Plaster	3							
Pollards								
Porcelain	6,764	20	178	5	2		101	
Potash								
Quicksilver	22							
Rags	6,850			19				
Rice	2,230	8,234	3,311	9,859	2,098		742	122
Rope	1,082		20		3		7	
Rubber:								
Manufactured	1,777		10	181	45			
Raw	50			29				
Scrap	1,088	5		2,507				100
Rye				2,200				
Salt	339			25				
Sand								
Seeds:								
Cotton	20			2,712				20
Grass	1,076							
Hemp	311							
Other	3,751			79				5
Shells	367		18	234				
Silk	3,681			21	9			
Skins and hides	24,910		22	410				48
Soap	1,815					11		
Sugar	115,440		65		21			4,000
Syrup	118							
Talc	1,342		83	27				
Tallow	3,060	245	66		147			20
Tartar								
Tea	605		396				737	
Tobacco	1,144		45	5				
Toys	292		19					
Vegetables	504		957	15	36			
Waste	4,000							
Wax	774		214					
Wheat	14,006		498	578,520	1,073			1,744,948
Wine	2,035			600			47	500
Wool	31,556			38				
Totals	6,992,632	151,644	97,394	3,084,444	26,641	377,881	113,259	2,087,842

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Showing Origin and Destination, Fiscal Year Ended June 30, 1929.—Continued.

ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

West coast of South America to east coast of United States.	West coast of South America to east coast Canada.	West coast of South America to Cristobal, C. Z.	West coast of South America to Europe.	West coast of Central America to Cristobal, C. Z.	West coast of Central America to Europe.	Far East to east coast of United States.	Australasia to east coast of United States.	Australasia to Europe.	Philippine Islands to east coast of United States.	Miscellaneous.	Totals.
10			48,580			70	110	14			48,904
		290	17,928					22,888			44,625
1,623		39	4,496			492	487	313			7,870
			3	4		55	12	40		5	1,224
										1,159	62,191
		210				140				500	49,623
335		21	892		7,732	67	196	2,365		4,426	3,858
								15,400		6	18,058
			2,199								16,316
			2			8,191					3
56										42	2,199
											15,305
											56
											22
		499	6		2,808	731		9			7,609
			1,300			8,453					113,606
									35	75,244	2,452
5		22					15	26			2,081
100		67	26					21			293
1		3					27	2			3,733
					15						2,200
										8	387
								20			20
344		332	1,967					549		12	5,956
			89				670	480		37	2,352
3			431			233				5	980
			539			2,640	251	197		18	7,483
			5	102		3	911	576		4	2,220
						613				6	4,330
3,841	1,560	2,976	605	60	2,464	20,642	7,902		718	66,158	
	14										1,840
	2,583	154,341	1,135	1,803			8,540	393,365	36,638	717,931	
											118
											1,452
271							3,349	14,522		552	22,232
	30	44									74
						8,772				35	10,545
5		7				280		2	1		1,489
				19		167					497
5,003	136	538								1,860	9,049
						157	7				4,164
134	18	336				371					1,847
	2	2,323				85	1,542	8,660		13,898	2,365,555
30	28	4,308						130		114	7,842
3,801	107	4,357				7,832	15,129	86,674		1,188	150,712
2,994,043	397,216	116,672	2,382,935	55,082	40,644	121,999	164,746	573,212	516,619	485,581	20,780,486

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery stores carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Executive Order.

By virtue of the authority vested in me by law, the area of land hereinafter described, to be known as Colon Naval Radio Station, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a naval reservation under the jurisdiction of the Secretary of the Navy; but said area shall be subject to the civil control and jurisdiction of the Governor of The Panama Canal, in conformity with the Panama Canal Act (37 Stat., 569, Title 48, Section 1301, U. S. Code). The said area is described as follows:

COLON NAVAL RADIO STATION

Beginning at a concrete monument, the geodetic position of same referred to the Canal Zone triangulation system, being Latitude $9^{\circ} 17'$ plus 3973.94 feet, and Longitude $79^{\circ} 54'$ plus 3821.44 feet; thence due east a distance of 719.70 feet to a concrete monument; thence due north a distance of 670.59 feet to a concrete monument; thence due west a distance of 814.14 feet to a concrete monument, located 16 feet east of the east curb of the Bolivar Highway; thence south $9^{\circ} 19'$ east and parallel to, and 16 feet distant from, the east curb of said road, a distance of 438.30 feet to a concrete monument; thence on a curve to the right with a radius of 1864.50 feet, and parallel to, and 16 feet distant from, the east curb of said road a distance of 239.30 feet, to a concrete monument, the point of beginning. (All bearings are true bearings.) The above parcel of land is shown on Drawing S-6100-63, made by the Section of Surveys of The Panama Canal, dated June 12, 1929, the total area of said parcel being 11.7 acres.

HERBERT HOOVER

THE WHITE HOUSE,
September 6, 1929.

[No. 5185]

Whaling Vessels Transit Canal.

The steamer *Kosmos*, flag ship, accompanied by her attendant fleet of 7 whaling vessels, owned and operated by the Kosmos Company of Sandefjord, Norway, transited the Canal on September 10, 1929, en route from Norway to Wellington, New Zealand, which port will serve as the base of operations for the next year.

The *Kosmos*, which is known as a "whale factory," is 554 feet in length, 77.6 feet beam, of 17,801 gross tons and is said to be the largest single-screw vessel afloat. Recently constructed in Belfast, Ireland, the vessel carries a complete up-to-date equipment for whaling. Airplanes are carried to facilitate navigation through icy waters, and for the purpose of locating the whales. The whole "factory," equipped with the latest machinery for the extraction of oil from whales, is situated in the upper 'tween decks, which has a depth of 15 feet.

Three other whaling vessels, the *N. T. Nielsen Alonzo*, the *Sir J. C. Ross*, and the *C. A. Larsen*, also transited the Canal in the early part of this month, bound for the Antarctic, and another fleet, consisting of the *Southern Princess* and five whale catchers, passed through from the Atlantic on September 25.

Record Trip to Manila Reported.

Statement has been made by the Barber Steamship Lines, Inc., that the new twin-screw motor ship *Tai Ping*, which transited the Canal on August 8, 1929, on her maiden voyage in the trade between the United States and the Far East, arrived at Manila on September 5th, having made the passage from New York to that port in the record time of 35 days, from Newport News in 34 days, and from San Pedro in 19 days. The motor ship *Tai Yang*, a sister vessel of the *Tai Ping*, which is also entering this trade, sailed from New York on September 28th, and is due to arrive at the Canal the early part of this month.

The *Tai Ping* is 462 feet long, 60.6 feet beam, and of 9,894 gross tons. She carried 5,331 tons of general cargo on her first voyage in this trade.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal, C. Z., from September 10 to September 24, 1929.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Buenaventura	Panama R. R. S. S. Line		September 7		282
Linda S.	Feuillebois		September 10		49
Calamares	United Fruit Co		September 11		101
Martha	Decruet		September 12		357
Uribe	Estrada G. Hermanes		September 15		429
Heluan	Hamburg-American Line	September 10	September 11	140	225
Stuyvesant	Royal Neth. S. S. Co.	September 10	September 11	42	3
Metapan	United Fruit Co.	September 10	September 12	367	182
Smaragd	United Fruit Co.	September 10	September 15	800	447
Corinto	Panama Mail S. S. Co.	September 10	September 15	198	1,865
Sachsen	Hamburg-American Line	September 11	September 12	(¹)	24
Atlantian	Leyland S. S. Line	September 11	September 12	526	(²)
Ebro	Pacific Steam Nav. Co.	September 12	September 13	18	(²)
London Importer.	Furness, Withy & Co.	September 12	September 13	(¹)	329
Ancon	Panama R. R. S. S. Line	September 12	September 16	5,674	988
Suriname	United Fruit Co	September 13	September 13	867	51
Coppename	United Fruit Co	September 13	September 13	68	90
William M.	Feuillebois	September 13	September 13	(¹)	30
Cid	Pacific Steam Nav. Co.	September 13	September 13	298	10
San Mateo	United Fruit Co.	September 13	September 14	894	2
Stuyvesant	Royal Neth. S. S. Co.	September 13	September 14	(¹)	168
Atlantida	Standard Fruit Co	September 13	September 14	311	435
Atago Maru	Nippon Yusen Kaisha	September 13	September 14	374	(²)
Phrygia	Hamburg-American Line	September 13	September 14	142	429
Glamorganshire	Royal Mail S. P. Co.	September 13	September 15	374	(²)
Caldas	National Navigation Co	September 13	September 21	259	173
Loriga	Pacific Steam Nav. Co.	September 14	September 14	(¹)	39
Oropesa	Pacific Steam Nav. Co.	September 14	September 14	31	16
Macabi	United Fruit Co.	September 14	September 14	57	299
Somme	United States Army	September 14	September 15	14	(²)
Wanks	Standard Fruit & S. S. Co	September 14	September 15	103	(²)
Cartago	United Fruit Co.	September 14	September 16	277	83
Durazzo	Hamburg-American Line	September 14	September 22	540	273
Calamares	United Fruit Co.	September 15	September 15	18	321
Manizales	North German Lloyd	September 15	September 16	21	233
Salvador	Pacific Steam Nav. Co.	September 15	September 22	210	1,093
Essequibo	Pacific Steam Nav. Co.	September 16	September 16	20	8
Santa Cecilia	Grace Line	September 16	September 16	173	8
Alvarado	Pacific Steam Nav. Co.	September 16	September 17	41	32
Boedgraven	Royal Neth. S. S. Line	September 16	September 17	204	406
Pastores	United Fruit Co.	September 16	September 18	589	102
Albert Vogler	Hamburg-American Line	September 17	September 17	186	216
Havana Maru	Nippon Yusen Kaisha	September 17	September 17	550	(²)
Ecuador	Panama Mail S. S. Line	September 17	September 18	202	169
Hessen	Hamburg-American Line	September 18	September 18	36	(²)
Linda S.	Feuillebois	September 18	September 18	(¹)	37
Indiana	French Line	September 18	September 18	12	57
Santa Teresa	Grace Line	September 18	September 18	10	(²)
Narenta	Pacific Steam Nav. Co.	September 18	September 19	(¹)	64
Sixaola	United Fruit Co.	September 18	September 19	734	623
Gymerc	Asiatic Petroleum Co	September 18	September 20	9	(²)
Saramacca	United Fruit Co.	September 19	September 19	512	11
Peru	East Asiatic Co.	September 19	September 19	343	(²)
Perou	French Line	September 19	September 20	175	462
Emil Kerdorf	Hamburg-American Line	September 19	September 20	148	96
Esparta	United Fruit Co.	September 19	September 21	618	240
Baralt	Royal Neth. S. S. Co.	September 19	September 21	480	62
Cauca	National Navigation Co.	September 20		264	
Atlantian	Leyland S. S. Line	September 20	September 20	(¹)	226
Belgian Maru	Nippon Yusen Kaisha	September 20	September 20	199	(²)
Inapaquina	United Fruit Co.	September 20	September 20	28	(²)
Suriname	United Fruit Co.	September 20	September 20	40	63
Portland	Hamburg-American Line	September 20	September 21	11	374
Dintledyk	Holland-American Line	September 20	September 21	21	318
Anapala	Standard Fruit & S. S. Co.	September 20	September 21	232	441
Oklahoma	French Line	September 20	September 21	303	(²)
West Camargo	McCormick S. S. Line	September 20	September 21	150	(²)
Sosua	United Fruit Co.	September 20	September 22	(¹)	272
Orazio	Italian Line	September 20	September 22	253	(²)
Stella	Panama Mail S. S. Co.	September 20	September 24	46	(²)
Annetta I.	Tagarapulos	September 21		52	
City of San Francisco	Panama Mail S. S. Co.	September 21		51	
Murla	North German Lloyd	September 21	September 21	203	72
Manauqi	United Fruit Co.	September 21	September 21	13	492
Parismina	United Fruit Co.	September 21	September 22	682	17
Inapaquina	United Fruit Co.	September 21	September 22	15	(²)
Wanks	Standard Fruit & S. S. Co.	September 21	September 23	123	1
Cali	North German Lloyd	September 22		902	
Galicia	Hamburg-American Line	September 22	September 22	19	216

¹ No cargo discharged.² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Pastores	United Fruit Co.	September 22.	September 22.	23	201
Texas	French Line	September 22.	September 23.	246	(²)
Altmark	Hamburg-American Line	September 22.	September 23.	32	(²)
Ulua	United Fruit Co.	September 23.	September 23.	401	
Gruenwald	Hamburg-American Line	September 23.	September 23.	143	
Santa Elisa	Grace Line	September 23.	September 23.	5	(²)
Saramacca	United Fruit Co.	September 23.	September 23.	1	89
El Salvador	Panama Mail S. S. Co.	September 23.	September 24.	1,529	448
Wido	North German Lloyd	September 23.	September 24.	394	141
Leme	Nav. Libera-Tricstina	September 23.	September 24.	112	(²)
Gracia	Donaldson Line	September 23.	September 24.	(¹)	
Annie Johnson	Johnson Line	September 24.	September 24.	74	
Venezuela	Royal Neth. S. S. Co.	September 24.	September 24.	11	
Inapaquima	United Fruit Co.	September 24.	September 24.	25	
Teno	Chilean S. S. Line	September 24.	September 24.	(¹)	
Camden	United Fruit Co.	September 24.	September 24.	9,364	

¹ No cargo discharged.² No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending September 28, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Martha	L. I. C. Dueruit	September 14.	September 15.		320
Ecuador	Panama Mail S. S. Co.	September 14.	September 15.	60	
Havana Maru	Nippon Yusen Kaisha	September 16.	September 17.	202	
Santa Teresa	Grace Line	September 19.	September 19.	1	
Pern	East Asiatic Line	September 19.	September 19.	148	
Willfaro	Williams S. S. Corp	September 24.	September 24.	6	
El Salvador	Panama Mail S. S. Co.	September 24.	September 24.	86	
Patrick Henry	U. S. Shipping Board	September 25.	September 26.	219	
Caloric	Wihl. Jebsen Bergen.	September 25.	September 28.	9,367	
Max Albrecht	Sun Oil Co.	September 26.	September 26.	24	
Benjamin Franklin	Fred Olsen & Co.	September 26.	September 26.	867	
Santa Rita	W. R. Grace & Co.	September 27.	September 27.		8
California	Panama Pacific S. S. Co.	September 27.	September 28.		191
St. Mihel	U. S. Army	September 27.	In port	673	
Martha	Chr. Hannevig	September 25.	September 25.		197
Henderson	U. S. Navy.	September 28.	September 29.		32

Panama Mail Vessels Now Under the United States Flag.

The Panama Mail Steamship Company's motor ship, *City of San Francisco*, operated in the trade between Cristobal and the west coast of Central America and the United States, transited the Canal from the Pacific to the Atlantic on September 21, 1929, flying the American flag. Since induction into this service in 1924, the *City of San Francisco*, and her sister ship, the *City of Panama*, have been operated under the flag of Panama. The registry of the former was transferred on her last trip to San Francisco, and that of the *City of Panama* is to be changed on her next call at that port. The *Corinto*, in this service, is under United States registry.

Some press comments on these changes of registry have stated that for former Panama vessels would save considerable in Canal tolls under American registry, as they would come under a lower classification. Such is not the case, as commercial ships of all nations pay tolls on an equal basis.

In addition to the above-named vessels, the Panama Mail Steamship Company operates a fleet of passenger and cargo ships in the United States intercoastal trade.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., October 9, 1929. No. 10.

Net Tonnage of Vessels Transiting the Panama Canal During the Fiscal Year 1929.

During the fiscal year ended June 30, 1929, there were 6,395 transits of the Panama Canal by commercial vessels, exclusive of foreign naval vessels paying tolls on the basis of displacement tonnage (making 18 transits). Fifty-four and two-tenths per cent of the 6,395 commercial transits were by vessels of from 4,000 to 6,000 net tons, Panama Canal measurement, 6.4 per cent by vessels under 1,000 net tons and 4.7 per cent by vessels over 8,000 net tons, including 86 transits by vessels of over 10,000 net tons. The average net tonnage of all transits was 4,666. Vessels of Danzig registry had the highest average amounting to 6,247 net tons, and Colombian vessels the lowest with an average of 386 net tons. The British ship *Belgenland* of 18,874 net tons, Panama Canal measurement, was the largest commercial vessel transiting during the year.

The following tabulation shows the 6,395 commercial transits in groups according to net tonnage, Panama Canal measurement, segregated by nationality, together with the average tonnages and the per cent which the total of each group formed of the total number of transits.

Nationality.	NUMBER OF TRANSITS.												Totals.	Panama Canal Net tonnage.	Average Panama Canal net tonnage.
	20 to 99 inclusive.	100 to 999 inclusive.	1,000 to 1,999 inclusive.	2,000 to 2,999 inclusive.	3,000 to 3,999 inclusive.	4,000 to 4,999 inclusive.	5,000 to 5,999 inclusive.	6,000 to 6,999 inclusive.	7,000 to 7,999 inclusive.	8,000 to 8,999 inclusive.	9,000 to 9,999 inclusive.	10,000 and over.			
Belgian.....						11		6					17	89,695	5,276
British.....	2	75	42	21	196	730	256	181	117	66	59	29	1,774	8,984,526	5,070
Chilean.....				1	3	26							30	130,599	4,353
Colombian.....	10	84	7										101	39,032	386
Costa Rican.....	1												1	39	39
Cuban.....			1										1	194	194
Danish.....		1	9	15	9	35	29	3					101	416,985	4,129
Danzig.....							5	24	1				30	187,403	6,247
Dutch.....		35		1	13	13	23	42	22				149	690,608	4,635
Finnish.....			5	1			1						7	16,314	2,331
French.....		1			1	71	39						112	534,505	4,772
German.....	86	64	10	3	36	87	66	52				1	402	1,405,385	3,496
Greek.....					36	29							67	261,540	3,904
Italian.....				1	7	27	6	24	2		16		83	492,472	5,933
Japanese.....						90	61						155	775,005	5,000
Norwegian.....	2	48	22	12	65	116	51	21	2			1	340	1,280,184	3,765
Panamanian.....	8	7	2	19		8		3					47	113,097	2,406
Peruvian.....		3	9	32		1	1						46	109,100	2,372
Spanish.....				5		15	11						31	117,528	3,791
Swedish.....			20		15	65	35	9					144	618,558	4,296
United States.....	14	33	106	385	51	837	699	380	69	49	22	55	2,700	13,323,753	4,935
Yugoslav.....					19	35	3						57	239,272	4,198
Totals.....	37	373	287	505	464	2,191	1,278	745	217	115	97	86	6,395	29,837,794	4,666
Per cent of total.....	0.6	5.8	4.5	7.9	7.3	34.2	20.0	11.6	3.4	1.8	1.5	1.4	100.0		

MOVEMENTS OF OCEAN VESSELS. *Week ending at midnight, October 5, 1929.*

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.		Gross.
Ruapehu	9-28	17 20	29	6 12	29	13 10	29	14 25	British	N. Z. Shipping Co.	457.0	58.0	25.8	London, England	New Plymouth, N. Z.	General	5,547	9,079	6,798
El Panquaco	29	5 50	29	5 50	29	13 09	29	14 25	Panamanian	Panamanian Government	125.0	23.0	7.4	Colon, R. P.	Panama, R. P.	Ballast	288	101	
Calif	22 16	50	29	6 00	29	13 25	29	14 25	German	Roland Line	216.5	32.9	13.7	Cristobal, C. Z.	Guayacul, Yucatan	General	326	1,105	698
Tacoma	28 19	55	29	7 25	29	13 56	29	14 40	British	Blue Star Line	450.0	58.0	19.6	New York, N. Y.	Vancouver, B. C.	Ballast	8,240	5,395	
Varg	28 21	20	29	7 30	29	14 27	29	17 55	Norwegian	Caustian Oil Co.	390.0	55.0	23.6	Falmouth, Eng'd.	Los Angeles, Calif.	Ballast	5,983	3,856	
Svealand	29 00	37	29	8 25	29	15 28	29	20 10	Swedish	Axel Brostrom & Sons.	561.0	72.0	23.0	New York, N. Y.	Cruz Grande, Chile	Ballast	15,425	4,421	
Columbian	29 4 05	29	8 45	29	16 12	29	16 55	British	J. & J. Denholm	400.0	52.0	17.0	Teneriffe, Can. Is.	Toconilla, Chile	Ballast	3,710	4,022		
Gravepark	29 9 00	29	9 40	29	16 12	29	16 55	American	Amer.-Hawaiian Line	404.6	53.0	18.9	Boston, Mass.	Corral, Chile	General	3,118	6,760	4,450	
Nosa Chief	28 20 45	29	10 15	29	17 16	29	18 20	American	N. O. & S. A. S. Co.	299.4	45.0	21.0	New Orleans, La.	Seattle, Wash.	General	2,307	3,256	2,010	
Lubraf	29 11 00	29	11 15	29	18 12	29	19 18	Belgian	Soc. Anon et Arm. Com.	440.0	57.0	27.0	Middlesb'gh, Eng.	Crossote	General	9,250	7,015	4,976	
Corinthie	29 5 10	29	12 20	29	19 20	29	20 50	British	Shaw, Savill & Albion.	500.3	63.3	29.10	London, England	Auckland, N. Z.	General	8,400	12,821	9,507	
City of San Francisco	21 18 10	29	13 58	29	20 55	29	22 12	Panamanian	Panama Mail S. S. Co.	296.9	45.9	21.7	Cristobal, C. Z.	San Francisco, Cal.	General	3,430	3,848	2,606	
British Prince	29 15 45	29	16 00	29	22 50	29	23 45	British	Prince Line, Ltd.	450.4	58.0	24.9	New York, N. Y.	Manila, P. I.	General	6,690	8,662	6,099	
La Perla	30 4 25	30	7 00	30	13 38	30	15 05	American	United Fruit Co.	325.0	48.0	20.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, general	341	4,033	2,261	
Canadian	30 10 53	30	10 55	30	15 02	30	18 50	American	Can. Nat. Steamships	400.0	52.0	20.0	Montreal, Canada.	Vancouver, B. C.	General	3,800	5,893	4,182	
Seigneur	30 7 10	30	7 20	30	14 25	30	16 45	British	States S. S. Co.	376.0	52.0	20.0	Norfolk, Va.	Tacoma, Wash.	General	3,030	5,455	3,879	
Orient	30 10 40	30	11 40	30	19 50	30	20 42	American	Can. Nat. Steamships	400.0	52.0	20.7	Montreal, Canada	Adelaide, Australia	General	2,305	5,891	4,114	
Canadian	30 11 35	30	12 25	30	20 12	30	21 10	British	Dimon S. S. Co.	400.0	55.0	18.0	New York, N. Y.	Seattle, Wash.	General	3,530	6,138	4,354	
Pacific Cedar	30 14 30	30	14 40	30	21 36	30	22 50	American	Ishihman S. S. Lines	425.0	56.0	25.2	New Orleans, La.	Shanghai, China	Gen. steel, etc.	7,924	7,611	5,450	
Steel Inventor.	30 9 45	10-1	6 20	10-1	12 44	10-1	7 00	American	Panama Mail S. S. Co.	373.0	48.8	20.0	New York, N. Y.	San Francisco, Cal.	General, coffee	1,645	6,015	4,281	
Colombia	30 6 50	1	6 30	1	13 22	2	14 30	British	Ellerman City Line	467.0	59.0	23.10	Southampton, Eng.	Shanghai, China	Army stores	400	9,554	6,917	
City of	30 16 50	1	7 15	1	14 35	1	15 25	Norwegian	Fern Line	385.3	54.0	24.0	Galveston, Tex.	Yokohama, Japan	General	7,295	6,615	4,859	
Marselles	30 20 45	1	7 45	1	15 18	1	16 30	Norwegian	Ishihman S. S. Lines	424.0	56.0	26.10	New York, N. Y.	Tacoma, Wash.	Steel products	8,278	7,611	5,450	
Steel Engineer	30 23 30	1	8 35	1	15 40	1	16 50	Swedish	G. Karlson	425.0	56.0	19.8	Hercand, Sweden	Melbourne, Aust'ia	Timber, general	4,100	7,614	5,384	
Hullaren	30 23 40	1	8 50	1	16 29	1	17 50	American	Munson S. S. Line	384.0	51.0	24.0	Baltimore, Md	Seattle, Wash.	General	6,282	5,571	4,033	
Munbeaver	30 19 30	1	9 55	1	16 42	1	17 50	American	Roosevelt S. S. Co., S. B.	502.0	53.0	23.0	New York, N. Y.	Brisbane, Australia	General	2,927	6,570	4,798	
Oakpark	30 19 30	1	9 55	1	16 42	1	17 50	American	Imperial Oil Co.	410.0	68.0	23.0	Montreal, Canada	Talara, Peru	Ballast	11,556	6,772		
Canadollite	30 19 30	1	9 55	1	16 42	1	17 50	American	Imperial Oil Co.	410.0	68.0	23.0	Montreal, Canada	Talara, Peru	Ballast	11,556	6,772		
Canadollite	30 19 30	1	9 55	1	16 42	1	17 50	American	Imperial Oil Co.	410.0	68.0	23.0	Montreal, Canada	Talara, Peru	Ballast	11,556	6,772		
Empirestar	30 19 30	1	10 55	1	17 45	1	19 00	British	Blue Star Line	423.4	56.0	18.0	Tyre, England	N. Westm. ster, B. C.	Ballast	6,496	5,317	4,001	
North Pacific	30 19 30	1	10 55	1	17 45	1	19 00	British	Blue Star Line	423.4	56.0	18.0	Tyre, England	N. Westm. ster, B. C.	Ballast	6,496	5,317	4,001	
F. H. Hillman	30 12 15	1	12 30	1	19 45	1	20 58	American	Andrew Weir & Co.	379.5	53.0	23.8	San Blanca, Mor.	Auckland, N. Z.	Phosphate	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
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Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,225	7,913		
Comiebank	30 13 00	1	13 35	1	20 40	2	00 55	British	Standard Oil Co.	500.0	68.0	18.0	New York, N. Y.	Los Angeles, Calif.					

¹ Transport.

² Tanker.

³ Motor ship.

⁴ Troop ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	Gross.	Net.
Acajunda	28	21.05	29	7.38	29	13.52			British.	Pacific Steam Nav. Co.	215.7	33.5	14.6		Champerico, Guat.	Cristobal, C. Z.	General.	493	1,273	706
Ville De Verdon	29	7.25	29	8.16	29	15.40	30	00.40	French.	Messageries Maritimes.	409.3	53.5	23.5		Noumea, N. Calid.	Dunkirk, France.	General.	4,583	7,603	5,629
St. Michel	29	22.30	30	6.15	30	13.00	2	11.05	American.	U. S. Army	448.0	50.8	24.6		Balboa, C. Z.	New York, N. Y.	Army general.	212		
Boskoop	29	3.00	30	6.49	30	14.57	30	22.20	Dutch.	Royal Neth. S. S. Co.	406.6	58.3	25.3		Valparaiso, Chile.	Hamburg, Germany.	Nitrate, general.	7,850	7,817	6,097
Cragness	30	3.00	30	7.04	30	16.25	30	17.45	British.	Sir W. R. Smith & Sons	412.1	56.0	24.7		Vancouver, B. C.	London, England.	General.	7,482	7,022	5,450
Earlsgrange	30	4.00	30	7.42	30	17.45	30	17.45	British.	J. J. Delholm	407.8	53.3	25.3		Tocopala, Chile.	Azores I.	Nitrates	8,050	5,793	4,120
Aconcagua	30	2.16	30	8.30	30	16.05	30	21.45	Chile.	Chilean Line	422.8	56.2	26.8		Valparaiso, Chile.	New York, N. Y.	General.	4,124	7,764	4,705
Offield	30	6.30	30	8.32	30	18.31	1	9.45	British.	Hunting & Son, Ltd.	365.0	51.3	25.9		Los Angeles, Calif.	Havre, France.	Gasoline	6,699	5,793	4,120
Amerikaland	30	11.20	30	12.14	30	20.20	30	20.20	Swedish.	Ore S. S. Corp.	560.0	72.2	33.8		Cruz Grande, Chile	Baltimore, Md.	Iron ore.	21,700	15,560	4,496
Noordwijk	30	11.45	30	12.52	30	21.20	30	21.20	Dutch.	Holland-American Line	470.0	53.0	29.0		Vancouver, B. C.	Hamburg, Germany	Lumber, general	10,878	8,888	6,612
Fernhill	30	13.00	30	13.58	30	22.25	30	23.05	Norwegian.	Fearnley & Eger.	377.6	54.0	25.1		Saigon, China.	Nuevitas, Cuba	Rice.	7,139	6,081	4,538
Senota			30	9.18	30	17.45			American.	U. S. Navy	155.0	30.0			Balboa, C. Z.	Cristobal, C. Z.	Towing barge			
Julia	30	20.00	10-1	5.57	10-1	14.00	10-1	14.00	American.	Luckenbach Line	436.6	57.2	27.0		Portland, Oreg.	New Orleans, La	General.	7,204	8,543	6,402
Yero Carras	10-1	1.30	1	6.41	1	15.25	1	15.25	Greek.	Carras Bros.	384.0	50.0	24.0		Tocopilla, Chile	Venice, Italy	Nitrates	7,300	5,145	3,710
Henry S. Grove.	1	4.00	1	7.28	1	18.30	1	18.30	American.	Argonaut Line	404.6	54.9	24.4		Portland, Oreg.	Baltimore, Md	Lumber, general	4,869	6,755	4,688
Caldas	30	23.00	1	7.50	1	18.45			Colombian.	Cia. Nacional de Nav.	116.0	21.1	10.4		Buenaventura, Col	Cristobal, C. Z.	General.	258	211	124
Andrea F.																				
Luckenbach.	1	6.10	1	8.15	1	19.00	1	19.00	American.	Luckenbach Line	496.0	68.2	30.0		Portland, Oreg.	Boston, Mass.	Lumber, general.	11,291	11,487	8,762
Victrolite	1	6.50	1	8.40	1	19.50	1	20.50	British.	Imperial Oil Co.	510.0	68.2	31.6		Talara, Peru	Montreal, Canada.	Crude oil	16,076	11,575	7,033
Panama	1	11.05	1	11.48	1	20.10	1	20.10	American.	Amer-Hawaiian Line	407.7	53.7	27.0		Portland, Oreg.	New York, N. Y.	General	6,831	7,098	5,065
Kuma Maru	1	4.30	1	12.46	1	21.10	2	10.17	Japanese.	Nippon Yusen Kaisha	405.0	53.0	24.6		Iloilo, P. I.	Boston, Mass.	General	7,628	6,972	4,967
Breckenridge			1						American.	U. S. Army					Pedro Miguel, C. Z.	Cristobal, C. Z.	Towing barges			
Grovel			1						American.	U. S. Army					Pedro Miguel, C. Z.	Cristobal, C. Z.				
Venezuela	1	11.00	2	6.27	2	14.05			American.	Panama Mail S. S. Co.	380.0	48.7	21.0		San Francisco, Cal.	New York, N. Y.	General	1,833	6,033	4,353
Sagadah	1	19.20	2	7.05	2	15.35			Swedish.	Axel Brostrom & Son	446.3	54.1	26.0		Mejillones, Chile	Azores I.	Nitrates	9,200	8,840	5,014
Lake Benbow	1	18.15	2	7.17	2	15.53			American.	Ford Motor Co.	236.0	43.6	20.0		Seattle, Wash.	Philadelphia, Pa.	(+)	2,450	2,676	1,803
Malchase	2	3.05	2	7.23	2	15.55			American.	Malloy Transp. Line	333.9	44.0	22.0		Newport, Oreg.	Poughkeepsie, N. Y.	Lumber	4,600	4,162	2,898
Herman																				
Falk	2	3.50	2	7.59	2	16.25			American.	Oil Transport Co.	431.0	59.6	26.6		Los Angeles, Calif	New York, N. Y.	Gasoline	9,569	7,862	5,049
Witram	2	12.30	2	13.21	2	20.15			German.	North German Lloyd	463.0	58.2	25.0		Seattle, Wash.	Hamburg, Germany	General	6,764	7,820	5,061
Nietheroy	2	15.20	3	6.09	3	14.25	3	21.00	British.	Royal Mail S. P. Co.	450.2	58.3	27.0		Vancouver, B. C.	Rotterdam, Holland	General	7,342	8,874	6,558
Ame	3	1.10	3	6.46	3	15.30	3	15.30	American.	Standard Transp. Co.	435.0	56.0	27.0		Guaymas, Calif	New York, N. Y.	Gasoline	9,713	7,165	4,926
Buenaventura	3	3.55	3	7.15	3	16.45	4	14.15	American.	Panama R. S. S. Line	231.0	43.0	17.0		Guayaquil, Ecuador	New York, N. Y.	General	1,087	2,873	1,776
Romanstar	3	4.00	3	8.07	3	18.08	4	5.25	British.	Blue Star Line	420.0	54.0	25.0		N. Westminster, B. C.	Liverpool, England	General	5,617	7,433	5,860
Suternco	3	8.05	3	9.00	3	16.50	3	16.50	American.	Transmarine Lines	324.0	46.2	24.8		Seattle, Wash.	Newark, N. J.	Lumber	3,900	3,984	2,628
Voyoda Putnik	3	9.15	3	10.10	3	18.55	3	20.20	Yugoslav.	Babarizzo & Co.	400.0	52.0	26.0		Tocopilla, Chile	Alexandria, Egypt	Nitrates	9,030	6,031	4,178
Oran	3	9.15	3	10.17	3	19.12	3	19.40	American.	Pacific Atlantic Co.	410.5	54.2	28.0		San Francisco, Cal.	Wilmington, Del.	Lumber	7,376	6,745	4,887

* Tanker.

* Transport.

* Motor ship.

* Tug.

* Launch.

* For orders.

* Lumber and automobile parts.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 29	Swiftwind	Eastern Shell Oil Co.	Curaçao, D. W. I.	September 29	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
September 29	Una	United Fruit Co.	Port Limon, C. R.	September 29	Una	United Fruit Co.	New York via Habana.
September 29	No 9685 17	Pan-American Airways	Managua via waypoints.	September 29	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
September 29	N. C. 142 M. 17	Pan-American Airways	Miami via waypoints.	September 30	Heredia	United Fruit Co.	New Orleans and waypoints.
September 30	No. 5087 17	United Fruit Co.	Chiriqui, R. P.	September 30	Swiftwind	Eastern Shell Oil Co.	Curaçao, D. W. I.
September 30	Tolea	United Fruit Co.	New York via Habana.	October 1	Pearl Marie 18	G. I. Bryan	Bluefields, Nicaragua.

17 Tanker.

18 Motor schooner.

15 Cruiser.

16 For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

15 Cruiser.

16 For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 30.	No. 9688 ¹⁹	Pan-American Airways	Managua via wayports.	October 2.	Tolosa	United Fruit Co.	Port Limon, C. R.
October 1.	Pearl Marie ²⁰	G. I. Bryan	Colon, R. P.	October 2.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.
October 2.	Orinoco	Hamburg-American Line.	Hamburg via wayports.	September 28.	Cundinamarca C-33 ¹⁹	Scadta Airplane Co.	Buenaventura via Balboa.
October 2.	Flandre	French Line	Have via wayports.	October 2.	N. C. 142 M ¹⁹	Pan-American Airways	Managua.
October 2.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.	October 2.	No. 5687 ¹⁹	United Fruit Co.	Chiriqui, R. P.
October 2.	Darien C-35 ¹⁹	Scadta Airplane Co.	Barranquilla via wayports.	October 2.	Orinoco	Hamburg-American Line.	Port Limon, C. R.
October 2.	Wauita	Stand. Fruit & S. S. Co.	Port of Spain.	October 2.	Nora B. ²⁰	H. Blackwood	San Blas, R. P.
October 2.	No. 9137 ¹⁹	Pan-American Airways	Colon, R. P.	October 2.	Nora B. ²⁰	H. Blackwood	Bluefields, Nicaragua.
October 3.	Buenos Aires.	Pan-American Airways	Curacao via wayports.	October 3.	No. 9685 ¹⁹	Pan-American Airways	Managua via wayports.
October 3.	No. 9664 ¹⁹	Pan-American Airways	Barcelona via wayports.	October 3.	Flandre	French Line	Have via wayports.
October 3.	Anachucua ²¹	United Fruit Co.	Colon, R. P.	October 3.	A. Tagarapulos	United Fruit Co.	Colon, R. P.
October 3.	Inapaquina ²¹	United Fruit Co.	Colon, R. P.	October 3.	Anachucua ²¹	United Fruit Co.	Barranquilla via Cartagena
October 3.	Tivives	United Fruit Co.	Colon, R. P.	October 3.	Amelia I. ²¹	Scadta Airplane Co.	Colon, R. P.
October 4.	S. M. Spalding	United Fruit Co.	New York via Kingston.	October 4.	Darien C-35 ¹⁹	Scadta Airplane Co.	Colon, R. P.
October 4.	Amapala.	Stand. Fruit & S. S. Co.	Aruba, D. W. I.	October 4.	Tivives	United Fruit Co.	New York via wayports.
October 4.	Coppename.	Stand. Fruit & S. S. Co.	New Orleans via Habana.	October 4.	Coppename	United Fruit Co.	Managua via wayports.
October 4.	Cundinamarca C-33 ¹⁹	Scadta Airplane Co.	Buenaventura via wayports.	October 5.	No. 9688 ¹⁹	Pan-American Airways	Puerto Cabezas.
October 4.	No. 9107 ¹⁹	Scadta Airplane Co.	Managua via wayports.	October 5.	Amapala	Stand. Fruit & S. S. Co.	New Orleans and wayports.
October 5.	Wauita	Stand. Fruit & S. S. Co.	Mayaguez via wayports.	October 5.	Suriname	United Fruit Co.	Pto. Colombia and Bocas.
October 5.	Orinoco	Hamburg-American Line	San Blas, R. P.	October 5.	S. M. Spalding	Huasteca Petroleum Co.	Aruba, D. W. I.
October 5.	Wauita	Stand. Fruit & S. S. Co.	San Blas, R. P.				
October 5.	Suriname	United Fruit Co.	New Orleans, La.				
October 5.	Mayuri	Pan-American Airways	Managua via wayports.				
October 5.	No. 9685 ¹⁹	United Fruit Co.	Managua via Habana.				
October 5.	Cartago	United Fruit Co.					
¹⁹ Airplane.				²⁰ Motor schooner.			
				PORT OF BALBOA.			
September 30.	La Brea.	Union Oil Co. of California	Los Angeles, California.	October 2.	La Brea	Union Oil Co. of California	Los Angeles, California.
October 3.	Anoyo Maru	Nippon Yusen Kaisha	Yokohama, China.	October 2.	Anoyo Maru	Nippon Yusen Kaisha	Hongkong, China.
October 3.	Cricamela ²³	Chiriqui Land Co.	Pto. Armuellas, R. P.	October 4.	Dos Hermanos ²²	A. Valdez	Panama Bay, R. P.
October 4.	A. B. de Obarrío ²²	Pacific Fruit Co.	Bayamo River, R. P.	October 4.	A. B. de Obarrío ²²	Pacific Fruit Co.	Panama Bay, R. P.
October 4.	Sambo ²²	Hans Elliott	Bayamo River, R. P.	October 4.	Sambo	Hans Elliott	Panama Bay, R. P.
October 4.	Chiriqui ²²	United Fruit Co.	Pto. Armuellas, R. P.	October 4.	Chiriqui ²²	United Fruit Co.	Panama Bay, R. P.
²¹ Motor schooner.				²² Motor boat.			
				* Other than ships passing through the Canal.			
				²³ Motor yacht.			

**Commercial Traffic Through the Panama Canal During Fiscal Year 1929,
by Principal Trade Routes.**

The commercial traffic through the Panama Canal during the fiscal year ended June 30, 1929, classified according to principal trade routes, and nationality of vessels in each trade route, together with the corresponding totals for the fiscal years 1925 to 1929, inclusive, is summarized in tables presented at the end of this comment.

The United States intercoastal trade, which is the largest trade through the Canal and is restricted to vessels of United States registry, made up 29.3 per cent of the number of transits through the Canal in 1929, and accounted for 32.9 per cent of the net tonnage, Panama Canal measurement, 33.2 per cent of the tolls collected, and 33.0 per cent of the cargo carried. The increase in this trade, as a whole, has been slight during the past five years, due principally to the decline of shipments of mineral oils from California. This decline has been particularly marked in the past two years and has offset almost entirely the increases in other classes of shipping.

The trade between Europe and United States-Canada, which ranks as the second largest trade through the Panama Canal, shows the largest growth during the past five years, having practically doubled since 1925. Ships of British registry with 653 transits, or 55 per cent of the total transits in this trade during 1929, predominated, with those flying the Norwegian flag second with 118 transits. The heavy increase over this route is accounted for by a general expansion of the trade. As will be noted from the table on page 144, while the number of transits in 1929 showed a slight decrease as compared with 1928, net tonnage of vessels, tolls collected, and tons of cargo increased.

The third ranking trade route through the Canal during 1929 was that between the east coast of the United States and the west coast of South America. Vessels of United States registry, with 317, contributed almost one-half of the transits of vessels plying in this trade during 1929, and those of British registry were second with 181. The number of voyages over this route declined slightly from 1925 to 1927, but 1928 and 1929 showed a sharp revival.

In the trade between Europe and the west coast of South America transits of vessels of British registry, with 151, led, with those flying the German flag second with 117. Shipping over this route, like that between the United States and South America, declined from 1925 to 1927, but registered a marked increase in 1928 and 1929.

The trade between the east coast of the United States and the Far East ranked next in importance in 1929, with a total of 382 transits. Vessels of the United States and Japan comprised the greatest number of vessels engaged in this trade in 1929, with 110 and 107, respectively, with those of Great Britain third with 96. The greater portion of this trade through the Canal is outbound, as many of the vessels engaged in it return by way of Suez or by some other route not using the Panama Canal.

The trade between Cristobal and the west coast of South America, contributing 270 transits during the past fiscal year, represents a comparatively small proportion of the net tonnage, tolls collected, and tons of cargo carried, owing to the small tonnage of the vessels engaged in the trade. Ships of German registry, with 108 transits, comprised the greater portion of the shipping in this trade, and Colombian vessels, with 85, were second. This trade increased steadily

up to the fiscal year 1928, with 1929 showing a somewhat marked decline.

Of the 202 transits of vessels through the Canal in the trade between Europe and Australasia in 1929, 182 were of British ships. In so far as the number of transits is concerned, the year 1929 was slightly lower than 1928, although the net tonnage of the vessels engaged in the trade and the amount of cargo tonnage were greater during 1929. The trade has shown a fair increase in the past five years.

The trade between the east coast of the United States and Australasia contributed 134 transits in 1929. During the past five years, the fiscal year ended June 30, 1927, showed the greatest tonnage plying over this route, with a somewhat heavy decline in 1928 and 1929. In 1929 vessels of British registry had the most transits with 96, and the United States was second with 29. As is true in the trade between the United States and the Far East, the greater part of this shipping is outbound, many of the vessels returning homeward over other routes than by the Panama Canal.

The amount of cargo shown in the tabulation below is the tonnage carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

Trade routes and nationality of vessels.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal:				
United States	1,880	9,826,329	\$8,998,920.79	10,119,028
Totals, fiscal year, 1929	1,880	9,826,329	8,998,920.79	10,119,028
Totals, fiscal year, 1928	1,929	10,061,147	9,195,651.48	10,067,392
Totals, fiscal year, 1927	1,875	10,400,896	9,113,767.29	10,560,505
Totals, fiscal year, 1926	1,819	9,549,082	8,763,553.40	10,069,604
Totals, fiscal year, 1925	1,662	9,218,590	8,464,708.19	9,496,259
Between Europe and west coast of North America (United States and Canada):				
Belgian	4	18,701	21,010.00	33,470
British	653	3,160,905	2,717,214.08	2,978,691
Danish	38	198,996	183,849.94	215,374
Danzig	6	37,550	33,330.50	34,430
Dutch	58	352,072	335,213.12	325,760
French	60	298,555	275,324.21	306,430
German	52	554,239	452,863.91	566,315
Italian	33	186,512	185,805.60	165,181
Japanese	23	106,913	123,940.00	181,275
Norwegian	118	583,169	530,503.54	621,648
Panaman	3	19,750	16,638.50	12,772
Spanish	2	9,024	7,517.39	7,345
Swedish	63	314,200	253,164.11	314,547
United States	40	235,460	209,117.78	277,592
Totals, fiscal year, 1929	1,193	6,076,046	5,345,492.68	6,040,830
Totals, fiscal year, 1928	1,238	6,060,178	5,381,870.44	6,012,992
Totals, fiscal year, 1927	820	4,236,947	3,899,511.81	4,481,200
Totals, fiscal year, 1926	712	3,652,508	3,328,232.84	3,715,311
Totals, fiscal year, 1925	593	2,954,726	2,740,424.71	3,263,386
Between east coast of United States and west coast of South America:				
British	181	754,605	700,828.08	793,165
Chilean	30	133,854	125,042.50	100,916
Danish	6	24,976	2,240.00	43,968
Danzig	2	13,951	11,027.86	13,200
Finnish	3	5,710	6,021.00	7,050
German	27	54,790	46,621.70	40,530
Italian	3	13,133	13,295.75	15,041
Japanese	7	32,014	30,161.14	32,197
Norwegian	31	114,966	105,983.66	155,158
Panaman	8	39,176	37,156.68	42,783

Trade routes and nationality of vessels.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Between east coast of United States and west coast of South America—Continued:				
Peruvian	11	13,761	\$17,013.20	17,903
Swedish	55	192,894	175,629.03	416,030
United States	317	1,380,501	1,268,124.53	1,754,370
Yugoslav	1	3,406	2,790.00	6,100
Totals, fiscal year, 1929	682	2,777,737	2,562,035.13	3,438,411
Totals, fiscal year, 1928	645	2,673,125	2,480,511.54	3,218,478
Totals, fiscal year, 1927	557	2,339,308	2,159,256.25	2,931,446
Totals, fiscal year, 1926	565	2,457,184	2,279,163.19	3,240,076
Totals, fiscal year, 1925	584	2,499,666	2,367,118.51	3,039,620
Between Europe and west coast of South America:				
Belgian	9	50,223	43,156.82	41,698
British	151	887,613	859,736.62	792,082
Chilean	2	1,417	15,912.24	.....
Colombian	1	29	20.88	.....
Danish	6	24,680	19,403.03	27,497
Danzig	19	117,102	105,477.64	113,349
Dutch	52	293,534	228,947.50	326,568
Finnish	2	3,670	4,404.00	6,400
French	38	165,628	168,520.60	183,339
German	117	562,708	513,413.06	710,773
Greek	60	234,851	197,761.72	287,282
Italian	45	283,909	241,101.03	154,261
Norwegian	37	136,062	119,326.06	195,817
Peruvian	5	9,547	10,135.23	12,399
Spanish	27	101,790	101,754.41	83,060
Swedish	7	24,484	22,331.41	30,334
United States	2	9,438	10,242.50	17,803
Yugoslav	49	205,404	191,212.54	314,405
Totals, fiscal year, 1929	629	3,112,089	2,852,857.29	3,297,097
Totals, fiscal year, 1928	573	2,713,299	2,575,672.66	2,905,465
Totals, fiscal year, 1927	452	2,034,989	2,008,781.00	1,949,603
Totals, fiscal year, 1926	485	2,199,857	2,145,543.51	2,395,740
Totals, fiscal year, 1925	518	2,338,756	2,277,334.58	2,485,014
Between east coast of United States and Far East, including Philippine Islands:				
British	96	523,776	426,518.75	628,741
Danish	27	86,365	80,320.00	129,210
German	5	20,876	18,377.25	28,504
Japanese	107	534,116	558,556.85	688,643
Norwegian	36	158,215	117,770.00	234,545
Swedish	1	5,213	5,212.50	5,487
United States	110	611,505	581,865.64	861,133
Totals, fiscal year 1929	382	1,940,066	1,788,620.99	2,576,318
Totals, fiscal year, 1928	311	1,638,006	1,528,681.70	2,066,275
Totals, fiscal year, 1927	311	1,628,894	1,528,867.06	1,983,464
Totals, fiscal year, 1926	279	1,486,270	1,418,938.55	1,755,048
Totals, fiscal year, 1925	249	1,364,952	1,305,337.78	1,500,877
Between Cristobal and west coast of South America:				
British	2	2,554	2,391.25	594
Colombian	85	22,127	25,997.85	27,171
Dutch	35	25,970	12,862.50	10,748
German	108	95,311	80,796.82	52,404
Norwegian	9	4,482	4,659.51	5,476
Panamanian	5	620	706.25	1,207
Peruvian	21	56,021	32,502.50	30,247
Swedish	2	2,591	2,866.25	1,949
United States	3	14,575	10,529.91	.....
Totals, fiscal year, 1929	270	224,611	173,312.84	129,796
Totals, fiscal year, 1928	316	265,074	222,054.47	218,159
Totals, fiscal year, 1927	169	140,957	112,130.60	92,937
Totals, fiscal year, 1926	140	178,543	138,838.13	116,258
Totals, fiscal year, 1925	108	143,936	101,873.37	74,621

Trade routes and nationality of vessels.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Between Europe and Australasia:				
British.....	182	1,417,621	\$1,301,617.29	1,138,539
Finnish.....	1	1,675	2,610.00	3,100
French.....	12	59,670	60,903.75	32,052
Greek.....	1	4,041	4,033.75	4,922
Norwegian.....	2	4,598	4,702.50	8,112
Swedish.....	4	22,735	16,483.75	6,203
Totals, fiscal year, 1929.....	202	1,510,340	1,389,756.04	1,192,928
Totals, fiscal year, 1928.....	208	1,433,205	1,391,250.44	1,150,663
Totals, fiscal year, 1927.....	183	1,296,957	1,242,577.14	1,033,217
Totals, fiscal year, 1926.....	184	1,302,913	1,231,493.14	1,100,696
Totals, fiscal year, 1925.....	159	1,124,366	1,090,942.25	938,762
Between east coast of United States and Australasia:				
British.....	96	518,471	456,083.55	492,034
Norwegian.....	7	40,372	37,687.50	37,016
Swedish.....	2	7,500	6,410.00	9,395
United States.....	29	144,983	139,012.66	127,965
Totals, fiscal year, 1929.....	134	711,326	639,913.71	666,410
Totals, fiscal year, 1928.....	131	686,707	629,793.65	638,810
Totals, fiscal year, 1927.....	172	882,264	824,654.00	828,919
Totals, fiscal year, 1926.....	167	822,625	777,503.64	760,493
Totals, fiscal year, 1925.....	138	701,295	686,662.30	691,814
Miscellaneous:				
British.....	422	1,718,981	1,559,936.19	1,507,375
German.....	53	127,461	110,108.64	83,753
Norwegian.....	100	237,960	202,262.57	247,594
United States.....	318	1,102,689	1,082,312.42	922,855
All other.....	148	472,159	421,847.62	440,611
Totals, fiscal year, 1929.....	1,041	3,659,250	3,376,467.44	3,202,188
Totals, fiscal year, 1928.....	1,105	3,877,893	3,639,013.39	3,352,475
Totals, fiscal year, 1927.....	936	3,216,608	3,339,284.96	3,886,924
Totals, fiscal year, 1926.....	846	3,130,699	2,847,789.58	2,884,222
Totals, fiscal year, 1925.....	662	2,508,834	*2,366,121.82	2,468,483
Grand totals, fiscal year, 1929.....	6,413	29,837,794	27,127,376.91	30,663,006
Grand totals, fiscal year, 1928.....	6,456	29,458,634	26,944,499.77	29,630,709
Grand totals, fiscal year, 1927.....	5,475	26,227,815	24,228,830.11	27,748,215
Grand totals, fiscal year, 1926.....	5,197	24,774,561	22,931,055.98	26,037,448
Grand totals, fiscal year, 1925.....	4,673	22,855,151	21,400,523.51	23,958,836

Tanker Traffic Through the Panama Canal in September, 1929.

During the month of September, 1929, 101 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 549,747, on which tolls of \$477,369.62 were collected. Cargo amounted to 476,653 tons, including 9,250 tons of creosote, 6,705 tons of coconut oil, and 460,698 tons of mineral oils. In point of net tonnage, tanker traffic increased 10.9 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage decreased about 3 per cent from the cargo tonnage of September, 1928.

Tankers comprised 19.3 per cent of the total commercial transits through the Canal during the month; made up 23.5 per cent of the total Panama Canal net tonnage; were the source of 21.7 per cent of the total tolls collected; and carried 19.6 per cent of the total cargo in transits through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of September, 1929, segregated by direction of transits and nationality of vessels, are shown in the following tabulation, with comparative totals for the two preceding months and for September, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Belgian.....	1	4,976	\$5,710.00	49,250
British.....	9	47,653	34,310.16	
Danzig.....	1	5,629	4,268.88	
German.....	2	8,277	5,959.44	
Norwegian.....	7	32,361	23,289.92	
Swedish.....	2	7,832	5,639.04	
United States.....	30	175,355	127,820.44	2,350
Totals, September, 1929.....	52	282,363	207,007.88	11,600
Totals, August, 1929.....	50	259,668	194,731.47	34,356
Totals, July, 1929.....	60	323,512	237,677.21	19,964
Totals, September, 1928.....	41	235,763	171,293.73	9,015
<i>Pacific to Atlantic.</i>				
Belgian.....	1	5,410	6,186.25	8,799
British.....	11	52,567	55,305.90	96,449
Danzig.....	2	11,856	13,030.00	22,500
French.....	1	5,355	5,800.00	10,100
German.....	1	3,234	3,493.75	6,389
Norwegian.....	2	10,389	9,254.19	9,670
United States.....	31	178,523	177,321.65	311,146
Totals, September, 1929.....	49	267,364	270,361.74	465,053
Totals, August, 1929.....	59	322,779	329,195.05	566,907
Totals, July, 1929.....	51	262,465	267,964.88	462,463
Totals, September, 1928.....	48	259,927	268,031.25	482,630

¹ Creosote.² Includes 6,705 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during September, 1929, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	28	163,017	\$118,860.01	2,350
Europe to United States.....	15	70,282	52,730.32	49,250
United States to South America.....	2	7,652	5,509.44	
Foreign vessels in ballast—United States intercoastal.....	2	16,109	11,598.48	
Canada to United States.....	1	4,253	3,092.16	
Canada to South America.....	1	7,033	5,063.76	
South America to United States.....	1	4,389	3,160.08	
West Indies to United States.....	1	3,719	2,754.75	
Europe to South America.....	1	5,929	4,268.88	

¹ Creosote.

PACIFIC TO ATLANTIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	30	174,239	\$173,151.65	304,441
United States to Europe.....	11	52,313	56,601.25	95,949
South America to United States.....	2	7,652	8,223.75	14,048
South America to Canada.....	2	13,525	14,940.00	32,560
South America to Central America.....	1	4,345	3,128.40	
South America to Europe.....	1	5,929	6,491.25	11,300
Balboa to West Indies.....	1	5,077	3,655.44	
Philippine Islands to United States.....	1	4,284	4,170.00	6,705

¹ Coconut oil.

Of the tanker traffic passing through the Canal in September, 1929, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for September, 1928:

	No. of ships.	Panama Canal net tonnage.	Tells.	Tons of cargo.
<i>To Los Angeles.</i>				
September, 1929.....	39	212,663	\$153,455.82	.....
August, 1929.....	36	185,410	134,633.91	7,400
July, 1929.....	46	249,097	184,093.41	19,964
September, 1928.....	28	161,006	115,924.32	.....
<i>From Los Angeles.</i>				
September, 1929.....	37	206,294	203,251.65	363,120
August, 1929.....	43	236,932	237,282.96	401,565
July, 1929.....	36	190,039	191,293.90	347,537
September, 1928.....	35	187,938	191,746.25	345,357

Panama Railroad Collier "Ulysses" Sold.

The Panama Railroad collier *Ulysses* which, with the *Achilles*, a sister ship, has been moored in Gatun Lake for several years, has been sold to the American Tankers Corporation of Boston. The vessel was built in 1915 by the Maryland Steel Company at Sparrow's Point, Maryland, and was engaged from that time until its retirement from service in 1925 in the transportation of coal from Norfolk to the Isthmus for the Panama Railroad Company. The vessel is 536 feet in length, 65 feet beam, and has a coal-carrying capacity of 12,000 tons. It was built for a speed of $14\frac{1}{2}$ knots.

The colliers were laid up after arrangements were made to secure deliveries of coal by ore carriers engaged in transporting iron ore from the west coast of South America to the east coast of the United States; for such vessels the southbound voyage would normally have been in ballast, hence the situation offered ample tonnage at a relatively low rate. The satisfactory working of this arrangement has made it practicable to dispose of one of the colliers. The other, and two barges, are still available in case of need to protect the supply of coal to the Canal plants.

A representative of the purchasers of the *Ulysses* arrived at Cristobal on October 6 to inspect the vessel. Arrangements were made to tow the *Ulysses* to Balboa on October 9 for dry docking, but the dock will not be available until the 16th.

Sailings of Panama Railroad Steamship Line.

Folowing are proposed dates of sailings for the remainder of 1929, of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the passenger ships *Ancon* and *Cristobal* are engaged, sailing alternately.

Steamer.	Leave New York 4 P. M.	Leave Port au Prince P. M.	Arrive Cristobal A. M.	Leave Cristobal 3 P. M.	Leave Port au Prince P. M.	Arrive New York A. M.
Ancon.....	October 1.....	October 6.....	October 9.....	October 13.....	October 16.....	October 21
Cristobal.....	October 15.....	October 20.....	October 23.....	October 27.....	October 30.....	November 4
Ancon.....	October 29.....	November 3.....	November 6.....	November 10.....	November 13.....	November 18
Cristobal.....	November 12.....	November 17.....	November 20.....	November 24.....	November 27.....	December 2
Ancon.....	November 26.....	December 1.....	December 4.....	December 8.....	December 11.....	December 16
Cristobal.....	December 10.....	December 15.....	December 18.....	December 23.....	December 26.....	December 31
Ancon.....	December 24.....	December 29.....	January 1.....	January 5.....	January 8.....	January 13.

Effective April 30, steamers sail on daylight saving time.

Due to discontinuance of the daylight saving time, departures after S. S. *Cristobal*, Sept. 17th, will be at 4. p. m. standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
PUBLISHED WEEKLY.



Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.
Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., October 16, 1929. No. 11.

Canal Traffic During First Fifteen Days of October.

During the first 15 days of October, 277 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,234,994.39, and on the launches, \$9.75, or a total tolls collection of \$1,235,004.14.

The daily average of transits of commercial vessels was 18.46 and the average tolls collection \$82,332.96, as compared with an average of 16.93 transits and \$74,028.15 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,458.46, as compared with \$4,371.74 for the first 15 days of September.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 9½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 9½ months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October (first 15 days).....	277	1,234,994.39	18.46	82,332.96
Totals, first 9½ months of calendar year, 1929.....	5,096	21,787,885.70	17.69	75,652.38
Totals, first 9½ months of calendar year, 1928.....	4,930	20,463,186.26	17.06	70,806.87
Totals, first 9½ months of calendar year, 1927.....	4,314	19,040,459.59	14.98	66,112.71

As compared with the first 9½ months of the calendar year 1928, the corresponding period this year has had 166 more transits and \$1,324,699.44 more in tolls.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average tempera- ture. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9).....	1018	1020	1013	84.0
Balboa (dock 18).....	1011	1021	1005	83.0

(NOTE.—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, October 12, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Orkanger ²	5	23.50	6	6.20	6	13.00	Norwegian.	Wærfel, Larsen & Co.	458.0	59.8	21.0	Falmouth, England.	Los Angeles, Calif.	Ballast.	.....	8,291	5,822
Point Reyes ²	6	4.20	6	6.35	6	14.07	American.	Swayne & Hoyt.	424.0	46.2	22.6	Corpus Christi, Tex.	Seattle, Wash.	Lumber, general.	3,351	3,984	2,617
Marj																	
Luckenbach	6	00.15	6	7.20	6	16.15	American.	Shell Eastern Pet. Prod.	310.0	54.0	21.0	Pall River, Mass.	Los Angeles, Calif.	Ballast.	.....	6,114	4,125
Takaka Maru	6	7.08	6	8.01	6	15.47	Japanese.	Nippon Yusen Kaisha	445.0	53.0	24.0	Baltimore, Md.	Kobe, Japan.	General.	7,034	7,959	5,836
Scoutfield ²	6	9.00	6	10.20	6	20.30	British.	Anglo-American Oil Co.	476.0	63.8	17.6	Ellensmere, Eng.	Los Angeles, Calif.	Ballast.	.....	9,197	6,390
Cen. M. H.																	
Sherman	6	16.05	6	16.20	7	12.30	American.	Sudden & Christensm.	402.0	53.0	19.0	Jacksonville, Fla.	Seattle, Wash.	General.	2,666	6,575	4,912
Gen. G. W.																	
Getty ³			6	8.20	6	16.30	American.	U. S. Army.	89.0	22.0	.....	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	.....	.....	.....
Sappho ⁴			6	5.55	7	18.35	British.	M. C. Cope.	491.0	54.0	19.10	Cristobal, C. Z.	Gatun, C. Z.	Ballast.	.....	1	1
Loreto ⁴	6	8.20	7	6.03	7	13.50	American.	Pacific Steam Nav. Co.	231.0	21.0	.....	Glasgow, Scotland	Cristobal, C. Z.	General.	5,010	7,334	5,087
S-14 ⁵			7	6.03	7	14.45	American.	U. S. Navy.	231.0	21.10	.....	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	.....	.....	.....
S-16 ⁵			7	6.03	7	14.45	American.	U. S. Navy.	231.0	21.10	.....	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	.....	.....	.....
Malhard ⁶			7	6.03	7	14.45	American.	U. S. Navy.	190.0	35.6	.....	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	.....	.....	.....
Bohemian Club	6	9.53	7	7.10	7	15.42	American.	Atlantic Refining Co.	425.0	57.2	23.4	Philadelphia, Pa.	Los Angeles, Calif.	General.	1,040	7,204	4,739
Port Auckland	6	17.40	7	7.35	7	16.43	British.	Comth & Dom. Line.	430.8	62.4	25.0	Glasgow, Scotland	Brisbane, Australia	General.	2,314	10,868	8,063
Japan Arrow ¹	6	21.15	7	8.25	7	17.28	American.	Standard Transp. Co.	363.3	62.7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	330	10,054	7,359
San Jac.	7	4.35	7	8.52	7	18.35	British.	United Fruit Co.	398.6	53.9	18.6	Port Limon, C. R.	San Francisco, Cal.	General.	2,018	5,760	3,866
Pear Branch	7	5.10	7	9.40	7	19.20	British.	F. & W. Rison	442.0	55.0	24.0	New York, N. Y.	Valparaíso, Chile	General.	7,203	8,310	6,005
Hanley	7	6.20	7	10.09	7	18.38	American.	Norton, Lilly & Co.	324.0	46.2	22.2	Newark, N. J.	Seattle, Wash.	Pig iron, pipes.	2,570	3,984	2,612
Storco	7	10.10	7	10.55	7	19.14	American.	Transmarine Lines.	420.0	56.0	22.2	Havre, France.	Tacoma, Wash.	General, iron.	3,625	7,500	5,196
Nevada	7	6.10	7	11.58	7	19.12	French.	French Line.	410.0	51.4	15.8	New York, N. Y.	Vancouver, B. C.	Ballast.	3,625	7,500	5,196
West Honaker ²	7	19.25	7	20.03	8	18.20	American.	So. African Disp. Line.	251.0	43.6	19.3	New York, N. Y.	San Francisco, Cal.	General.	2,343	2,656	1,881
Oneyda	8	4.30	8	6.15	8	15.00	American.	Ford Motor Co.	324.0	46.2	17.0	Chatter, Pa.	Seattle, Wash.	Automobile parts	3,000	3,985	2,630
Buffalo Bridge	8	6.10	8	7.40	8	16.35	American.	Negm Line.	324.0	46.2	17.0	Baltimore, Md.	Los Angeles, Calif.	General.	5,813	12,485	8,854
Cambridge	8	6.45	8	7.05	8	16.32	British.	Federal Steam Nav. Co.	324.5	65.0	26.0	Liverpool, England	Brisbane, Australia	General.	.....	.....	.....
Gen. Wm. M.			8	8.25	8	17.39	American.	U. S. Army.	156.0	32.0	.....	Cristobal, C. Z.	Balboa, C. Z.	Towing barge.	2,199	5,948	4,225
Graham ¹	8	6.15	8	10.35	8	17.42	French.	French Line.	396.0	50.0	22.2	Havre, France.	Talcahuano, Chile	General.	.....	.....	.....
Hudson			8	10.35	8	18.55	American.	United Fruit Co.	396.0	50.0	22.2	Havre, France.	Talcahuano, Chile	General.	.....	.....	.....
Jane West ⁴			8	11.00	8	19.31	American.	United Fruit Co.	396.0	50.0	22.2	Havre, France.	Talcahuano, Chile	General.	.....	.....	.....
Breckenridge ⁴			8	11.00	8	19.31	American.	United Fruit Co.	396.0	50.0	22.2	Havre, France.	Talcahuano, Chile	General.	.....	.....	.....
Swan ⁵			8	11.00	8	19.31	American.	United Fruit Co.	396.0	50.0	22.2	Havre, France.	Talcahuano, Chile	General.	.....	.....	.....
Baldhill ⁴	8	16.00	9	6.15	9	13.15	American.	Richfield Oil Co.	416.9	56.2	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast.	6,722	4,806	.....
Elmpark	8	19.25	9	6.30	9	14.08	French.	Salongo-Silo & Co.	409.0	53.5	17.0	Cardiff, England	Arica, Chile	Ballast.	6,565	4,728	.....
Meropie ¹	8	20.05	9	7.30	9	14.57	French.	Antio-Saxon Pet. Co.	426.0	56.2	16.0	Rouen, France.	San Francisco, Cal.	Ballast.	.....	.....	.....
Tai Yang ²	8	22.20	9	7.35	9	15.28	Norwegian.	Barber S. S. Line.	461.4	60.4	25.0	New York, N. Y.	Iloilo, P. I.	General.	6,413	10,009	7,073
Vega ³	8	15.15	9	8.50	9	16.10	American.	U. S. Navy.	390.0	40.0	19.3	Norfolk, Va.	Mare Island, Calif.	Naval stores.	2,262	.....	.....

¹ Gasoline and kerosene.² Supply ship.³ Mine planter.⁴ Mine sweeper.⁵ Submarine.⁶ Launch.⁷ Tag.⁸ Motor ship.⁹ Tanker.

Huguenot ¹	9	2.15	9	8.55	9	16.50	9	20.45	American	Bernuth Lembecke Co.	404.8	56.2	25.0	Amsterdam, Holl'd	San Francisco, Cal.	Creosote oil	8.950	7.394	5.099
Oregonian	9	4.35	9	10.00	9	17.05	9	20.37	American	Amer.-Hawaiian Line	404.6	53.9	20.0	Boston, Mass.	Seattle, Wash.	General	3.655	6.754	4.800
Nicline																General			
Pard ²	9	6.05	9	10.10	9	17.42	9	18.41	Danish	Isbrandtsen Moller Co.	374.8	52.2	23.0	Baltimore, Md.	Sorabaya, Java	General	6.070	5.928	4.483
Reedijk	9	8.35	9	11.00	9	18.14	9	19.45	British	Holland-Mall S. P. Co.	375.0	43.3	17.8	Newport, England ..	Seattle, Wash.	Ballast		4.906	3.565
Queen Mand.	9	10.55	9	13.20	9	19.16	9	20.40	Dutch	Royal-American Line	469.0	53.3	21.0	Antwerp, Belgium ..	Vancouver, B. C.	General, bananas ..	2.810	5.014	6.066
Moravia	9	9.21	9	10.51	9	18.40	9	21.41	British	DuPont de Nemours	400.2	52.3	17.0	New York, N. Y.	Talcahuano, Chile ..	General	1.403	5.745	3.953
N. S. Queen	9	15.00	9	16.10	9	17.50	9	20.45	American	Donaldson Brothers	335.6	51.0	13.3	Glasgow, Scotland ..	Vancouver, B. C.	General, bananas ..	1.031	5.971	4.724
Planet	9	6.10	9	10.01	9	16.21	9	17.50	German	N. O. & A. S. S. Co.	324.0	43.0	21.4	New Orleans, La.	Talcahuano, Chile ..	General	2.661	5.931	2.603
L. C. White	9	12.47	9	7.05	9	17.05	9	18.15	American	Hanburg-American Line ..	450.7	57.2	20.0	Hamburg, Germany ..	San Antonio, Texas ..	General	4.233	7.460	5.234
Lulu										Huasteca Petroleum Co.	429.5	59.2	19.0	Baltimore, Md.	Los Angeles, Calif. ..	Ballast		7.925	5.349
Luckenbach	9	13.16	9	7.30	9	17.01	9	18.15	American	Luckenbach Line	448.8	60.2	24.6	Boston, Mass.	Tacoma, Wash.	General	6.090	9.291	6.865
San Zofre	9	13.20	9	8.15	9	18.53	9	19.20	British	Anglo-Mexican Pac. Co.	400.0	52.0	23.0	Aruba, D. W. I.	Antofagasta, Chile ..	Fuel oil	7.756	6.032	3.892
Ry Juku Maru	9	22.43	9	10.15	9	18.13	9	19.30	Japanese	Kobe & Kisen Kaisha	335.0	51.0	36.6	Pe, Tampa, Fla.	Mol, Japan	Cotton, phos. te.	6.324	5.919	4.401
Montreal	10	3.20	10	9.50	10	19.09	10	20.05	British	Imperial Oil	510.0	53.0	25.0	Halifax, N. S.	Shanghai, China	Ballast	11.555	6.753	
City of Derby	10	5.40	10	10.00	10	19.09	10	20.05	British	Ellerman & Bucknall	483.0	57.4	26.0	Sydney, N. S.	Shanghai, China	General	7.370	5.886	6.693
Borga	10	7.3	10	10.53	10	19.36	10	20.38	Non-veget.	De Oley & Co.	362.4	51.4	24.5	Antwerp, Belgium ..	Vancouver, B. C.	General	5.250	5.243	3.706
M. F. Elliott	10	10.00	10	12.15	10	19.33	10	20.38	American	Standard Shipping Co.	425.0	57.2	22.0	Charleston, S. C.	Los Angeles, Calif. ..	Ballast	4.916	6.75	4.873
Solana	10	12.10	10	12.40	10	20.25	10	21.35	American	Frederick & Co.	410.5	54.2	21.6	Wilmington, Del.	Sattle, W. sh.	General	7.451	4.946	
Essehubo	10	13.53	10	14.00	10	21.05	10	22.43	American	Tidewater Oil Co.	419.5	55.5	13.0	New York, N. Y.	San Francisco, Cal.	Ballast	7.060	5.023	
El Cervo	10	14.23	10	11.55	10	13.19	10	14.15	British	Pac. & Steam Nav. Co.	430.0	57.8	23.0	New York, N. Y.	Talcahuano, Chile ..	General	3.637	9.158	4.176
Shenandoah	10	15.25	10	7.20	10	14.19	10	15.15	British	Anglo-Ecuador	407.4	52.2	19.0	Philadelphia, Pa.	La Libertad, Ecua ..	Ballast	6.046	4.326	
Steel Navigator	10	15.40	10	8.40	10	16.09	10	17.18	American	Texas S. S. Co.	416.8	53.1	19.0	Rio de Janeiro, Braz.	Los Angeles, Calif. ..	General	7.743	7.611	5.454
Willzipo	11	9.20	11	9.40	11	17.27	11	18.36	American	Isthmian S. S. Lines	424.0	56.0	26.0	Philadelphia, Pa.	Sourabaya, Java	Ballast	6.93	5.080	
Manila	11	13.45	11	14.09	11	21.42	11	21.55	American	Williams S. S. Line	415.0	55.0	20.0	Baltimore, Md.	Seattle, Wash.	General	4.100	7.731	5.805
Ulysses	11	18.10	11	14.19	11	21.42	11	23.00	German	North German Lloyd	216.5	33.0	12.2	Cristobal, C. Z.	Buenaventura, Col.	General	500	1.132	741
Lady Lewis	11	16.35	11	19.40	11	18.50	11	18.50	British	Panama R. R. S. S. Line ..	514.0	65.0		Gatun Lake, C. Z.	Baiba, C. Z.	Sugar	11.519	6.980	
Rangitiki	11	20.00	11	13.52	11	18.50	11	18.50	British	Andrew Wear & Co.	400.0	52.0	24.10	Tunas, C. Z.	Auckland, N. Z.	Sugar	6.930	5.36	4.146
Barut	12	6.55	12	7.00	12	13.20	12	16.50	Dutch	N. Z. Shipping Co.	552.0	70.0	26.11	London, England	Wellington, N. Z.	General	5.650	18.279	13.604
New Jersey	12	6.55	12	7.00	12	13.20	12	16.50	American	Royal Neth. S. S. Co.	200.0	33.0	12.4	Cristobal, C. Z.	Guayaquil, Ecuador ..	General	124	1.183	742
Calmar	12	2.25	12	8.15	12	16.19	12	17.40	American	Texas S. S. Co.	416.8	56.1	20.6	Pl. Arthur, Tex.	Los Angeles, Calif. ..	Ballast	7.130	5.249	
Donet	12	4.30	12	8.15	12	16.19	12	17.40	American	Calmar S. S. Corp.	335.0	51.0	25.0	Baltimore, Md.	Seattle, Wash.	Steel, general	7.947	6.347	4.433
Tiger	12	12.17	12	13.03	12	19.55	12	21.00	American	Redwood Line	336.8	52.0	22.0	Mobile, Ala.	San Francisco, Cal.	General	5.457	8.205	4.167
Texas	12	17.10	12	17.35	12	19.55	12	21.00	American	Standard Transp. Co.	410.0	57.2	26.0	New York, N. Y.	Los Angeles, Calif. ..	Ballast	5.040	8.201	6.967

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Nitro.....	4	19.14	6	6.21	6	12.40	7	15.35	American.....	U. S. Navy.....	482.9	69.1	22.7	San Diego, Calif.....	Hampton Rds., Va.....	Navy stores.....	903	5.55	3.757
Arizona.....	5	2.45	6	6.50	6	14.35	6	14.35	American.....	The Texas Co.....	391.8	51.3	24.1	Los Angeles, Calif.....	Baltimore, Md.....	Gasoline.....	6.572	5.55	3.881
Republic.....	5	23.45	6	7.33	6	15.00	6	15.00	American.....	Petroleum Nav. Co.....	391.8	51.0	24.0	Los Angeles, Calif.....	New York, N. Y.....	Kerosine.....	6.441	5.551	3.881
Gesha.....	6	11.30	6	12.26	6	19.40	6	19.40	Norwegian.....	Seal-S. Pacific Co.....	375.8	51.4	24.3	Valparaiso, Chile.....	Eng. Channel.....	Nitrate, general.....	5.983	5.861	3.923
Chili.....	6	14.00	6	15.2	6	22.05	6	23.05	Danish.....	East Asiatic Co.....	425.3	55.0	27.9	Tacama, Wash.....	Copenhagen, Den.....	General.....	9.322	7.335	5.663
Santa.....	6	13.30	7	6.13	7	14.00	7	17.07	American.....	Grace Line.....	466.0	64.0	25.6	Talcahuano, Chile.....	New York, N. Y.....	General.....	5.508	10.687	6.533
Barbara.....	6	13.30	7	6.13	7	14.00	7	17.07	American.....	Grace Line.....	466.0	64.0	25.6	Talcahuano, Chile.....	New York, N. Y.....	General.....	5.508	10.687	6.533
Temple Lane.....	6	17.15	7	6.44	7	15.25	7	16.25	British.....	Temple S. Co.....	391.0	52.0	23.0	N. W. Strait, B. C.....	Grimsby, England.....	Lumber, general.....	6.000	5.813	4.130
American Star.....	6	17.45	7	7.0	7	15.30	7	15.30	American.....	Charles Nelson & Co.....	336.8	32.2	21.6	Seattle, Wash.....	Baltimore, Md.....	Lumber, general.....	5.123	5.899	4.167
Emden.....	7	8.00	7	8.15	7	16.20	7	16.20	German.....	German Navy.....	501.0	47.2	17.4	San Diego, Calif.....	Pto. Colombia, Col.....	Lumber, general.....	6.150		6.150
Milansa.....	6	19.30	7	8.46	7	17.10	7	19.55	Italian.....	Italo Clena.....	333.0	43.0	25.0	Valparaiso, Chile.....	Genoa, Italy.....	Nitrates.....	5.343	4.039	2.879

22 Motor ship.
23 For casters.

** For orders.

** Crude.

** Motor ship.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Draft.			Nature.	Tons.	Gross.	Net.
Innesmoor ¹⁴ .	7	2 30	7	9 10	7	17 25	7	17 35	British.	W. Runciman & Co.	375.0	52.6	25.4	Portland, Oreg.	United Kingdom.	Wheat.	7,375	6,055	4,615
India Arrow ¹⁴ .	7	7 05	7	10 05	7	18 05	7	18 05	American.	Standard Transp. Co.	468.3	62.3	27.6	Los Angeles, Calif.	New York, N. Y.	Fuel distillate.	12,051	10,084	7,388
Rio Blanco.	7	8 00	7	10 36	7	19 25	8	8 50	British.	Thompson S.S. Co., Ltd.	362.7	52.2	25.0	Portland, Oreg.	Newport News.	Wheat.	6,891	5,094	3,464
Irukian Maru.	7	8 45	7	11 13	7	19 15	7	19 15	Japanese.	Mits. Buss. Kab. Kaisha.	385.0	51.0	26.0	Canton, China.	Azores.	Nitrates.	7,099	6,282	4,449
Fernow ¹⁴ .	7	12 55	7	13 42	7	20 25	7	20 35	Norwegian.	Pern Line.	381.0	53.5	25.0	Kongsfjall, Shum.	San Domingo, Dom.	Rice.	7,400	6,291	4,530
China Arrow ¹⁴ .	7	13 45	7	14 41	7	21 50	7	21 50	American.	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	11,228	10,054	7,388
Whitmore ¹⁴ .	8	1 30	8	5 45	8	15 05	8	15 05	American.	U. S. Navy.	550.3	72.2	34.6	Balboa, C. Z.	Cristobal, C. Z.	Iron ore.	21,654	15,551	4,297
Steelore.	7	15 00	8	6 46	8	15 05	8	19 15	British.	Ore S. S. Corp.	400.0	52.3	23.6	Cruz Grande, Chile	New York, N. Y.	General.	6,309	5,879	4,121
Ranger.	7	18 00	8	6 53	8	15 45	8	15 45	British.	Can. Nat. Steamships.	420.0	56.5	26.5	Vancouver, B. C.	Montreal, Canada.	Wheat, lumber.	9,560	6,963	4,959
Rossington.	7	18 50	8	7 50	8	16 10	8	16 10	American.	Haldin & Co.	376.4	52.3	25.0	Portland, Oreg.	Belfast, Ireland.	General.	6,103	5,455	3,902
San Domingo.	7	22 05	8	8 12	8	17 40	8	17 40	American.	Williams S. S. Corp.	449.1	57.2	30.0	Seattle, Wash.	Baltimore, Md.	Iron ore.	12,008	7,803	5,139
Feltore.	8	1 00	8	8 49	8	16 50	8	18 35	British.	Ore S. S. Corp.	410.0	54.0	26.8	Cruz Grande, Chile	Baltimore, Md.	Wheat, lumber.	8,455	6,927	4,802
Cape York ¹⁴ .	8	1 40	8	9 32	8	18 05	9	2 00	American.	Lyle Shipping Co.	424.8	55.2	23.4	Portland, Oreg.	Hull, England.	Lumber.	7,109	7,473	5,533
Robn Hood.	8	4 15	8	10 03	8	21 25	8	21 25	Norwegian.	Seas Shipping Co.	435.0	56.0	27.0	Everett, Wash.	Newark, N. J.	General.	7,437	8,005	5,953
Lincoln ¹⁴ .	8	4 30	8	10 47	8	19 05	8	23 40	Dutch.	Fred Olsen & Co.	400.0	58.0	27.0	Vancouver, B. C.	Oslo, Norway.	General.	8,875	7,322	4,798
Britle.	8	5 50	8	11 07	8	19 00	8	19 00	American.	Royal Neth. S. S. Co.	407.7	53.7	26.0	Valparaiso, Chile.	Hamburg Germany.	General.	6,357	7,103	4,991
Ohioan.	8	6 20	8	11 54	8	20 15	8	20 15	British.	Amer.-Hawaiian Line.	410.0	54.2	25.8	Portland, Oreg.	Boston, Mass.	Chrom ore.	8,005	6,903	5,155
Australand ¹⁴ .	8	7 30	8	12 41	8	19 40	9	17 45	British.	Australand S. S. Co.	445.1	46.1	15.6	New York, N. Y.	Kingston, Jamaica.	General.	8,350	7,473	5,536
Durban ¹⁴ .	8	11 25	8	14 15	8	22 00	8	22 00	American.	British Navy.	424.8	55.2	27.4	Callao, Peru.	Baltimore, Md.	Lumber, general.	7,897	7,041	4,266
Goodfellow.	8	18 20	9	6 14	9	14 25	9	14 55	American.	Seas Shipping Co.	600.0	65.3	31.0	Tacoma, Wash.	New York, N. Y.	General.	8,180	10,086	7,226
Mongolia.	8	16 00	9	6 37	9	15 25	9	17 25	British.	Panama-Pacific Line.	450.0	60.8	27.3	San Francisco, Cal.	Glasgow, Scotland.	General.	2,514	2,823	1,740
Pacific.	8	15 10	9	7 14	9	16 35	9	16 35	American.	Furness, Withy & Co.	251.0	43.6	22.0	Vancouver, B. C.	New York, N. Y.	General.	9,498	8,699	6,363
Santa Isabel.	6	12 45	7	7 21	7	16 30	7	16 30	Panaman.	American-Guban Line.	125.6	23.5		Honolulu, T. H.	Philadelphia, Pa.	Survey ship.	9,220	7,568	5,283
Panquaco ¹⁴ .	8	18 10	9	7 37	9	17 15	9	17 15	American.	Panaman Government.	449.3	58.0	27.4	Balboa, C. Z.	Baltimore, Md.	General.	7,177		
Horace.	8	18 00	9	7 32	9	17 50	9	17 50	American.	Lukenbach Line.	445.0	58.0	27.4	Portland, Oreg.	Baltimore, Md.	General.	8,250		
Atlantic Ship.	8	19 00	9	7 32	9	17 50	9	17 50	American.	Sun Oil Co.	425.0	59.2	26.0	Los Angeles, Calif.	Landisstrom, Swed.	Phosphate.	3,900	3,934	2,628
Nagara ¹⁴ .	8	19 00	9	8 37	9	18 50	9	22 15	American.	U. S. Navy.	243.3	36.3	19.0	Balboa, C. Z.	New York, N. Y.	Lumber.	520	1,183	742
City of.	9	5 20	9	9 18	9	19 00	9	19 00	American.	Roosevelt S. S. Co., S. B.	401.9	54.2	26.0	Whyalla.	Cristobal, C. Z.	General.	7,177		
Rayville ¹⁴ .	9	6 00	9	10 03	9	19 55	9	19 55	British.	Andrew Weir & Co.	430.0	57.0	24.6	Yankee, N. Y.	Phosphate.	Phosphate.	8,250		
Jutland.	9	7 10	9	10 32	9	20 25	9	20 25	American.	Transmarine Lines.	324.0	46.2	23.0	Vancouver, B. C.	Landisstrom, Swed.	Lumber.	3,900	3,934	2,628
Sunewarkoo.	9	7 30	9	10 40	9	20 30	9	20 30	Dutch.	Royal Neth. S. S. Co.	202.9	33.1	12.2	Guayaquil, Ecuador.	Cristobal, C. Z.	General.	520	1,183	742
Barat.	9	7 30	9	10 40	9	20 30	9	20 30	Dutch.	Royal Neth. S. S. Co.	202.9	33.1	12.2	Guayaquil, Ecuador.	Cristobal, C. Z.	General.	520	1,183	742

¹⁴ Motor ship.¹⁵ Launch.¹⁶ Cruiser.¹⁷ Revenue cutter.¹⁸ Revenue cutter.¹⁹ Revenue cutter.²⁰ Revenue cutter.²¹ Revenue cutter.²² Revenue cutter.²³ Revenue cutter.²⁴ Revenue cutter.²⁵ Revenue cutter.²⁶ Revenue cutter.²⁷ Revenue cutter.²⁸ Revenue cutter.²⁹ Revenue cutter.³⁰ Revenue cutter.³¹ Revenue cutter.³² Revenue cutter.³³ Revenue cutter.³⁴ Revenue cutter.³⁵ Revenue cutter.³⁶ Revenue cutter.³⁷ Revenue cutter.³⁸ Revenue cutter.³⁹ Revenue cutter.⁴⁰ Revenue cutter.⁴¹ Revenue cutter.⁴² Revenue cutter.⁴³ Revenue cutter.⁴⁴ Revenue cutter.⁴⁵ Revenue cutter.⁴⁶ Revenue cutter.⁴⁷ Revenue cutter.⁴⁸ Revenue cutter.⁴⁹ Revenue cutter.⁵⁰ Revenue cutter.⁵¹ Revenue cutter.⁵² Revenue cutter.⁵³ Revenue cutter.⁵⁴ Revenue cutter.⁵⁵ Revenue cutter.⁵⁶ Revenue cutter.⁵⁷ Revenue cutter.⁵⁸ Revenue cutter.⁵⁹ Revenue cutter.⁶⁰ Revenue cutter.⁶¹ Revenue cutter.⁶² Revenue cutter.⁶³ Revenue cutter.⁶⁴ Revenue cutter.⁶⁵ Revenue cutter.⁶⁶ Revenue cutter.⁶⁷ Revenue cutter.⁶⁸ Revenue cutter.⁶⁹ Revenue cutter.⁷⁰ Revenue cutter.⁷¹ Revenue cutter.⁷² Revenue cutter.⁷³ Revenue cutter.⁷⁴ Revenue cutter.⁷⁵ Revenue cutter.⁷⁶ Revenue cutter.⁷⁷ Revenue cutter.⁷⁸ Revenue cutter.⁷⁹ Revenue cutter.⁸⁰ Revenue cutter.⁸¹ Revenue cutter.⁸² Revenue cutter.⁸³ Revenue cutter.⁸⁴ Revenue cutter.⁸⁵ Revenue cutter.⁸⁶ Revenue cutter.⁸⁷ Revenue cutter.⁸⁸ Revenue cutter.⁸⁹ Revenue cutter.⁹⁰ Revenue cutter.⁹¹ Revenue cutter.⁹² Revenue cutter.⁹³ Revenue cutter.⁹⁴ Revenue cutter.⁹⁵ Revenue cutter.⁹⁶ Revenue cutter.⁹⁷ Revenue cutter.⁹⁸ Revenue cutter.⁹⁹ Revenue cutter.¹⁰⁰ Revenue cutter.

Commercial Traffic Through the Panama Canal in September, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of September, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for September, 1928, and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gr. ss.	Registered net.		
United States interoastal:							
United States	87	452,977	351,944	564,013	351,818	\$390,625.26	259,057
East coast of United States to west coast of South America:							
British	6	23,360	18,731	31,198	19,323	20,699.44	11,925
Chilean	1	4,612	3,433	7,310	3,976	4,291.25	1,933
Danish	1	1,427	1,415	1,746	1,035	1,061.25	.....
Norwegian	1	4,513	3,330	5,659	3,533	4,412.50	3,455
Swedish	2	8,917	7,436	30,676	8,762	6,420.24	.....
United States	14	62,977	49,659	84,810	49,431	50,345.22	22,242
Totals	26	105,866	84,254	161,390	86,060	87,229.90	39,575
Europe to Australasia:							
British	13	56,901	42,744	70,176	43,592	53,338.50	41,490
Norwegian	10	26,916	20,799	37,277	21,963	24,536.60	.....
Totals	23	83,817	63,543	107,453	65,555	77,925.10	41,490
Europe to west coast of South America:							
British	4	25,881	20,593	33,939	20,834	25,747.50	14,727
Chilean	1	993	876	1,437	873	714.96	.....
Danzig	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch	2	12,119	6,236	11,087	6,661	7,857.50	8,188
French	1	4,187	3,333	5,505	3,366	4,191.25	2,215
German	4	18,759	14,513	23,052	14,146	18,141.25	16,488
Greek	1	4,563	2,907	4,720	2,843	3,633.75	6,626
Italian	1	9,373	5,223	11,669	6,779	6,528.75	1,032
Norwegian	2	8,146	5,326	9,725	5,783	7,282.50	11,697
Yugoslav	4	17,805	12,809	20,528	12,737	15,233.93	18,053
Totals	21	107,760	77,584	130,457	79,063	93,630.32	79,026
Europe to west coast of United States:							
Belgian	1	4,976	4,568	7,133	3,938	5,710.00	9,250
British	4	18,830	16,117	26,678	15,930	13,557.60	.....
German	4	18,524	13,658	23,261	13,511	14,156.94	7,103
Norwegian	6	26,853	21,043	35,667	20,947	19,294.81	.....
Swedish	4	17,790	12,642	21,766	15,944	12,690.29	6,180
United States	1	8,619	7,026	11,247	6,954	6,205.68	.....
Totals	20	95,622	75,059	125,757	77,314	71,645.32	22,533
East coast of United States to Far East:							
British	7	36,721	26,563	42,620	26,594	33,203.75	43,997
Danish	2	7,033	5,062	8,354	5,130	6,327.50	9,493
Japanese	3	14,772	12,332	19,004	12,209	15,477.50	19,411
Norwegian	1	4,534	2,465	4,114	2,43	3,031.25	6,075
United States	5	27,434	19,487	31,329	19,390	24,358.75	33,420
Totals	18	90,544	65,919	105,421	65,781	82,448.75	117,401
Europe to west coast of Canada:							
British	8	39,856	31,158	49,813	31,071	34,496.61	9,754
Danish	1	5,660	5,233	6,919	5,223	6,541.25	6,793
Dutch	2	15,170	11,558	18,737	11,622	14,447.50	5,172
French	1	4,986	3,335	5,751	3,555	4,231.25	931
German	1	6,666	3,994	7,132	4,138	4,992.50	5,590
Italian	2	10,751	9,077	13,952	8,757	9,260.25	2,227
Norwegian	2	11,535	8,292	13,531	8,369	10,365.09	8,580
Totals	17	94,624	72,697	115,835	72,785	84,334.36	39,097

ATLANTIC TO PACIFIC.—Continued

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal to west coast of South America:							
British.....	1	622	614	1,138	602	\$460.50	.....
Colombian.....	4	1,113	1,058	1,776	1,068	1,303.70	701
Dutch.....	1	742	294	780	323	367.50	58
German.....	4	3,448	2,259	4,319	2,310	2,823.75	1,078
Totals.....	10	5,925	4,225	8,013	4,303	4,955.45	1,837
East coast of United States to Australasia:							
British.....	6	30,245	21,014	33,071	21,036	26,267.50	24,058
Norwegian.....	1	10,329	9,791	13,246	9,614	12,238.75	.....
United States.....	1	5,167	3,816	6,094	3,816	4,770.00	3,597
Totals.....	8	45,741	34,621	52,411	34,466	43,276.25	27,655
East coast of United States to Philippine Islands:							
British.....	4	24,142	14,802	25,274	14,785	18,502.50	24,221
United States.....	2	11,947	9,305	13,413	8,321	11,631.25	12,484
Totals.....	6	36,089	24,107	33,687	23,106	30,133.75	36,705
Cristobal to west coast of Central America:							
British.....	2	2,327	1,935	3,661	2,061	2,418.75	3,146
Norwegian.....	3	1,614	1,331	2,319	1,264	1,663.75	1,541
Panaman.....	1	331	333	497	254	397.20	515
Totals.....	6	4,272	3,599	6,477	3,579	4,479.70	5,202
East coast of Central America to west coast of United States:	5	11,368	10,457	16,786	10,282	13,018.20	2,104
East coast of South America to west coast of United States:							
Norwegian.....	1	8,481	6,130	10,279	6,115	6,037.58	3,485
United States.....	3	14,093	10,147	16,185	10,106	12,633.75	7,033
Totals.....	4	2,574	16,277	26,464	16,221	18,771.33	10,518
East coast of Canada to Australasia:							
British.....	3	12,300	9,756	16,111	9,923	12,195.00	10,255
East coast of United States to west coast of Canada:							
British.....	2	11,249	10,298	16,647	10,389	8,099.28	.....
Foreign vessels in ballast— United States inter- coastal:							
British.....	1	9,885	8,727	16,436	9,643	7,117.20	.....
Norwegian.....	1	6,224	5,553	8,875	5,215	4,481.28	.....
Totals.....	2	16,109	14,280	25,311	14,858	11,598.48	.....
Canadian intercoastal:							
British.....	2	8,368	6,640	11,222	6,954	8,300.00	5,800
Cristobal to west coast of United States:							
Panaman.....	1	2,606	1,350	2,434	1,349	1,687.50	3,430
United States.....	1	1,549	1,167	1,974	1,161	1,453.75	1,871
Totals.....	2	4,155	2,517	4,408	2,510	3,146.25	5,301
Africa to west coast of South America:							
British.....	1	4,022	3,167	5,132	3,172	2,895.84	.....
Yugoslav.....	1	3,832	3,058	4,752	3,012	2,759.04	.....
Totals.....	2	7,854	6,235	9,884	6,184	5,654.88	.....
Around the world:							
United States.....	2	20,565	15,731	26,048	15,731	19,663.75	8,778
East coast of United States to Hawaiian Islands:							
United States.....	1	1,740	1,542	2,647	1,542	1,927.50	3,032
East coast of Canada to west coast of United States:							
British.....	1	4,253	3,433	5,878	3,409	3,062.16	.....

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Canada to west coast of South America:							
British.....	1	7,033	5,973	11,410	5,688	\$5,063.76	.....
East coast of Canada to Far East:							
Japanese.....	1	4,389	4,357	5,864	4,259	5,266.80	6,730
Central American interoceanic:							
Danish.....	1	1,723	1,464	2,405	1,475	1,830.00	2,150
East coast of Central America to west coast of South America:							
British.....	1	3,051	2,229	3,650	2,211	2,786.25	2,500
East coast of Central America to Australasia:							
British.....	1	4,345	3,181	5,274	3,171	3,976.25	7,237
East coast of Central America to Far East:							
Norwegian.....	1	4,706	2,494	4,301	2,519	3,117.50	6,510
South American interoceanic:							
German.....	1	741	619	1,051	640	773.75	229
West India's to west coast of United States:							
United States.....	1	3,719	3,673	5,187	3,686	2,754.75	.....
Europe to west coast of Central America:							
British.....	1	4,114	3,049	4,963	3,040	3,811.25	5,500
Cristobal to Balboa:							
Panamanian.....	1	47	47	86	47	56.40	62
Grand totals, September, 1929	278	1,277,640	981,844	1,621,511	988,574	1,105,577.70	746,289
Grand totals, September, 1928	253	1,215,633	933,111	1,538,276	936,935	1,061,240.88	709,654
Grand totals, September, 1927	295	1,402,155	1,092,315	1,774,119	1,090,285	1,183,757.81	594,949

PACIFIC TO ATLANTIC.

United States interoceanic:							
United States.....	83	431,312	329,537	527,368	329,596	\$411,772.90	638,135
West coast of South America to Europe:							
British.....	12	65,961	50,432	81,370	50,313	62,831.85	92,395
Danzig.....	1	5,929	5,193	8,745	5,026	6,491.25	11,300
Dutch.....	2	13,841	8,040	14,203	8,029	10,050.00	20,660
French.....	2	8,643	6,265	10,067	6,197	7,831.25	14,325
German.....	7	34,525	24,421	39,709	24,228	30,526.25	53,101
Greek.....	3	12,626	8,754	14,263	8,556	10,942.50	23,300
Italian.....	1	9,329	5,176	11,713	6,750	6,470.00	2,536
Norwegian.....	3	7,553	5,224	8,665	5,063	6,530.00	13,529
Yugoslav.....	2	8,134	6,212	9,638	6,209	7,765.00	15,030
Totals.....	33	166,541	119,717	198,383	120,671	149,438.10	246,176
West coast of United States to Europe:							
Belgian.....	1	5,410	4,949	8,401	4,601	6,186.25	8,799
British.....	14	62,336	49,555	81,097	49,710	61,943.75	110,226
Danish.....	1	5,286	4,207	6,636	4,236	5,258.75	8,993
Danzig.....	1	5,927	5,207	8,744	5,026	6,508.75	11,200
French.....	1	5,355	4,640	7,813	4,185	5,800.00	10,100
German.....	3	16,687	12,195	19,672	12,184	15,243.75	23,622
Japanese.....	1	4,672	4,306	5,831	4,227	5,332.50	7,860
Norwegian.....	4	20,119	14,638	23,775	14,465	18,297.50	32,441
United States.....	1	5,237	3,849	6,196	3,849	4,811.25	7,936
Totals.....	27	131,029	103,546	168,165	102,483	129,432.50	221,177
West coast of South America to east coast of United States:							
British.....	5	19,508	15,258	24,248	15,900	19,072.50	25,017
Chilean.....	2	9,377	6,899	14,620	7,952	8,623.75	6,911
Danish.....	1	3,463	2,256	3,718	2,307	2,820.00	6,200
German.....	1	1,167	998	1,423	813	1,247.50	680
Norwegian.....	1	4,443	3,581	5,801	3,608	4,476.25	8,000
Panamanian.....	1	4,897	4,014	6,386	4,067	5,017.50	8,802
Swedish.....	2	8,917	7,486	30,675	8,762	9,357.50	43,846
United States.....	11	53,460	43,711	76,155	43,606	54,433.20	122,767
Totals.....	24	105,237	84,203	163,031	87,015	105,048.20	222,223

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of Canada to Europe:							
British.....	8	47,380	31,011	50,193	31,070	\$38,763.75	61,196
Danish.....	1	5,338	4,223	6,650	4,247	5,273.75	8,778
Dutch.....	1	6,612	5,403	8,384	5,437	6,733.75	10,878
French.....	1	4,885	4,222	6,733	4,227	5,277.50	7,677
German.....	2	13,076	8,735	14,862	8,919	10,918.75	14,061
Italian.....	1	6,035	5,055	7,031	4,460	6,318.75	8,900
United States.....	1	5,450	3,465	5,637	3,450	4,331.25	7,664
Totals.....	15	88,776	62,114	99,570	61,810	77,642.50	119,154
West coast of South America to Cristobal:							
Colombian.....	5	1,420	1,360	2,131	1,376	1,690.90	1,345
Dutch.....	1	742	294	780	323	367.50	463
German.....	3	2,750	1,641	3,296	1,654	2,051.25	2,023
Totals.....	9	4,912	3,295	6,257	3,353	4,109.65	3,831
Australasia to Europe:							
British.....	6	46,289	34,930	57,603	35,604	43,662.50	28,854
French.....	1	5,629	4,343	7,007	4,402	5,428.75	4,583
Totals.....	7	51,918	39,273	64,615	40,006	49,091.25	33,437
Philippine Islands to east coast of United States:							
Japanese.....	2	11,392	8,976	14,504	8,781	11,220.00	13,422
United States.....	4	22,703	18,545	27,150	18,173	23,181.25	31,664
Totals.....	6	34,095	27,521	41,654	26,959	34,401.25	45,086
West coast of Central America to Cristobal:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	700
Norwegian.....	3	1,614	1,331	2,319	1,264	1,332.01	47
Totals.....	5	3,055	2,617	4,617	2,568	2,939.51	747
Far East to Europe:							
British.....	1	4,669	3,138	4,881	3,141	3,922.50	1,839
Japanese.....	1	4,092	3,317	5,303	3,226	4,146.25	5,979
Norwegian.....	2	10,574	8,390	12,117	8,297	10,437.50	17,513
United States.....	1	5,450	3,465	5,637	3,450	4,331.25	7,564
Totals.....	5	24,785	18,310	27,938	18,114	22,887.50	32,895
West coast of United States to east coast of Central America:							
United States.....	4	9,009	8,368	13,477	8,213	10,409.35	2,290
Canadian intercoastal:							
British.....	3	12,257	9,389	15,235	9,456	11,736.25	17,749
Australasia to east coast of Canada:							
British.....	3	12,509	9,903	16,275	9,925	12,378.75	9,799
Foreign vessels in ballast—United States intercoastal:							
Japanese.....	2					9,860.00	
West coast of United States to Cristobal:							
United States.....	2	4,155	2,517	4,408	2,510	3,146.25	311
West coast of United States to West Indies:							
British.....	2	2,207	1,239	2,333	1,249	3,386.25	2,988
West coast of Canada to east coast of United States:							
British.....	1	5,644	3,083	5,122	3,035	3,860.00	7,866
United States.....	1	4,917	3,455	5,524	3,455	4,318.75	6,493
Totals.....	2	10,561	6,543	10,646	6,540	8,178.75	14,364
West coast of South America to east coast of Canada:							
British.....	2	13,525	11,952	22,618	12,626	14,940.00	32,560
Hawaiian Islands to east coast of United States:							
United States.....	2	6,292	5,280	8,910	5,267	6,600.00	10,520

* Naval vessels.

* Includes naval vessel of 4,675 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	
Far East to West Indies:						
Norwegian	2	8,803	4,972	8,449	4,948	\$6,215.00
West coast of United States to east coast of South America:						
British	1	5,453	3,554	5,527	3,548	4,442.50
Far East to east coast of United States:						
Japanese	1	4,769	3,511	5,632	3,451	4,388.75
South American intercoastal:						
German	1	741	619	1,051	640	773.75
West coast of South America to east coast of Central America:						
British	1	4,345	3,757	6,094	3,664	3,128.40
West coast of South America to Egypt:						
Belgian	1	6,211	4,522	7,130	4,013	5,652.50
Balboa to West Indies:						
Belgian	1	5,077	4,390	7,013	4,425	3,655.44
Balboa to Cristobal:						
Panaman	1	47	47	47	47	56.40
Grand totals, September, 1929.	245	1,147,621	870,696	1,436,521	873,097	1,096,211.70
Grand totals, September, 1928.	234	1,079,420	837,934	1,371,173	840,139	1,049,989.65
Grand totals, September, 1927.	245	1,130,787	892,102	1,450,542	888,536	1,110,674.53

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Traffic by Nationality for September, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of September, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for September 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tons.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	1	4,976	4,568	7,138	3,988	\$5,710.00	9,250
British	69	327,505	250,729	414,282	253,428	236,049.64	204,610
Chilean	2	5,665	4,309	8,797	4,849	5,005.21	1,953
Colombian	4	1,113	1,058	1,776	1,068	1,303.70	701
Danish	5	15,843	13,174	19,424	12,863	15,760.00	18,441
Danzig	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch	5	28,031	18,138	30,604	18,606	22,672.50	13,418
French	2	9,123	6,738	11,256	6,921	8,422.50	3,196
German	14	48,138	35,043	58,815	34,795	40,918.19	30,493
Greek	1	4,568	2,907	4,720	2,843	3,633.75	6,626
Italian	3	20,124	14,300	25,621	15,536	15,789.00	3,259
Japanese	4	19,161	16,739	24,868	16,468	20,744.30	26,141
Norwegian	30	113,931	87,259	144,993	87,775	96,561.52	41,343
Panaman	3	2,954	1,730	3,017	1,650	2,141.10	4,007
Swedish	6	26,707	20,128	52,442	24,716	19,110.53	6,180
United States	123	622,205	433,954	779,733	482,243	539,442.86	358,618
Yugoslav	5	21,637	15,877	25,280	15,769	18,043.02	18,053
Totals, September, 1929.	278	1,277,640	981,844	1,621,511	988,574	1,105,577.70	746,289
Totals, September, 1928.	253	1,215,633	933,111	1,538,276	936,935	1,061,240.88	709,654
Totals, September, 1927.	295	1,402,155	1,092,315	1,774,119	1,090,285	1,183,757.81	594,949

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	11,621	9,471	15,531	8,614	\$11,838.75	18,399
British.....	61	303,524	228,492	374,907	230,595	286,176.50	394,919
Chilean.....	2	9,377	6,899	14,620	7,952	8,623.75	6,911
Colombian.....	5	1,420	1,360	2,181	1,376	1,690.90	1,345
Danish.....	3	14,092	10,686	17,004	10,790	13,357.50	23,971
Danzig.....	2	11,856	10,400	17,459	10,052	13,000.00	22,500
Dutch.....	4	21,195	13,737	23,372	13,789	17,171.25	32,001
French.....	5	24,512	19,470	31,620	19,011	24,337.50	36,685
German.....	17	68,946	48,609	80,018	48,438	60,761.25	94,693
Greek.....	3	12,626	8,754	14,263	8,856	10,942.50	23,300
Italian.....	2	15,364	10,231	18,779	11,210	12,788.75	11,436
Japanese.....	7	24,925	20,110	31,290	19,685	34,997.50	31,146
Norwegian.....	16	58,183	42,526	68,139	42,070	50,993.70	86,161
Panaman.....	2	4,944	4,061	6,433	4,114	5,073.90	8,802
Swedish.....	2	8,917	7,486	30,675	8,762	9,357.50	43,846
United States.....	110	547,955	422,192	680,562	421,574	527,335.45	835,349
Yugoslav.....	2	8,134	6,212	9,638	6,209	7,765.00	15,030
Totals, September, 1929..	245	1,147,621	870,696	1,436,521	873,097	1,096,211.70	1,686,494
Totals, September, 1928..	234	1,079,420	837,984	1,371,178	840,189	1,049,989.68	1,603,357
Totals, September, 1927..	245	1,130,787	892,102	1,450,542	888,536	1,110,674.53	1,802,804

¹ Includes naval vessel of 4,675 displacement tons.

² Includes 2 naval vessels having a total of 19,720 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	3	16,597	14,039	22,669	12,602	\$17,548.75	27,649
British.....	130	631,029	479,221	789,189	484,023	572,226.14	599,529
Chilean.....	4	15,042	11,208	23,417	12,801	13,629.96	8,864
Colombian.....	9	2,533	2,418	3,957	2,444	2,994.60	2,046
Danish.....	8	29,935	23,860	36,428	23,653	29,117.50	42,412
Danzig.....	3	17,785	15,593	26,234	15,078	17,268.88	22,500
Dutch.....	9	49,226	31,875	53,976	32,395	39,843.75	45,419
French.....	7	33,635	26,208	42,876	25,932	32,760.00	39,881
German.....	31	117,084	83,652	138,833	83,233	101,679.44	125,186
Greek.....	4	17,194	11,661	18,983	11,699	14,576.25	29,925
Italian.....	5	35,488	24,531	44,400	26,746	28,577.75	14,695
Japanese.....	11	44,036	36,849	56,158	36,153	55,741.80	57,287
Norwegian.....	46	172,114	129,785	213,132	129,845	147,555.22	127,504
Panaman.....	5	7,928	5,791	9,450	5,764	7,215.00	12,809
Swedish.....	8	35,624	27,614	83,117	33,508	28,468.03	50,026
United States.....	233	1,170,190	906,146	1,460,295	903,817	1,066,778.31	1,193,967
Yugoslav.....	7	29,771	22,089	34,918	21,678	25,808.02	33,083
Totals, September, 1929..	523	2,425,261	1,852,540	3,058,032	1,861,671	2,201,789.40	2,432,783
Totals, September, 1928..	487	2,295,053	1,771,095	2,909,454	1,777,124	2,111,230.56	2,313,011
Totals, September, 1927..	540	2,532,942	1,984,417	3,224,661	1,978,821	2,294,432.34	2,397,753

¹ Includes naval vessel of 4,675 displacement tons.

² Includes 2 naval vessels having a total of 19,720 displacement tons.

United States Intercoastal Traffic by Commodities for September, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for September, 1929, and the totals for September, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are

indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes.....	3	.....	3
Agricultural implements.....	1,697	46	1,743
Alfalfa.....	.....	428	428
Alfalfa meal.....	.....	567	567
Ammonia.....	121	.....	121
Ammunition.....	36	.....	36
Asbestos.....	525	.....	525
Asphalt.....	799	78	877
Automobiles.....	4,032	58	4,090
Automobile accessories.....	2,197	125	2,322
Bark, cascara.....	.....	38	38
Beans.....	135	1,592	1,727
Borax.....	77	1,168	1,245
Bricks.....	556	.....	556
Burlap.....	135	.....	135
Calcium carbide.....	65	.....	65
Camphor.....	.....	32	32
Canned:			
Fish.....	643	14,251	14,894
Fruit.....	319	22,967	23,286
Meat.....	261	74	335
Milk.....	.....	45	45
Soup.....	3,767	38	3,805
Vegetables.....	762	3,546	4,308
Miscellaneous.....	2,568	13,545	16,113
Carbon black.....	296	64	360
Celite filtered.....	.....	342	342
Cement.....	2,973	25	2,998
Charcoal.....	190	182	372
Chemicals.....	2,453	429	2,882
China and fire clay.....	618	.....	618
Coal.....	2,377	.....	2,377
Cocoa.....	116	16	132
Cocanuts.....	23	330	353
Coffee.....	116	312	428
Coke.....	872	.....	872
Cold storage:			
Cheese.....	25	73	98
Eggs.....	.....	147	147
Lard.....	54	.....	54
Meat.....	.....	75	75
Confectionery.....	1,179	.....	1,179
Cork.....	43	.....	43
Cotton.....	197	244	441
Cyanide.....	30	.....	30
Drugs.....	1,488	44	1,532
Earthenware.....	573	24	597
Eggs, dried.....	.....	87	87
Explosives.....	80	43	123
Fertilizer.....	40	.....	40
Flour.....	216	5,227	5,443
Fruit:			
Dried.....	164	7,708	7,872
Fresh.....	.....	475	475
Fuller's earth.....	500	.....	500
Furniture.....	723	169	892
General.....	40,396	11,147	51,543
Glass and glassware.....	1,802	61	1,863
Glue.....	36	65	101
Hair.....	16	59	75
Hardwoods.....	1,080	15	1,095
Hay.....	.....	264	264
Hemp.....	.....	1,616	1,616
Honey.....	.....	109	109
Hops.....	.....	23	23
Jute.....	50	.....	50
Line.....	100	.....	100
Linoleum.....	1,283	.....	1,283
Liquors.....	54	.....	54
Lumber.....	9,896	183,157	193,053
Manufactured goods:			
Iron and steel.....	89,066	655	89,721
Machinery.....	6,024	728	6,752
Railroad material.....	1,471	.....	1,471
Tinplate.....	11,229	3	11,232
Textiles.....	2,973	149	3,122
Miscellaneous.....	11,748	2,318	14,066
Marble.....	93	24	117
Matches.....	39	.....	39

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Metals:			
Copper.....	104	6,357	6,461
Iron.....	3,214		3,214
Lead.....	54		54
Scrap.....	123	499	622
Tin.....		500	500
Zinc.....		2,165	2,165
Other.....	44	120	164
Milk, powdered.....	280	797	1,077
Molass s.....	114		114
Musical instruments.....	35		35
Nuts.....		18	18
Oats.....	40		40
Oils:			
Cottonseed.....	260		260
Gas nit, fuel oil.....		29,718	29,718
Gasoline, benzine, naphtha.....	12	266,109	266,121
Kerosene.....		6,814	6,814
Linsed.....	25		25
Lubricating and greases.....	6,528	1,196	7,724
Vegetable.....	432	46	478
Wood.....	49	7	56
Other.....	14		14
Ores:			
Copper.....	100		100
Magnesite.....		2,393	2,393
Paint.....	777	200	977
Paper.....	6,477	4,976	11,453
Paper pulp.....		5,154	5,154
Paper roofing.....	60		60
Peanuts.....	15		15
Pears.....		234	234
Ph sphites.....	2,182	297	2,479
Porcelain.....	24	1,477	1,501
Rags.....	70	590	660
Rice.....	254		254
Rope.....	141	58	199
Rosin.....	854		854
Rubber:			
Manufactured.....	616	53	669
Raw.....	47		47
Scrap.....		15	15
Salt.....	462	47	509
Seeds:			
Grass.....		605	605
Other.....		324	324
Shells.....	1,544		1,544
Silk.....		494	494
Skins and hides.....		2,048	2,048
Slag.....	1,600		1,600
Slate.....	1,175		1,175
Sand.....	4,468	20	4,488
Soda.....	485		485
Soda, ash.....	2,183		2,183
Soda, bicarbonate.....	163		163
Soda, caustic.....	495		495
Starch.....	4		4
Sugar.....	39	11,589	11,628
Sulphur.....	10,762		10,762
Syrup.....	396	25	421
Talc.....		155	155
Tallow.....		344	344
Tar.....	23		23
Tea.....		28	28
Tobacco.....	2,573	141	2,714
Toys.....	140	189	329
Turpentine.....	23		23
Waste.....	274	22	296
Wax.....	250	46	296
Wheat.....		75	75
Wine.....	55	54	109
Wool.....		2,018	2,018
Zinc oxide.....	220		220
Totals, September, 1929.....	261,679	623,024	884,703
Totals, September, 1928.....	242,952	603,846	846,798
Totals, September, 1927.....	169,537	803,180	972,717

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Scuppers.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BOARD OF ADMEASUREMENT, BALBOA HEIGHTS, C. Z., October 11, 1929.

TO ALL STEAMSHIP OWNERS AND AGENTS:

SUBJECT—SCUPPERS.

1. The circulars relative to "Scuppers" issued by the Board of Admeasurement dated August 1st and 28th, 1929, are hereby further amplified by the following supplemental information recently received from the Commissioner of Navigation at Washington.

2. The clause "scuppers to be kept clear at all times" is defined as "always ready to function as occasion demands."

3. Scuppers may be temporarily closed by readily removable wood or rubber plugs and spare plugs may be carried on board.

4. Utilization of screw caps, screw plugs, blank flanges or concrete is prohibited at all times.

5. Practical scuppers of irregular shape are permitted provided the area of the bore is never less than a circle whose diameter is $3\frac{1}{2}$ inches.

6. Scuppers may lead to the bilges, or directly overboard through the side, or down through the deck and overboard through an elbow in the pipes.

7. Ordinary grids held by screw threads, removable bolts or other appropriate means may be fitted to scuppers and pipes provided they are so attached as not to lessen appreciably the area.

8. A suitable number and location of scuppers, usually determined by designer, are to be fitted to properly drain the space served. A shelter deck space should have at least three pairs, or more, depending upon length of space to be drained and other conditions.

9. In view of numerous inquiries as to scupperage requirements in such erections as poops, bridges and forecastles, your attention is invited to the fact that reference, in circular of August 1, 1929, specifically referred to superstructures *with single tonnage openings*. In superstructures with two regulation tonnage openings, no scuppers or freeing ports are required.

C. H. WOODWARD,
Chairman, Board of Admeasurement.

Approved:

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from September 25 to October 12, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Gruenwald.....	Hamburg-American Line.....	.....	September 24.....	.....	56
Teno.....	Chilean Line.....	.....	September 25.....	.....	20
Annie Johnson.....	Johnson Line.....	.....	September 25.....	.....	250
Gracia.....	Donaldson Line.....	.....	September 25.....	.....	331
Ulua.....	United Fruit Co.....	.....	September 25.....	.....	75
Midas.....	Royal Neth. S. S. Co.....	.....	September 26.....	.....	43
Jose.....	United Fruit Co.....	.....	September 28.....	.....	416
Cauca.....	National Navigation Co.....	.....	September 28.....	.....	44
City of San Francisco.....	Panama Mail S. S. Co.....	.....	September 29.....	.....	3,388
Floreana.....	United Fruit Co.....	September 25.....	.....	289	.....
Zacapa.....	United Fruit Co.....	September 25.....	September 26.....	369	258
Benjaham Franklin.....	Norway-Pacific Line.....	September 25.....	September 26.....	(¹)	200
Saint Louis.....	French Line.....	September 25.....	September 26.....	86	(²)
Cristobal.....	Panama R. R. S. S. Line.....	September 25.....	September 29.....	4,939	1,454
Cerigo.....	Hamburg-American Line.....	September 25.....	October 3.....	715	118
Patrick Henry.....	U. S. Shipping Board.....	September 26.....	September 27.....	460	(²)
Santa Rita.....	Grace Line.....	September 26.....	September 27.....	(¹)	700
Coppename.....	United Fruit Co.....	September 26.....	September 27.....	208	70
Daytonia.....	Leyland S. S. Line.....	September 26.....	September 28.....	1,344	(²)
Virgilio.....	Italian Line.....	September 26.....	September 28.....	43	664
Saramacca.....	United Fruit Co.....	September 27.....	September 27.....	7	70
La Perla.....	United Fruit Co.....	September 27.....	September 28.....	931	164
Atlantida.....	Stand. Fruit & S. S. Co.....	September 27.....	September 28.....	207	535
Venezuela.....	Royal Neth. S. S. Co.....	September 27.....	September 28.....	(¹)	254
Gottingen.....	Hamburg-American Line.....	September 27.....	September 28.....	177	25
Wanks.....	Stand. Fruit & S. S. Co.....	September 27.....	September 29.....	139	(²)
Orbita.....	Pacific Steam Nav. Co.....	September 28.....	September 28.....	6	(²)
Saint Joseph.....	French Line.....	September 28.....	September 28.....	285	61
Linda S.....	Feuillobis.....	September 28.....	September 28.....	(¹)	40
Maravi.....	United Fruit Co.....	September 28.....	September 28.....	35	851

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Witell.	North German Lloyd.	September 28.	September 28.	147	
Nosa Chief.	N. O. & S. A. S. S. Co.	September 28.	September 29.	104	(²) 119
Heredia.	United Fruit Co.	September 28.	September 29.	746	3
Ulua.	United Fruit Co.	September 29.	September 29.	26	296
Swiftwind.	C. D. Mallory & Co.	September 29.	September 30.	11,900	(²)
Acajutla.	Pacific Steam Nav. Co.	September 29.	October 5.	521	1,110
Aconagua.	Chilean Line.	September 30.	September 30.	21	(²)
Noorderdyk.	Pacific Steam Nav. Co.	September 30.	September 30.	(²)	8
Boekoop.	Royal Neth. S. S. Co.	September 30.	September 30.	185	(²)
Tolosa.	United Fruit Co.	September 30.	October 1.	942	63
Colombia.	Panama Mail S. S. Co.	September 30.	October 1.	432	145
Pearl Marie.	Feuillebois.	September 30.	October 1.	(²)	40
Kuma Maru.	Nippon Yusen Kaisha.	October 1.	October 1.	233	(²)
Nitro.	Soc. An. Comm. Italo.	October 1.	October 2.	56	(²)
Inapaquina.	United Fruit Co.	October 1.	October 2.	18	(²)
Pacific Ranger.	Furness, Withy & Co.	October 1.	October 2.	(²)	161
Alkmaar.	Royal Neth. S. S. Co.	October 1.	October 3.	337	443
Negada.	Hamburg-American Line.	October 1.	October 3.	38	60
Caldas.	National Navigation Co.	October 1.	October 5.	284	167
Orinoco.	Hamburg-American Line.	October 2.	October 2.	275	12
Nora B.	Blackwood.	October 2.	October 2.	(²)	7
Venezuela.	Panama Mail S. S. Co.	October 2.	October 2.	453	155
Flandre.	French Line.	October 2.	October 3.	324	421
Canada.	Johnson Line.	October 3.	October 3.	(²)	212
Lochkatrina.	Royal Mail S. S. Co.	October 3.	October 4.	84	335
Buenaventura.	Panama R. R. S. S. Line.	October 3.	October 4.	572	254
San Jose.	United Fruit Co.	October 3.	October 5.	758	114
Arana.	Pacific Steam Nav. Co.	October 3.	October 5.	271	34
Buenos Aires.	Spanish Line.	October 3.	October 6.	101	627
Anachucuna.	United Fruit Co.	October 3.	October 6.	50	(²)
Almargo.	Pacific Steam Nav. Co.	October 4.	October 4.	312	7
Saale.	North German Lloyd.	October 4.	October 4.	(²)	66
Trivives.	United Fruit Co.	October 4.	October 4.	680	520
Coppename.	United Fruit Co.	October 4.	October 4.	86	389
Amapala.	Stand. Fruit & S. S. Co.	October 4.	October 5.	177	594
S. M. Spalding.	Pan-American Petroleum Co.	October 4.	October 5.	10,242	(²)
Guayaquil.	Panama R. R. S. S. Line.	October 4.	October 4.	1,454	111
Suriname.	United Fruit Co.	October 5.	October 5.	646	20
Santa Inez.	Grace Line.	October 5.	October 5.	139	4
Mayari.	United Fruit Co.	October 5.	October 5.	34	723
Orinoco.	Hamburg-American Line.	October 5.	October 6.	15	406
Cartago.	United Fruit Co.	October 5.	October 6.	486	114
Mizales.	North German Lloyd.	October 5.	October 11.	449	313
Wanks.	Stand. Fruit & S. S. Co.	October 5.	October 8.	215	2
Champerico.	Pacific Steam Nav. Co.	October 5.	October 5.	53	
Tolosa.	United Fruit Co.	October 6.	October 6.	24	221
Loreto.	Pacific Steam Nav. Co.	October 6.	October 7.	40	163
Discoverer.	Leyland S. S. Line.	October 6.	October 7.	522	(²)
Bohemian Club.	Atlantic Refining Co.	October 6.	October 7.	687	(²)
Eemdyk.	Holland-American Line.	October 6.	October 9.	511	252
Santa Barbara.	Grace Line.	October 7.	October 7.	6	(²)
Nevada.	French Line.	October 7.	October 7.	70	149
Daytonia.	Leyland S. S. Line.	October 7.	October 8.	(²)	359
Calamares.	United Fruit Co.	October 7.	October 9.	660	136
Brielle.	Royal Neth. S. S. Co.	October 8.	October 8.	100	23
Hudson.	French Line.	October 8.	October 8.	52	42
Inapaquina.	United Fruit Co.	October 8.	October 8.	25	(²)
Linda S.	Feuillebois.	October 8.	October 8.	(²)	37
Suriname.	United Fruit Co.	October 8.	October 8.	(²)	5
Van Renselaer.	Royal Neth. S. S. Line.	October 8.	October 9.	43	8
Moveria.	Donaldson Line.	October 8.	October 10.	(²)	417
Abraham Lincoln.	Norway-Pacific Line.	October 8.	October 10.	(²)	288
Ancon.	Panama R. R. S. S. Line.	October 9.	October 9.	4,700	
Nosa Queen.	N. O. & S. A. S. S. Co.	October 9.	October 10.	62	465
Santa Marta.	United Fruit Co.	October 9.	October 10.	553	444
Planet.	Hamburg-American Line.	October 9.	October 10.	602	220
British Loyalty.	Anglo-Saxon Petroleum Co.	October 9.	October 11.	9,667	(²)
Baralt.	Royal Neth. S. S. Co.	October 9.	October 12.	511	128
Essequibo.	Pacific Steam Nav. Co.	October 10.	October 11.	2	50
Calcutta Maru.	Nippon Yusen Kaisha.	October 10.	October 11.	226	(²)
Saramacca.	United Fruit Co.	October 10.	October 11.	840	22
Suriname.	United Fruit Co.	October 11.	October 11.	59	239
Ludwigshafen.	North German Lloyd.	October 11.	October 11.	307	50
Limon.	United Fruit Co.	October 11.	October 12.	465	
Van Renselaer.	Royal Neth. S. S. Co.	October 11.	October 12.	7	422
Atlantida.	Stand. Fruit & S. S. Co.	October 11.	October 12.	236	763
Oroya.	Pacific Steam Nav. Co.	October 12.	October 12.	14	(²)
Lobos.	Pacific Steam Nav. Co.	October 12.	October 12.	81	(²)
Cauca.	National Navigation Co.	October 12.	October 12.	180	
Ruhr.	Hamburg-American Line.	October 12.	October 12.	84	(²)
Los Angeles.	Hamburg-American Line.	October 12.	October 12.	10	
Wanks.	Stand. Fruit & S. S. Co.	October 12.	October 12.	179	
Laila.	Gulf-Caribbean Line.	October 12.	October 12.	308	(²)
Macabi.	United Fruit Co.	October 12.	October 12.	3	543
Ecuador.	Panama Mail S. S. Co.	October 12.	October 12.	636	
Parismina.	United Fruit Co.	October 12.	October 12.	206	

* No cargo discharged.

* No cargo laded.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., October 23, 1929. No. 12.

Supplement No. 2 to Chapter XII, Vessel Inspection Service, of Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 14, 1929.

Rule 160, page 23, is supplemented by the following regulations:

Regulation 160.1. A portion of the main and auxiliary engine cylinders, pistons, valves, crankshaft bearings, air compressor cylinders and valves, on propelling equipment, are to be examined. If the parts so examined are found in a satisfactory condition, they may be taken as representing the general condition of similar parts.

Regulation 160.2. A general examination is to be made of the entire main engine and auxiliaries including valve gear, pumps, and other parts.

Regulation 160.3. All floating plant, where air under pressure is used for starting and operating the main machinery, shall have relief and safety valves tested and set annually in the presence of an inspector for this Board, to not more than one and one-third the maximum working pressure. The air containers and air pressure piping are to be opened, cleaned if necessary, and examined internally if practicable.

Regulation 160.4. Starting and spray air flasks must be tested hydrostatically at pressures fifty per cent in excess of working pressures, at intervals not exceeding two years.

Regulation 162.41, page 28, is amended to read as follows:

Regulation 162.41. *Boiler Steaming Hours.* No boilers on floating equipment of the Panama Canal and of the Panama Railroad Company which are inspected by the Board (except water tube boilers and boilers operating non-condensing) shall be used over 1,500 hours under steam between boiler wash-outs. Water tube boilers shall not be used over 750 hours, and boilers operating non-condensing not over 1,050 hours, between boiler wash-outs.

H. BURGESS,
Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 16, 1929.

No. 616.

1. *West coast of Colombia, Buenaventura River.* The master of the German S. S. *Martizales* reports the light recently established on Soldado Point shows flashing white. The light is exhibited from a framework tower, about 49 feet high, and is visible 12 miles. The light structure has a diamond daymark:

Approximate position: 3° 48' 03" N., 77° 11' 33" W.

2. *Nicaragua, West coast, San Juan del Sur, Light reported extinguished.* The second officer of the American S. S. *Corinto* reports that the night of September 3, 1929, San Juan de Sur Light was not burning:

Approximate position: 11° 15' 00" N., 85° 53' 43" W.

3. The American S. S. *Salvador* experienced magnetic disturbance, October 16, 1929, between 2 and 3 p. m., between the following true bearings and distances: Cape Mala Light (Republic of Panama) 236° 7½ miles and 222° 17 miles; course steered N. 19° E., true; speed 8½ knots; set to east of course 2¾ miles.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, October 19, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Monique ¹	12	19 45	13	6 05	13	13 32	French	Demarais Freres	425 0	56 0	21 0	Blaye, France	Los Angeles, Calif.	Ballast	.....	7,106
Levant Arrow ²	12	20 50	13	6 15	13	14 19	American	Sun Oil Co.	429 3	59 2	20 0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	.....	7,709 5,562
Japanese Prince ³	12	20 55	13	7 20	13	15 02	American	Standard Oil Co.	488 3	62 7	21 0	Boston, Mass.	Los Angeles, Calif.	Ballast	.....	9,841 6,946
Los Angeles ⁴	13	1 30	13	7 30	13	15 48	British	Prince Line, Ltd.	441 0	60 0	22 6	New York, N. Y.	Manila, P. I.	General	4,700	9,240 6,152
Dalworth ⁵	12	5 05	13	8 30	13	16 13	German	Hamburg-American Line	432 0	59 0	22 7	Hamburg, Germany	Vancouver, B. C.	General, bananas	5,442	8,454 6,344
Champerico ⁶	10	27 13	10	40 13	13	22 50	British	Canadian Transp. Co.	400 0	52 5	21 0	Cornbrook, N. F.	Tacoma, Wash.	General ⁽⁷⁾	4,151	6,524 4,686
Kemilworth ⁸	5	18 05	13	10 55	13	17 36	British	Pacific Steam Nav. Co.	230 0	41	19 7	Cristobal, C. Z.	Champerico, Guatemala	General	1,420	2,593 1,592
Chesapeake ⁹	13	8 35	13	11 15	13	19 00	British	R. S. Dalgleish, Ltd.	430 2	45 0	25 8	Boston, Mass.	Seikisong, China	Phosphate, iron	6,830	9,201 5,065
Wind Rush ¹⁰	13	9 40	13	12 45	13	23 26	British	Anglo-American Oil Co., Ltd.	470 8	63 8	16 8	Hull, England	Los Angeles, Calif.	Ballast	9,151	6,465
Port Hardy ¹¹	13	11 35	13	13 20	13	22 05	American	Shepard S. S. Co.	410 0	54 2	20 00	Philadelphia, Pa.	Los Angeles, Calif.	General	5,309	6,353 4,753
Esperanza ¹²	13	11 50	13	20 10	14	11 35	British	Com'th & Dom. Line.	481 2	62 3	30 4	Glasgow, Scotland	Dunedin, N. Z.	General	6,390	11,136 8,109
Santa Cecilia ¹³	13	15 28	14	6 19	14	13 29	American	A. A. Thorpe	408 0	55 0	18 7	Cristobal, C. Z.	Callao, Peru	General	2,114	6,672 4,905
Chilore ¹⁴	13	14 15	14	6 10	14	13 59	American	Grace Line	549 0	72 0	21 0	New York, N. Y.	Cruz Grande, Chile	Ballast	14,538	9,348
Santa Eulalia ¹⁵	14	3 05	14	7 25	14	14 48	American	U. S. S. Corp.	231 0	21 10	.....	Baltimore, Md.	Baiboa, C. Z.	Ballast	2,525	2,823 1,730
Calliope ¹⁶	13	19 05	14	7 20	14	14 56	American	Isthmian S. S. Lines	251 0	43 0	22 2	Baltimore, Md.	Honolulu, T. H.	General	2,541	9,091 5,927
Ecuador ¹⁷	12	16 30	14	8 20	14	16 14	Danzig	Baltic Amer. Pet. Co.	470 0	63 7	18 0	Hamburg, Germany	Los Angeles, Calif.	General	258	3,634 2,234
Limon ¹⁸	14	7 00	14	8 35	14	15 44	American	Panama Mail S. S. Co.	380 6	48 7	24 0	New York, N. Y.	San Francisco, Cal.	General, bananas	3,856	8,216 6,037
Silverguaya ¹⁹	13	22 10	14	8 55	14	15 48	British	United Fruit Co.	330 6	40 4	17 10	Port Limon, C. R.	Singapore, Stra. Set.	General	3,860	10,079 7,292
Manila Maru ²⁰	13	22 25	14	9 30	14	17 45	Japanese	Kerr S. S. Line	425 0	58 0	20 0	New York, N. Y.	Yokohama, Japan	General	6,909	7,329 5,233
Potter ²¹	13	22 55	14	10 10	14	17 45	American	Oaska Shosen Kaisha	395 6	55 0	21 6	Buenos Aires, Arg.	Tsingtau, China	General	8,040	6,680 5,036
Bonville ²²	14	3 50	14	10 40	14	18 26	Norwegian	A. F. Klaveness & Co.	386 0	54 0	25 0	Antwerp, Belgium	Tacoma, Wash.	Steel, general	7,397	7,472 5,542
Robin Gray ²³	14	11 45	14	11 45	14	20 28	American	Isthmian S. S. Lines	424 0	55 0	.....	Baltimore, Md.	Adelaide, Australia	General	2,662	7,097 5,298
City of Dalhart ²⁴	14	13 40	15	6 25	15	12 58	American	Roosevelt S. S. Co., S. B.	409 0	54 0	22 0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	.....	9,744 7,140
Dixie Arrow ²⁵	15	9 00	15	9 10	15	15 56	American	Standard Oil Co.	488 3	62 7	21 0	Boston, Mass.	Gatun, C. Z.	Ballast	.....	.....
Asheville ²⁶	9-20 05	15	9 30	.....	.....	.....	American	U. S. Navy	225 0	41 0	.....	Cristobal, C. Z.	.....	.....	.....	.....
Canadian Transporter ²⁷	14	21 45	15	10 15	15	17 38	British	Can. Nat. Steamships	400 0	52 4	25 2	Montreal, Canada	Auckland, N. Z.	General	5,355	6,228 4,491
Gaulester ²⁸	15	13 45	15	14 00	15	21 26	British	Blue Star Line	389 8	53 0	16 10	Newcastle, England	Seattle, Wash.	Ballast	6,014	4,492
Hawayan ²⁹	15	14 07	15	14 40	15	21 45	American	Amer.-Hawaiian Line	404 0	53 9	18 6	Boston, Mass.	Seattle, Wash.	General	3,584	6,766 4,767
Sildra ³⁰	15	15 18	15	16 35	16	19 21	Norwegian	Anglo-Saxon Pet. Co.	440 0	57 4	20 0	Fall River, Mass.	Los Angeles, Calif.	Ballast	7,583	5,071
El Lobo ³¹	15	16 55	16	6 12	16	13 28	British	Atlantic Redding Co.	385 2	51 0	18 0	Philadelphia, Pa.	La Libertad, Peru	Ballast	4,831	3,326
Walter A. Luckenbach ³²	16	8 20	16	8 35	16	16 25	American	Luckenbach Line	446 5	58 1	27 0	Boston, Mass.	Seattle, Wash.	General	5,400	8,785 6,567
Stella Maris ³³	15	16 05	16	10 50	16	18 30	German	Lutz	103 0	30 0	6 0	Hamburg, Germany	Pantauras, C. R.	Ballast	.....	136

¹ Tanker.

² Motor ship.

³ Launch.

⁴ Submarine.

⁵ Gunboat.

⁶ Motor lighter.

⁷ Newspaper rolls.

⁸ Cotton, carbon black.

	15	16	30	16	11	35	16	18	09	17	1	19	Dutch.	Royal Neth. S. S. Co.	402	0	58	0	22	0	Amsterdam, Holl'd	Buenaventura, Col.	General.	3,972	7,384	4,769
Breda	16	1	30	16	12	18	16	19	23	16	23	20	British.	Pacific Steam Nav. Co.	400	0	52	0	23	0	Hull, England	Corral, Chile.	General.	4,209		
Balleria	16	1	30	16	12	18	16	19	23	16	23	20	British.	Bank Line Ltd.	420	2	54	0	22	11	Baltimore, Md.	Gensan, China	General, kerosene	6,425	7,093	4,994
Larchbank	16	19	45	16	6	20	17	10	02	17	14	10	British.	Grace Line.	360	3	51	7	24	6	New York, N. Y.	Valparaiso, Chile.	General	2,203	5,957	4,325
Santa Elisa	12	20	05	17	6	20	17	14	08	17	22	35	Colombian.	National Navigation Co.	107	0	22	0	9	3	Cristobal, C. Z.	Buenaventura, Col.	General	148	238	163
Caica	12	17	10	17	6	10	17	14	08	17	22	35	Colombian.	U. S. Navy.	219	0	20	8			Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-20	17	6	20	17	6	20	17	15	07	17	16	15	American.	Swayne & Hoyt.	324	0	46	2	22	0	Tampa, Fla.	Seattle, Wash.	General	2,604	3,994	2,591
Point San Pablo	16	23	35	17	6	20	17	15	07	17	16	15	American.	U. S. Navy.	463	0	60	0	19	11	Norfolk, Va.	Los Angeles, Calif.	Ballast			
Salinas	15	20	00	17	7	15	17	15	57	17	17	05	American.	Munson, McCor'k Line	409	5	54	2	22	7	Baltimore, Md.	Seattle, Wash.	General	6,300	6,566	4,960
West Cape	16	22	15	17	7	24	17	16	54	17	18	05	American.	Richfield Oil Co.	430	2	59	2	19	6	New York, N. Y.	Los Angeles, Calif.	Ballast	7,978	5,839	
Pat. Douney	17	6	20	17	8	10	17	16	54	17	18	05	American.	Brusgaard Kosterud.	400	0	52	0	24	0	Antwerp, Belgium	Vancouver, B. C.	General	6,143	5,730	4,011
Hellen	17	6	20	17	8	10	17	16	54	17	18	05	American.	Eagle Oil Transp. Co.	402	0	54	4	25	6	Pto. Mexico, Mex.	Valparaiso, Chile.	Ballast	7,347	6,975	4,623
San Leopoldo	16	23	55	17	10	15	17	18	07	17	19	30	British.	Blue Star Line	449	0	58	0	22	0	Berry, England	Vancouver, B. C.	General	8,336	5,400	
Fresnostar	17	3	50	17	11	04	17	18	30	17	19	30	British.	Royal Mail S. P. Co.	455	6	62	0	21	8	Rotterdam, Holland	Vancouver, B. C.	General	3,361	10,772	5,189
Lochnamar	16	6	10	17	11	04	17	18	30	17	19	30	British.	French Line	425	0	55	0	19	7	Havre, France	Vancouver, B. C.	General	1,451	7,351	5,189
Arizona	16	18	30	17	12	00	17	19	28	17	20	30	French.	Ore S. S. Corp.	561	0	72	0	21	0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,560	4,496
Amerikland	17	9	15	17	13	10	17	20	46	18	2	20	Swedish.													
Canadian	17	19	20	18	6	12	18	14	14	18	15	25	British.	Can. Nat. Steamships	400	0	52	0	17	0	Montreal, Canada	Vancouver, B. C.	General	2,500	5,885	4,073
Winnier	17	19	55	18	6	25	18	14	26	18	15	30	American.	McCormick S. S. Co.	410	0	54	0	17	1	Buenos Aires, Arg.	Vancouver, B. C.	General	3,652	6,581	4,989
West Nitus	17	19	55	18	6	25	18	14	26	18	15	30	American.	Dollar Line	516	3	72	2	28	6	New York, N. Y.	San Francisco, Cal.	General	4,818	15,286	10,533
President Wilson	18	4	00	18	7	30	18	15	04	18	21	44	American.													
Edgar F.	17	20	05	18	7	50	18	15	58	18	17	00	American.	Luckenbach Line	425	0	57	0	24	0	New Orleans, La.	Tacoma, Wash.	General	5,163	8,568	6,648
Lucienbach	17	21	40	18	8	15	18	16	58	18	18	10	British.	Ellerman & Bucknall	447	3	56	0	20	8	New York, N. Y.	Dunedin, N. Z.	General	2,856	7,884	5,972
City of Mobile	17	23	55	18	8	50	18	17	00	18	18	30	American.	Richfield Oil Co.	416	9	56	2	19	0	Norfolk, Va.	Los Angeles, Calif.	Ballast	4,767	6,706	4,630
Hadnot	18	2	35	18	10	05	18	17	42	18	19	30	Norwegian.	Scand.-So. Pacific Co.	390	0	53	0	24	0	Antwerp, Belgium	Buenaventura, Col.	General	3,123	6,585	4,157
Key West	18	4	55	18	10	05	18	17	42	18	19	30	Norwegian.	Sudden & Christensen.	409	5	54	2	16	0	Baltimore, Md.	Seattle, Wash.	General	4,767	6,585	4,157
Barbara Calca	18	4	55	18	10	05	18	17	42	18	19	30	Norwegian.	Standard Oil Co.	468	3	62	7	20	0	New York, N. Y.	Los Angeles, Calif.	Ballast	3,123	6,585	4,157
Empire Arrow	18	13	00	18	13	10	18	21	07	18	22	25	American.	North German Lloyd	449	0	58	0	22	0	Hamburg, Germany	Valparaiso, Chile	General	2,898	7,318	5,366
Remscheid	16	21	10	18	14	20	18	22	07	18	23	25	German.	United Fruit Co.	315	0	44	0	18	6	Cristobal, C. Z.	San Francisco, Cal.	General	429	3,496	2,141
San Mateo	17	18	55	18	16	18	19	21	25	19	22	50	American.	Nav. Libera Tristina	404	0	54	0	16	0	Genoa, Italy	Vancouver, B. C.	Ballast	5,869	4,239	
Savio	18	16	55	18	16	18	19	21	25	19	22	50	Italian.	U. S. Navy	149	3	30	0			Cristobal, C. Z.	Balboa, C. Z.	General			
Solida	18	16	55	18	16	18	19	21	25	19	22	50	American.	Furness Pacific Line	450	0	60	0	19	3	Manchester, Eng.	Vancouver, B. C.	General	1,504	10,086	7,226
Pacific Grove	18	17	45	19	6	15	19	13	54	19	14	50	British.													
Canadian	18	21	05	19	6	15	19	14	25	19	15	55	British.	Can. Nat. Steamships	400	0	52	0	19	10	Montreal, Canada	Adelaide, Australia	General	2,988	5,914	4,195
Commodore	19	7	40	19	8	00	19	14	45	19	15	55	Americap.	Dimon S. S. Corp.	390	0	54	0	23	6	New York, N. Y.	Seattle, Wash.	General	5,000	6,162	4,433
City of	14	16	35	19	8	30	19	15	37	19	16	55	Panaman.	Panama Mail S. S. Co.	296	0	46	0	21	1	Cristobal, C. Z.	San Francisco, Cal.	General	2,995	3,848	2,603
Panama	18	5	10	19	9	15	19	16	21	19	20	25	British.	Pacific Steam Nav. Co.	385	0	52	0	18	3	Glasgow, Scotland	Valparaiso, Chile	General	2,495	5,656	3,823
Lagarto	19	11	35	19	11	55	19	18	18	19	19	25	American.	Amer.-Hawaiian Line	460	0	58	0	21	6	Boston, Mass.	Portland, Oreg.	General	4,200	6,829	4,627
Nevadan	18	22	35	19	13	18	19	20	35	19	20	00	American.	Nelson Line	377	0	52	0	19	11	Baltimore, Md.	Seattle, Wash.	General	4,335	5,434	4,004
Democracy	19	19	30	19	19	45	20	11	35	20	12	40	American.	Standard Transp. Co.	467	6	62	7	20	0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,098	6,783
Standard	19	19	30	19	19	45	20	11	35	20	12	40	American.	U. S. Army							Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Cutter	19	19	30	19	19	45	20	11	35	20	12	40	American.													

General, cement, iron.

Kerosene, fuel oil.

Coal, cement, general.

Tug.

Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

	12	21	17	13	5	57	13	14	10	13	17	20	American	Standard Oil Co. of Cal.	426	0	57	2	26	8	San Francisco, Cal.	Baltimore, Md.	(12)	9,260	7,227	4,827
Labrico	13	1	45	13	6	47	13	15	25	13	15	50	Dunzig	Standard Oil Co.	470	1	63	2	27	0	Talara, Peru.	Hamburg, Germany	Naphtha	11,160	9,302	6,127
Penelope	12	15	00	13	7	07	13	17	00	13	17	50	American	Redwood Line, Inc.	386	8	52	2	22	6	San Francisco, Cal.	Mobile, Ala.	General	5,304	5,734	4,131

Gasoline and package freight.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Nature.	Tons.			Gross.	Net.			
Sundeeco.	12	17	30	13	8	23	13	17	50	American	Transmarine Lines.	324	0	23	6	San Francisco, Cal.	Port Newark, N. J.	3,930	3,984	2,612
Dean Emery ¹	13	6	38	13	9	25	13	18	15	American	Pan.-Amer. P. & Tr. Co.	429	3	59	2	Los Angeles, Calif.	Baltimore, Md.	9,600	7,709	5,477
Paul Shoup ¹	13	6	30	13	9	57	13	19	10	American	Associated Oil Co.	425	4	58	2	Los Angeles, Calif.	New York, N. Y.	9,078	7,333	5,182
Bradyn.	13	8	30	13	10	33	13	19	10	British	Leeds Shipping Co.	400	2	54	2	Portland, Oreg.	Queenstown, Ire.	8,030	6,961	5,245
Durazo.	13	10	15	13	11	35	13	19	50	German	Hamburg-American Line	227	0	34	1	Guayaquil, Ecuador	Cristobal, C. Z.	536	1,633	1,941
Canadian Victor	13	12	40	13	13	26	13	22	00	British	Can. Nat. Steamships	400	0	52	4	Guaymas, Australia	Sugar, general.	5,902	5,950	4,172
Herman Frasch	13	19	25	14	6	17	14	14	00	American	Union Sulphur Co.	356	0	51	6	Westport, Oreg.	New York, N. Y.	5,400	5,339	2,950
Fort Armstrong	13	23	00	14	7	13	14	16	35	American	Nelson S. S. Co.	324	0	46	2	Seattle, Wash.	Baltimore, Md.	2,004	3,984	2,628
Panama ¹⁴ .	14	6	27	14	7	35	14	16	35	American	Panama Mail S. S. Co.	296	1	45	9	San Francisco, Cal.	Cristobal, C. Z.	437	3,848	2,602
Ebro.	14	1	30	14	8	08	14	15	35	British	Pacific Steam Nav. Co.	430	3	56	8	Talcahuano, Chile	New York, N. Y.	2,408	9,291	6,301
Santa Cruz.	14	6	30	14	8	20	14	16	55	American	Grace Line	384	0	50	2	Callao, Peru	New York, N. Y.	4,864	5,534	3,868
Meton ¹ .	14	7	30	14	9	15	14	17	45	American	Penn. Shipping Co.	425	8	57	0	San Francisco, Cal.	New York, N. Y.	9,730	7,481	5,212
Sir Karl.	14	7	30	14	9	15	14	17	45	American	Penn. Shipping Co.	425	8	57	0	San Francisco, Cal.	New York, N. Y.	9,730	7,481	5,212
Krudsen ¹⁴ .	14	00	30	14	10	55	14	18	05	Norwegian.	A. F. Klavness.	450	5	59	2	San Francisco, Cal.	Land's End, Eng.	10,413	8,085	5,592
Vancouver ¹⁴ .	14	19	55	15	5	52	15	14	15	British.	Imperial Oil Co., Ltd.	510	2	68	2	Lobitos, Peru.	Halifax, N. S.	15,500	11,573	7,096
Schwaben ¹ .	15	2	00	15	6	43	15	14	10	German.	North German Lloyd.	491	4	63	6	Vancouver, B. C.	Bremen, Germany	10,319	10,091	6,743
Constance	15	3	30	15	7	47	15	15	35	American.	Arrow Line.	409	6	54	2	Seattle, Wash.	Baltimore, Md.	8,000	6,621	4,891
F. J. Luckenbach.	15	7	50	15	8	40	15	16	05	American.	Luckenbach Line.	446	0	56	1	Portland, Oreg.	Boston, Mass.	8,517	8,508	6,179
Virginian.	15	8	20	15	9	17	15	18	05	American.	Amer.-Hawaiian Line.	491	5	58	2	Portland, Oreg.	Boston, Mass.	9,039	10,491	6,743
Frankenwald.	15	9	00	15	9	49	15	18	40	German.	Hamburg-American Line.	399	6	54	2	Valparaiso, Chile.	Hamburg, Germany	8,000	6,575	4,490
Forthridge.	15	13	45	15	14	26	15	21	50	British.	Cresby Magee & Co.	390	0	54	8	Vancouver, B. C.	New York, N. Y.	7,450	6,246	4,627
Point Sur.	15	14	15	15	15	22	15	22	20	American.	Gulf-Pacific Line.	324	0	46	2	Portland, Oreg.	New Orleans, La.	3,911	3,984	2,612
Cambrai ¹⁵ .	14	16	35	16	6	19	16	13	10	American.	U. S. Army.	448	0	58	0	San Francisco, Cal.	New York, N. Y.	225		
Sylvan Arrow ¹ .	16	1	00	16	6	57	16	15	15	American.	Standard Transp. Co.	467	6	62	7	Los Angeles, Calif.	New York, N. Y.	11,234	9,698	6,862
Celina ¹⁴ .	15	22	15	16	7	21	16	16	40	Italian.	Libera Tristina.	448	0	55	3	Vancouver, B. C.	Trieste, Italy.	8,300	7,790	6,054
Seioka ¹⁶ .	16	6	30	16	8	23	16	16	35	American.	U. S. Navy.	155	0	30	0	Balboa, C. Z.	Cristobal, C. Z.	4,300	3,984	2,628
Tashmoo.	16	6	30	16	8	15	16	18	10	American.	Nelson S. S. Co.	324	0	46	2	San Francisco, Cal.	Houston, Tex.	4,300	3,984	2,628
Charles H. Cramp.	16	3	00	16	8	36	16	16	50	American.	Argonaut S. S. Co.	404	6	53	9	Portland, Oreg.	Baltimore, Md.	5,954	6,755	4,750
Lochgoil ¹⁴ .	16	4	45	16	9	06	16	18	20	British.	Royal Mail S. P. Co.	485	6	62	3	Vancouver, B. C.	Baltimore, Md.	9,530	10,803	7,606
Calbi.	16	11	00	16	11	50	16	19	05	German.	Roland Line.	216	0	32	9	Guayaquil, Ecuador.	Cristobal, C. Z.	630	1,105	698
Guatemala.	16	4	31	17	6	11	17	13	25	American.	Panama Mail S. S. Co.	360	2	51	6	San Francisco, Cal.	New York, N. Y.	2,263	5,776	4,081
Mytilus ¹ .	16	8	30	17	7	05	17	15	05	Norwegian.	P. Jensen, Arendal.	374	0	53	4	San Francisco, Cal.	Curacao, D. W. I.	7,193	6,124	4,479
Daphne.	16	17	30	17	7	24	17	16	45	Greek.	P. W. Richardson, Ltd.	325	1	47	0	Anfagasta, Chile.	Acores ¹⁷ .	5,451		
Northumberland.	16	16	30	17	8	11	17	17	30	British.	Federal Steam Nav. Co.	530	5	63	5	N. Plymouth, N. Z.	Liverpool, England	7,240	13,268	9,124
¹ Tanker.										¹⁵ Transport.										¹⁷ Towing barge.
¹⁴ Motor ship.																				

¹⁸ Towing barge.¹⁷ For orders.¹⁶ Tug.¹⁵ Transport.¹⁴ Motor ship.¹ Tanker.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 13.	Calameres	United Fruit Co.	Port Limon, C. R.	October 13.	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
October 13.	O-2M ²²	Mexican Government	Mexico via wayports.	October 13.	Calameres	United Fruit Co.	New York via Habana.
October 14.	Gundeloupe	French Line.	St. Nazaire via wayports.	October 13.	Ancon	Panama R. R. S. S. Line	New York via Haiti.
October 14.	C. A. Canfield	Huasteca Petroleum Co.	Aruba, D. W. I.	October 14.	No. 9664 ²²	Pan-American Airways	West coast.
October 14.	Pistores	United Fruit Co.	New York via Habana.	October 14.	Parismina	United Fruit Co.	New Orleans and waypts.
October 14.	No. 9664 ²²	Pan-American Airways	West coast.	October 15.	No. 9137 ²²	Pan-American Airways	Curacao via wayports.
October 15.	Darien	Leyland S. S. Line	Liverpool via wayports.	October 15.	No. 9776 ²²	Pan-American Airways	Miami via wayports.
October 15.	Linda S. ²³	A. L. Surgeon	Colon, R. P.	October 15.	No. 9107 ²²	Pan-American Airways	Guayaquil via wayports.
October 15.	I. V. Pearl ²³	J. S. Lawson	Colon, R. P.	October 15.	Linda S. ²³	A. L. Surgeon	Bluefields and wayports.
October 16.	Metapan	United Fruit Co.	New York via Kingston.	October 15.	C. A. Canfield	Huasteca Petroleum Co.	Aruba, D. W. I.
October 16.	No. 9688 ²²	Pan-American Airways	Managua via wayports.	October 16.	Gundeloupe	French Line	Havre via wayports.
October 16.	No. 12 ²²	Mexican Government.	Mexico via wayports.	October 16.	Pistores	United Fruit Co.	Port Limon, C. R.
October 16.	Pearl Marie ²³	G. I. Bryan	Colon, R. P.				

¹⁹ Motor schooner.²⁰ Cruiser.²¹ Barley, borax, dried fruit.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 13.	Calameres	United Fruit Co.	Port Limon, C. R.	October 13.	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
October 13.	O-2M ²²	Mexican Government	Mexico via wayports.	October 13.	Calameres	United Fruit Co.	New York via Habana.
October 14.	Gundeloupe	French Line.	St. Nazaire via wayports.	October 13.	Ancon	Panama R. R. S. S. Line	New York via Haiti.
October 14.	C. A. Canfield	Huasteca Petroleum Co.	Aruba, D. W. I.	October 14.	No. 9664 ²²	Pan-American Airways	West coast.
October 14.	Pistores	United Fruit Co.	New York via Habana.	October 14.	Parismina	United Fruit Co.	New Orleans and waypts.
October 14.	No. 9664 ²²	Pan-American Airways	West coast.	October 15.	No. 9137 ²²	Pan-American Airways	Curacao via wayports.
October 15.	Darien	Leyland S. S. Line	Liverpool via wayports.	October 15.	No. 9776 ²²	Pan-American Airways	Miami via wayports.
October 15.	Linda S. ²³	A. L. Surgeon	Colon, R. P.	October 15.	No. 9107 ²²	Pan-American Airways	Guayaquil via wayports.
October 15.	I. V. Pearl ²³	J. S. Lawson	Colon, R. P.	October 15.	Linda S. ²³	A. L. Surgeon	Bluefields and wayports.
October 16.	Metapan	United Fruit Co.	New York via Kingston.	October 15.	C. A. Canfield	Huasteca Petroleum Co.	Aruba, D. W. I.
October 16.	No. 9688 ²²	Pan-American Airways	Managua via wayports.	October 16.	Gundeloupe	French Line	Havre via wayports.
October 16.	No. 12 ²²	Mexican Government.	Mexico via wayports.	October 16.	Pistores	United Fruit Co.	Port Limon, C. R.
October 16.	Pearl Marie ²³	G. I. Bryan	Colon, R. P.				

²³ Other than ships passing through the Canal.²² Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 16.	Colombia C-28 ²⁴ .	Scadta Airplane Co.	Barraquilla via wayp'ts.	October 16.	Darien.	Leyland S. S. Line.	Port Limon, C. R.
October 16.	Anachucuna ²⁵ .	United Fruit Co.	Colon, R. P.	October 16.	I. V. Pearl ²⁷ .	J. S. Lawson.	Port Limon, C. R.
October 16.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.	October 16.	Pearl Marie ²⁷ .	G. I. Bryan.	Bluefields, Nicaragua.
October 17.	Coppename.	United Fruit Co.	New Orleans, La.	October 16.	Anachucuna ²⁵ .	United Fruit Co.	Colon, R. P.
October 17.	N. C. 143 M. ²⁴ .	Pan-American Airways	Managua via wayports.	October 16.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.
October 17.	No. 9137 ²⁴ .	Pan-American Airways	Curacao via wayports.	October 17.	No. 9685 ²⁴ .	Pan-American Airways	Managua via wayports.
October 17.	Camden.	United Fruit Co.	Curacao, D. W.	October 17.	Metapan.	United Fruit Co.	New York via wayports.
October 18.	Saramacca.	United Fruit & S. S. Co.	New Orleans via Habana.	October 17.	Colombia C-28 ²⁴ .	Scadta Airplane Co.	Barraquilla, Colombia.
October 18.	Cundinamarca C-33 ²⁴ .	United Fruit Co.	Port Limon, C. R.	October 18.	Anachucuna ²⁵ .	United Fruit Co.	Port Limon and Curacao.
October 18.	No. 9107 ²⁴ .	Pan-American Airways	Guayaquil via wayports.	October 18.	Coppename.	United Fruit Co.	Puerto Colombia.
October 18.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.	October 18.	Saramacca.	United Fruit Co.	New Orleans, La.
October 18.	Anachucuna ²⁵ .	United Fruit Co.	Colon, R. P.	October 18.	Cundinamarca C-33 ²⁴ .	Scadta Airplane Co.	Buenaventura via wayp'ts.
October 18.	Annetta I. ²⁵ .	A. Tagarapulos.	Colon, R. P.	October 19.	Amajala.	Stand. Fruit & S. S. Co.	New Orleans and wayp'ts.
October 19.	Wanks.	Stand. Fruit & S. S. Co.	San Blas, R. P.	October 19.	Manaquil.	United Fruit Co.	New York to Kingston.
October 19.	Grunevald.	Hamburg-American Line.	Port Limon, C. R.	October 19.	Annetta I. ²⁵ .	A. Tagarapulos.	Colon, R. P.
October 19.	Manaquil.	United Fruit Co.	New York via wayports.	October 19.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.
October 19.	El Panquiao ²⁶ .	Panaman Government.	Colon, R. P.	October 19.	El Panquiao ²⁶ .	Panaman Government.	Colon, R. P.
October 19.	No. 9685 ²⁴ .	Pan-American Airways	Managua via wayports.	October 19.	No. 9664 ²⁴ .	Pan-American Airways	Managua via wayports.
October 19.	Turrialba.	United Fruit Co.	New Orleans via Habana.				
²⁴ Air mail carrier.				²⁵ Motor boat.			
²⁶ Motor schooner.				²⁷ Motor schooner.			
²⁸ Motor ship.				²⁹ Motor schooner.			
				PORT OF BALBOA.			
October 14.	Real ²⁹ .	Hans Elliot.	Bayano River, R. P.	October 14.	Real ²⁹ .	Hans Elliot.	Panama Bay, R. P.
October 14.	Sambu ²⁹ .	Hans Elliot.	Bayano River, R. P.	October 14.	Sambu ²⁹ .	Hans Elliot.	Panama Bay, R. P.
October 17.	Heron.	Anglo-Saxon Petroleum Co.	Los Angeles, California.	October 17.	Caliche.	Anglo-Chilean Nitrate Corp.	Los Angeles, California.
October 18.	Cricamola ³⁰ .	United Fruit Co.	Panama Bay, R. P.				
³⁰ Motor schooner.				* Other than ships passing through the Canal.			
³¹ Motor ship.							

Cargo Through Canal During September, 1929.

On pages 174 and 175 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in September, 1929. This cargo, segregated according to direction, is shown in the following tabulation as compared with September, 1928.

	September, 1929.	September, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	746,289	709,654	+36,635
Pacific to Atlantic.....	1,686,494	1,603,357	+83,137
Totals.....	2,432,783	2,313,011	+119,772

As shown above, cargo tonnage from the Atlantic to the Pacific increased 36,635 tons over September, 1928, while that in the opposite direction gained 83,137 tons, making a total increase of 119,772 tons over the corresponding month a year ago.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-six and seven-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 24.5 per cent in Europe. Cargo originating in the United States was 21,000 tons, or 4.4 per cent, greater than the tonnage from the United States in September, 1928, although the proportion of the total tonnage in September, 1928, was greater (67.2 per cent). Cargo from Europe also gained slightly in actual tonnage—7,570 tons, or 4.3 per cent—while the proportion of the total cargo was slightly lower during the past month.

Destination.—Forty-three and six-tenths per cent of the Pacific-bound cargo was destined to the United States; 22.7 per cent to Asia; 16.5 per cent to South America; and 11.6 per cent to Australasia. Tonnage to the United States, Asia, and South America, increased 5,891 tons, or 1.8 per cent; 22,172 tons, or 15.1 per cent; and 36,131 tons, or 41.5 per cent, respectively, over the amounts destined to these areas in September, 1928. The percentages of the total cargo to Asia and South America were also higher last month than in September, 1928, while that to the United States was slightly lower last month. Tonnage to Australasia decreased 30,824 tons, or 26.2 per cent, under September, 1928. The proportion of the total cargo to this region also showed a marked decrease under September, 1928.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 55.4 per cent came from the west coast of the United States; 31.1 per cent from South America; 5.3 per cent from Asia; 4.9 per cent from Canada; and 2.5 per cent from Australasia. Cargo tonnage from South America and Asia showed relative as well as actual increases over September, 1928, of 76,653 tons, or 17.2 per cent, and 43,683 tons, or 94.4 per cent, respectively. Cargo tonnage from the United States, Canada, and Australasia, decreased relatively as well as actually in the amounts of 29,227 tons, or 3.0 per cent; 8,161 tons, or 9.0 per cent; and 4,386 tons, or 9.2 per cent, respectively, under the cargo tonnage from these areas in September, 1928.

Destination.—Segregated according to destination, 55.2 per cent of the cargo in this direction went to the United States, and 38.5 per

cent to Europe, these two destinations accounting for almost 94 per cent of the tonnage from the Pacific to the Atlantic during September, 1929. Tonnage to the United States increased 80,096 tons, or 9.4 per cent, over September, 1928, and that to Europe increased 57,157 tons, or 9.6 per cent. Cargo tonnage to both these areas also increased in their relation to the total cargo tonnage.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 86.5 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 13.5 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for September, 1929, or September, 1928, are listed in the following tabulations, showing differences:

Commodity.	September, 1929.	September, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia	15,488	9,929	+5,559
Asphalt	15,182	7,819	+7,363
Automobiles	18,466	24,303	-5,837
Cement	34,577	12,798	+21,779
Coal and coke	13,831	27,527	-13,696
Cotton	13,354	19,026	-5,672
Manufactured goods:			
Iron and steel	160,999	191,900	-30,901
Machinery	14,659	13,823	+836
Railroad material	8,748	44,924	-36,176
Tinplate	19,828	14,454	+5,374
Textiles	7,290	13,066	-5,776
Miscellaneous	15,832	10,436	+5,396
Metals, various	15,397	18,031	-2,634
Oils, mineral	56,485	39,148	+17,337
Paper	21,085	12,904	+8,181
Phosphates	18,127	9,206	+8,921
Sulphur	10,762	15,613	-4,851
Tobacco	12,888	12,521	+367

The above 18 commodity groups comprise 63.4 per cent of the cargo moving from the Atlantic to the Pacific. Nine of the items showed increases over September, 1929, and nine decreases. Shipments of cement and mineral oils showed the heaviest increases, while railroad material and manufactures of iron and steel decreased heavily.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of September, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	September, 1929.	September, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley	37,560	23,205	+14,355
Beans	20,352	10,128	+10,224
Canned goods (fish, fruit, vegetables, etc.)	94,987	87,610	+7,377
Cold storage (food products)	17,053	22,178	-5,125
Copra	10,955	8,563	+2,392
Fruit, dried	14,207	27,383	-13,176
Lumber	278,641	263,609	+15,032
Metals (principally copper)	50,835	51,664	-829
Nitrates	216,115	142,542	+73,573
Oils, mineral	430,222	455,509	-25,287
Ores (principally iron)	159,850	148,441	+11,409
Rice	18,185	15,298	+2,887
Sugar	70,336	49,391	+20,945
Wheat	85,656	137,592	-51,936

* Does not include fresh fruit.

The above 14 commodity groups comprise almost 90 per cent of the cargo from the Pacific to the Atlantic during September, 1929. As will be noted above, shipments of nitrates, increasing 73,573 tons over September, 1928, showed the heaviest increase of any of the commodities. The heaviest decrease was in wheat—51,936 tons. In the commodities shown above, there were 9 increases and 5 decreases as compared with September, 1928.

(Continued on next page.)

Panama-Pacific Line Disposes of "Mongolia."

The steamship *Mongolia* of the Panama-Pacific Line transited the Canal on October 9, 1929, en route from California to New York, via Habana, on her last voyage with the Panama-Pacific Line. On her arrival in New York the *Mongolia* will be turned over to the Dollar Steamship Line and, after extensive overhaul, is to be placed in the around-the-world service of the latter company as the *President Fillmore*.

The *Mongolia*, which has been operating in the intercoastal service of the Panama-Pacific Line since 1925, was built in 1904 at Camden, New Jersey, by the New York Shipbuilding Company. She is 600 feet long, 65 feet beam, and of 15,442 registered gross tons. She will be replaced in the Panama-Pacific Line service by the new turbo-electric liner *Pennsylvania*, which is due to arrive at the Canal on October 25.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 19, 1929.

No. 617.

GATUN LAKE ANCHORAGE.

On October 17, 1929, a mooring place was established along the north side of the Gatun Anchorage, Gatun Lake, for mooring up to ten Navy submarine salvage pontoons.

It consists of two unlighted buoys, about 740 feet apart; they are interconnected with a steel cable fitted with shackles for securing the pontoons.

Buoy No. 1 is located about 560' south of Transmission Line Tower No. 7-13 (on the P. R. R. right of way) in Latitude 9° 15' + 4,429 feet N., Longitude 79° 54' + 5,580 feet W.

Buoy No. 2 is located about 620' south of Transmission Line Tower No. 7-16 (on P. R. R. right-of-way) in Latitude 9° 15' + 4,536 feet N., Longitude 79° 54' + 5,838 feet W.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending October 12, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
City of San Francisco.	Panama Mail S. S. Co.	September 29.	September 29.		1
Acajutla.	Pacific Steam Nav. Co.	September 29.	September 29.	1	
La Brea.	Union Oil Co.	September 30.	October 1.	10,730	
Kuma Maru.	Nippon Yusen Kaisha.	October 1.	October 1.	131	
Venezuela.	Panama Mail S. S. Line.	October 1.	October 1.	64	10
Colombia.	Panama Mail S. S. Line.	October 1.	October 1.	79	1
Negada.	Hamburg-American Line.	October 3.	October 3.	599	
Anyo Maru.	Nippon Yusen Kaisha.	October 3.	October 3.	1	2
Santa Maria.	Grace Line.	October 3.	October 3.	4	
President Monroe.	Dollar Line.	October 4.	October 4.		1
Nitro.	U. S. Government.	October 4.	October 6.	48	1
Champerico.	Panama Mail S. S. Line.	October 5.	October 5.	5	
Caldas.	National Navigation Co.	October 5.	October 5.		8
Loreto.	Pacific Steam Nav. Co.	October 7.	October 7.		50
Bohemian Club.	Atlantic Refining Co.	October 7.	October 8.	1,040	
Frost.	Hans Ericson.	October 8.	October 9.	300	
Vego.	U. S. Government.	October 9.	October 9.	61	1
Bokuyo Maru.	Nippon Yusen Kaisha.	October 9.	October 9.	189	
Calcutta Maru.	Nippon Yusen Kaisha.	October 10.	October 10.	137	
Nosa Prince.	N. O. & S. A. S. Co.	October 10.	October 10.	1	

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, September, 1929.—Continued from page 173.
(Figures represent tons of 2,240 pounds.)

From—	SOUTH AMERICA.					NORTH AMERICA.							ASIA.					AUSTRALASIA.			Per cent of total cargo.		
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. ²	Total, Asia.	Australia.	New Zealand.	Australasia. ¹		Total, Australasia.	Grand totals.
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports.....	16,176.1	580	970	9,479	6,726	34,931	204,835	508				35,381	210,727	24,763	26,015	23,474	25,528	89,780	17,000	4,845	21,845	357,283	47.9
South Atlantic ports.....							5,161						5,161	3,904	2,288	879	1,433	8,504			13,665	1.8	
South Atlantic ports.....	2,134	400	196	1,171	161	4,062	51,683					136	51,819	97,975	15,813	3,050	8,434	65,272	5,810		5,810	126,963	17.0
Gulf ports.....																							
Totals, United States.....	18,310.1	980	1,166	10,650	6,887	38,993	261,679	508				35,517	267,707	66,642	44,116	17,403	35,395	163,556	22,810	4,845	27,655	497,911	66.7
EUROPE—																							
Cristobal, C. Z. ²	523.1	673	677	432	650	3,955	3,022	611	210	62		14,900						5,509	5,705	4,550	10,255	21,564	2.9
East coast of Canada.....								5,800				5,800											
West Indies.....					70																		
East coast of Central America.....	2,500					2,500	1,419	2,150				3,569							7,237		7,237	13,306	1.8
Totals, North America.....	21,333.3	1,653	1,843	11,082	7,607	45,518	266,720	5,806	13,868	65	5,517	291,976	72,151	44,116	17,403	35,395	169,065	35,752	9,395		45,147	551,706	74.0
EUROPE:																							
British Isles.....	24,026		60	831	3,440	28,357	12,521	3,155				15,676								41,490	85,523	11.5	
Belgium.....	2,437	595	47	294	1,978	5,851	15,106	799				15,905								21,756	2.9		
Denmark.....	1,127				728	1,855	8					8								1,853	0.3		
France.....	5,903		66	1,181	946	8,096	941	652	290			1,883								9,979	1.3		
Germany.....	1,834	318	150	125	744	3,171	8,726	5,500				14,226								17,397	2.3		
Holland.....	1,621	26	6	765	30	2,448	3,133	730				3,863								6,311	0.8		
Italy.....	192		14	811	1,017	946	58	73				1,077								2,117	0.3		
Norway and Sweden.....	3,235	850	15	221	2,456	6,777	6,710	214	1,511	786		9,221								15,998	2.1		
Spain and Portugal.....	7,693	210		558	11,394	19,855	1,826	179	17			661								746	0.1		
Europe ¹	48,568	1,999	344	3,989	22,612	77,512	50,382	5,787	7,391	786		64,346								21,681	2.9		
Totals, Europe.....																							
East coast of South America.....						124	7,870	3,218				11,088								41,490	183,371	24.5	
Grand totals.....	69,901	5,776	2,187	15,071	30,219	123,154	324,972	14,811	21,259	851	5,517	367,410	72,151	44,139	17,403	35,395	169,088	35,752	50,885		86,637	746,289	
Per cent of total cargo:																							
September, 1929.....	9.4	0.7	0.3	2.0	4.1	16.5	43.6	2.0	2.8	0.1	0.7	49.2	9.7	5.9	2.3	4.8	22.7	4.8	6.8		11.6	100.0	
September, 1928.....	4.8	1.1	0.6	1.8	4.0	12.3	44.9	2.3	2.0	0.3	0.9	50.4	12.0	3.8	1.8	3.1	20.7	5.7	7.9	3.0	16.6	100.0	
September, 1927.....	5.7	1.1	0.5	2.8	4.3	14.9	43.3	3.8	3.0	1.6	0.4	52.1	8.3	7.1	1.4	0.3	17.1	6.5	9.4		15.9	100.0	

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, September, 1929.

(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.										EUROPE.												Grand totals	Per cent of total cargo.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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	North Atlan- tic ports.		South Atlan- tic ports.		Gulf ports.		Total, United States.		East coast of Canada.		West Indies.		E. coast Cen. Amer.		Cristobal, C. Z. ²		Total, North America.		British Isles.		Belgium.				Denmark.		France.		Germany.		Holland.		Italy.		Norway and Sweden.		Spain and Portugal.		Europe. ¹		Total, Europe.		East coast of South America.		Egypt.		Africa.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	E. coast Cen. Amer.	Cristobal, C. Z. ²	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. ¹	Total, Europe.	East coast of South America.	Egypt.			Africa.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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¹ Includes both local and transit cargo.² General cargo not routed so as to allow aggregation between definite ports.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., October 30, 1929. No. 13.

Vaccination.

THE PANAMA CANAL HEALTH DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 26, 1929.

To all steamship company agents:

Reference is made to circular from this office addressed to all steamship agents, dated September 16, 1929, relative to smallpox and vaccination.

This office now feels that the possibility of becoming infected with smallpox in Panama is so remote that the restrictions suggested in paragraphs 3 and 4 of the circular, for passengers and members of the crews coming ashore, may be discontinued.

It is believed, however, that a continued enforcement of the provisions of the second paragraph of the circular referred to (that is, vaccination of all outgoing passengers), should be continued, irrespective of the presence of smallpox.

J. F. SILER,
Chief Health Officer.

Motor Ship "Oakland" Added to Hamburg-American Service.

The motor ship *Oakland* is due at Cristobal on November 2 on her maiden voyage from European ports to the west coast of the United States and Canada. This is the fifth of a group of sister motor ships to be placed in the European-North Pacific service of the Hamburg-American Line, the previous vessels having been the *San Francisco*, *Los Angeles*, *Seattle*, and *Portland*. Two others, the *Tacoma* and the *Vancouver*, are to be added to the fleet in the first half of 1930 and a regular fortnightly service will then be maintained.

The *Oakland* is 451 feet in length, with 59 foot beam, and of 7,000 gross tons. The normal speed is given as 15 knots, and her time from Cristobal to Los Angeles as 9 days and that from Cristobal to Europe as 16 days. The vessel has accommodations for 24 first-class and 24 third-class passengers. All of the new motor ships in this service have passenger accommodations and are equipped with refrigerated compartments for carrying perishable fruit from the Canal to California and from California ports to Europe.

"Pennsylvania" Makes Maiden Voyage.

The new turbo-electric passenger liner *Pennsylvania* of the Panama-Pacific Line transited the Canal October 25, 1929, en route from New York and Habana to San Diego, Los Angeles, and San Francisco, California. The new vessel is the third of its class to be placed in this service by the Panama-Pacific Line.

It is 586.4 feet long, 80.3 feet beam, and at the time of transit had a draft of 27 feet.

CANAL WORK IN SEPTEMBER, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of September, 1929.

BALBOA HEIGHTS, C. Z., October 19, 1929.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of September, 1929:

NUMBER OF TRANSITS.

During the month 523 commercial vessels and 11 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 33 vessels belonging to the United States Government and 3 transits of a Panaman Government vessel on which no tolls were collected, making a total of 570 transits for the month, or a daily average of 19.

Tolls on the 523 commercial vessels amounted to \$2,201,789.40, and on the launches to \$43.89, a total of \$2,201,833.29, or a daily average on all traffic of \$73,394.44. Total commercial traffic for the past month decreased 18 transits and \$125,648.46 in tolls as compared with the previous month. As compared with September, 1928, last month's traffic showed an increase of 36 transits and \$90,558.84 in tolls.

The total number of craft of all kinds transiting the Canal during the month of September, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	September, 1929.	September, 1928.	September, 1927.
Commercial vessels.....	523	487	511
Launches (under 20 tons measurement).....	11	11	9
Noncommercial vessels:			
United States Government.....	33	17	23
Panaman Government.....	3	2	1
Colombian Government.....		1	1
For repairs.....		3	2
Totals.....	570	521	581

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun.....	4	4	8
Pedro Miguel.....	23	27	50
Miraflores.....	21	26	47
Totals.....	48	57	105

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1929, to the end of September, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January...	540	603	2,422,770	2,771,200	2,372,061	2,853,835	\$2,212,752.50	\$2,502,815.12
February...	547	522	2,460,111	2,428,530	2,650,425	2,550,498	2,253,755.37	2,211,961.20
March...	542	536	2,441,077	2,567,961	2,488,662	2,743,768	2,223,370.57	2,343,865.55
April.....	531	540	2,384,491	2,438,176	2,473,854	2,719,668	2,187,607.82	2,281,087.27
May.....	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
June.....	481	503	2,227,855	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
July.....	509	527	2,318,395	2,468,200	2,291,955	2,593,162	2,109,083.19	2,259,582.37
August...	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September.	487	523	2,295,053	2,435,261	2,313,011	2,432,733	2,111,230.56	2,201,789.40
Totals...	4,671	4,819	21,261,620	22,557,563	21,602,487	23,545,285	19,432,050.24	20,552,891.31

¹ Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for September, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the fiscal year ended June 30, 1929:

	September, 1929.	September, 1928.	September, 1927.	Average per month for fiscal year 1929.
Number of transits.....	523	487	540	534
Panama Canal net tonnage.....	2,425,261	2,295,053	2,532,942	2,486,483
United States net tonnage.....	1,852,540	1,771,095	1,934,417	1,899,487
Registered gross tonnage.....	3,058,032	2,909,454	3,224,661	3,122,066
Registered net tonnage.....	1,861,671	1,777,124	1,978,821	1,908,360
Tolls.....	\$2,201,789.40	\$2,111,230.56	\$2,294,432.34	\$2,260,614.74
Tons of cargo.....	2,432,783	2,313,011	2,397,753	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1929.
	September, 1929.	September, 1928.	September, 1927.	
Number of transits.....	17.43	16.23	18.00	17.57
Panama Canal net tonnage.....	80,842	76,502	84,431	81,747
Tolls.....	\$73,392.98	\$70,374.35	\$76,431.03	\$74,321.58
Tons of cargo carried.....	81,093	77,101	70,925	84,008

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of September, 1929, as compared with September, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	September, 1929.	September, 1928.	September, 1927.
Panama Canal net tonnage.....	4,637	4,712	4,691
United States net tonnage.....	3,542	3,636	3,675
Registered gross tonnage.....	5,847	5,974	5,972
Registered net tonnage.....	3,560	3,650	3,664
Tolls.....	\$4,209.92	\$4,335.18	\$4,428.95
Tons of cargo (including vessels in ballast).....	4,652	4,750	4,440
Tons of cargo (laden vessels only).....	5,658	5,683	5,920

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.938 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.719 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of September, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and \$10 ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$17,543.75	\$16,597.00		\$951.75
British.....	572,226.14	598,712.50	\$26,486.36	
Chilean.....	13,629.96	14,044.80	1,014.84	
Colombian.....	2,994.60	2,533.03		461.60
Danish.....	29,117.50	29,364.20	246.70	
Danzig.....	17,268.88	15,413.40		1,855.48
Dutch.....	39,843.75	49,226.00	9,382.25	
French.....	32,760.00	33,635.00	875.00	
German.....	101,679.44	113,773.20	12,093.76	
Greek.....	14,576.25	17,194.03	2,617.75	
Italian.....	28,577.75	33,766.40	5,203.65	
Japanese.....	55,741.80	53,946.00		1,795.80
Norwegian.....	147,555.22	152,029.20	4,473.98	
Panamanian.....	7,215.00	7,928.00	713.00	
Swedish.....	28,468.03	26,908.80		1,559.23
United States.....	1,066,773.31	1,089,003.40	22,230.09	
Yugoslav.....	25,808.02	25,934.60	126.58	
Totals.....	2,201,789.40	2,280,634.50	85,468.96	6,623.86
Net increase for all traffic.....			78,845.10	

* Includes \$2,337.50 collected for naval vessel at \$0.50 per displacement ton.

* Includes \$9,860.00 collected for naval vessel at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$16,932.44
United States foreign trade.....	4,193.65
United States—Canal Zone trade.....	1,099.00
Net increase.....	22,230.09

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in September, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....	1.85	1.58	1.66
British.....	.84	1.32	1.10
Chilean.....	.42	.74	.63
Colombian.....	.63	.95	.81
Danish.....	1.28	1.70	1.49
Danzig.....		1.89	1.89
Dutch.....	.48	1.51	.92
French.....	.35	1.50	1.19
German.....	.76	1.37	1.15
Greek.....	1.45	1.85	1.74
Italian.....	.21	.74	.47
Japanese.....	1.36	1.25	1.30
Norwegian.....	.59	1.65	1.04
Panamanian.....	1.33	1.78	1.62
Swedish.....	1.26	4.91	3.61
United States.....	.86	1.52	1.23
Yugoslav.....	1.50	1.85	1.64
Averages, September, 1929.....	.83	1.48	1.21
Averages, September, 1928.....	.85	1.49	1.20
Averages, September, 1927.....	.76	1.61	1.26

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of September, 1929, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	2	8,547	\$9,507.50	47	257,942	\$263,577.90
Ballast.....	50	273,836	197,500.33	2	9,422	6,733.84
General cargo ships:						
Laden.....	190	887,463	821,393.55	191	879,249	812,926.70
Ballast.....	23	106,887	76,892.77	2	1,003	725.76
Noncargo-carrying ships:						
Naval vessels.....				3		12,197.50
Yachts.....	1	86	62.25			
Whalers.....	12	821	221.25			
Totals.....	278	1,277,640	1,105,577.70	245	1,147,621	1,096,211.70
Method of propulsion:						
Steam.....	214	981,336	867,641.94	195	920,269	885,204.89
Motor.....	64	296,254	237,935.76	50	227,352	211,006.81
Totals.....	278	1,277,640	1,105,577.70	245	1,147,621	1,096,211.70

Of the 409 steam-driven vessels, 293 were oil burning, 106 coal burning, and 10 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of September, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers.....				11	8,150	\$4,075.00
Gunboats.....	12	3,012	\$1,506.00	11	1,537	1,793.50
Launches.....	11	10	7.50			
Mine sweepers.....	11	950	475.00	11	950	475.00
Submarines.....	15	4,336	2,168.00	14	3,460	1,730.00
Survey ships.....	12	5,200	2,600.00	12	5,200	2,600.00
Tankers.....	11	6,424	7,708.80			
Transports.....	11	3,992	4,990.00			
Tugs.....				11	1,000	500.00
U. S. Army vessels:						
Cable ships.....				11	2,042	1,531.50
Launches.....	12	20	15.00			
Transports.....	11	3,903	4,885.00	13	11,724	14,655.00
Tugs.....	11	46	34.50	12	92	69.00
Totals, U. S. Government.....	17		24,339.80	16		26,429.00
Panama Government vessels:						
Transports.....	12	202	145.44	11	101	72.72
Grand totals.....	19		24,535.24	17		26,501.72

¹ Indicates displacement tonnage. ² Indicates Panama Canal net tonnage. ³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of September, 1929, carried cargo as follows: Atlantic to Pacific, 1,200 tons; Pacific to Atlantic, 529 tons; total, 1,729 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of September, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	7	33	\$27.00
Pacific to Atlantic.....	4	23	16.89
Totals.....	11	56	43.89

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of September, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons	42,566	45,751	88,317
Local cargo shipped..... tons	10,016	1,358	11,374
Transit cargo arriving..... tons	2,443,616	2,445,090	4,888,706
Transit cargo clearing..... tons	2,419,649	2,463,940	4,883,589
Cargo received for transshipment..... tons	27,970	326	28,296
Cargo transhipped..... tons	30,690	154	30,844
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	88	21	109
Number of withdrawals.....	493	135	628
Tons received.....	2,769	113	2,882
Tons withdrawn.....	1,920	103	2,023
Packages received.....	8,268	3,039	11,357
Packages withdrawn.....	6,509	1,021	7,530
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	65	1	66
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons	19,426	30	19,456
Coal issued, miscellaneous:			
Panama Canal departments..... tons	71	17	88
United States Army, including vessels..... tons	21	51	72
Individuals and companies..... tons	153		153
Transferred to Navy..... tons	98		98
Total sales and issues..... tons	19,769	98	19,867
Coal on hand September 1, 1929..... tons	43,621		43,621
Coal on hand October 1, 1929..... tons	23,852		23,852
Coal received from Navy..... tons		98	98
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls.	5,456.07	19,542.26	24,998.33
Panama Railroad Company..... bbls.	111.68		111.68
U. S. Army and Navy..... bbls.	584.70	100.22	684.92
Individuals and companies..... bbls.		136.14	136.14
Total sales and issues..... bbls.	6,152.45	19,778.62	25,931.07
Fuel oil on hand October 1, 1929..... bbls.	74,724.23	23,643.98	98,368.21
Discol oil issued and sold during September, 1929..... bbls.	368.68	3,352.28	3,720.96
Discol oil on hand, October 1, 1929..... bbls.	15,794.72	36,793.57	52,588.29
Miscellaneous transfers..... bbls.	659.34	15,633.26	16,292.60
Gasoline and kerosene pumped for The Panama Canal..... bbls.	2,095.96	3,486.22	5,582.18
Gasoline pumped for individuals and companies..... bbls.	639.01	5,815.92	6,454.93
Oil pumped for individuals and companies..... bbls.	564,600.75	363,417.08	928,017.83
Oil pumped for U. S. Shipping Board..... bbls.		2,262.88	2,262.88
Oil pumped for U. S. Navy..... bbls.	1,352.09	4,228.00	5,580.00
Total fuel oil, gasoline and kerosene handled..... bbls.	575,868.19	417,974.26	993,842.45
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	34	6	40
Measured for Panama Canal net tonnage.....	13		13
Re-measured for Panama Canal net tonnage.....	21	4	25
Panama Canal net tonnage corrected.....	4	5	9
U. S. equivalent tonnage corrected.....	12	11	23
Services of harbor equipment:			
Tugs, total operating hours.....	449½	299½	749½
Launches, total operating hours.....	1,437½	1,729	3,166½
Revenue from tug service, pilotage, etc:			
Tug revenue.....	\$13,293.75	\$9,375.00	\$22,668.75
Pilotage.....	18,496.00	6,858.00	25,354.00
Seamen.....	12,356.00	11,348.00	23,704.00
Launch service.....	1,950.50	3,100.50	5,051.00
Wharfage.....	15,153.31	4,956.39	20,109.70
Ships measured.....	385.00		385.00
Miscellaneous.....	2,043.05	553.50	2,601.55
Ships repaired at Panama Canal shops:			
Commercial.....	49	6	55
U. S. Army and Navy.....	4	4	8
Panama Canal equipment.....	4	12	16
Totals.....	57	22	79

	Cristobal.	Balboa.	Total.
Vessel's dry-docked:			
Commercial	7		7
U. S. Army and Navy	2	1	3
Panama Canal equipment		1	1
Tota's	9	2	11
Clearance's issued	311	231	592
Bills of health issued	325	232	607

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Palboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessel's, including those transiting Canal.	634	3,497,419	2,128,198	563	3,215,333	1,974,380
Vessel's entering port but not transiting Canal.	99	356,734	213,333	8	40,765	27,779
Vessel's transiting Canal and handling passengers and cargo at terminal ports	95	661,191	402,223	90	533,974	377,309
<i>Ships clearing.</i>						
All vessel's, including those transiting Canal.	635	3,486,909	2,121,989	561	3,229,147	1,986,937
Vessel's clearing port but not transiting Canal.	100	367,825	221,330	6	29,332	20,699
Vessel's transiting Canal and handling passengers and cargo at terminal ports	100	677,418	407,451	91	590,085	381,689

* Includes 31 airplanes of 157 gross tons.

* Includes 23 airplanes of 140 gross tons.

* Includes 6 airplanes (tonnage not included).

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
<i>Disembarking:</i>						
From Atlantic ports	1,594	1,200	2,794	83	360	443
From Pacific ports	169	134	303	195	171	366
Total disembarking	1,763	1,334	3,097	278	531	809
<i>Embarking:</i>						
For Atlantic ports	1,411	790	2,201	78	69	146
For Pacific ports	235	149	434	267	287	554
Total embarking	1,696	939	2,635	345	355	700
<i>Remaining on board:</i>						
From Atlantic to Pacific ports	1,359	3,571	4,930	1,571	3,360	4,931
From Pacific to Atlantic ports	1,149	845	1,994	1,240	911	2,151
From Atlantic to Atlantic ports	605	487	1,092			
From Pacific to Pacific ports						
Total remaining on board	3,123	4,903	8,026	2,811	4,271	7,082
Total arriving	4,886	6,237	11,123	3,039	4,802	7,891
Total departing	4,819	5,842	10,661	3,156	4,626	7,782

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	278	45	16.2
Pacific to Atlantic	245	46	18.8
Totals	523	91	17.4

In addition to the aforesaid, 90 passenger-carrying vessels called at the port of Cristobal and 1 at Balboa without transiting the Canal, making a total of 182 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of September, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$3,034.71	\$11,826.65	\$38,897.82	\$126.46	\$7,071.49	\$60,957.13
Government vessels.....	132.75	931.34	6,326.44	186.92	421.59	7,999.04
P. R. R. vessels.....	5.40	184.68	1,858.95	754.28	40.40	2,843.71
Total sales, September 1929.	3,172.86	12,942.67	47,032.21	1,067.66	7,533.48	71,799.88
Total sales, September 1928.	2,621.47	11,753.13	34,872.43	991.68	6,872.80	57,111.51
Total sales, September 1927..	2,517.59	10,636.49	29,203.69	1,367.43	5,295.76	49,025.96
Sales at Balboa to:						
Commercial vessels.....	824.20	9,579.44	12,488.97	332.02	3,886.32	27,160.95
Government vessels.....	365.70	1,718.84	9,625.99	212.76	896.54	12,819.83
P. R. R. vessels.....				35.13		35.13
Total sales, September 1929.	1,189.90	11,293.28	22,114.96	629.91	4,782.86	40,015.91
Total sales, September 1928..	1,518.80	11,893.34	37,534.14	1,342.33	5,917.72	58,206.33
Total sales, September 1927..	2,056.47	12,880.50	33,180.92	864.95	4,238.62	53,221.46

The aggregate sales to Government vessels during the month was \$20,818.87; to Panama Railroad vessels, \$2,878.84; and to other commercial vessels, \$88,118.08, making the total sales to all vessels, \$111,815.79.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of September, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.*			Sept. 1929.	Sept. 1928.	Sept. 1927.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	238	249	487	10	10	20	507	475	536
Pedro Miguel.....	240	258	498	19	18	37	535	499	558
Miraflores.....	239	258	497	15	18	33	530	493	551
Number of vessels put through locks.*									
Gatun.....	245	273	523	30	30	60	583	543	623
Pedro Miguel.....	245	279	524	50	43	93	622	579	631
Miraflores.....	245	279	524	43	47	95	619	577	628

* Includes tolls-paying craft under 20 tons measurement.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	36	40	39
Panama Canal equipment.....	8	50	47
Launches under 20 tons.....	13	5	6
Panaman Government vessels.....	3	3	3

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in September, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
Lockages.....	Cubic feet. 2,043,300,000	Cubic feet. 1,691,940,000	Cubic feet. 1,567,130,000
Maintenance.....	30,000,000	9,000,000	40,000,000
Leakage.....			5,650,000
Totals, September, 1929.....	2,073,300,000	1,700,940,000	1,612,780,000
Totals, August, 1929.....	2,117,870,000	1,707,630,000	1,651,350,000
Totals, September, 1928.....	1,917,410,000	1,587,400,000	1,524,900,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of September, 1929, are shown in comparative form in the following tabulation:

	September.		September—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
Discharge of Chagres River at Alhajuela.....	<i>C. f. s.</i> 2,389	<i>C. f. s.</i> 3,416	<i>C. f. s.</i> 5,022	<i>C. f. s.</i> 1,722	<i>C. f. s.</i> 3,186
Maximum momentary discharge for the month.....	9,375	26,150	33,600	1,130	.....
Gatun Lake watershed, total yield.....	8,543	8,949	11,946	6,543	8,976
Gatun Lake watershed, net yield.....	5,945	8,365	11,233	5,945	8,394
Draft on Gatun Lake for lockages and power.....	2,917	2,732	2,917	1,191	2,290

* September 6, 1917.

* September, 1914, not included.

The discharge of the Chagres River at Alhajuela was 25 per cent below the September average, or 2,389 c. f. s. compared with a 28-year average of 3,186 c. f. s. The maximum momentary discharge for the month was 9,375 c. f. s. at elevation 96.85, on the 5th, and the minimum 1,511 c. f. s. at elevation 92.71 on the 23d.

The total yield of the Gatun Lake watershed was 27 per cent below the 16-year September average, or 6,543 c. f. s. compared with an average of 8,976 c. f. s. It was the lowest September yield on record. Maximum and minimum total yields of record for September are 11,946 c. f. s. in 1917 and 6,548 c. f. s. in 1929, respectively. The lake varied from 85.45 feet elevation on the 12th to 86.08 feet on the 30th, and ended at elevation 86.01 feet.

Miraflores Lake varied from elevation 52.94 feet on the 9th to 54.58 feet on the 11th, averaged 53.64 feet, and ended at elevation 53.98 feet.

SEISMOLOGY.

One seismic disturbance was recorded during the month, on the 17th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,945,400 kilowatt hours, and the computed water consumption was 3,824,806,511 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 1,700 kilowatt hours, and the fuel oil consumption was 14.03 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 43 vessels during the month. There were 427 work orders issued during the month, as compared with 405 for the previous month.

MECHANICAL DIVISION.

During the month of September, 1929, miscellaneous repairs were made on 57 vessels at Cristobal and 22 at Balboa. Nine vessels were dry docked at Cristobal and 2 at Balboa. The annual overhaul of the United States Navy's submarine *S-11* was started, and that on the submarines *S-12* and *S-15* was carried forward during the month. General overhaul of the United States Army's mineplanter *Graham* was completed during the month, and the work on the *L-55* partially completed. General overhaul of the Panama Canal tug *Favorite* was continued during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. Sixteen thousand cubic yards of material were moved and 7 culverts constructed in connection with the grading of the new Madden Road. At the site of the Madden Dam the operation of diamond drills was continued throughout September.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 672,191,250 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during the month with an average movement of 1.5 feet toward the Canal between stations 1771-00 and 1795-00 W. The reference points over this slide also showed a movement toward the Canal from 0.7 to 1.7 feet. A slight surface movement occurred between stations 1760-00 and 1770-00 W.

There was a slight surface movement at Cucaracha Signal Station slide during the month, the soft upper portion sliding over the rock, some cracking of the hard lower portions also being noted.

On September 27th the high bank at the north end of Southwest La Pita slide, between stations 1670-00 and 1672-00 W. broke, falling to the 95-foot berm. A small amount of material entered the prism.

A slight surface movement in front of the central portion of South Cucaracha slide occurred during September. The channel was not affected. A slight general movement toward the Canal of West Lirio slide also occurred during the month.

There was no interference with shipping on account of slides during September.

The total excavation during September, 1929, was 449,200 cubic yards as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Southwest La Pita slide.....	350	1,250	1,600
Maintenance.....	31,050	46,600	77,650
Canal prism, Pacific entrance—			
Project No. 1.....		65,000	65,000
Project No. 1 (extension).....	122,000		122,000
Maintenance.....	8,000	8,150	16,150
Balboa inner harbor—			
Project No. 1.....			
Maintenance.....			
Plant excavation:			
Albrook Field.....	165,800		165,800
Dredging sand at Chame.....	1,000		1,000
Totals.....	328,200	121,000	449,200

The ferry crossing at the north end of Pedro Miguel locks operated 30 days during the month. Five hundred and ten trips were made, and 49 Panama Canal, 18 U. S. Army, and 4,231 other vehicles, a total of 4,298, were ferried across the Canal.

MADDEN DAM PROJECT.

Studies of the relative merits of dam sites No. 1 and No. 5 were continued. A method of ascertaining the silt content of the Chagres River was adopted. A stream-gauging program was outlined, and removal of the present Alhajucla gauging equipment to a new site approved. Stream gauging will start about January 1, 1930.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on September 30, 1929, was 22,016, composed of 7,715 Americans, 2,802 of whom were men, 2,301 women, and 2,612 children; 237 Europeans, 91 of whom were men, 38 women, and 108 children; and 14,064 West Indians, 4,147 of whom were men, 2,612 women, and 7,305 children. The total number of persons in quarters on September 30, 1928, was 21,656.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of September 18, 1929, with a comparison of the working force for the preceding month and for September, 1928:

	As of September, 18, 1929.			Total employees.	
	Gold.	Silver.	Total.	August, 1929.	September, 1928.
Operation and Maintenance:					
Offices.....	45	59	104	108	98
Electrical.....	153	158	311	333	313
Municipal Engineering.....	87	770	857	1,657	776
Lock Operation.....	245	712	957	955	910
Dredging.....	193	1,058	1,251	1,251	1,085
Madden Project.....	28	768	796		
Mechanical.....	506	946	1,452	1,473	1,315
Marine.....	209	699	908	834	937
Fortifications.....	26	271	297	334	374
Totals.....	1,492	5,441	6,933	6,945	5,808

	As of September 18, 1929.			Total employees.	
	Gold.	Silver.	Total.	Aug st, 1929.	September, 1928.
Supply Department:					
Quartermaster.....	211	2,101	2,312	2,212	1,985
Commissary.....	234	1,285	1,519	1,522	1,392
Cattle Industry—Plantations.....	3	114	117	179	131
Hotel Tivoli.....	9	104	113	109	109
Hotel Washington.....	9	99	108	105	102
Transportation.....	68	222	290	284	263
Totals.....	534	3,925	4,459	4,411	3,982
Accounting Department.....	197	6	203	211	202
Health Department.....	298	984	1,282	1,144	1,154
Executive Department.....	516	319	835	837	782
Totals.....	1,011	1,309	2,320	2,192	2,138
Panama Railroad Company:					
Superintendent.....	50	293	243	350	319
Transportation.....	63	127	190	184	184
Receiving and Forwarding Agency.....	99	1,684	1,783	1,322	1,447
Coaling Stations.....	49	243	292	279	313
Totals.....	261	2,347	2,608	2,135	2,263
Grand totals, September, 1929.....	3,298	13,022	16,320		
Grand totals, August, 1929.....	3,290	12,393		15,683	
Grand totals, September, 1928.....	3,090	11,101			14,191

Additions to the gold force on the Isthmus in September were as follows: Employed in the United States, 8; reemployed in the United States, 3; employed on the Isthmus, 32; reemployed on the Isthmus, 9; total, 52. Separations from the gold force totaled 44, as follows: Resigned, 32; discharged, 10; retired, 1; died, 1. At the end of the month there were on file 356 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 210 deaths occurred during the month of September, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 19.07 per 1,000 population. The leading causes of death were: Tuberculosis (respiratory), 29; diarrhea and enteritis, 23; pneumonia (broncho and lobar), 27; nephritis (acute and chronic), 19; and organic diseases of the heart, 11. There were 13 deaths from cancer, 10 from syphilis, 1 from smallpox, 1 from diphtheria, and 1 from dysentery. There were 29 deaths among nonresidents. These are not included in the above statistics.

There were 318 live births, and 11 stillbirths reported during the month. This is equivalent to an annual birth rate of 28.88 per 1,000 population. Deaths among children under 1 year of age numbered 50, giving an infant mortality rate based on the number of live births reported, of 157.23.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during the month of September, 1929, was 83, of which 24 were employees (3 white and 21 colored), 15 were families of employees (4 white and 11 colored), 6 were Canal Zone agriculturists, 12 were other civilian nonemployees, and 26 were Army and Navy personnel.

There was one death from malaria among residents—the child of a Zone farmer.

The epidemic of a mild form of smallpox reported last month reached its peak during the month of September, and the number of cases is now decreasing rapidly. A general vaccination campaign will be completed within the next two weeks. It is estimated that at the end of September more than 90 per cent of the population of the Canal Zone and the two terminal cities had been vaccinated. During the month 256 cases occurred, as follows: 233 from Panama City, 6 from Colon, 4 from the Canal Zone, and 13 from the interior of Panama. The disease has occurred in epidemic form only in Panama City, the cases in Colon and in the Canal Zone being of a sporadic nature only. One death has occurred which statistically is attributed to smallpox; the immediate cause of death was a concurrent lobar pneumonia.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled \$673,158.84, of which \$608,464.39 was for the

Department of Operation and Maintenance and \$64,694.45 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to \$37,576.34.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of August, 1929, as compared with August, 1928, with the figures for the first two months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of September at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	August, 1929.	August, 1928.	To end of Augus..	
			This year.	Last year.
Tolls	\$2,327,477.01	\$2,199,111.70	\$4,587,058.88	\$4,306,444.49
Other receipts	351,922.88	325,592.53	717,931.31	619,343.08
Total transit revenues	2,679,399.89	2,524,704.23	5,304,990.19	4,925,787.57
Total transit expenses	1,030,911.94	1,059,646.07	2,178,848.46	2,112,951.77
Net transit revenues	1,598,487.95	1,465,058.16	3,126,141.73	2,812,835.80
Three per cent capital charge	620,655.94	614,967.80	1,240,761.32	1,230,777.54
Transit surplus	977,832.01	850,090.36	1,885,380.41	1,582,058.26
Business revenues	1,470,541.90	1,227,993.87	3,245,897.18	2,503,024.87
Business expenses	1,397,153.92	1,199,666.83	3,070,375.15	2,393,190.65
Net business revenues	73,387.98	28,332.04	175,522.03	109,834.22
Three per cent capital charge	61,603.90	60,191.87	123,123.49	120,294.66
Business surplus or deficit	11,779.08	31,859.83	52,398.54	10,460.44
Combined revenues	4,149,941.79	3,752,703.10	8,550,887.37	7,428,812.44
Combined expenses	2,478,065.86	2,259,312.90	5,249,223.61	4,506,142.42
Net revenues	1,671,875.93	1,493,390.20	3,301,663.76	2,922,670.02
Three per cent capital charge	682,264.84	675,159.67	1,363,889.81	1,351,072.20
Combined surplus	989,611.09	818,230.53	1,937,773.95	1,571,597.82

* Denotes deficit.

Respectfully,

H. BURGESS,
Governor.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective October 30, 1929.

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	\$0.24
Brass, sheet, average	Lb.	.31
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.15
Metal, yellow	Lb.	.26
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Calza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.36
Oil, engine, gas, extra heavy, in c.s.s., Gulftriton No. 2250	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.13
Oil, marine engine	Gal.	.53
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.10
Paint, zinc oxide, in oil	Lb.	.11
Grease, gear, chain and wire rope, lubricating	Lb.	.05
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.16

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 30, 1929.

No. 622.

WEST COAST, NICARAGUA

The U. S. S. *Rochester* reports that, on September 25, 1929, a fixed white light, consisting of 440-watt light, was established near the tip of the dome, about 14 feet above the clock lights, on the Corinto church spire.

Approximate position: Latitude 12° 28' 15" N., longitude 87° 11' 20" W.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 30, 1929.

No. 623.

PANAMA CANAL, ATLANTIC ENTRANCE, BUOY LOST.

The gas and whistling buoy on the prolongation of the axis of the main entrance of the Panama Canal 6.2 miles from Cristobal Harbor, East Breakwater Light, bearing 178° 15' was lost on the night of October 29. The first-class spar buoy which was placed near the gas and whistling buoy as a marker was also lost on the same night.

Position: Latitude 9° 29' 34" N., Longitude 79° 55' 18" W.

The date of replacement of the above buoy is unknown.

H. BURGESS,
Governor.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Balboa, C. Z., for Two Weeks Ending October 26, 1929.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Durazzo.....	Hamburg-American Line.....	October 13.....	October 13.....	1	.....
H. M. Storey.....	Standard Oil Co.....	October 13.....	October 13.....	15,200	.....
City of Panama.....	Panama Mail S. S. Co.....	October 14.....	October 14.....	3	.....
Santa Cecilia.....	W. R. Grace Co.....	October 14.....	October 14.....	.....	1
Ecuador.....	Panama Mail S. S. Co.....	October 14.....	October 16.....	64	4
Cambrai.....	U. S. Army.....	October 14.....	October 16.....	908	124
Guatemala.....	Panama Mail S. S. Co.....	October 16.....	October 17.....	71	1
Ballena.....	Pacific Steam Nav. Co.....	October 16.....	October 16.....	.....	25
Breda.....	Dutch Line.....	October 16.....	October 16.....	106	1
Cauca.....	National Navigation Co.....	October 17.....	October 17.....	.....	2
Santa Elisa.....	Grace Line.....	October 17.....	October 17.....	1	.....
Heron.....	Anglo-Saxon Petroleum Co.....	October 17.....	October 20.....	7,319	.....
Maple Branch.....	F. & W. Ritson.....	October 18.....	October 18.....	.....	1
President Wilson.....	Dollar Line.....	October 18.....	October 18.....	8	12
Tai Yin.....	Wilh. Wilhelmsen.....	October 19.....	October 20.....	5	.....
City of Panama.....	Panama Mail S. S. Co.....	October 19.....	October 19.....	.....	1
Kako Maru.....	Nippon Yusen Kaisha.....	October 20.....	October 20.....	147	.....
Hamburg Maru.....	Osaka Shosen Kaisha.....	October 20.....	October 20.....	46	.....
Chateau Thierry.....	U. S. Army.....	October 21.....	October 22.....	248	66
Dayanger.....	Westfal, Larsen & Co.....	October 22.....	October 24.....	9,300	.....
Sirius.....	U. S. Government.....	October 22.....	October 24.....	30	15
Orazio.....	Italian Line.....	October 23.....	October 25.....	12	.....
Missoula.....	Hammond Lumber Co.....	October 24.....	(*)	5,726	.....
Santa Inez.....	Grace Line.....	October 25.....	October 25.....	1	15
Pennsylvania.....	Panama-Pacific Line.....	October 25.....	October 25.....	.....	116
Kenowis.....	U. S. Government.....	October 25.....	October 26.....	832	93
Caldas.....	National Navigation Co.....	October 26.....	October 26.....	.....	1
Taketcy Maru.....	Nippon Yusen Kaisha.....	October 26.....	October 26.....	161	.....
Axel Johnson.....	Johnson Line.....	October 26.....	October 27.....	7	.....

* In port.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 26, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Com. leted transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Willowpark.	19	6:30	20	6:01	20	13:07	20	14:30	British.	Munson S. S. Line.	280.0	42.0	11.6	Tampa, Fla.	Puntarenas, C. R.	Ballast.	2,925	2,168	1,331
Redire.	19	14:20	20	6:20	20	13:45	20	14:30	Italian.	Nav. Libera-Trisina	430.0	55.0	19.0	Trieste, Italy	Vancouver, B. C.	General.	8,763	7,795	6,041
Invincible.	20	03:15	20	7:25	20	13:02	20	18:30	American.	Tampa Intercean Co.	400.0	56.0	25.0	Mobile, Ala.	Manila, P. I.	General.	7,889	6,329	4,723
Pacific.	20	1:30	20	7:45	20	13:42	20	20:27	American.	Argonaut S. S. Co.	403.0	56.0	24.0	Baltimore, Md.	Portland, Oreg.	General, steel.	7,210	6,112	4,284
Fenicia.	20	1:50	20	8:35	20	13:53	21	00:18	Norwegian.	Fern Line.	332.0	53.6	25.0	Pt. Tampa, Fla.	Shanghai, China.	Phosphate, gen.	5,340	9,037	6,517
City of																			
Koubaix.	20	7:50	20	9:00	20	16:45	20	21:15	British.	Ellerman Hall Line.	456.0	58.0	26.6	New York, N. Y.	Fremantle, Aust'la	General.	3,311	1,633	1,041
Lake Ormice.	20	2:15	20	9:45	20	17:28	20	18:30	American.	Ford Motor Co.	226.0	43.0	17.0	Chicago, Pa.	Portland, Oreg.	Motor parts, gen.	4,200	12,872	9,577
Durazzo.	13	19:45	20	10:05	20	17:31	20	18:30	German.	Hamburg-Amer. Line	500.0	63.0	28.7	Cristobal, C. Z.	Guayquil, Ecuador	General.	7,333	5,133	3,183
Imie.	20	7:25	20	12:45	20	19:55	20	21:15	British.	Shaw, Savill & Albion.	500.0	63.0	28.7	London, England.	Wellington, N. Z.	General.	7,333	5,133	3,183
Capt. C. S.																			
Crowl.			20		20	11:03			American.	U. S. Army.				Cristobal, C. Z.	Catun, C. Z.	Ballast.			
Samuel Q.																			
Brown.	20	17:20	20	17:40	21	11:14	21	12:30	American.	Tidewater Oil Co.	424.4	58.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	2,818	3,984	2,628
Marsodak.	21	5:50	21	6:20	21	13:10	21	14:45	American.	Nelson Line.	324.0	46.0	19.0	Baltimore, Md.	Seattle, Wash.	Steel pipe, gen.	1	1,919	875
Parana.	21	9:10	21	9:25	21	16:33	21	17:40	British.	Royal Mail S. P. Co.	375.3	48.0	16.7	Berry, England.	Seattle, Wash.	Ballast.			
All America.	20	5:30	21	11:03	21	17:25			American.	All America Cables.	290.0	37.0	15.6	Guantanamo, Cuba	Balboa, C. Z.	Cable.			
Hindanger.	21	12:05	21	14:40	22	9:40	22	13:05	Norwegian.	Westfal, Larsen & Co.	398.0	54.7	16.6	Newcastle, Eng.	Los Angeles, Calif.	Ballast.			
Chateau.																			
Thierry.	21	8:05	21	14:55	21	20:40	22	15:50	American.	U. S. Army.	448.0	56.0	25.6	New York, N. Y.	Honolulu, T. H.	Army supplies.	394		
Laurelwood.	21	15:35	21	15:20	22	11:43	22	14:45	British.	Anglo-American Oil Co.	436.0	59.0	19.0	Glasgow, Scotland	Los Angeles, Calif.	Ballast.	7,655	5,129	
Swan.			21	13:45	21	20:43			American.	U. S. Navy.	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Asama.	21	2:05	22	6:00	22	13:20	24	11:00	Japanese.	Japanese Government.	432.0	67.0	27.1	New York, N. Y.	Mazatlan, Mexico	Ballast.			
Iwate.	21	2:05	22	6:00	22	13:50	24	11:00	Japanese.	Japanese Government.	432.0	67.0	27.1	New York, N. Y.	Mazatlan, Mexico	Ballast.			
Sunol.	21	17:00	22	7:30	22	13:52	22	15:50	American.	Sun Oil Co.	430.6	66.0	22.6	Chatter, Pa.	Los Angeles, Calif.	Ballast.	9,619	6,456	
Dalyen.	22	2:05	22	9:00	22	16:05	22	20:40	British.	Texas Gulf Sulphur Co.	408.0	52.0	25.0	Galveston, Texas	Los Angeles, Calif.	Sulphur.	6,766	5,739	4,081
Pirmore.	21	21:23	22	10:23	22	13:28	23	14:30	American.	Ore S. S. Corp.	449.1	54.3	22.7	Norfolk, Va.	Adelaide, Australia	General.	5,423	6,573	4,916
West Katon.	22	11:55	23	6:10	23	13:58	23	15:20	American.	Quaker Line.	410.5	57.0	22.7	Philadelphia, Pa.	Seattle, Wash.	General.	11,224	7,895	
W. S. Rileem.	22	20:55	23	7:25	23	14:27	23	15:45	American.	Standard Oil Co.	500.0	68.0	19.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	6,700	9,294	6,861
Dorothy.	22	21:50	23	7:40	23	14:53	23	15:55	American.	Lukenbach Line.	448.9	60.2	24.0	Jackson, Mass.	Seattle, Wash.	General.	7,196	6,212	4,710
Hofuku Maru.	23	00:45	23	8:10	23	15:21	23	16:30	Japanese.	K. K. Kaisha.	335.0	51.0	25.10	Boston, Mass.	Yawata, Japan.	General.	3,280	7,049	4,941
Kentuckian.	23	5:40	23	8:10	23	15:43	23	16:45	American.	Amer-Hawayan Line.	414.0	53.0	20.6	Mobile, Ala.	Tacoma, Wash.	General.	1,572	3,984	2,612
Sugillene.	23	10:17	23	10:30	23	16:48	23	18:10	American.	Transmarine Lines.	324.0	46.0	18.0	Seattle, Wash.	Valparaiso, Chile.	General.	2,576	7,764	4,705
Acronia.	23	6:00	23	11:24	23	18:02	23	19:09	Chilean.	Ca. Sud. Amer. de Vap	421.0	56.0	25.10	New York, N. Y.	Vancouver, B. C.	General.	7,487	4,641	
Messinger.	23	9:50	23	12:25	23	20:18	23	22:38	British.	Royal Mail S. P. Co.	440.0	56.0	21.0	Berry, England.	Vancouver, B. C.	Ballast.	1,073	3,984	2,628
Sulanero.	23	13:20	23	13:35	23	21:15	24	3:20	American.	Transmarine Lines.	324.0	46.0	17.0	New York, N. Y.	San Francisco, Calif.	General.	4,963	17,146	12,015
Orduna.	23	8:25	24	6:03	24	14:50	25	00:27	British.	Pacific Steam Nav. Co.	550.0	67.0	30.3	Liverpool, England.	Tacahano, Chile.	General.			

1 Tanker.

2 Motor ship.

3 Launch.

4 Cable ship, for dry-docking.

5 Transport.

6 Mine sweeper.

7 Cruiser.

Old	23	2 35	24	6 05	24	15 44	24	16 55	British.	Pacific Steam Nav. Co.	264 8	41 2	46 5	New York, N. Y.	Guaymas, Ecuador.
Willamette	23	21 30	24	7 35	24	16 38	24	17 46	American.	Williams S. S. Line.	486 0	52 0	19 6	Baltimore, Md.	Tacoma, Wash.
Port Dune	23	4 40	24	8 28	24	16 32	24	17 46	British.	Comth & Dorn, Line.	486 0	50 6	23 0	New York, N. Y.	Fremantle, Australia.
Eastworth	23	23 05	24	10 28	24	18 07	24	19 48	British.	Texas Sulphur Co.	412 0	55 0	20 2	Galveston, Texas.	Fremantle, Australia.
Challenger	24	10 20	24	10 30	24	18 34	24	20 15	American.	Island S. S. Line.	411 0	56 0	26 4	Baltimore, Md.	Vancouver, B. C.
Penmar	24	8 10	24	11 20	24	19 10	24	20 15	American.	Calmar S. S. Line.	385 3	51 2	27 6	Baltimore, Md.	Seattle, Wash.
Robt. E.	24	10 23	24	11 35	24	19 36	24	21 00	American.	Tidewater Oil Co.	424 4	58 2	21 0	New York, N. Y.	San Francisco, Cal.
Hopkins	23	13 32	24	14 45	24	21 51	24	23 25	Dutch.	Holland-American Line.	430 0	58 0	20 4	Antwerp, Belgium.	Portland, Oreg.
Grootendijk	24	9 55	24	15 25	24	22 24	24	23 25	American.	Ore S. S. Corp.	449 0	57 2	21 0	Baltimore, Md.	Cruz Grande, Chile
Sintore	24	7 25	24	7 25	24	13 52	24	15 33	Panama.	United Fruit Co.	105 0	15 3		Cristobal, C. Z.	Balboa, C. Z.
Anacuetla	24	7 25	24	12 41	24	18 41	24	19 48	American.	M. Rodriguez	330 0	54 2	20 6	Cristobal, C. Z.	Gatun, C. Z.
Santa Clara	24	19 10	25	6 40	25	19 40	27	2 45	American.	U. S. Army	370 0	53 2	22 10	New York, N. Y.	San Francisco, Cal.
Kenowis	24	20 30	25	6 40	25	19 40	27	2 45	American.	U. S. Army	370 0	53 2	22 10	New York, N. Y.	San Francisco, Cal.
Santa Inez	24	20 30	25	7 30	25	14 42	26	1 25	American.	Panama-Pacific Line.	536 4	80 3	27 0	New York, N. Y.	Valparaiso, Chile
Pennsylvania	25	6 08	25	7 40	25	14 42	26	1 25	American.	Panama-Pacific Line.	536 4	80 3	27 0	New York, N. Y.	San Francisco, Cal.
Gothenburg	24	21 05	25	7 40	25	15 33	23	16 45	British.	Blue Star Line.	430 0	54 7	19 0	Hebburn, England.	Vancouver, B. C.
Thalia	24	22 25	25	8 20	25	15 40	26	2 30	Danish.	Tidewater Oil Co.	469 0	63 0	17 0	Hamburg, England.	Talara, Peru.
Herman Falk	24	22 25	25	8 20	25	15 40	26	2 30	Danish.	Tidewater Oil Co.	469 0	63 0	17 0	Hamburg, England.	Talara, Peru.
Steel Ranger	25	00 45	25	9 43	25	17 37	25	18 42	American.	Island S. S. Lines	424 0	56 0	26 3	Baltimore, Md.	Los Angeles, Calif.
Myne sfer	25	5 30	25	10 07	25	17 51	25	18 42	American.	Island S. S. Lines	424 0	56 0	26 3	Baltimore, Md.	Los Angeles, Calif.
C. S. L. 2	25	7 40	25	10 07	25	17 51	25	18 42	British.	James Chambers & Co.	424 0	56 0	26 3	Baltimore, Md.	Los Angeles, Calif.
York City	25	7 40	25	10 07	25	17 51	25	18 42	British.	James Chambers & Co.	424 0	56 0	26 3	Baltimore, Md.	Los Angeles, Calif.
Bradway	25	13 45	25	17 51	26	11 42	26	13 10	British.	Texas S. S. Co.	411 8	55 0	26 0	Pt. Arthur, Tex.	Shanghai, China.
Gradyon	25	13 45	25	17 51	26	11 42	26	13 10	British.	Texas S. S. Co.	411 8	55 0	26 0	Pt. Arthur, Tex.	Shanghai, China.
Bradyon	25	13 45	25	17 51	26	11 42	26	13 10	British.	Texas S. S. Co.	411 8	55 0	26 0	Pt. Arthur, Tex.	Shanghai, China.
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
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Epaparis	26	15 40	26	6 09	26	13 29	26	16 55	American.	North German Lloyd	413 0	52 0	25 8	Hamburg, Germany	Melbourne, Austria
Epaparis	26														

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		annual Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Hamburg Maru	20	12.10	20	12.47	20	20.00	21	11.05	Japanese	Otsuka Shusan Kaisha	400.0	54.5	17.0	Kongkon, China.	Boston, Mass.	General.	2,007	6,094	4,331
Nao King	20	14.05	20	14.41	20	22.00	20	22.00	American	N. O. & S. S. Co.	324.0	46.2	23.5	Arto, Chile.	New Orleans, La.	Nitric, general	4.83	3.97	2,560
Glitter	20	18.45	21	6.03	21	14.25	21	14.25	Norwegian	Fearnly & Eger	403.3	55.3	26.6	Los Angeles, Calif.	Armonmouth, Eng.	Gas line	8,740	6,322	4,349
Seattle	20	18.30	21	6.38	21	13.03	21	13.25	German	Hamburg-American Line	461.0	61.0	20.0	Vancouver, B. C.	Hamburg, Germany	General.	7,648	9,267	6,334
Washington	20	17.00	21	7.07	21	14.45	21	15.50	Japanese	Kokusu Kisen Kaisha	335.0	51.0	26.9	Portland, Oreg.	United Kingdom	Wheat.	7,707	5,919	4,400
Mura	20	18.10	21	8.00	21	15.35	21	15.35	American	Stat. S. S. Co.	410.0	54.4	24.8	Portland, Oreg.	Philadelphia, Pa.	Lumber.	7,093	6,476	4,632
San Clemente	20	18.25	21	8.24	21	16.10	21	16.10	American	Charles Nelson Co.	324.0	46.2	23.0	Seattle, Wash.	Baltimore, Md.	General.	3,817	3,984	2,673
Chetopa	21	13.25	21	9.19	21	19.45	21	19.45	Greek	Ivan's Bros.	410.1	56.2	25.0	Gravand, Chile	Baltimore, Md.	General.	8,307	6,297	4,563
Theofano	21	2.30	21	9.46	21	19.45	21	21.50	Danish	W. L. Conyn & Co.	330.2	50.8	23.8	Vancouver, B. C.	Grangemo, Eng.	Iron ore	5.23	4,917	3,565
Sears & Y	21	7.20	21	9.46	21	19.45	21	21.50	American	Murson S. S. Line.	370.0	53.1	24.3	Palestine, Wash.	New York, N. Y.	Timber	6,041	5,625	4,043
Agwile	21	10.20	21	11.36	21	21.35	21	21.35	American	Murson S. S. Line.	370.0	53.1	24.3	Palestine, Wash.	New York, N. Y.	Lumber	3,601	5,625	4,043
Santa Teresa	21	10.30	21	12.10	21	21.35	21	21.35	American	Grace Line	380.2	53.1	24.3	Palestine, Wash.	New York, N. Y.	Lumber	3,601	5,625	4,043
California	21	12.55	22	6.17	22	13.45	22	14.10	American	Panama-Pacific Line	574.4	80.3	31.9	San Francisco, Cal.	New York, N. Y.	Canned fruit, gen.	8,609	24,507	17,565
Oakmar	21	18.30	22	6.45	22	14.50	22	14.50	American	Calmar S. S. Corp.	384.4	51.2	24.0	Olympia, Wash.	Philadelphia, Pa.	Lumber	5.93	6,327	4,433
Swan	21	18.50	22	7.14	22	14.50	22	14.50	American	U. S. Navy	188.0			Balboa, C. Z.	Cristobal, C. Z.	Gas oil	10,070	7,211	3,184
Oregon	21	19.10	22	7.15	22	16.05	22	16.05	American	Texas S. S. Co.	425.8	57.0	27.0	Los Angeles, Calif.	Baltimore, Md.	Nitrates	7,500	5,823	3,747
Charterhouse	21	21.00	22	8.13	22	17.15	22	18.10	British	Charter S. S. Co., Ltd.	360.0	52.0	25.6	Mailong, Chile	Arto, Chile	Lumber	8,331	6,630	4,916
Pacific Hemlock	21	22.10	22	8.49	22	16.25	22	16.25	American	Dimon S. S. Corp.	409.7	54.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber	7,381	9,641	6,989
Enterprises	21	22.30	22	9.09	22	17.40	22	17.40	British	Furness-Pacific Line	435.0	60.2	26.0	Vancouver, B. C.	Lumber, general		6,771	5,131	3,664
Witral	22	8.15	22	9.46	22	18.30	22	18.30	British	John Eager & Co.	385.0	52.0	23.2	San Francisco, Cal.	Sugar		4,094	5,700	4,131
Dio	22	9.45	22	10.46	22	18.45	22	18.45	American	Redwood Line, Inc.	336.8	52.2	19.0	San Francisco, Cal.	General	(*)	230	211	134
Miss S	22	12.25	22	13.15	22	21.10	22	21.10	Colombian	National Navigation Co.	116.0	21.0	10.6	Buenavista, Col.	General		8,321	8,567	6,020
San Leonardo	22	12.35	22	13.19	22	20.40	22	20.40	American	Amer-Hawaiian Line	445.0	59.8	23.0	Portland, Oreg.	Lumber, general		7,143	9,932	3,650
San Leon	22	14.45	23	6.15	23	13.42	23	13.42	British	Anglo-Mexican Pet. Co.	401.9	54.2	24.6	Los Angeles, Calif.	Gasoline	(*)	7,461	6,616	4,614
Irishich	22	18.45	23	6.33	23	15.20	23	15.20	American	Argonaut S. S. Co.	499.8	54.3	35.0	Seattle, Wash.	Baltimore, Md.	General	9,867	11,673	8,143
Dorset	22	19.30	23	7.21	23	16.05	23	16.05	British	Blue Star Line	400.7	64.0	32.0	Vancouver, B. C.	General		8,967	11,673	8,143
Magellan	22	3.00	23	7.56	23	18.25	23	18.25	British	Pacific Steam Nav. Co.	461.6	59.3	27.3	Valparaiso, Chile	General		8,967	11,673	8,143
Benway	22	22.30	23	8.23	23	19.25	23	20.25	British	Can-Am S. S. Co.	426.3	59.3	25.0	Vancouver, B. C.	General	(*)	7,800	8,847	6,033
Robert	23	2.00	23	9.02	23	20.30	23	20.30	American	Lockenbush Line	445.0	58.0	28.6	Portland, Oreg.	Lumber, general		10,041	8,695	6,375
Lockenbush	23	1.00	24	5.51	24	15.24	24	15.43	American	Ore S. S. Corp.	550.3	72.2	34.0	Victoria, B. C.	Iron ore		21,478	15,473	4,354
Bethore	23	15.20	24	6.35	24	15.50	24	16.40	British	Donaldson Line	400.0	51.9	23.0	Victoria, B. C.	General		5,676	5,831	4,341
San Teodoro	23	23.00	24	7.13	24	16.30	24	16.30	British	Anglo-Mexican Pet. Co.	412.0	54.4	24.0	Los Angeles, Calif.	General		7,331	6,003	4,077
Fairbro	23	23.15	24	7.52	24	16.55	24	17.30	Swedish	The Texas Co.	350.0	50.6		Fremantle, A. S. I.	Ball's		7,331	6,003	4,077
Hena	24	09.15	24	8.30	24	18.45	24	18.45	Norwegian	J. Ludvig Mowinkel	377.2	52.2	23.4	Tacoma, Wash.	General		6,917	5,761	4,322
Polina	24	1.30	24	8.53	24	19.15	24	21.35	Norwegian	Seand-Lo, Pacific Line	380.7	52.2	24.0	Tacoma, Wash.	Nitrates, general		6,217	5,761	4,322
San Gabriel	24	7.30	24	9.21	24	19.55	24	19.55	American	States S. S. Co.	386.8	52.2	20.0	Tacoma, Wash.	Lumber, general		4,100	5,719	4,023
Larry Doherty	24	9.30	24	10.24	24	21.05	24	21.05	American	Richfield Oil Co.	430.0	59.2	27.4	Los Angeles, Calif.	Gasoline		9,700	7,494	5,193

*Tanker.

** Motor ship.

** For orders.

** Copper, lead, and cotton.

** Logs, lumber, and sugar.

** Magnesite ore and lumber.

Varg 1	24	2	00	24	10	57	24	20	20	24	21	50	Norwegian.	Caucasian Oil Co.	390	6	55	2	25	0	Los Angeles, Calif.	Land's End, Eng. ¹⁵	7,246	5,983	3,856
Montanan.	24	12	20	24	13	04	24	22	12	24	22	12	American	Amer.-Hawaiian Line	401	5	53	9	26	5	Boston, Mass.	Gasoline	6,850	6,756	4,775
Sirius	24	10	00	24	14	23	24	23	13	26	1	25	American	U. S. Navy	401	5	53	0	19	8	Boston, Mass.	General	2,738		
Ozato 1	24	6	30	24	15	03	25	1	10	26	9	05	Italian	Nav. Gen. Italiana	506	0	61	8	21	4	Tacahauano, Chile	General	2,350	12,977	9,373
Gen. Wm. M. Graham	25	2	50	25	15	31	24	22	15				American	U. S. Army	160	2	32	0			Balboa, C. Z.	Cristobal, C. Z.	6,499	5,113	3,571
Point Breeze 1	25	2	50	25	6	21	25	24	22	25			American	Atlantic Refining Co.	364	9	51	0	26	0	Los Angeles, Calif.	Gasoline	8,800	8,079	5,580
La Marsaille	24	16	09	25	6	37	25	15	10	26	15	50	French	French Line	438	0	52	1	27	6	Vancouver, B. C.	General	7,500	5,540	4,356
Kostanti	24	21	00	25	7	25	15	55	25	35	55		Greek	Mechanics & Co.	390	6	55	2	24	0	Iquique, Chile	Nitrates	495	3,683	3,273
Loise Maersk 1	24	23	30	25	7	40	25	15	40	26	6	00	American	United Fruit Co.	390	2	44	6	18	0	Cristobal, C. Z.	General	1,000	3,212	2,206
Helen Whitlor	25	00	15	25	7	49	25	15	40	26	16	45	Danish	Isbrandt Moller Co.	390	2	44	2	22	0	Loilo, P. I.	Sugar	7,405	6,667	4,949
Porta	25	1	40	25	8	25	25	16	40	26	16	40	American	Christensen S. S. Co.	400	6	51	2	23	5	Port Alverni, B. C.	Lumber	5,029	4,818	3,347
Surcho	25	5	45	25	8	51	25	17	30	26	2	15	German	North German Lloyd	390	7	54	0	24	6	San Antonio, Chile	Hamburg, Germany	6,000	1,572	1,011
Orcho	25	8	30	25	9	42	25	18	05	27	12	40	German	Hamburg-American Line	227	2	34	4	13	3	Seaville, Wash.	Cristobal, C. Z.	4,043	3,984	2,628
Surcho	25	8	45	25	10	04	25	18	05	27	18	00	American	Transmarine Lines	324	0	46	2	22	0	Port Newark, N. J.	Lumber	6,113	4,417	8,305
Lobore	25	13	30	25	10	15	25	21	31	26	14	57	British	Pacific Steam Nav. Co.	511	6	62	6	27	8	Liverpool, England	(*)	20,000	14,325	4,635
El El Lobo 1	26	10	30	26	5	57	26	17	20	26	17	20	American	Ore S. S. Corp.	550	0	72	0	21	0	Coronel, Chile	Iron ore	6,101	4,851	3,326
Anachucna	25	15	40	26	6	33	26	14	20	26	14	20	British	C. T. Bowring & Co.	385	2	51	0	23	0	Grz Grande, Chile				
S-10 26	25	13	52	26	6	31	26	14	20				Panama	United Fruit Co.	105	0	15	3			La Libertad, Peru				
S-14 26	25	10	00	26	7	04	26	15	55				American	U. S. Navy							Balboa, C. Z.	Cristobal, C. Z.			
Sleaworth	25	22	00	26	8	16	26	18	15				British	R. S. Dalglish & Co.	400	2	54	0	24	0	Balboa, C. Z.	Asorob, C. Z.	7,854		
Triglav	26	00	20	26	8	53	26	19	25				Yugoslav	Babirizza & Co.	433	0	57	2	26	0	Caleta Colosa, Chile	Nitrates	10,010	7,731	5,759
Perlohn	26	2	30	26	9	10	26	19	50	26	23	29	German	Hamburg-American Line	333	7	47	4	24	4	Talal, Chile	Nitrates	5,397	4,39	2,731
																					San Antonio, Chile	Hamburg, Germany			

22 Oats, copper, cotton, oilcake, sugar, skins, tin, wool.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 20	Pastores	United Fruit Co.	Port Limon, C. R.	October 20	Pastores	United Fruit Co.	New York via Habana.
October 21	Coppename	United Fruit Co.	Puerto Colombia.	October 20	Greenwald	Hamburg-American Line	Cartagena, Colombia.
October 21	Ulua	United Fruit Co.	New York via Habana.	October 21	Turriaba	United Fruit Co.	New Orleans and wayp'ts.
October 21	No. 9664 ²³	Pan-American Airways	Managua via wayports.	October 21	Coppename	United Fruit Co.	Soerab, R. P.
October 22	Linda S. ²⁴	A. L. Surgeon	Colon, R. P.	October 21	Wankis	Stand. Fruit & S. Co.	San Blas, R. P.
October 23	Anguani	Elders & Fyfes Line	Avonmouth via wayports	October 22	Linda S. ²⁴	A. L. Surgeon	Bluefields, Nicaragua.
October 23	Carrillo	United Fruit Co.	New York via Kingston.	October 22	No. 9137 ²³	Pan-American Airways	Curacao via wayports.
October 23	Cristobal	Panama R. S. S. Line	New York via Haiti.	October 22	NC 145-M ²³	Pan-American Airways	Guayaquil via wayports.
October 23	Rugia	Hamburg-American Line	Hamburg via wayports.	October 22	No. 9688 ²³	Pan-American Airways	Managua via wayports.
October 24	Darien C-35 ²³	Seaclair Airplane Co	Barranquilla and wayp'ts.	October 23	Ulua	United Fruit Co.	Port Limon, C. R.
October 24	No. 9137 ²³	Pan-American Airways	Curacao via wayports.	October 23	Anguani	Elders & Fyfes Line	Bristol via wayports.
October 24	No. 9688 ²³	Pan-American Airways	Managua via wayports.	October 24	Rugia	Hamburg-American Line	Port Limon, C. R.
October 24	Mercan	Leyland S. S. Line.	Liverpool via wayports.	October 24	No. 9685 ²³	Pan-American Airways	Managua via wayports.
October 25	Inapaquima ²⁵	United Fruit Co.	Colon, R. P.	October 24	Darien C-35 ²³	Seaclair Airplane Co	Barranquilla and wayp'ts.
October 25	Annetta I. ²⁵	A. Tagarapulos	Colon, R. P.	October 24	Carrillo	United Fruit Co.	New York via wayports.
October 25	Atlantida	Stand. Fruit & S. Co.	New Orleans via Habana.	October 25	Coppename	United Fruit Co.	New Orleans, La.
October 25	Coppename.	United Fruit Co.	Bocas, R. P.	October 25	Inapaquima ²⁵	United Fruit Co.	Colon, R. P.

* Other than ships passing through the Canal.

²³ Air mail carrier.
²⁴ Motor schooner.
²⁵ Motor boat.

23 Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 25.....	NC 145 M ²⁶	Pan-American Airways	Guayaquil via wayports.	October 25.....	Annetta I. ²⁷	A. Tagarapulos	Colon, R. P.
October 25.....	CundinamarcaC-33 ²⁶	Scadta Airplane Co.	Buenaventura via wayp'ts	October 26.....	CundinamarcaC-33 ²⁶	Scadta Airplane Co.	Buenaventura, Col.
October 25.....	Ejercito Mexicano ²⁸	Mexican Government	Guayaquil.	October 26.....	Mercian	Leyland S. S. Line	Port Limon, C. R.
October 26.....	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.	October 26.....	Atlantida	Stand. Fruit & S. S. Co.	New Orleans and wayp'ts
October 26.....	Darian	Leyland S. S. Line	Port Limon, C. R.	October 26.....	No. 9888 ²⁶	Pan-American Airways	Managua via wayports.
October 26.....	Heredia	United Fruit Co.	New Orleans via Habana.				
October 26.....	No. 9038 ²⁶	Pan-American Airways	Managua via wayports.				
PORT OF BALBOA.							
²⁶ Air mail carrier.	²⁷ Motor boat	²⁸ Airplane.					
October 22.....	Davanger	Shell Oil Co.	Los Angeles, Calif.	October 21.....	Cricamola	Chiriqui Land Co.	Pto. Arnuelles, R. P.
October 24.....	Missoula	Hammond Lumber Co.	Seattle, Wash.	October 23.....	Gen'l Baquedano	Chilean Government	Callao, Peru
October 24.....	Real ²⁹	Bayano River, R. P.	Bayano River, R. P.	October 24.....	Davanger	Shell Oil Co.	Los Angeles, Calif.
October 25.....	Sambu ²⁹	Hans Elliot	Bayano River, R. P.	October 25.....	Real ²⁹	Hans Elliot	Panama Bay, R. P.
October 26.....	La Mascota	Hans Elliot	Bayano River, R. P.	October 25.....	Sambu ²⁹	Hans Elliot	Panama Bay, R. P.
October 26.....	Real ²⁹	Hans Elliot	Panama Bay, R. P.	October 26.....	La Mascota	Hans Elliot	Panama Bay, R. P.
October 26.....	Dos Hermanos ²⁹	A. Valdez	Bayano River, R. P.	October 26.....	Real ²⁹	Hans Elliot	Panama Bay, R. P.
				October 26.....	Dos Hermanos ²⁹	A. Valdez	Panama Bay, R. P.

²⁹ Motor schooner.

* Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from October 12 to October 26, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Limon	United Fruit Company		October 12.		91
Champerico	Pacific Steam Nav. Co.		October 13.		1,921
Ancon	Panama R. R. S. S. Line		October 13.		611
Los Angeles	Hamburg-American Line		October 13.		385
Wanks	Stand. Fruit & S. S. Co.		October 13.		8
Paristina	United Fruit Co.		October 13.		94
Ecuador	Panama Mail S. S. Line		October 14.		368
Cauca	National Navigation Co.		October 17.		148
Calamares	United Fruit Co.	October 13.	October 13.	38	155
Santa Cecelia	Grace Line	October 13.	October 14.	4	830
Durazzo	Hamburg-American Line	October 13.	October 20.	586	328
Santa Cruz	Grace Line	October 14.	October 14.	78	(²)
Ebro	Pacific Steam Nav. Co.	October 14.	October 14.	11	71
Guadeloupe	French Line	October 14.	October 16.	152	378
Pastores	United Fruit Co.	October 14.	October 16.	799	12
C. A. Canfield	Huasteca Petroleum Co.	October 14.	October 16.	9,633	(²)
City of Panama	Panama Mail S. S. Line	October 14.	October 19.	484	2,998
Linda S.	Feuillebois	October 15.	October 15.	(¹)	44
Breda	Royal Neth. S. S. Co.	October 15.	October 16.	251	241
Darian	Leyland S. S. Line	October 15.	October 16.	616	
Cali	Roland Line	October 16.		620	
Pearl Marie	Feuillebois	October 16.	October 16.	(¹)	34
Lochgail	Royal Mail S. S. Co.	October 16.	October 16.	(¹)	50
Ballena	Pacific Steam Nav. Co.	October 16.	October 17.	43	3
Lochmonar	Royal Mail S. S. Co.	October 16.	October 17.	27	299
Remscheid	North German Lloyd	October 16.	October 17.	194	
Arizona	French Line	October 16.	October 17.	96	80
Metapan	United Fruit Co.	October 16.	October 17.	741	328
Santa Elisa	Grace Line	October 16.	October 17.	10	193
Guatemala	Panama Mail S. S. Co.	October 16.	October 18.	211	345
Almelo	Royal Neth. S. S. Co.	October 17.	October 18.	111	7
Coppename	United Fruit Co.	October 17.	October 18.	1,071	(²)
San Mateo	United Fruit Co.	October 17.	October 18.	704	* 429
Camden	United Fruit Co.	October 17.	October 18.	3,107	(²)
Salvador	Pacific Steam Nav. Co.	October 17.	October 18.	34	1,124
Uribe	Estrada G. Hermanos	October 18.		341	
Saramacca	United Fruit Co.	October 18.	October 18.	52	154
Pacific Grove	Furness, Withy & Co.	October 18.	October 18.	2	298
Lagarto	Pacific Steam Nav. Co.	October 18.	October 19.	(¹)	30
Anapala	Stand. Fruit & S. S. Co.	October 18.	October 19.	415	538
Willowpark	Munson S. S. Line	October 18.	October 20.	1,690	(²)
Inapaquina	United Fruit Co.	October 18.	October 22.	10	(²)
Manaque	United Fruit Co.	October 19.	October 19.	38	1,249
Feltre	Nav. Libera-Triestina	October 19.	October 20.	160	(²)
Gruenwald	Hamburg American Line	October 19.	October 20.	10	383
Turrialba	United Fruit Co.	October 19.	October 20.	145	91
Wanks	Stand. Fruit & S. S. Co.	October 19.	October 21.	136	1
Pastores	United Fruit Co.	October 20.	October 20.	65	72
Sorona	French Line	October 20.	October 20.	238	(²)
Kako Maru	Nippon Yusen Kaisha	October 20.	October 20.	139	(²)
Hamburg Maru	K. K. K. Line	October 20.	October 20.	186	(²)
Alvarado	Pacific Steam Nav. Co.	October 20.	October 20.	252	27
Coppename	United Fruit Co.	October 21.	October 21.	(¹)	9
Firmore	Ore S. S. Corp.	October 21.	October 23.	10,502	(²)
Ulua	United Fruit Co.	October 21.	October 23.	768	72
Linda S.	Feuillebois	October 22.	October 22.	(¹)	47
Grandon	North German Lloyd	October 22.	October 23.	72	462
Caldas	National Navigation Co.	October 22.	October 26.	273	75
Cristobal	Panama R. R. S. S. Line	October 23.		4,886	
Cid	Pacific Steam Nav. Co.	October 23.	October 23.	239	61
Magellan	Pacific Steam Nav. Co.	October 23.	October 23.	108	27
Aconagua	Chilean Line	October 23.	October 23.	(¹)	8
Rugia	Hamburg-American Line	October 23.	October 23.	125	32
Grootendyk	Holland-American Line	October 23.	October 24.	778	77
Orduna	Pacific Steam Nav. Co.	October 23.	October 24.	118	94
Carrillo	United Fruit Co.	October 23.	October 24.	420	451
Mercian	Leyland Line	October 24.	October 25.	772	(²)
Santa Inez	Grace Line	October 24.	October 25.	(¹)	17
Orazio	Italian Line	October 24.	October 26.	78	374
Cerigo	Hamburg American Line	October 25.		600	
Coppename	United Fruit Co.	October 25.	October 25.	90	351
Porta	North German Lloyd	October 25.	October 25.	319	(²)
La Marseillaise	French Line	October 25.	October 25.	196	94
Esparta	United Fruit Co.	October 25.	October 26.	779	421
Atlantida	Stand. Fruit & S. S. Co.	October 25.	October 26.	527	495
Colombo	Italian Line	October 25.	October 26.	321	(²)
Inapaquina	United Fruit Co.	October 25.		24	(²)
Nitokris	Hamburg-American Line	October 26.		154	
Wanks	Stand. Fruit & S. S. Co.	October 26.		165	
Vaba	Atlantic Oriental Line	October 26.		7,416	
Heredia	United Fruit Co.	October 26.		501	
Iserlohn	Hamburg American Line	October 26.	October 26.	(¹)	61

* No cargo discharged.

* No cargo laded.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.	11.00	14.00

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for the remainder of 1929, of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the passenger ships *Ancon* and *Cristobal* are engaged, sailing alternately.

Steamer.	Leave New York 4 P. M.	Leave Port au Prince P. M.	Arrive Cristobal A. M.	Leave Cristobal 3 P. M.	Leave Port au Prince P. M.	Arrive New York A. M.
<i>Ancon</i>	October 29. . .	November 3. . .	November 6. . .	November 10. . .	November 13. . .	November 18. . .
<i>Cristobal</i>	November 12. . .	November 17. . .	November 20. . .	November 24. . .	November 27. . .	December 2. . .
<i>Ancon</i>	November 26. . .	December 1. . .	December 4. . .	December 8. . .	December 11. . .	December 16. . .
<i>Cristobal</i>	December 10. . .	December 15. . .	December 18. . .	December 23. . .	December 26. . .	December 31. . .
<i>Ancon</i>	December 24. . .	December 29. . .	January 1. . .	January 5. . .	January 8. . .	January 13. . .

Effective April 30, steamers sail on daylight saving time.

Due to discontinuance of the daylight saving time, departures after S. S. *Cristobal*, Sept. 17th, will be at 4. p. m. standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., November 6, 1929. No. 14.

Traffic Through the Panama Canal in October, 1929.

During the month of October, 1929, 564 commercial vessels and 8 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,485,897.71 and on the launches \$39.15, or a total tolls collection of \$2,485,936.86.

The daily average number of commercial transits for the month was 18.19 and the average tolls collection was \$80,190.25, as compared with an average of 17.43 transits and \$73,392.98 in tolls for the previous month and an average of 17.97 transits and \$73,385.33 in tolls for October, 1928. The average amount of tolls paid by each of the commercial transits was \$4,407.62, as compared with \$4,209.92 for the month of September, 1929.

The amount of tolls collected, \$2,485,897.71, for the commercial transits in October, 1929, is the second largest tolls collection for a month since the opening of the Canal. It is less by \$16,917.41 than the tolls collection of \$2,502,815.12 in January, 1929, a record month. As compared with October, 1928, last month had 7 more transits and \$210,952.41 more in tolls.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 10 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 10 months of the calendar years 1928 and 1927:

	Totals for months.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	603	\$2,502,815.12	19.45	\$80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
June	503	2,127,805.97	16.76	70,926.87
July	527	2,259,582.37	17.00	72,889.75
August	541	2,327,437.86	17.45	75,078.64
September	523	2,201,789.40	17.43	73,392.98
October	564	2,485,897.71	18.19	80,190.25
Totals, first 10 months of calendar year, 1929	5,383	23,038,789.02	17.71	75,785.49
Totals, first 10 months of calendar year, 1928	5,228	21,705,995.54	17.14	71,170.47
Totals, first 10 months of calendar year, 1927	4,937	21,463,295.20	16.24	70,602.94

As compared with the first 10 month of the calendar year 1928, the corresponding period this year has had 155 more transits and \$1,332,793.48 more in tolls.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, November 2, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Nitokris	26	11.58	26	6.15	27	13.42	27	14.58	German	Hamburg-American Line	411.0	50.0	26.0	Hamburg, Germany	Valparaiso, Chile.	General	5,244	6,652	4,704
Steele	26	6.30	27	6.15	27	14.40	27	15.45	American	Ore S. S. Corp.	550.3	72.2	22.0	New York, N. Y.	Cruz Grande, Chile	Ballast	15,551	4,297	
Iowan	26	17.25	27	7.10	27	15.07	27	16.10	American	Amer-Hawaiian Line	407.7	53.7	22.0	Boston, Mass.	Portland, Ore.	General	4,231	7,079	5,028
Peltore	26	21.50	27	7.10	27	15.50	27	16.55	American	Ore S. S. Corp.	449.0	57.2	20.6	Baltimore, Md.	Cruz Grande, Chile	Ballast	7,808	5,139	
India Arrow	26	1.25	27	8.15	27	16.38	27	18.00	American	Standard Transp. Co.	468.0	62.5	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	10,034	7,388	
Atlantic Sun	27	3.05	27	8.40	27	17.29	27	18.38	American	Atlantic Refining Co.	429.3	52.0	18.0	Tampa, Fla.	Tacoma, Wash.	Ballast	7,598	5,283	
Santa Cecilia	27	7.20	27	10.07	27	17.50	27	19.23	American	Isthmian S. S. Lines	404.6	53.0	17.0	Baltimore, Md.	Tacoma, Wash.	Steel and general	8,137	6,745	4,562
Cape Ortega	27	8.35	27	10.55	27	18.19	27	19.30	British	Lambert Brothers	405.0	52.4	24.2	Barry, England	T. H. H.	Coal	6,000	5,650	4,071
Cerigo	25	18.05	27	12.40	27	19.37	27	21.00	German	Hamburg-American Line	239.0	35.0	13.3	Cristobal, C. Z.	Guayaquil, Ecuador	General	576	1,572	1,011
Point Fernin	27	13.57	27	14.10	27	21.10	27	22.35	American	Gulf-Pacific Line	324.0	46.0	20.0	Houston, Tex.	San Francisco, Cal.	General	3,106	3,894	2,617
Pacific Fir	27	15.15	27	15.25	27	22.13	27	23.40	American	Dimon S. S. Co.	410.5	54.0	19.0	New York, N. Y.	Seattle, Wash.	General	4,257	6,624	4,883
Conechuda	27	15.15	27	15.25	27	22.13	27	23.40	American	J. A. Hansen	410.5	54.0	19.0	New York, N. Y.	Seattle, Wash.	General	4,257	6,624	4,883
Mahia	27	15.45	28	6.10	28	14.06	28	15.05	British	Shaw, Savill & Albion	477.0	63.0	29.10	Cristobal, C. Z.	Gatun, C. Z.	Ballast	8,300	11,110	7,894
Vicente	27	19.45	28	6.10	28	14.06	28	15.05	British	Imperial Oil Co.	510.0	68.2	21.0	Middlesboro, Eng.	Auckland, N. Z.	Gen. explosive	2,139	11,575	7,033
Oak Branch	27	23.40	28	7.20	28	13.11	28	19.40	British	F. & W. Rutson	335.0	49.9	17.0	Montreal, Canada	Talara, Peru	Ballast	3,507	5,209	4,035
Sutherland	28	8.00	28	8.23	28	13.52	28	19.00	American	Nelson Line	380.0	53.2	18.8	New York, N. Y.	Valparaiso, Chile	General	1,122	5,634	4,123
Salvador	27	19.00	28	9.00	28	16.10	28	17.05	British	Pacific Steam Nav. Co.	215.0	33.0	16.11	Cristobal, C. Z.	Seattle, Wash.	Gen. steel, iron	1,222	1,270	3,071
Vava	26	16.15	28	9.10	28	16.36	28	17.40	American	West India Oil Co.	390.0	54.0	15.2	Baytown, Texas	Champerico, Guatemala	General	7,405	5,205	4,284
Aladdin	28	8.28	28	9.55	28	16.58	28	20.35	American	Standard Transp. Co.	435.0	56.0	20.0	Portland, Me.	Los Angeles, Calif.	Ballast	7,800	7,405	5,112
Siamese Prince	28	5.50	28	10.35	28	17.28	28	18.23	British	Prinze Line, Ltd.	441.0	61.0	25.0	New York, N. Y.	Manila, P. I.	General	9,250	10,604	8,135
Kent	28	10.15	28	11.15	28	18.17	28	22.27	British	Federal Steam Nav. Co.	400.6	62.8	29.2	Newport, England	Duenedin, N. Z.	General	2,411	6,033	4,353
Venezuela	27	9.23	28	12.25	28	18.40	29	17.30	American	Panama Mail S. S. Co.	380.0	48.0	21.0	New York, N. Y.	San Francisco, Cal.	General	4,113	6,627	4,993
Absaroka	28	12.23	28	14.25	28	21.13	28	22.40	American	Munson, McCorkle Line	409.6	54.1	21.0	Baltimore, Md.	Tacoma, Wash.	General	7,950	8,290	6,063
Independence	28	23.40	29	6.25	29	14.42	29	15.55	American	Tampa Intercoastal Co.	440.0	56.0	26.0	New Orleans, La.	Manila, P. I.	General	7,227	7,227	4,827
Labrico	29	3.20	29	6.45	29	15.30	29	16.30	American	Standard Oil Co.	425.0	57.0	18.0	Baltimore, Md.	San Francisco, Cal.	Ballast	2,830	6,653	4,870
Martian Otis	29	4.00	29	7.25	29	16.18	29	17.30	American	Arrow Line	409.0	54.0	18.0	Baltimore, Md.	Portland, Ore.	General	707	9,644	6,967
Chandler	29	4.00	29	7.25	29	16.18	29	17.30	American	Arrow Line	409.0	54.0	18.0	Baltimore, Md.	Portland, Ore.	General	707	9,644	6,967
Pacific	29	4.00	29	7.25	29	16.18	29	17.30	American	Arrow Line	409.0	54.0	18.0	Baltimore, Md.	Portland, Ore.	General	707	9,644	6,967
Reliance	29	6.35	29	8.45	29	16.27	29	17.30	British	Furness, Withy & Co.	435.0	60.0	17.5	Glasgow, Scotland	Vancouver, B. C.	General	6,740	8,015	5,716
Athelprince	28	22.35	29	10.35	29	17.04	29	17.30	British	Anglo-Saxon Pet. Co.	471.0	62.0	18.6	New Orleans, La.	Los Angeles, Calif.	Ballast	6,740	8,015	5,716
Tatsumo Maru	29	11.50	29	12.00	29	19.35	29	21.40	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Baltimore, Md.	Moji, Japan	(?)	3,546	3,983	2,770
Nasa Prince	29	11.50	29	12.00	29	19.35	29	21.40	American	N. O. & S. A. S. S. Co.	324.0	46.0	20.0	New Orleans, La.	Talechuan, Chile	General	5,310	7,525	5,154
Rhodopis	28	15.30	28	6.58	30	13.52	30	15.05	German	Hamburg-American Line	435.0	53.0	25.2	Hamburg, Germany	Valparaiso, Chile	General	6,071	4,952	3,532
Fernia	29	19.30	30	7.10	30	14.08	30	15.05	Swedish	W. L. Gonyer & Co.	350.0	50.0	23.0	Antwerp, Belgium	San Francisco, Cal.	Coal, sand, rails	4,494	8,567	6,020
Californian	30	8.47	30	9.40	30	16.58	30	17.10	American	Amer-Hawaiian Line	445.0	59.8	20.10	Boston, Mass.	Tacoma, Wash.	General	5,476	7,048	5,337
Margaret	29	13.55	30	10.15	30	16.58	30	21.12	Swedish	Johnson Line	405.0	54.0	25.0	Stockholm, Sweden	Vancouver, B. C.	General	7,080	6,429	4,379
Johnson	29	13.55	30	10.15	30	16.58	30	21.12	Swedish	Johnson Line	405.0	54.0	25.0	Stockholm, Sweden	Vancouver, B. C.	General	7,080	6,429	4,379
Dusan Sili	30	6.05	30	10.25	30	18.00	30	19.20	Yugoslav	Baburiza & Co.	421.0	55.0	24.11	London, England	Autofagasta, Chile	General	4,967	7,048	5,337

* General, cotton, oil, and tinplate.

* Motor ship.

* Launch.

* Tanker.

Modavia 3	29	16.15	30	11.40	30	18.42	30	20.00	British	Donaldson Brothers	385.0	53.6	16.8	Glasgow, Scotland	Vancouver, B. C.	General, bananas	459	6,719	4,979
Katrina	30	10.15	30	12.55	30	19.45	30	20.56	American	Luckenbach Line	446.0	56.0	25.6	Boston, Mass.	Seattle, Wash.	General	5,596	8,508	6,179
Lucienbach	30	14.10	30	21.30	30	23.04	30	23.04	Japanese	K. K. Kaisha	385.0	51.0	27.6	Seaport, Me.	Yawata, Japan	Scrap rail, gen.	7,187	5,914	4,388
K. K. Maru	30	12.47	30	14.55	30	23.05	31	00.52	American	K. K. S. Co.	409.6	51.4	22.0	Newport, News, Va.	Portland, Oreg.	General	5,095	6,510	4,827
Willoughby	30	22.25	31	6.30	31	12.41	31	22.39	Danish	U. S. Army	466.3	61.8	17.6	Cristobal, C. Z.	Gatun, C. Z.	Ballast	8,646	6,024	
Emma Maerck	31	8.50	31	9.05	31	15.54	31	16.45	American	Standard Shipping Co.	424.4	58.2	21.0	New York, N. Y.	Talara, Peru	Ballast	7,333	5,182	
Paul Shoup	31	1.43	31	10.00	31	15.11	31	00.09	American	Tide-water Oil Co.	466.0	54.0	23.6	New York, N. Y.	Los Angeles, Calif.	General	2,607	10,687	6,633
Santa Barbara	30	15.03	31	11.55	31	18.19	31	19.55	Dutch	Grace Line	449.0	56.0	23.0	Hamburg, Germany	Talcahuano, Chile	General	5,346	7,849	5,806
Bemokon	30	15.03	31	11.55	31	18.19	31	19.55	Dutch	Royal Nether. S. S. Co.	449.0	56.0	23.0	Hamburg, Germany	Corral, Chile	General	3,857	8,214	6,183
Volunteer	30	19.20	31	12.00	31	21.80			American	Tampa Inter-ocean Co.	469.0	59.0	24.6	High seas	Balboa, C. Z.	General	10,405	7,401	
Transtar	30	15.00	31	18.05	11-1	8.48		1 10.17	British	Blue Star Line	550.3	72.2	21.2	Liverpool, England	Vancouver, B. C.	Ballast	15,551	4,297	
Marore	31	11.20	11-1	6.21	1 14.12	1 15.15	American	1 14.05	American	Ore S. S. Corp.	375.0	52.3	14.6	Norfolk, Va.	Cruz Grande, Chile	Ballast	924	5,977	4,375
Hardanger 3	31	20.10	1 6.10	1 13.04	1 14.05	Norwegian				Westfal, Larsen & Co.	502.1	62.2	28.0	Santos, Brazil	San Francisco, Cal.	General	5,148	12,023	8,495
President	11-1	2.35	1 7.35	1 14.44	1 21.05	American				Dollar Line	425.0	55.0	14.5	New York, N. Y.	Los Angeles, Calif.	General	991	7,593	5,637
Theodore	31	23.45	1 7.45	1 15.03	1 16.15	Norwegian				Fred Olsen & Co.	431.0	59.2	20.6	Oslo, Norway	Vancouver, B. C.	Cement, coffee	8,093	5,347	
Hampton	1	5.10	1 8.25	1 15.46	1 18.55	American				Richfield Oil Co.	435.0	56.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,405	5,131	
Roads 3	1	6.50	1 8.45	1 16.18	1 17.15	American				Huasteca Petroleum Co.	450.0	58.0	18.3	Jacksonville, Fla.	Los Angeles, Calif.	Ballast	1,859	8,878	6,588
Franklin K.	31	17.35	1 9.22	1 17.05	1 18.25	British				Royal Mail S. P. Co.	430.0	58.2	20.0	Rotterdam, Holland	Vancouver, B. C.	General	6,301	7,348	5,164
Nebraska	1	9.55	1 10.45	1 17.47	1 18.55	American				Standard Transp. Co.	429.3	59.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,709	5,477	
Atlas 3	1	9.45	1 12.50	1 19.40	1 20.55	British				H. M. Thomson	429.3	59.2	20.0	Tampico, Mexico	Brisbane, Australia	Asphalt	3,073	6,156	4,480
Sithonia	1	13.10	1 13.30	1 20.24	1 21.30	American				Huasteca Petroleum Co.	429.3	59.2	20.0	Baltimore, Md.	Los Angeles, Calif.	Ballast	69	238	163
Dean Emory	31	17.15	1 14.00	1 20.56	1 20.15	American				United Fruit Co.	400.0	53.0	21.6	Cristobal, C. Z.	San Francisco, Cal.	General	43	183	742
La Perla	31	14.30	1 14.45	1 22.18	1 23.25	British				Amer-Australian Line	107.2	22.9	8.0	New York, N. Y.	Auckland, N. Z.	General	7,655	7,611	5,497
Min.	27	20.30	2 6.00	2 13.37	2 20.38	Colombian				National Navigation Co.	200.0	33.1	11.10	Cristobal, C. Z.	Buenaventura, Col.	General	2,188	6,644	4,910
Cauca 3	31	19.30	2 6.10	2 13.41	2 15.00	Dutch				Royal Neth. S. S. Co.	424.0	56.0	26.6	Cristobal, C. Z.	Guayaquil, Ecuador	General	1,104	1,273	706
Barat	1	20.45	2 6.05	2 14.27	2 15.45	American				Isthmian S. S. Lines	424.0	56.0	26.6	Houston, Texas	Shanghai, China	General	1,680	6,830	4,932
Stedworker	1	20.45	2 6.05	2 14.27	2 15.45	American											391	1,132	741
West	1	20.55	2 7.10	2 14.43	2 15.45	American				Roosevelt S. S. Co., S. B.	409.0	54.0	20.3	New York, N. Y.	Adelaide, Australia	General	5,373	9,032	6,638
Loquassuck	1	20.55	2 7.10	2 14.43	2 15.45	American				Tide-water Oil Co.	425.8	57.0	20.0	New York, N. Y.	San Francisco, Cal.	Ballast	6,155	7,013	5,317
Meton 3	27	20.19	2 8.00	2 15.24	2 16.45	American				Pacific Steam Nav. Co.	415.7	54.0	16.7	Cristobal, C. Z.	Champerico, Guatemala	General	52	92	47
Acutla	30	16.03	2 9.05	2 16.15	2 17.15	French				French Line	410.0	52.5	19.0	Havre, France	Vancouver, B. C.	General	2,335	7,825	5,616
Georgie	30	16.40	2 10.30	2 17.17	2 18.25	German				North German Lloyd	416.3	52.9	21.0	Cristobal, C. Z.	Buenaventura, Col.	Ballast	2,000	16,870	9,885
Manizales	2	11.00	2 11.10	2 18.15	2 19.35	American				Texas S. S. Co.	471.2	60.0	20.9	Providence, R. I.	Los Angeles, Calif.	General	10,427	8,913	6,210
New York 3	2	12.25	2 13.00	2 20.25	2 21.40	American				Amer-Hawaiian Line	410.0	55.0	22.3	Boston, Mass.	Portland, Oreg.	General	5,640	6,642	4,860
Nebraska	2	10.30	2 14.36	2 22.02	2 23.23	Danish				East Asiatic S. S. Co.	105.0	15.3		Copenhagen, Den.	Vancouver, B. C.	General	4,975	7,680	5,494
Tongking 3	2	6.05	2 6.05	2 8.37		Panamanian				United Fruit Co.	429.3	59.0	16.8	Cristobal, C. Z.	Gatun, C. Z.	General			
Anahuacuna 3	2	8.30	2 14.05	3 11.20	4 1.00	American				Standard Shipping Co.	429.3	59.0	16.8	Baytown, Texas	Los Angeles, Calif.	General			
Joseph Seep 3	2	8.30	2 14.05	3 11.20	4 1.00	American													

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Motor boat.

Tanker.

C. O. Stillman ^a	26	22.00	27	6.04	29	14.25	27	14.25	British	International Pet. Co.	505.7	75.6	33.0	Talara, Peru	New York, N. Y.	Crude oil	20,000	16,870	9,885
Astral ¹	27	3.30	27	6.59	27	15.35	27	15.35	American	Standard Transp. Co.	439.5	58.0	29.3	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,427	8,913	6,210
Avel Johnson ⁶	26	20.00	27	7.37	27	16.00	27	18.15	Swedish	Johnson Line	409.0	53.0	25.0	Honolulu, I. H.	Stockholm, Sweden	General	5,640	6,642	4,860
Canadian Constructor ¹	26	17.50	27	7.46	27	17.30	28	2.20	British	Can. Nat. Steamships	430.0	55.0	23.0	Adelaide, Australia	Montreal, Canada	General	4,975	7,680	5,494

^a Tanker.
¹ Motor ship.

Motor ship.

Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Taketoyo Maru	26	16.00	27	8.39	27	18.32	27	21.43	Japanese	Nippon Yusen Kaisha.	445.0	58.0	19.6	Manila, P. I.	Boston, Mass.	General	5,954	7,972	5,687
West Lynn	26	19.45	27	9.19	27	19.05	27	19.05	British	Sir W. R. Smith & Sons.	401.1	54.2	24.7	Vancouver, B. C.	Manchester, Eng.	General	7,433	6,752	5,161
Eagle	26	23.10	27	9.32	27	19.30	27	19.30	American	Standard Transp. Co.	410.1	55.0	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,611	8,201	6,226
Acacia	26	23.30	27	10.15	27	20.19			British	Pacific Steam Nav. Co.	215.7	33.5	12.0	San Jose, Guatemala	Cristobal, C. Z.	General	82	1,274	706
Catua	26	23.40	27	10.15	27	20.30			Colombian	National Navigation Co.	107.2	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	General	290	1,238	163
San Pedro	27	9.45	27	10.54	27	20.30			American	Pacific-Antarctic S. S. Co.	335.5	55.0	26.6	Portland, Oreg.	Winnington, Del.	Lumber	7,276	7,330	5,233
Elr	27	10.20	27	11.39	27	21.35			Norwegian	Armour & Albion	403.0	53.0	36.8	Cruz Grande, Chile	Baltimore, Md.	Iron ore	8,100	6,199	4,513
Karamea	27	14.30	27	13.40	27	21.50			British	Shaw, Savill & Albion	433.0	64.2	36.5	Glasgow, Scotland		General	7,456	11,729	8,373
Mimosa	27	14.30	27	15.07	27	22.45			French	Standard Transp. Co.	412.3	50.3	24.6	Liverpool, England		General	6,857	6,433	4,441
Broad Arrow	27	14.33	28	6.10	28	14.25			American	Standard Transp. Co.	407.6	62.7	36.6	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,188	9,700	6,804
Baron Ramsay	27	14.45	28	6.40	28	15.40			British	H. Hogarth & Sons	348.9	50.2	22.5	Iquique, Chile	Azores	Nitrates	5,700	4,297	3,051
Pont Arena	28	3.30	28	6.54	28	15.50			American	Swayne & Hoyt	324.0	46.2	23.0	Vancouver, B. C.	New Orleans, La.	General	3,765	3,984	2,612
Nikola Pasic	27	23.00	28	7.25	28	17.55			Yugoslav	Dubrovska Plovdba	390.0	51.9	23.7	Talcahuano, Chile	Azores	Nitrates	7,650	5,302	3,832
Teno	28	1.50	28	7.55	28	17.30			Chilean	Chilean Line	422.8	56.0	24.0	Talcahuano, Chile	New York, N. Y.	General	8,246	7,704	4,672
Dilworth	28	8.30	28	9.15	28	18.30			American	Penn. Shipping Co.	435.0	56.0	26.0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,463	7,441	5,077
Vikingstar	28	10.45	28	11.16	28	19.00			British	Blue Star Line	400.3	52.3	24.0	Portland, Oreg.	Buenos Aires, Arg.	General	3,333	6,870	4,909
Volunteer	28	11.45	28	12.36	28	20.00			American	Tampa Intercean Co.	394.0	56.0	22.0	Manila, P. I.	New Orleans, La.	General	4,506	8,214	6,183
A. L. Kent	28	16.00	29	6.12	29	13.55			American	Isthmian S. S. Lines	394.0	55.1	28.0	San Francisco, Cal.	Glasgow, Scotland	General	7,809	7,047	5,132
Corvus	28	23.00	29	6.53	29	15.10			American	Planet S. S. Corp.	410.6	54.2	24.0	Everett, Wash.	Baltimore, Md.	Lumber	7,396	6,604	4,655
Australia	29	3.00	29	7.11	29	15.35			American	Texas S. S. Corp.	510.0	70.3	31.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	17,102	12,514	8,427
Commercial Guide	29	4.00	29	7.47	29	16.25			American	Moore & McCormack	406.7	55.2	26.3	Pisagua, Chile	Pensacola, Fla.	Nitrates	8,501	6,597	4,752
Barrington	29	6.00	29	8.11	29	16.45			British	Haldin & Co.	396.0	53.0	23.0	Mejillones, Chile	Azores	Nitrates	7,268	5,561	3,812
Steel Trader	29	7.45	29	8.36	29	17.50			American	Isthmian S. S. Lines	434.2	56.0	26.0	Englandwood, B. C.	Baltimore, Md.	Lumber, general	7,074	7,611	5,450
Villager	29	8.00	29	9.09	29	18.30			Norwegian	Westfal, Larsen & Co.	415.0	53.7	25.2	Grays Harb., Wash.	Montevideo, Uruguay	General	7,205	6,873	5,135
Alaskan	29	10.29	29	11.05	29	18.55			American	Amer-Hawaiian Line	415.0	53.7	25.2	Portland, Oreg.	Boston, Mass.	General	8,085	7,336	5,338
S-20	29	12.48	29	19.35					American	U. S. Navy	231.0	21.0		Balboa, C. Z.	Cristobal, C. Z.				
K. R. Kingsbury	29	12.30	29	13.37	29	21.15			American	Standard Oil Co. of Cal.	440.0	58.2	28.0	San Francisco, Cal.	Bayonne, N. J.	Gasoline	9,277	9,033	5,938
Canadian	29	18.15	29	19.35	30	11.55			British	Can. Nat. Steamships	400.5	52.4	23.0	Vancouver, B. C.	Montreal, Canada	Lumber, general	5,200		
Orkanger	29	17.20	30	6.00	30	14.10			Norwegian	Westfal, Larsen & Co.	438.0	59.8	28.2	Los Angeles, Calif.	Land's End, Eng.	Gasoline	10,055	8,291	5,822
Pacific Oaks	30	3.55	30	7.10	30	15.25			American	Dimon S. S. Corp.	209.7	34.2	16.0	Seattle, Wash.	New York, N. Y.	Lumber, shingles	7,522	6,687	4,833
Manizales	30	7.15	30	9.27	30	16.40			German	North German Lloyd	416.6	52.9	25.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	963	1,132	741
Lewis	30	8.00	30	9.52	30	17.45			American	Luckenbach Line	496.0	68.2	29.6	Portland, Oreg.	Boston, Mass.	Lumber, general	13,547	11,437	8,762
Delaware Sun	30	8.45	30	10.06	30	18.55			American	Sun Oil Co.	480.5	66.0	28.2	Los Angeles, Calif.	Chester, Pa.	Gasoline	12,707	9,402	6,586
Drechttdijk	30	9.15	30	10.46	30	19.40			Dutch	N. Pacific Coast Line	485.0	62.0	29.2	Victoria, B. C.	Rotterdam, Holland	General	9,056	10,793	7,619

* For orders.

* Submarine.

* Motor ship.

* Tanker.

	30	7 30	10 30	13 25	20 05	American.	Panama Mail S. S. Co.	380 2	51 6	22 0	San Francisco, Cal.	New York, N. Y.	Coffee, general.	1,785
El Salvador.	30	7 30	10 30	13 25	20 05	American.	Panama Mail S. S. Co.	380 2	51 6	22 0	San Francisco, Cal.	New York, N. Y.	Coffee, general.	1,785
Schuykill 7.	30	10 30	13 40	20 30	20 30	British.	Anglo-American Oil Co.	476 0	63 8	27 6	Los Angeles, Calif.	Avonmouth, Eng.	Gasoline.	12,005
Sydney 7.	30	17 40	31	6 16	31	British.	Hunting & Sons.	395 0	52 5	25 6	Los Angeles, Calif.	Avonmouth, Eng.	Gasoline.	7,518
El Aleto 7.	30	23 45	31	6 53	31	British.	C. T. Bowring & Co.	440 0	57 6	26 6	Cabo Blanco, Peru.	Halifax, Canada.	Crude oil.	9,752
Leeds City.	30	9 00	31	7 16	31	British.	Canadian Transp. Co.	400 0	54 3	24 0	Vancouver, B. C.	Montreal, Canada.	Lumber.	7,065
Harry.	31	2 00	31	7 48	31	American.	Lucienbach Line.	448 9	60 2	28 6	Portland, Oreg.	New Orleans, La.	General.	7,300
Guayaquil.	31	2 54	31	8 00	31	American.	Panama R. R. S. S. Line	251 0	43 6	14 6	Guayaquil, Ecuador	New York, N. Y.	General.	860
La Perla.	31	3 06	31	8 05	31	American.	United Fruit Co.	325 2	43 1	20 0	San Francisco, Cal.	Cristobal, C. Z.	General.	607
King William 7.	31	4 00	31	8 38	31	British.	Dodd, Thomson & Co.	400 7	4 8	23 8	Portland, Oreg.	Falmouth, Eng.	Wheat.	7,559
Possidon.	31	4 20	31	9 08	31	German.	Hamburg-American Line.	450 7	57 2	24 6	Magallanes, Chile.	Hamburg, Germany	General.	8,979
Barn.	31	8 05	31	9 47	31	Dutch.	Royal Neth. S. S. Co.	400 0	58 0	25 8	Corral, Chile	Hamburg, Germany	General.	9,214
Barat.	31	11 45	31	12 45	31	Dutch.	Royal Neth. S. S. Co.	200 3	33 1	12 6	Guayaquil, Ecuador	Cristobal, C. Z.	General.	6,679
Elder Branch.	29	20 50	31	13 43	31	British.	F. & W. Ritsen	380 3	49 7	23 3	Concepcion, Chile.	Liverpool, England	Nitrates, general.	5,677
San Zofio 7.	31	12 05	31	15 03	31	British.	Anglo-American Pet. Co.	400 2	52 0	21 6	Antofagasta, Chile.	Azores, D. W. I.	Nitrates.	6,032
Ivo Rocio.	31	22 00	11-1	7 24	11-1	Yugoslav.	Bahia-Mexico Line.	350 0	49 0	22 0	Antofagasta, Chile.	Azores, D. W. I.	Nitrates.	6,048
Treacine.	1	1 00	1	8 02	1	German.	Hain S. S. Co.	310 0	51 8	23 6	Tecapilla, Chile	Azores, D. W. I.	Nitrates.	7,450
Helluan.	1	1 00	1	8 27	1	British.	Hamburg-American Line	441 2	52 8	26 3	Valparaiso, Chile	Hamburg, Germany	Nitrates.	7,437
J. W. Van.	1	7 00	1	8 48	1	American.	Atlantic Refining Co.	364 9	51 0	23 0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	6,000
Dyke 7.	1	9 00	1	10 15	1	Swedish.	Johnson Line.	440 0	56 0	26 0	San Francisco, Cal.	Stockholm, Sweden	General.	7,228
Buenos Aires 7.	1	10 44	1	11 28	1	American.	The Texas Co.	416 8	56 1	25 6	Wilmington, B. C.	New York, N. Y.	Gasoline.	7,649
Illinois 7.	29	23 30	1	14 51	1	British.	General Nav. Co., Ltd.	207 5	53 6	12 0	Vancouver, B. C.	Antwerp, Belgium	Linnor.	363
Lillohorn 7.	1	14 45	1	17 03	2	French.	French Line.	425 0	55 0	26 0	Vancouver, B. C.	Antwerp, Belgium	General.	7,834
Alaska.	1	15 15	1	17 30	2	American.	Amer-Hawaiian Line.	434 3	57 7	26 0	Tacoma, Wash.	Boston, Mass.	Cot., wheat, gen.	8,077
Georgian.	1	15 15	1	17 30	2	American.	Amer-Hawaiian Line.	434 3	57 7	26 0	Tacoma, Wash.	Boston, Mass.	General.	8,077
Heracles No. 4 7.	1	9 45	2	6 32	2	British.	Standard Dredge Co.	140 6	62 1	6 0	San Francisco, Cal.	New Orleans, La.	Lumber, grain.	7,042
Cape Cornwall.	2	2 45	2	6 32	2	British.	Lyle Shipping Co.	405 0	53 0	24 0	Vancouver, B. C.	London, England	Lumber, grain.	7,900
Romera.	2	5 00	2	7 17	2	British.	Can-Amier. Ship. Co.	402 0	52 0	23 0	Vancouver, B. C.	Southampton, Eng.	General.	3,580
Santa Rita.	2	5 00	2	9 35	2	American.	Grace Line.	370 0	53 2	22 7	Valparaiso, Chile.	New York, N. Y.	General.	4,099
Gen. G. W.	2	5 00	2	9 35	2	American.	Grace Line.	370 0	53 2	22 7	Valparaiso, Chile.	New York, N. Y.	General.	4,099
Getty 7.	2	5 00	2	9 35	2	American.	U. S. Army.	98 0	22 0		Balboa, C. Z.	Cristobal, C. Z.		

* Tanker.

* Tug.

* Dredge.

* Motor boat.

* Motor schooner.

* Air mail carrier.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 27.	Maravi	United Fruit Co.	Puerto Colombia.	October 27.	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
October 27.	Uta	United Fruit Co.	Port Limon, C. R.	October 27.	Darius	Leyland S. S. Line	Liverpool via waypoints.
October 27.	No. 9685 12	Pan-American Airways	Managua via waypoints.	October 27.	Uta	United Fruit Co.	New York via Habana.
October 28.	Suriname	United Fruit Co.	New Orleans, La.	October 27.	Maravi	United Fruit Co.	New York via Kingston.
October 28.	Tolo.	United Fruit Co.	New York via Habana.	October 27.	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
October 28.	Camden.	United Fruit Co.	Curacao, D. W. I.	October 28.	Heredia	United Fruit Co.	New Orleans and waypoints
October 28.	No. 9688 12	Pan-American Airways	Managua via waypoints.	October 28.	Suriname	United Fruit Co.	Port Limon, C. R.
October 29.	Juan Sebastian Elcano	Spanish Line	Barcelona via waypoints.	October 29.	Anahuacuna 14	United Fruit Co.	Colon, R. P.
October 29.	Simon Bolivar	Royal Neth. S. S. Co.	Hamburg via waypoints.	October 29.	Inapahuca 14	United Fruit Co.	Colon, R. P.
October 29.	P. de La Touche.	French Line	Haarlem via waypoints.	October 29.	Pearl Marie 23	G. I. Bryan	Bluefields, Nicaragua.
October 29.	Pearl Marie 23	G. I. Bryan	Colon, R. P.	October 29.	Simon Bolivar	Royal Neth. S. S. Co.	Port Limon, C. R.

* Other than ships passing through the Canal.

12 Motor boat.

13 Motor schooner.

14 Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 29.....	Anapaquina ¹⁵ .	United Fruit Co.	Colon, R. P.	October 29.....	Camden	United Fruit Co.	Las Perlas and S. Marta.
October 29.....	Inapaquina ¹⁵ .	United Fruit Co.	Colon, R. P.	October 29.....	NC 145-M ¹⁶ .	Pan-American Airways.	Guayaquil and wayports.
October 29.....	Annetta I. ¹⁵ .	A. Tagarapulos	Colon, R. P.	October 29.....	No. 9137 ¹⁶ .	Pan-American Airways.	Curacao via wayports.
October 30.....	Zacapa	United Fruit Co.	New York via Kingston.	October 29.....	No. 9685 ¹⁶ .	Pan-American Airways.	Managua via wayports.
October 30.....	Darien C-35 ¹⁶ .	Scadta Airplane Co.	Barranquilla, Colombia.	October 30.....	Tolosa	United Fruit Co.	Port Limon, C. R.
October 30.....	Darien C-35 ¹⁶ .	Scadta Airplane Co.	Barranquilla via wayports.	October 30.....	Annetta I. ¹⁵ .	A. Tagarapulos	Colon, R. P.
October 30.....	Magdalena	Hamburg-American Line.	Hamburg via wayports.	October 31.....	Linda S. ¹⁷ .	A. L. Surgeon	Bluefields, Nicaragua.
October 31.....	Linda S. ¹⁷ .	United Fruit Co.	Colon, R. P.	October 31.....	Magdalena	Hamburg-American Line.	Port Limon, C. R.
October 31.....	Saramacca	Pan-American Airways.	New Orleans via Habana.	October 31.....	Zacapa	United Fruit Co.	New York via wayports.
November 1.....	No. 9664 ¹⁶ .	Stand. Fruit & S. Co.	David, R. P.	October 31.....	P. de La Touche	French Line.	Barcelona via wayports.
November 1.....	Chippewa	Standard Dredging Co.	New York.	October 31.....	Juan Sebastian Elcano	Spanish Line.	Hayre via wayports.
November 1.....	Simon Bolivar	Royal Neth. S. S. Co.	Port Limon, C. R.	October 31.....	Darien C-35 ¹⁶ .	Scadta Airplane Co.	Barranquilla via Cart'na.
November 1.....	CundinamarcaC-33 ¹⁶ .	Scadta Airplane Co.	Buenaventura via wayp'ts	November 1.....	Saramacca	United Fruit Co.	Puerto Colombia.
November 1.....	No. 9137 ¹⁶ .	Pan-American Airways.	Curacao via wayports.	November 2.....	Amapala	Scadta Airplane Co.	Buenaventura via wayp'ts.
November 2.....	Suriname	United Fruit Co.	Bocas, R. P.	November 2.....	No. 9688 ¹⁶ .	Stand. Fruit & S. Co.	New Orleans and wayp'ts.
November 2.....	Magdalena	Hamburg-American Line.	Port Limon, C. R.	November 2.....	Suriname	Pan-American Airways.	Managua.
November 2.....	Wanks	Stand. Fruit & S. Co.	San Blas, R. P.	November 2.....	Simon Bolivar	United Fruit Co.	New Orleans, La.
November 2.....	Cartago	United Fruit Co.	New Orleans via Habana.	November 2.....	Simon Neth. S. S. Co.	Royal Neth. S. S. Co.	Amsterdam via wayports.
November 2.....	Mayari	United Fruit Co.	New York via wayports.	.....	.....	.....	.....
November 2.....	War Sirdar	Anglo-Saxon Petroleum Co.	Curacao, D. W. I.	.....	.....	.....	.....
November 2.....	No. 9717 ¹⁶ .	Pan-American Airways.	Guayaquil via wayports.	.....	.....	.....	.....
November 2.....	No. 9685 ¹⁶ .	Pan-American Airways.	Managua via wayports.	.....	.....	.....	.....
¹⁵ Motor boat.				PORT OF BALBOA.			
¹⁶ Air mail carrier.				¹⁷ Motor schooner.			
October 28.....	Sanbu ¹⁸ .	Hans Elliot.	Bayano River, R. P.	October 28.....	Sanbu ¹⁸ .	Hans Elliot.	Panama Bay, R. P.
October 28.....	Real ¹⁸ .	Hans Elliot.	Bayano River, R. P.	October 28.....	Real ¹⁸ .	Hans Elliot.	Panama Bay, R. P.
October 30.....	Progreso	Mexican Government.	Manzanillo, Mexico.	November 1.....	Missoula.	Hammond Lumber Co.	Guayaquil, Ecuador.
November 1.....	Sea Lion ¹⁹ .	Ship Owners and Merchant Towboat Co.	San Francisco, Cal.	November 1.....	La Union ¹⁸ .	Pacifico Rios.	Panama Bay, R. P.
November 1.....	La Union ¹⁸ .	Towboat Co.	Panama Bay, R. P.	November 2.....	Sea Lion ¹⁹ .	Ship Owners and Merchant Towboat Co.	San Francisco, Cal.
¹⁸ Motor schooner.				¹⁹ Tug.			
¹⁸ Motor schooner.				* Other than ships passing through the Canal.			

Prince Line New Motor Ship.

The *Siamese Prince*, a new motor ship, transited the Canal on October 28, 1929, in the around-the-world service of the Prince Line (Furness, Withy & Co., Ltd.). With the addition of this vessel, the line has a total of 9 cargo motor ships with limited passenger accommodations in this trade, with sailings every 16 days, calling at New York, Cristobal, and varying ports in the Philippine Islands, Japan, Siberia, China, and the Straits; thence returning to New York via the Suez Canal.

The *Siamese Prince* is 441 feet long and 61 feet beam, with a registered tonnage of 6,607 gross and 3,817 net. The other vessels in this service are the *Malayan Prince*, *Chinese Prince*, *Cingalese Prince*, *British Prince*, *Imperial Prince*, *Royal Prince*, *Japanese Prince*, and *Javanese Prince*.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., November 6, 1929.

No. 625.

AID TO NAVIGATION.

Panama Canal, Atlantic approach, gas and whistling buoy to be replaced. On or about November 12, 1929, the combination gas and whistling buoy, lost on October 29, will be replaced and its location changed. The new location is in 156 feet of water, near the prolongation of the axis of the entrance ship channel, 8½ miles from the east breakwater light, Colon Harbor.

Position: Lat. 9° 32' 09" N., Long. 79° 55' 02.5" W.

Bearings (degrees true): East breakwater light, 0° 45'; Farallon Suncio light, 248° 30'; Verde Island (center), 263° 00'.

Buoy is surmounted by a pyramidal lattice-work steel structure 16½ feet high, supporting a 375 mm. lens lantern, under which, is located an 18-inch whistle, operated by the action of the sea. A first-class spar, similar in color, will be placed near the buoy as a marker.

Color of buoy: Black and white, vertical stripes.

Characteristics of light: Flashing white, 12 flashes per minute, light 1 second, dark 4 seconds. Visibility, 10 miles.

H. BURGESS,
Governor.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat....	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys.....	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls.....	(No visitors permitted in nursery.)
Ward 7, White female, private rooms.....	
Ward 8, Obstetrical department, white females (Nursery).....	
Section "C:"	
Ward 9, White foreign, male.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical.....	
Ward 12, Colored, male, medical, eye and ear.....	
Ward 13, Colored, male, G. U.....	
Ward 14, American, male, G. U.....	
Section "D:"	
Ward 15, American, male, surgical.....	{ Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear.....	{ Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children.....	{ Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White children.....	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical.....	{ Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical.....	
Isolation.....	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 15 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time maintained and chronometers rated.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.
PUBLISHED WEEKLY.



Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., November 13, 1929. No. 15.

Tanker Traffic Through the Panama Canal in October, 1929.

During the month of October, 1929, 117 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 650,144, on which tolls of \$573,172.94 were collected. Cargo amounted to 635,258 tons, including 8,950 tons of creosote oil, 6,400 tons of coconut oil, and 619,908 tons of mineral oils. In point of net tonnage, tanker traffic increased 46.0 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 62.8 per cent over the cargo tonnage of October, 1928.

Tanker traffic comprised 25.2 per cent of the total commercial transits through the Canal during the month; made up 23.6 per cent of the total Panama Canal net tonnage; were the source of 23.5 per cent of the total tolls collected; and carried 22.3 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of October, 1929, segregated by direction of transits and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for October, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British	14	76,557	\$57,285.24	15,103
Danish	1	6,024	4,337.28	.....
Danzig	2	12,056	8,680.32	.....
French	2	9,977	7,183.44	.....
Norwegian	2	10,893	7,842.96	.....
United States	36	202,281	149,195.21	9,990
Totals, October, 1929	57	317,788	234,524.45	25,093
Totals, September, 1929	52	282,383	207,007.88	11,600
Totals, August, 1929	50	259,668	194,731.47	34,356
Totals, October, 1928	48	246,410	181,883.99	32,050
<i>Pacific to Atlantic.</i>				
British	14	77,098	81,859.74	150,070
Danzig	1	6,127	6,585.00	11,160
German	1	4,091	4,376.25	7,702
Norwegian	6	28,332	29,452.50	52,454
Swedish	1	3,335	3,958.75	7,134
United States	37	213,373	212,416.25	381,645
Totals, October, 1929	60	332,356	338,648.49	610,165
Totals, September, 1929	49	267,364	270,361.74	465,053
Totals, August, 1929	59	322,779	329,195.06	566,907
Totals, October, 1928	34	198,107	200,340.90	358,076

¹ Includes 8,950 tons creosote oil.

² Includes 6,400 tons coconut oil.

(Continued on page 210.)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 9, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Buenaventura.	1	20.00	3	6.02	3	13.56	3	14.50	American	Panama R. R. S. S. Line	251.0	43.0	19.3	New York, N. Y.	Guayaquil, Ecuador	General	1,236	2,873	1,776
Julia	2	19.10	3	6.30	3	14.28	3	15.25	American	Luckenbach Line.	436.0	57.0	25.0	Houston, Tex.	Seattle, Wash.	Steel, general	5,337	8,543	6,402
San Domingo.	3	5.25	3	7.15	3	14.50	3	16.05	American	Williams S. S. Line	376.4	52.3	16.0	Norfolk, Va.	Seattle, Wash.	General	2,079	5,455	3,902
Atlantic	3	6.50	3	8.15	3	15.17	3	19.50	American	Argonaut S. S. Co.	410.5	54.3	23.6	Baltimore, Md.	Portland, Ore.	Steel, general	7,289	6,567	4,917
Conrad Mohr	3	6.15	3	9.25	3	16.32	3	18.00	Norwegian	C. Michelsen	345.0	48.0	16.3	Newcastle, Eng.	Talara, Peru.	Ballast	4,267	3,009	
Oakland	3	1.45	3	15.07	3	20.50	3	22.40	German	Hamburg-American Line	451.3	59.0	21.3	Hamburg, Germany	Vancouver, B. C.	General, bananas	4,719		
General G. W.																			
Getty	3	9.15	3	9.15	3	16.28			American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Oakworth	4	2.20	4	6.30	4	14.09	4	17.25	British	Blue Diamond Co.	400.0	53.0	24.6	Antwerp, Belgium.	Los Angeles, Calif.	Cement clinkers	7,350	5,615	3,757
Svealand	4	00.50	4	7.25	4	15.00	4	20.40	Swedish	Ore S. S. Corp.	561.0	72.0	22.0	New York, N. Y.	Cruze Grande, Chile	Ballast	15,425	4,421	
Plow City	4	6.55	4	8.20	4	15.44	4	16.55	American	Nelson Line	324.0	46.2	17.6	Baltimore, Md.	Seattle, Wash.	General	2,060	3,983	2,631
Canadian																			
Miller	4	9.35	4	9.50	4	17.05	4	19.20	British	Can. Nat. Steamships	400.0	52.0	18.0	Montreal, Canada	Vancouver, B. C.	General	2,000	5,892	4,186
City of Delhi.	4	15.00	5	6.05	5	13.01	5	14.10	British	Ellerman Line	450.0	58.0	24.3	New York, N. Y.	Adelaide, Australia	General	3,662	9,478	7,069
El Panquico	5	16.00	5	6.00	5	12.57	5	16.30	Panamanian	Panamanian Government.	125.0	23.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	288		101
Greylock	4	18.55	5	7.15	5	15.25	5	16.30	American	Ishtar S. S. Lines	430.7	54.3	28.0	Baltimore, Md.	Vancouver, B. C.	Steel, general	9,298	7,946	5,698
Sun	4	22.20	5	8.35	5	15.31	5	16.35	American	Sun Oil Co.	480.6	66.0	22.0	Charter, Pa.	Seattle, Wash.	Ballast	5,043	7,704	5,707
Peter Kerr.	5	13.55	5	9.30	5	16.56	5	17.36	American	Pacific-Atlantic S. S. Co.	416.0	55.0	20.9	Philadelphia, Pa.	Los Angeles, Calif.	General	4,000		
Paracombé.	5	13.55	5	18.10	6	9.40	6	11.15	British	N. Z. Shipping Co.	405.0	54.0	25.0	Montreal, Canada	Auckland, N. Z.	General	5,043	7,704	5,707
Rochester	6	1.50	6	6.10	6	14.42	6	16.34	American	U. S. Navy	380.0	64.0	25.0	High Seas	Balboa, C. Z.	Ballast	3,849	7,008	5,065
Panamanian	6	6.15	6	7.00	6	15.34	6	17.00	American	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass.	Seattle, Wash.	General	5,928	11,487	8,762
Andrea F.																			
Luckenbach	6	6.53	6	8.35	6	16.30	6	17.30	American	Luckenbach Line	496.0	63.0	23.6	Boston, Mass.	Tacoma, Wash.	General	5,928	11,487	8,762
Sylvan Arrow	6	9.15	6	9.40	6	17.22	6	18.31	American	Standard Transp. Co.	467.6	62.7	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	9,698		6,862
Egmont	6	14.10	6	14.10	6	22.20	7	00.25	American	Roosevelt S. S. Co., S. B.	410.0	54.0	27.0	New York, N. Y.	Cebu, P. I.	Ker ne steel, gen.	6,738	7,430	5,855
Altair	6	14.20	6	14.30	6	22.50	7	00.25	American	Standard Oil Co.	429.0	59.0	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,645		5,382
Condor	7	1.35	7	6.15	7	13.06	7	16.50	Chilean	Soc. Maritima y Com.	356.0	45.3	19.7	New York, N. Y.	Valparaiso, Chile	General	749	4,421	3,063
Point San Pedro																			
Dorothy Calhoun	7	5.20	7	7.15	7	14.43	7	15.40	American	Swayne & Hoyt	324.0	46.0	19.4	New Orleans, La.	San Francisco, Cal.	General, lumber	2,552	3,974	2,572
Queen Eleanor	7	7.35	7	8.50	7	15.36	7	16.50	American	Christenson S. S. Co.	410.5	54.3	19.0	Baltimore, Md.	Los Angeles, Calif.	General	4,725	6,579	4,810
Lycia	7	10.35	7	10.50	7	17.20	7	18.37	British	Du Pont de Nemours	400.3	52.3	18.3	New York, N. Y.	Talcahuano, Chile	General	1,138	5,808	4,054
Habana Maru.	7	9.50	7	11.20	7	18.57	7	20.45	British	Canadian Transp. Co.	300.0	40.0	22.8	Barbados, B. W. I.	Vancouver, B. C.	General	4,300	3,333	2,207
L-10	7	11.30	7	12.20	7	20.25	7	21.45	Japanese	Osaka Shosen Kaisha	407.3	55.0	21.8	New York, N. Y.	Shanghai, China.	General	5,278	6,538	4,769
Roland	5	22.25	8	6.00	8	13.58	8	14.55	American	U. S. Army	378.0	51.0	20.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	3,370	4,800	3,399
Ebro	7	18.50	8	6.03	8	13.04	8	15.30	British	North German Lloyd	450.0	56.0	25.3	Hamburg, Germany	Valparaiso, Chile	General	2,997	9,291	6,301
California	8	5.45	8	7.25	8	15.00	9	00.44	American	Pacific Steam Nav. Co.	574.0	80.3	27.6	New York, N. Y.	Talcahuano, Chile	General	3,739	24,506	17,565
										Panama-Pacific Line									

* Motor ship.

* Tanker.

* Transport.

* Tug.

* Cruiser.

* Launch.

El Cervo	7 18 15	8	7 40	8 14 45	8 16 25	British	Anglo-Ecu. Oilfields.	407.0	52.0	20.0	Philadelphia, Pa.	La Libertad, Ecu.	Ballast	6.046	4.326
Betterton	7 22 25	8 8 28	8 15 36	8 16 30	8 16 30	American	Associated Oil Co.	431.0	59.2	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast	7.863	5.104
Harbridge	8 1 28	8 8 28	8 16 20	8 17 35	8 17 35	British	Crosby, McGee & Co.	390.0	53.0	24.0	Houston, Tex.	Yavato, Japan	Scrap iron	6.845	6.179
Tacoma City	7 22 25	8 8 55	8 16 36	8 17 35	8 17 35	British	Sir W. R. Smith & Sons	400.4	54.3	15.0	W. Hartlepool, Eng.	Vancouver, B. C.	Ballast	6.947	5.338
Tai Ping Yang	7 21 15	8 13 03	8 19 23	9 00 25	9 00 25	Panama	Barber S. S. Line	461.0	60.4	20.6	New York, N. Y.	Shanghai, China	General	3.635	5.854
Knute Nelson	7 21 15	8 13 33	8 20 36	10 13 10	10 13 10	Norwegian	Fret Olsen & Co.	436.0	56.0	24.0	Oslo, Norway	Vancouver, B. C.	General	5.970	8.016
Henry D.	8 13 00	8 14 40	8 22 55	9 00 25	9 00 25	American	Texas Gulf Sulphur Co.	356.0	51.6	23.6	Galveston, Tex.	Portland, Ore.	Sulphur	5.700	5.367
Silksworth	8 18 50	8 19 10	9 11 29	9 12 40	9 12 40	British	R. S. Dalglish & Co.	415.0	53.0	24.9	Tampa, Fla.	Oak, Japan	Phosph. cotton	6.337	6.530
San Jose	7 22 15	8 20 25	9 18 44	9 20 00	9 20 00	American	United Fruit Co.	330.0	44.0	17.0	Cristobal, C. Z.	San Francisco, Cal.	General	484	3.259
Antonia	8 00 0	8 10 0	9 13 28	9 14 10	9 14 10	Italian	Italo-Chileano Co.	335.9	48.0	15.3	Genoa, Italy	Talcahuano, Chile	General	464	3.556
Sunio	8 16 40	9 6 10	9 14 02	9 15 00	9 15 00	American	Transmarine Line	324.0	46.0	21.8	Mobile, Ala.	Pig iron, pipe, etc.	General	2,185	3.924
Caldas	8 16 30	9 6 25	9 14 00	9 15 30	9 15 30	Colombian	National Navigation Co.	116.0	21.1	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	.88	211
Jaya Arrow	8 22 50	9 6 30	9 14 24	9 15 50	9 15 50	American	Standard Oil Co.	468.0	62.0	18.0	New York, N. Y.	Los Angeles, Calif.	General	10,034	7.388
Fairfield City	8 23 05	9 7 15	9 14 48	9 15 50	9 15 50	American	Isthmian S. S. Lines	424.0	56.0	26.0	New York, N. Y.	Manila, P. I.	General	7,958	7,611
Cities Service	9 2 55	9 7 25	9 15 14	9 16 30	9 16 30	American	Cities Service Trans. Co.	465.0	60.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	8,561	5,997
Empire	9 5 45	9 8 25	9 15 53	10 00 38	10 00 38	British	Ellerman Bucknall Line	443.2	57.9	27.7	Baltimore, Md.	Shanghai, China	General	7,362	8,855
Mandalay	9 6 15	9 8 25	9 16 15	9 20 30	9 20 30	British	Imperial Oil Co.	521.5	70.4	22.6	Montreal, Canada	Talara, Peru	Ballast	12,339	9,069
Calgarothie	9 6 10	9 9 40	9 17 32	9 18 30	9 18 30	American	Richfield Oil Co.	500.0	71.2	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast	11,667	8,542
Tamiahua	9 9 10	9 9 50	9 17 40	9 22 52	9 22 52	American	Redwood Line	381.0	52.2	20.0	Mobile, Ala.	Seattle, Wash.	General	4,897	5,723
Abron	9 12 25	9 12 40	9 18 33	10 22 10	10 22 10	British	Anglo-Saxon Pet. Co.	450.8	61.0	20.0	Newcastle, Eng.	Los Angeles, Calif.	Ballast	8,121	5,488
Hopemount	9 14 45	9 14 55	9 21 37	9 23 40	9 23 40	American	Transmarine Lines	324.0	46.0	20.0	Newark, N. J.	Tacoma, Wash.	General	2,532	2,984
Sunewarke	9 16 15	9 18 45	9 21 02	10 10 48	10 10 48	American	Amer-Hawaiian Line	434.3	57.7	18.0	Boston, Mass.	Portland, Ore.	General	4,444	7,983
Arizona	9 16 15	9 18 45	9 21 02	10 10 48	10 10 48	American	Amer-Hawaiian Line	434.3	57.7	18.0	Boston, Mass.	Portland, Ore.	General	4,444	7,983

* Tanker

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Bohemian	2 11 30	3 6 10	3 14 05	3 14 05	3 14 05	American	Atlantic Refining Co.	425.0	57.2	25.6	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	8,115	7,204
Club	3 00 35	3 6 57	3 15 35	3 16 30	3 16 30	Danzig	Waried Tank. Rhesteri.	470.9	63.2	26.5	Talara, Peru	Hamburg, Germany	Naphtha	11,100	9,018
Thalia	2 9 00	3 7 30	3 14 35	3 14 35	3 14 35	British	British Government	472.0	48.0	16.0	Auckland, N. Z.	Kingston, Jamaica	(*)	5,929	5,850
Dioneda	2 14 30	3 7 45	3 15 55	3 16 50	3 16 50	American	Ford Motor Co.	251.0	43.6	19.0	Portland, Ore.	Philadelphia, Pa.		2,492	2,656
Federico	2 23 00	3 8 24	3 16 45	3 16 45	3 16 45	Yugoslav	Dubrovačka Par. Plov.	490.6	54.7	25.1	Antofagasta, Chile	Acores	Nitrates	9,443	8,839
Glavice	3 4 20	3 10 01	3 12 33	3 12 30	3 12 30	American	Ore S. Corp.	549.6	72.9	23.9	Gruta Grande, Chile	Baltimore, Md.	Iron ore	20,000	14,538
Chloro	3 13 05	3 6 04	3 13 45	3 17 12	3 17 12	American	Grace Line	466.0	64.0	25.5	Talcahuano, Chile	New York, N. Y.	General	2,957	10,626
Santa Maria	3 22 22	3 6 29	3 14 40	3 17 12	3 17 12	American	Standard Ship. Co.	425.0	57.2	27.6	Talcahuano, Chile	New York, N. Y.	Gasoline	9,345	7,481
M. F. Elliott	3 15 10	3 7 11	3 15 40	3 21 03	3 21 03	British	Pacific Steam Nav. Co.	406.3	54.2	27.0	Corral, Chile	Hull, England	General	8,311	7,216
La Paz	3 16 15	3 7 29	3 14 35	3 16 35	3 16 35	German	Hamburg-American Line	391.1	53.6	21.8	Los Angeles, Calif.	Hamburg, Germany	General	4,431	5,417
Phrygia	3 18 00	3 8 09	3 16 50	3 18 50	3 18 50	Italian	Navig. Libera-Frestina	404.6	54.5	25.0	Gray's Mbr. Wash.	Genoa, Italy	General	7,605	5,852
Livenza	3 18 00	3 8 09	3 16 50	3 18 50	3 18 50	Italian	Navig. Libera-Frestina	404.6	54.5	25.0	Gray's Mbr. Wash.	Genoa, Italy	General	7,605	5,852
Mary	3 18 15	3 8 52	3 16 50	3 16 50	3 16 50	American	Luckenbach Line	410.5	54.3	24.7	Los Angeles, Calif.	Fall River, Mass.	(*)	6,947	6,114
Luckenbach	3 19 50	3 9 00	3 17 10	3 17 10	3 17 10	American	Charles Nelson & Co.	324.0	46.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	3,433	3,983
Suweit	4 5 00	3 9 36	3 17 43	3 17 43	3 17 43	American	Williams S. S. Line	386.8	52.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	5,259	5,680
Willpolo	4 5 00	3 9 36	3 17 43	3 17 43	3 17 43	American	Williams S. S. Line	386.8	52.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	5,259	5,680
Canadian	4 5 00	3 9 55	3 18 35	3 2 55	3 2 55	British	Can. Nat. Steamships	400.1	52.2	16.0	Auckland, N. Z.	Montreal, Canada	General	1,360	6,142
Challenger	4 5 00	3 9 55	3 18 35	3 2 55	3 2 55	British	Can. Nat. Steamships	400.1	52.2	16.0	Auckland, N. Z.	Montreal, Canada	General	1,360	6,142
Eleanor	4 13 50	3 14 30	3 21 40	3 21 40	3 21 40	American	Sudden & Christenson	410.5	54.3	24.8	Mukiteo, Wash.	Savannah, Ga.	Lumber	8,590	6,572
Christenson	4 13 50	3 14 30	3 21 40	3 21 40	3 21 40	American	Sudden & Christenson	410.5	54.3	24.8	Mukiteo, Wash.	Savannah, Ga.	Lumber	8,590	6,572

* Kerosene distillate.

* Lumber, auto parts.

* For orders.

* Cruiser.

* Motors ship

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
I. C. White ¹ .	5	1.15	5	6.05	5	13.35	American	Pan-Amor. Pac. & Tr. Co.	429.3	59.2	26.9	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,528	7,925	5,840
Toluana	4	21.30	5	6.44	5	13.55	Norwegian	Grace Line.	417.8	54.4	30.0	Tocopilla, Chile	New York, N. Y.	Nitrates	9,516	7,176	5,219
J. L.																	
Lukenbach.	5	2.30	5	7.42	5	15.05	American	Lukenbach Line.	448.9	60.2	32.0	Portland, Ore.	Boston, Mass.	Lumber, general	10,500	9,294	6,861
Havel ¹² .	5	3.45	5	8.28	5	15.50	German	North German Lloyd.	474.1	61.1	28.0	Los Angeles, Calif.	Antwerp, Belgium	General	8,539	9,305	6,790
Tiger ¹² .	5	5.00	5	8.45	5	16.10	American	Standard Transp. Co.	410.0	56.0	28.0	Los Angeles, Calif.	New York, N. Y.	Fuel oil	8,600	8,201	6,207
Barrigove.	5	6.00	5	9.10	5	17.15	British	Barr. Crombie & Co.	400.2	52.3	23.7	Olympia, Wash.	W. Hartlepool, Eng.	Lumber, wheat.	7,150	6,744	4,903
Swendecore.	5	6.00	5	9.18	5	17.15	American	Transmarine Lines	324.0	46.2	24.7	Seattle, Wash.	Newark, N. J.	Lumber	4,800	3,984	2,612
France Maru.	5	6.40	5	9.59	5	18.10	Japanese	Kokusa Kisen Kaisha.	335.0	51.0	26.8	Vancouver, B. C.	Azores ¹² .	Wheat.	7,000	6,209	4,658
Lalaham.	5	7.00	5	10.29	5	18.45	British	Walton, Watts & Co.	351.5	53.1	18.0	Vladivostok, Sib.	United Kingdom.	Lumber, general.	3,527	5,007	3,370
Gundule.	5	10.25	5	11.25	5	20.00	Yugoslav	Babunza & Co.	409.0	55.1	27.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	8,500	6,584	4,570
Mexican ¹² .	5	11.00	5	12.00	5	19.45	American	Amer-Hawaiian Line.	472.3	57.2	30.0	Portland, Ore.	Boston, Mass.	General	11,101	9,258	6,944
Shenandoah ¹² .	5	21.35	6	0.03	6	14.18	Swedish	Ore S. Corp.	561.9	72.0	33.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,800	15,560	4,996
Radmill ¹² .	5	17.15	6	6.44	6	14.40	American	Texas S. S. Co.	416.2	56.1	23.6	Los Angeles, Calif.	Marcus Hook, Pa.	Gasoline	8,515	6,967	5,060
Baldwin ¹² .	6	00.15	6	7.14	6	15.35	American	Penn. Shipping Co.	416.9	56.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,784	6,728	4,806
New Jersey ¹² .	6	7.00	6	8.07	6	16.00	American	Texas S. S. Co.	416.8	56.1	26.0	Los Angeles, Calif.	Pt. Arthur, Tex.	Gasoline	7,554	7,130	5,249
Indiana.	5	20.00	6	8.25	6	18.45	French	French Line.	417.8	55.9	26.0	Vancouver, B. C.	Havre, France.	General	7,527	7,157	4,936
London.																	
Importer.	6	00.40	6	9.12	6	18.35	British	Furness-Pacific Line.	450.4	58.0	28.8	Vancouver, B. C.	London, England	General	8,328	8,529	5,993
Kai.	6	6.30	6	9.26	6	20.10	Danish	Wm. Hansen-Bergen.	270.0	40.0	19.6	Chincha Isl., Peru	Charleston, S. C.	Guano	2,882	2,095	1,427
Point Bonita.	6	6.45	6	9.36	6	19.30	American	Gulf-Pacific Line.	324.0	46.2	20.0	Seattle, Wash.	New Orleans, La.	Lumber, general.	3,209	3,984	2,617
Caldas ¹² .	6	8.00	6	10.15	6	18.30	Colombian	National Navigation Co.	116.0	21.1	10.0	Buenaventura, Col.	Cristobal, C. Z.	General, coffee	258	211	124
Sacramento.	6	6.20	6	10.27	6	20.09	American	Charles Nelson & Co.	380.0	53.2	23.6	Seattle, Wash.	Boston, Mass.	Lumber, general.	4,730	5,653	4,122
Karlfanger.	6	8.50	6	10.39	6	22.55	German	W. L. Conyn & Co.	407.5	54.3	25.1	Vancouver, B. C.	Antwerp, Belgium	Lumber, general.	8,420	6,622	4,885
Champerloo.	6	9.20	6	11.00	6	20.22	British	Pacific Steam Nav. Co.	290.1	41.7	16.3	Champerloo, Guat.	Cristobal, C. Z.	General	274		
Chesapeake ¹² .	6	5.30	6	11.53	6	21.51	British	Anglo-Amer. Oil Co.	470.8	63.8	27.0	Los Angeles, Calif.	London, England	Gasoline	11,798	9,151	6,465
Felix Tausig.	6	6.15	6	12.28	6	21.50	American	Norton, Lilly & Co.	395.5	55.0	26.8	Vancouver, B. C.	Avonmouth, Eng.	General	7,721	7,056	4,964
Tomisla.	6	11.20	6	14.17	6	23.35	Yugoslav	Yugoslav Lloyd.	403.0	52.4	24.6	Meillonas, Chile	Azores ¹² .	Nitrates	8,360	5,926	4,125
Victoria ¹² .	5	3.15	6	14.17	7	00.05	Danish	Canadian Transp. Co.	385.0	54.3	24.9	Olympia, Wash.	London, England	Lumber, general.	6,703		
Flint No. 2.	6	13.35	6	14.57	7	1.17	Norwegian	Willy Kuson.	410.5	54.2	24.0	Iniquia, Chile	Mobile, Ala.	Nitrates	7,600	6,170	4,399
Sage Brush.	6	17.50	6	20.02	7	1.10	American	Shepard Shipping Co.	409.8	54.2	24.0	Everett, Wash.	Boston, Mass.	General	8,800		
Victrola ¹² .	6	22.50	7	6.11	7	11.10	Norwegian	Imperial Oil Co., Ltd.	510.0	68.2	30.0	Talara, Peru	Boston, Mass.	General	15,800	11,575	7,033
Levant Arrow ¹² .	7	4.24	7	6.52	7	15.30	British	Standard Transp. Co.	468.3	62.7	27.4	Los Angeles, Calif.	New York, N. Y.	Crude oil	11,209	9,481	6,946
S. C. T. Dodd ¹² .	7	5.00	7	7.32	7	16.30	American	Standard Oil Co. of Cal.	425.0	57.2	27.6	San Francisco, Cal.	Bayonne, N. J.	Gasoline	9,386	7,481	4,975
Sucanto.	6	20.15	7	7.50	7	16.50	American	Transmarine Lines	324.0	46.2	23.0	Aberdeen, Wash.	Port Newark, N. J.	Lumber	3,900	3,984	2,612
Jefferson Myers.	6	20.55	7	8.00	7	17.45	American	Quaker Line.	400.0	56.0	29.7	Pt. Alberni, B. C.	Boston, Mass.	Lumber, ore	10,034	8,300	6,020
Marjorie.	7	8.00	7	8.49	7	18.25	French	Cie. Aux. de Nav.	425.8	56.7	27.0	San Francisco, Cal.	Rouen, France.	Kerosene.	9,512		
Charles R.																	
McCormick.	6	23.50	7	10.02	7	18.40	American	Munson, McCork's Line	401.4	53.2	27.3	Seattle, Wash.	Baltimore, Md.	Lumber, general.	8,402	7,082	5,167
Tanker.																	

¹² Motor ship.¹² For orders.¹² Tanker.

	7	9	20	7	13	21	7	19	45	British	Pacific Steam Nav. Co.	526	4	61	4	24	2	Bluff, N. Z.	London, England.	General	5,808	12,846	9,439
Rotorua	31	21	50	7	14	16	7	20	55	American	Tampa Intercean Co.	410	0	56	0	20	0	Balboa, C. Z.	New Orleans, La.	General	3,857		
Volunteer	7	14	00	7	22	15	8	20	25	American	United Fruit Co.	336	0	44	6	17	0	San Francisco, Cal.	Cristobal, C. Z.	Frozen, general.	529	3,675	2,359
San Jose	7	8	15	8	12	55	8	12	55	American	Redwood Line, Inc.	380	0	52	2	16	0	San Francisco, Cal.	Mobile, Ala.	General	2,624	5,708	4,138
Sabotawan																							
Benjamin	7	16	45	8	13	35	8	15	34	Norwegian	North Pacific Service	492	0	59	5	27	0	Vancouver, B. C.	Oslo, Norway	(*)	8,017	9,082	6,140
Franklin	8	00	05	8	15	30	8	15	30	American	Calmar S. S. Line	410	5	54	3	26	0	Everett, Wash.	Philadelphia, Pa.	Lumber	7,350	6,587	4,909
Texmar	8	02	08	8	16	25	8	16	25	American	Planet S. S. Line	409	8	54	2	24	0	Englewood, B. C.	New York, N. Y.	Lumber	7,200	6,580	4,795
Centarus	8	00	08	8	16	25	8	16	25	American	Amer-Hawaiian Line	407	7	53	7	27	0	Seattle, Wash.	Boston, Mass.	Lumber	9,437	7,107	5,041
Pennsylvania	8	00	08	8	16	25	8	16	25	American	Standard Transp. Co.	463	3	62	7	27	0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,269	9,744	7,140
Dixie Arrow	8	17	40	9	6	19	9	13	45	American	Waried Transp. Co.	470	2	63	2	27	0	Los Angeles, Calif.	Hamburg, Germany	Gasoline	11,397	9,001	5,927
Callopie	8	22	00	9	6	40	9	14	20	Danish	Royal Mail S. P. Co.	445	0	58	0	25	0	Vancouver, B. C.	Antwerp, Belgium	(*)	8,003	8,229	5,982
Glamorganshire	8	23	15	9	7	25	9	15	45	British	Sin Oil Co.	499	3	59	2	26	0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,496	7,709	5,562
Sunbeam	9	10	45	9	11	27	9	18	45	American													

* Tanker.

* Wheat, barley, and general.

* Grain, lumber, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 3	Tolon	United Fruit Co.	Port Limon, C. R.	November 3	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
November 3	Mayan	Gulf-Caribbean Line	Beaumont, Texas.	November 3	Tolon	United Fruit Co.	New York via Habana.
November 3	Inapaquina ¹⁶	United Fruit Co.	Colon, R. P.	November 3	Magdalena	Hamburg-American Line	Hamburg via wayports.
November 3	Annetta I. ¹⁶	United Fruit Co.	Colon, R. P.	November 3	Mayan	United Fruit Co.	New York via Kingston.
November 3	Saramacca	United Fruit Co.	Puerto Colombia.	November 3	Inapaquina ¹⁶	United Fruit Co.	Colon, R. P.
November 4	Calamares	United Fruit Co.	New York via Habana.	November 3	Annetta I.	A. Tagarapulos	Colon, R. P.
November 4	Calamares	Pan-American Airways	Managua via wayports.	November 4	Cartago	United Fruit Co.	New Orleans and waypts.
November 6	Carare	Elders & Fyffes Line	Avonmouth via wayports	November 4	War Sirdar	Anglo-Saxon Pot. Co	Aruba, D. W. I.
November 6	Carare	Panama, R. S. S. Line.	New York via Haiti	November 4	Saramacca	United Fruit Co.	Bocas, R. P.
November 6	Santa Marta	United Fruit Co.	New York via Kingston.	November 5	Mayan	Gulf-Caribbean S. S. Co.	Houston via wayports.
November 6	Darien C-35 ¹⁷	United Fruit Co.	Barraquilla via wayports.	November 5	No. 9137 ¹⁷	Pan-American Airways	Curacao via wayports.
November 6	Observer	United Fruit Co.	Liverpool via wayports.	November 5	No. 9107 ¹⁷	Pan-American Airways	Guayaquil via wayports.
November 6	Observer	Pan-American Airways	Managua, Nicaragua.	November 5	No. 9664 ¹⁷	Pan-American Airways	Managua, Nicaragua.
November 7	Saramacca	Pan-American Airways	Bocas, R. P.	November 5	02-M ¹⁷	Mexican Government	Mexico via wayports.
November 7	Observer	United Fruit Co.	New Orleans via Habana.	November 5	Calamares	United Fruit Co.	Port Limon, C. R.
November 7	Observer	Stand. Fruit & S. S. Co.	Guayaquil via wayports.	November 6	Chipewna	Elders & Fyffes Line	Bristol via wayports.
November 8	No. 9107 ¹⁷	Pan-American Airways	Curacao via wayports.	November 6	Carare	Standard Dredging Co.	Curacao via wayports.
November 8	N. C. 300-N ¹⁷	Pan-American Airways	Buenaventura and waypts.	November 6	N. C. 300-N ¹⁷	Pan-American Airways	New Orleans, La.
November 8	Cundinamarca C-33 ¹⁷	Seadta Airplane Co.	New York via wayports.	November 7	Santa Marta	United Fruit Co.	New Orleans, La.
November 8	Macabi	United Fruit Co.	Colon, R. P.	November 7	Observer	T. & J. Harrison	New Orleans, La.
November 8	Linda S. ¹⁸	A. L. Surgeon	Colon, R. P.	November 7	Linda S. ¹⁸	A. L. Surgeon	Bluefields Nic. and Limon.
November 8	Inapaquina ¹⁶	Stand. Fruit & S. S. Co.	Colon, R. P.	November 7	Darien C-33 ¹⁷	Seadta Airplane Co.	Barraquilla, Colombia.
November 9	Annetta I. ¹⁶	A. Tagarapulos	Colon, R. P.	November 7	Saramacca	United Fruit Co.	New Orleans, La.
November 9	Amachucuna ¹⁶	United Fruit Co.	Colon, R. P.	November 8	Inapaquina ¹⁶	United Fruit Co.	Colon, R. P.
November 9	Inapaquina ¹⁶	United Fruit Co.	Colon, R. P.	November 8	Cundinamarca C-33 ¹⁷	Seadta Airplane Co.	Buenaventura via waypts.
November 9	Parimaina	United Fruit Co.	New Orleans via Habana.	November 9	Atlantida	Stand. Fruit & S. S. Co.	New Orleans and waypts.
November 9	No. 9685 ¹⁷	Pan-American Airways	Managua via wayports.	November 9	Macabi	United Fruit Co.	New York via Kingston.
November 9				November 9	No. 9688 ¹⁷	Pan-American Airways	Managua, Nicaragua.

* Other than ships passing through the Canal.

¹⁶ Motor boat.¹⁷ Air mail carrier.¹⁸ Motor schooner.

(Continued on page 216, column 2.)

Tanker Traffic Through the Panama Canal.—Continued from page 205.

The following tabulation shows the tanker traffic through the Canal during October, 1929, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	34	192,122	\$140,210.76	1,040
Europe to United States	9	47,308	35,731.73	3,950
Canada to South America	4	27,654	19,910.88	
United States to South America	3	13,676	9,846.72	
Europe to South America	2	12,056	8,680.32	
Foreign vessels in ballast—United States intercoastal	2	11,397	8,205.84	
Central America to South America	1	4,623	4,091.25	7,347
South America to United States	1	5,060	3,643.20	
West Indies to South America	1	3,892	4,203.75	7,756

¹ Creosote oil.

PACIFIC TO ATLANTIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	35	200,451	\$199,790.00	359,645
United States to Europe	13	62,864	66,608.75	118,136
South America to Canada	5	32,703	35,366.25	72,846
South America to United States	3	17,537	19,132.50	34,003
United States to West Indies	1	4,479	4,520.00	7,975
South America to West Indies	1	3,892	2,802.24	
South America to Europe	1	6,127	6,585.00	11,160
Philippine Islands to United States	1	4,303	3,843.75	46,400

¹ Coconut oil.

Of the tanker traffic passing through the Canal in October, 1929, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for October, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
October, 1929	40	227,317	\$165,551.16	1,040
September, 1929	39	212,663	153,455.82	
August, 1929	36	185,410	134,683.91	7,400
October, 1928	36	186,866	135,890.77	7,124
<i>From Los Angeles.</i>				
October, 1929	41	226,240	227,992.50	409,611
September, 1929	37	206,294	208,251.65	363,120
August, 1929	43	236,932	237,282.96	401,565
October, 1928	23	134,002	131,918.40	232,617

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Commercial Traffic Through the Panama Canal in October, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of October, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for October, 1928, and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	96	493,650	377,529	605,086	377,031	\$423,668.28	283,913
East coast of United States to west coast of South America:							
British	6	21,185	16,693	28,690	17,288	18,158.19	6,846
Colombian	1	4,705	3,466	7,310	3,976	4,332.50	2,576
Danish	1	6,024	5,036	8,278	5,064	4,337.28	
Norwegian	1	2,798	2,020	3,194	1,987	2,525.00	2,155
Swedish	1	4,496	3,743	15,337	4,385	3,237.12	
United States	15	73,939	58,722	102,204	58,795	57,548.17	23,344
Totals	25	113,167	89,685	165,013	91,495	90,138.26	34,921
Europe to west coast of South America:							
British	7	37,617	28,234	46,732	28,997	34,804.16	21,900
Danzig	2	12,036	10,461	17,684	10,033	8,680.32	
Dutch	3	17,219	11,909	19,639	11,446	14,886.25	14,457
French	1	4,225	3,020	4,892	3,002	3,775.00	2,199
German	6	29,350	22,348	35,688	22,396	27,935.00	27,189
Italian	2	11,696	9,246	16,993	9,199	11,557.50	2,558
Norwegian	1	4,157	3,040	4,811	2,918	3,800.00	4,767
Yugoslav	2	9,587	6,882	10,937	6,883	8,252.26	7,080
Totals	24	125,907	95,140	157,376	94,874	113,690.49	80,150
Europe to west coast of Canada:							
British	13	90,854	66,569	108,579	66,333	72,567.23	12,232
Dutch	2	11,926	10,047	16,020	9,967	12,558.75	5,808
French	1	5,196	3,349	5,693	3,499	4,186.25	3,625
German	2	14,542	10,075	16,285	10,070	12,593.75	11,539
Italian	2	10,280	9,249	12,833	8,085	9,482.75	2,925
Norwegian	1	4,011	3,177	5,237	3,270	3,971.25	6,143
Swedish	1	5,337	2,861	5,210	3,747	3,576.25	5,476
Totals	22	142,146	105,327	169,910	104,971	118,936.23	47,748
Europe to west coast of United States:							
British	8	39,882	33,669	55,205	33,691	28,715.04	
Danzig	1	5,927	5,207	8,744	5,026	4,267.44	
French	3	15,166	12,025	19,479	11,372	11,445.94	1,451
German	1	6,344	3,826	6,780	4,057	4,782.50	5,442
Norwegian	4	19,696	13,517	22,401	13,582	14,991.84	13,290
Swedish	1	3,532	2,411	4,066	3,144	3,013.75	6,071
United States	1	5,099	4,273	6,965	4,282	5,341.25	8,950
Totals	19	95,646	74,928	123,640	75,154	72,557.76	35,204
East coast of United States to Far East:							
British	7	36,508	23,369	38,111	23,241	29,211.25	47,440
Japanese	5	25,070	21,829	31,610	21,333	26,939.35	34,511
Norwegian	4	20,881	11,625	19,786	11,766	14,531.25	25,351
United States	2	10,904	6,927	11,406	6,922	8,658.75	15,818
Totals	18	93,363	63,750	100,913	63,267	79,340.60	123,120
East coast of United States to Australasia:							
British	9	54,075	38,899	62,575	38,798	48,623.75	46,599
United States	2	10,066	7,548	11,940	7,448	9,435.00	5,589
Totals	11	64,141	46,447	74,515	46,246	58,058.75	52,188

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal to west coast of South America:							
Colombian.....	2	287	277	440	275	\$336.85	315
Dutch.....	1	742	294	780	323	367.50	124
German.....	4	3,804	2,143	4,444	2,240	2,685.00	1,349
Panaman.....	1	124	113	207	109	141.25	75
United States.....	1	1,944	1,634	2,593	1,613	2,042.50	777
Totals.....	9	6,901	4,466	8,464	4,560	5,573.10	2,640
Europe to Australasia:							
British.....	6	56,610	39,541	65,257	40,564	49,426.25	46,055
Swedish.....	1	5,384	3,455	5,750	4,226	4,318.75	4,100
Totals.....	7	61,994	42,996	71,007	44,790	53,745.00	50,155
Around the world:							
British.....	2	12,553	6,940	13,341	7,473	8,675.00	11,840
United States.....	2	19,028	14,573	24,661	14,515	18,216.25	9,178
Totals.....	4	31,581	21,513	38,002	21,988	26,891.25	21,018
East coast of United States to Philippine Islands:							
Danish.....	1	4,483	2,495	4,194	2,532	3,118.75	6,070
United States.....	3	17,453	13,499	21,393	13,434	16,873.75	23,622
Totals.....	4	21,936	15,994	25,587	15,966	19,992.50	29,692
East coast of Canada to west coast South America:							
British.....	4	27,654	23,898	45,432	22,941	19,910.88	.....
Foreign vessels in ballast— United States inter- coastal:							
British.....	2	9,891	8,233	13,321	7,945	7,121.52	.....
Norwegian.....	1	5,071	4,342	7,313	4,307	3,651.12	.....
Totals.....	3	14,962	12,575	20,634	12,252	10,772.64	.....
East coast of United States to west coast of Central America:							
British.....	1	1,331	1,165	1,931	1,182	958.32	.....
Japanese.....	2					10,400.00	.....
Totals.....	3	1,331	1,165	1,931	1,182	11,358.32	.....
Cristobal to west coast of United States:							
United States.....	3	7,117	5,410	8,967	5,301	6,762.50	3,918
Cristobal to west coast of Central America:							
British.....	3	3,033	2,573	4,831	2,715	3,216.25	4,152
Europe to west coast of Central America:							
German.....	2	5,616	3,813	6,073	3,810	4,715.15	3,407
Norwegian.....	1	3,838	2,694	4,262	2,668	3,367.50	2,595
Totals.....	3	9,454	6,507	10,335	6,478	8,082.65	6,002
East coast of South America to west coast of United States:							
United States.....	2	10,049	7,607	12,081	7,575	8,039.45	3,652
East coast of Central America to west coast of United States:							
United States.....	2	4,593	4,185	6,575	4,109	5,231.25	588
East coast of Canada to Australasia:							
British.....	2	8,686	6,649	10,951	6,699	8,311.25	8,343
East coast of United States to Hawaiian Islands:							
United States.....	1	1,730	1,528	2,647	1,542	1,910.00	2,525
Canadian intercoastal:							
British.....	1	4,073	3,258	5,482	3,375	4,072.50	2,500
East coast of Canada to west coast United States:							
British.....	1	4,686	2,747	4,538	2,737	3,433.75	4,151
East coast of Canada to Far East:							
British.....	1	6,695	4,176	6,616	4,100	5,220.00	7,370

¹ Naval vessels having a total of 20,800 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Central America to west coast of South America:							
British.....	1	4,623	3,273	5,671	3,149	\$4,091.25	7,347
East coast of South America to west coast of Canada:							
Norwegian.....	1	4,722	2,728	4,624	2,765	3,410.00	5,500
East coast of South America: to Far East:							
Japanese.....	1	7,292	5,924	9,446	5,919	7,405.00	3,860
West Indies to west coast of South America:							
British.....	1	3,892	3,363	5,582	3,370	4,203.75	7,756
West Indies to Australasia:							
British.....	1	4,146	3,264	4,997	3,184	4,080.00	6,980
Europe to Hawaiian Islands:							
British.....	1	4,071	3,116	4,896	3,136	3,895.00	6,000
Europe to Far East:							
British.....	1	6,917	5,263	8,504	5,440	6,578.75	400
Africa to Australasia:							
British.....	1	4,001	2,475	3,938	2,491	3,093.75	6,496
Cristobal to Balboa:							
Panaman.....	1	47	47	86	47	56.40	58
Grand totals, October, 1929...	277	1,394,206	1,049,506	1,728,277	1,050,939	1,195,727.56	848,347
Grand totals, October, 1928...	306	1,381,688	1,050,917	1,718,872	1,048,282	1,190,585.26	875,641
Grand totals, October, 1927...	289	1,345,683	1,041,924	1,686,239	1,034,897	1,167,843.28	700,592

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	95	516,821	395,126	640,542	395,585	\$493,907.50	751,672
West coast South America to Europe:							
British.....	14	66,148	52,262	83,506	51,187	65,327.50	97,670
Danzig.....	1	6,127	5,268	8,939	5,007	6,535.00	11,160
Dutch.....	3	17,737	11,398	19,402	11,476	14,247.50	27,022
French.....	2	8,905	6,212	10,129	6,200	7,765.00	15,108
German.....	7	31,755	23,740	36,576	22,197	29,610.60	51,806
Greek.....	3	10,813	7,504	11,937	7,446	9,330.00	20,281
Italian.....	2	12,252	7,485	15,257	9,082	9,356.25	7,764
Japanese.....	1	4,449	3,578	5,815	4,056	4,472.50	7,100
Norwegian.....	2	7,745	5,451	8,999	5,460	6,813.75	12,208
Swedish.....	3	13,872	10,429	16,964	13,114	13,036.25	26,136
Yugoslav.....	3	12,578	9,606	15,419	8,572	12,007.50	24,960
Totals.....	41	193,381	142,933	232,943	143,797	178,601.85	301,215
West coast of United States to Europe:							
British.....	13	59,505	44,481	73,733	44,793	55,601.25	106,366
Danish.....	1	5,663	5,188	6,913	5,218	6,485.00	9,322
Dutch.....	1	7,056	4,547	7,310	4,495	5,683.75	9,432
German.....	3	13,219	9,521	15,900	9,568	11,901.25	19,288
Japanese.....	1	4,400	4,357	5,864	4,259	5,280.00	7,700
Norwegian.....	6	28,175	22,397	37,868	22,251	27,996.25	51,396
Swedish.....	2	8,820	6,573	11,174	8,269	8,216.25	14,445
United States.....	2	13,751	10,760	17,106	10,618	13,450.00	23,499
Totals.....	29	140,589	107,824	175,868	109,471	134,613.75	241,448
West coast of South America to east coast of United States:							
British.....	7	31,342	26,005	45,525	27,507	32,506.25	46,216
Chilean.....	2	7,735	6,033	10,889	6,233	7,541.25	7,948
German.....	1	1,885	1,886	2,259	2,010	2,262.00	3,005
Greek.....	1	4,568	2,865	4,720	2,843	3,551.25	8,300
Norwegian.....	1	4,513	3,530	5,659	3,533	4,412.50	8,100
Swedish.....	1	4,421	3,743	15,339	4,377	4,678.75	22,146
United States.....	15	60,201	47,652	82,854	47,481	59,359.45	132,238
Totals.....	28	114,665	91,714	167,245	93,984	114,341.45	227,951
West coast of Canada to Europe:							
British.....	14	76,485	55,925	87,399	54,950	69,906.25	98,767
Danish.....	1	3,555	2,401	3,953	2,394	3,001.25	5,934
Dutch.....	1	7,619	5,782	9,338	5,808	7,227.50	9,056

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of Canada to Europe—Continued:							
French.....	1	5,580	4,237	7,030	4,265	\$5,296.25	9,055
German.....	2	13,577	9,062	15,210	9,208	11,327.50	17,967
Italian.....	1	6,054	5,031	7,061	4,460	6,288.75	8,300
Norwegian.....	3	14,734	9,190	15,028	9,266	11,487.50	21,484
United States.....	1	5,450	3,465	5,687	3,450	4,331.25	7,848
Totals.....	24	133,054	95,093	150,706	93,801	118,866.25	178,411
West coast of South America to Cristobal:							
Colombian.....	5	1,237	1,171	1,983	1,177	1,452.15	1,310
Dutch.....	2	1,484	588	1,560	646	735.00	1,139
German.....	5	4,232	2,879	5,398	2,974	3,598.75	3,220
Totals.....	12	6,953	4,638	8,941	4,797	5,785.90	5,719
Philippine Islands to east coast of United States:							
Danish.....	2	4,768	3,222	5,405	3,219	4,027.50	7,700
Japanese.....	4	19,837	16,012	25,426	15,496	20,015.00	22,311
Norwegian.....	1	7,063	4,042	6,744	4,109	5,052.50	4,252
United States.....	2	10,486	8,855	12,748	8,897	11,068.75	10,907
Totals.....	9	42,204	32,131	50,323	31,721	40,163.75	45,170
Australasia to Europe:							
British.....	7	49,466	38,667	60,760	38,117	48,333.75	41,389
West coast of Canada to east coast of United States:							
British.....	1	4,627	3,172	5,140	3,156	3,965.00	7,450
United States.....	4	15,709	11,723	18,967	11,717	14,653.75	23,050
Totals.....	5	20,336	14,895	24,107	14,873	18,618.75	30,500
West coast of South America to east coast of Canada:							
* British.....	5	32,703	28,293	52,635	27,323	35,366.25	72,846
West coast of United States to east coast Central America:							
United States.....	3	6,734	6,153	9,803	* 5,988	7,691.25	1,477
West coast of United States to east coast of South America:							
British.....	1	4,909	4,009	6,445	3,928	5,011.25	3,383
German.....	1	5,135	2,909	4,963	3,045	3,026.50	7,204
Norwegian.....	1	5,135	2,909	4,963	3,045	3,636.25	7,204
Totals.....	3	10,044	6,918	11,408	6,973	11,674.00	10,587
West coast of United States to Cristobal:							
United States.....	3	7,237	5,655	9,418	5,644	7,019.30	1,516
Canadian intercoastal:							
British.....	3	13,768	9,548	15,975	9,835	11,935.00	18,574
West coast of Central America to Cristobal:							
British.....	3	3,033	2,573	4,831	2,715	3,216.25	165
Australasia to east coast of United States:							
British.....	1	5,155	3,057	5,020	3,051	3,821.25	8,005
Swedish.....	1	3,528	2,417	4,104	3,128	2,540.16	7,177
United States.....	1	5,291	4,496	5,079	3,689	5,620.00	7,177
Totals.....	3	13,974	9,970	14,203	9,868	11,981.41	15,182
Australasia to east coast of Canada:							
British.....	3	14,068	10,946	18,002	11,013	13,682.50	11,799
West coast of South America to West Indies:							
British.....	2	3,892	3,363	5,582	3,370	5,477.24	7,275
Far East to Europe:							
British.....	2	6,686	5,344	8,005	5,079	6,680.00	7,275
West coast of United States to West Indies:							
Norwegian.....	1	4,479	3,616	5,723	3,466	4,520.00	7,975

* Naval vessel of 6,053 displacement tons.

* Includes naval vessel of 5,350 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Hawaiian Islands to east coast of United States:							
United States.....	1	1,740	1,542	2,647	1,542	\$1,927.50	2,514
Hawaiian Islands to Europe:							
United States.....	1	4,860	2,781	4,960	3,665	3,476.25	5,640
Far East to east coast of United States:							
Japanese.....	1	4,301	3,210	5,220	3,159	4,012.50	1,841
Far East to West Indies:							
Norwegian.....	1	4,530	2,508	4,268	2,498	3,135.00	7,400
West coast of South America to Egypt:							
Yugoslav.....	1	4,178	3,706	5,856	3,798	4,632.50	9,030
Balboa to Cristobal:							
Panaman.....	1	47	47	86	47	35.25	
Supplemental bill.....						475.00	
Grand totals, October, 1920...	287	1,353,743	1,029,194	1,690,057	1,032,129	1,290,170.15	1,997,296
Grand totals, October, 1923...	251	1,133,692	867,994	1,436,367	874,503	1,084,360.04	1,706,836
Grand totals, October, 1927...	278	1,240,069	971,385	1,587,793	975,218	1,212,272.09	2,017,054

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(a) For handling cargo from ship's side to storage place, the customary inward local charge of \$1 per ton.

(b) For delivery or reforwarding, customary outward local charge of \$1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(c) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulsated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers"). Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessels to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4 of the tariff.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 209.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
		From—			For—
			November 9.	Annetta I. ²⁰	Colon, R. P.
			November 9.	Anachuana ¹⁹	Colon, R. P.
			November 9.	Inapaquina ¹⁹	Colon, R. P.

PORT OF BALBOA.

* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
		From—			For—
November 6.	Chiriqui ²⁰	Pto. Armuelles, R. P.	November 6.	Chiriqui Land Co.	Pto. Armuelles, R. P.
November 8.	Real ²⁰	Panama Bay, R. P.	November 8.	Real ²⁰	Panama Bay, R. P.
November 8.	Sambu ²⁰	Panama Bay, R. P.	November 8.	Hans Elliot.	Panama Bay, R. P.
November 8.	A. Valdez.	Panama Bay, R. P.	November 8.	Sambu ²⁰	Panama Bay, R. P.
November 9.	Deroche.	Los Angeles, California.	November 8.	Dos Hermanos ²⁰	Panama Bay, R. P.
November 9.	La Mascota ²⁰	Panama Bay, R. P.		A. Valdez.	

* Other than ships passing through the Canal.

²⁰ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., November 20, 1929. No. 16.

Canal Traffic During First Fifteen Days of November.

During the first 15 days of November, 272 commercial vessels transited the Canal. There were no transits of small launches. Tolls on the commercial vessels aggregated \$1,187,594.18.

The daily average of transits of commercial vessels was 18.47 and the average tolls collection \$79,172.95, as compared with an average of 18.46 transits and \$82,332.96 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the transits was \$4,336.16, as compared with \$4,458.46 for the first 15 days of October.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 10½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 10½ months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November (first 15 days).....	272	1,187,594.18	18.47	79,172.95
Totals, first 10½ months of calendar year, 1929.....	5,655	24,226,383.20	17.73	74,944.77
Totals, first 10½ months of calendar year, 1928.....	5,487	22,798,832.81	17.14	71,246.35
Totals, first 10½ months of calendar year, 1927.....	5,213	22,651,944.46	16.34	71,009.23

As compared with the first 10½ months of the calendar year 1928, the corresponding period this year has had 168 more transits and \$1,427,550.39 more in tolls.

Addition of "Villanger" to Service of the Westfal-Larsen Line.

The direct service of the Westfal-Larsen Line, between the west coast of the United States and Canada and the east coast of South America, announced in THE PANAMA CANAL RECORD of March 6, 1929, has been augmented by the motor ship *Villanger*, which transited the Canal on October 29, 1929, en route to Rio de Janeiro, Santos, Montevideo, and Buenos Aires.

The *Villanger* is the first of three new motor ships with refrigerator space for this service. The addition of the other two, now building, will allow approximately monthly sailings.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 16, 1919.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Depth.			Nature.	Tons.	
Niuro ²	8	21.57	10	6.05	10	12.54	11	11.55	American.	U. S. Navy.	462.0	60.0	23.5	Hampton Rds, Va	Mare Island, Calif	General.	1,993	
Pacific										Furness, Withy & Co.	420.0	58.0	16.6	Glasgow, Scotland	Vancouver, B. C.	General, bananas	1,983	7,892 5,858
Shipper ³	9	7.15	10	6.07	19	13.20	10	18.01	British.	Kerr Line.	425.0	58.0	23.0	New York, N. Y.	Manila, P. I.	General	5,164	8,226 6,039
Silverbeech ³	9	18.25	10	7.15	10	14.16	10	15.20	British.	Anglo-Saxon Pet. Co.	451.9	59.2	19.0	London, England	Los Angeles, Calif	Ballast.		7,944 5,408
Sandar ³	9	18.50	10	7.20	10	14.10	10	19.33	Norwegian.	Tide-water Oil Co.	430.0	59.2	21.0	New York, N. Y.	Los Angeles, Calif	Ballast.		7,629 5,325
David	10	9.50	10	10.10	10	16.35	10	17.26	American.	Com'lth & Dom. Line.	480.8	62.4	28.7	London, England	Wellington, N. Z.	General	6,001	10,716 7,439
Port Campbell.	10	7.20	10	12.30	10	19.45	10	21.05	British.	Calmar S. S. Line.	409.8	54.2	21.0	Baltimore, Md	Seattle, Wash.	General, steel	8,691	6,757 7,493
Yorkmar	10	13.00	10	15.45	11	9.15	11	10.22	American.	Hedra S. S. Co.	440.8	56.0	28.0	Mobile, Ala	Seattle, Wash.	Steel	10,296	8,333 6,113
Hegira	10	16.05	10	16.30	11	12.44	11	15.15	American.	Shepard S. S. Co.	333.8	48.0	23.0	New York, N. Y.	Seattle, Wash.	General	3,890	4,162 2,898
Malchase	10	16.45	11	6.15	11	13.28	11	15.20	American.	Conard Line.	480.4	60.3	29.0	Newcastle, Eng	Dunedin, N. Z.	General	5,084	10,785 8,141
Port Darwin	10	18.45	11	6.20	11	15.01	11	16.15	British.	Osaka Shosen Kaisha.	430.7	56.0	18.10	Buenos Aires, Arg	Kobe, Japan.	Cotton, carbon	2,832	7,875 5,821
Monterideo	10	19.45	11	7.25	11	15.28	11	16.30	Japanese.	Dimon S. S. Co.	409.5	54.2	17.10	New York, N. Y.	Seattle, Wash.	General	4,849	6,537 4,845
Mari ³	10	21.10	11	7.25	11	15.48	11	16.55	American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
Pacific Redwood	10	21.10	11	8.00	11	16.29			American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-10 ⁴									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-11 ⁴									American.	U. S. Navy.	219.0	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-20 ⁴									American.	U. S. Navy.	219.0	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
Chinese	10	21.50	11	8.35	11	16.49	11	17.45	British.	Furness, Withy & Co.	441.0	60.3	26.0	New York, N. Y.	Manila, P. I.	General	7,433	9,254 6,265
Prince ³									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-14 ⁴									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-16 ⁴									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-15 ⁴									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
S-17 ⁴									American.	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		
Aracuan	11	2.35	11	9.50	11	18.55	11	19.55	British.	Com'lth & Dom. Line.	425.0	54.3	20.0	New York, N. Y.	Adelaide, Aust'lia	General	4,231	6,456 4,818
Guatemala	10	6.15	11	11.00	11	18.17	12	17.15	American.	Panama Mail S. S. Co.	360.2	51.6	24.10	New York, N. Y.	San Francisco, Cal	General	2,436	5,776 4,081
Lica Maersk	11	9.25	11	11.10	11	19.30	12	0.56	Danish.	Isbrandtsen Moller Co	308.0	44.0	19.6	New York, N. Y.	Sourabaya, Java.	General	3,450	3,861 2,562
Circuis	11	8.20	11	11.20	11	20.05	11	21.04	American.	Planet Line.	410.0	54.6	23.7	Baltimore, Md	Seattle, Wash.	General, steel	7,141	6,585 4,791
Portland Maru	11	9.30	11	12.20	11	20.33	11	22.05	Japanese.	Kokusai Kisen Kaisha.	385.0	51.0	25.9	Norfolk, Va.	Yokohama, Japan	Phosph' cotton	6,339	5,919 4,424
Amalfenberg	11	7.25	11	12.40	11	21.31	11	22.30	French.	Columbia S. S. Line.	320.0	47.0	16.10	Pr. Colombia, Col	Buenaventura, Col	General, salt	2,584	3,567 2,460
Saint Andre.	10	14.00	11	14.00	11	22.21	11	23.35	French.	Franch Line.	397.6	50.2	20.0	Havre, France	Talcahuano, Chile	Pipes, general	2,190	5,958 4,164
Santa Cruz	11	8.55	11	14.25	11	21.25	11	23.35	American.	Grace Line.	384.0	50.2	18.7	New York, N. Y.	Callao, Peru	General	2,217	5,534 3,868
Oregon	11	12.15	11	15.10	11	22.54	11	23.54	American.	Texas S. S. Co.	425.8	57.0	18.0	Baltimore, Md	Los Angeles, Calif	Ballast		5,184
Launch Navy.									American.	U. S. Navy.				Cristobal, C. Z.	Balboa, C. Z.	Ballast		
Lauch Navy.									American.	U. S. Navy.				Cristobal, C. Z.	Balboa, C. Z.	Ballast		
Almagro	11	12.40	12	6.05	12	14.23	12	16.00	British.	Pacific Steam Nav. Co.	303.0	43.0	16.3	New York, N. Y.	Pimental, Peru	General	1,077	2,826 1,770
West Cactus	11	20.05	12	6.25	12	13.42	12	15.05	American.	McComick S. Co.	410.5	54.0	18.9	Rosario, Argentine.	Vancouver, B. C.	General	3,109	6,025 5,046
Cornwall	11	14.40	12	6.15	12	15.20	12	16.40	British.	Federal Steam Nav. Co	495.0	63.0	31.5	Liverpool, England	N. Plymouth, N. Z.	General.	9,265	12,217 8,495

¹ Tanker.² Ammunition ship.³ Motor ship.⁴ Submarine.

Ruabine.....	12	6.15	12	7.30	12	14.51	13	00.04	British	N. Z. Shipping Co.	480.6	60.3	29.0	London, England	Wellington, N. Z.	General	6,285 11,443	8,417
Scotsburg.....	11	20.36	12	7.35	12	15.43	12	17.00	American	Tampa Intercean Co.	419.5	56.3	24.8	New Orleans, La.	Manila, P. I.	(*)	7,221 8,696	6,316
S-12.....	12	9.08	12	8.40	12	16.28	12	17.03	American	U. S. Navy	231.0	51.7	21.0	Cristobal, C. Z.	Bacon, C. Z.	Ballast	3,176 7,103	4,991
Ohioan.....	12	9.35	12	9.55	12	17.29	12	18.35	American	Amer-Hawaiian Line	407.7	53.7	22.0	Boston, Mass	Tacoma, Wash	General	2,560 6,484	4,675
West Montop. Frankington	12	10.30	12	10.50	12	18.43	12	19.50	British	States S. S. Co.	410.0	54.0	18.0	Philadelphia, Pa.	Seattle, Wash.	General	5,000 5,540	3,748
Court.....	12	11.13	12	11.45	12	20.08	13	1.00	British	United British S. S. Co.	396.0	53.0	21.6	Swansea, England	Acajutla, Salvador	Patent fuel	6,242 4,320	3,003
Amplaria.....	11	11.35	12	12.35	12	19.55	12	21.30	German	Anglo-Saxon Pet. Co.	412.0	53.0	18.0	Ellesmere Pk., Eng.	Los Angeles, Calif	Ballast	4,032 4,219	3,003
Antiochia.....	11	6.00	12	14.15	12	21.15	12	22.35	Norwegian.	Hamburg-American Line	361.5	53.1	21.3	Hamburg, Germany	Champerico, Guat	General	6,393 5,616	3,879
Golden Gate.....	12	11.15	12	15.00	12	22.40	13	4.10	British	Scand.-So. Pacific Line	420.3	54.0	23.8	Norrsundby, Den	Corral, Chile	General	6,480 7,100	4,996
Springbank.....	12	11.15	12	15.00	12	22.40	13	4.10	British	Andrew Worr & Co.	420.3	54.0	23.8	Philadelphia, Pa.	Manila, P. I.	General	6,480 7,100	4,996
General Wm.	12	11.15	12	15.00	12	22.40	13	4.10	British	Andrew Worr & Co.	420.3	54.0	23.8	Philadelphia, Pa.	Manila, P. I.	General	6,480 7,100	4,996
M. Graham.....	11	22.57	13	6.10	13	16.30	13	15.10	American	U. S. Army.	156.0	32.0	0.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	15,476	4,354
Bethore.....	12	14.50	13	6.15	13	14.37	14	00.38	British	Ore S. S. Corp.	550.0	72.0	20.0	Newport News, Va.	Cruz Grande, Chile	General	1,390 5,208	3,578
Hazel Branch.	12	14.50	13	6.15	13	14.37	14	00.38	British	F. & W. Ritson.	400.4	51.2	17.8	Liverpool, England	Valparaiso, Chile	General	1,390 5,208	3,578
Edward.....	13	2.45	13	7.25	13	14.49	13	15.55	American	Lockenbach Line	436.6	57.2	22.3	Boston, Mass	Tacoma, Wash	General	4,415 8,543	6,427
Lockenbach.....	13	2.45	13	7.25	13	14.49	13	15.55	American	Lockenbach Line	436.6	57.2	22.3	Boston, Mass	Tacoma, Wash	General	4,415 8,543	6,427
Losada.....	13	2.45	13	7.25	13	14.49	13	15.55	American	Lockenbach Line	436.6	57.2	22.3	Boston, Mass	Tacoma, Wash	General	4,415 8,543	6,427
Nova King.....	12	9.20	13	9.00	13	15.57	13	17.05	American	N. O. & S. A. S. S. Line	324.0	46.2	22.8	New Orleans, La.	San Antonio, Chile	General	3,219 3,978	2,560
Champerico.....	12	9.20	13	9.00	13	15.57	13	17.05	American	Pacific Steam Nav. Co.	290.0	41.7	19.8	Cristobal, C. Z.	Champerico, Guat	General	2,064 2,593	1,587
Larry Doleny.....	13	9.15	13	10.45	13	17.37	13	21.30	American	Rebfield Oil Co.	430.0	59.2	19.10	Norfolk, Va.	Los Angeles, Calif	Ballast	7,494	5,198
Canadian.....	13	9.45	13	12.10	13	19.33	13	21.45	British	Can. Nat. Steamships	400.0	52.0	24.8	Montreal, Canada	Ancelad, N. Z.	General	4,741 5,954	4,139
Conqueror.....	11	12.45	13	13.30	13	20.26	13	21.45	British	Donaldson Line	425.0	50.0	18.0	Glasgow, Scotland	Vancouver, B. C.	General	7,783 7,827	5,429
Sulaira.....	11	16.30	14	6.00	14	13.00	14	17.20	American	Gracie Line	360.0	51.0	24.6	New York, N. Y.	Talcahuano, Chile.	General	2,601 5,726	4,056
Santa Teresa.....	11	19.12	14	6.07	14	13.36	14	16.20	Dutch	N. Pacific Coast Line	509.0	64.6	21.5	Rotterdam, Holland	Vancouver, B. C.	General	3,245 11,724	8,206
Delftdijk.....	11	19.12	14	6.07	14	13.36	14	16.20	Dutch	N. Pacific Coast Line	509.0	64.6	21.5	Rotterdam, Holland	Vancouver, B. C.	General	3,245 11,724	8,206
Bogota.....	13	10.05	14	7.10	14	14.18	14	15.20	British	Pacific Steam Nav. Co.	400.0	52.0	22.4	Hull, England	Magallanes, Chile.	General	3,470 5,733	4,015
Pensylvanic.....	13	10.45	14	7.10	14	15.05	14	16.15	French	French Line	400.0	52.5	16.6	Havre, France	Talcahuano, Chile	General	1,830 5,964	1,354
Halo.....	14	2.00	14	8.05	14	15.44	14	17.20	American	Amer. Tar Products Co.	435.0	56.0	26.0	New York, N. Y.	Seattle, Wash.	(*)	9,200 7,434	5,145
K. R. Kings- bury.....	14	5.35	14	8.10	14	15.54	14	17.20	American	Standard Oil Co.	440.0	58.2	22.0	Baltimore, Md	Los Angeles, Calif	Ballast	9,033	5,938
Uganda.....	14	6.15	14	9.25	14	16.41	14	17.45	British	Isbrandtsen Moller Co.	410.0	52.0	24.0	Norfolk, Va.	Yokohama, Japan	General	7,770 5,593	4,069
Crown City.....	14	12.45	14	14.35	14	21.25	18	1.30	American	So. African Disp. Line.	410.0	54.4	14.0	New York, N. Y.	San Francisco, Cal	Ballast	6,736	4,881
Balboa.....	14	17.10	15	6.00	15	16.31	16	5.59	Swedish	Johnson Line	426.9	56.2	24.5	Gothenburg, Swed	San Francisco, Cal	(*)	7,273 7,480	5,533
Mittlmeier.....	14	23.20	15	6.20	15	17.21	15	18.36	German.	Atlantic Tank Rhederei	412.0	55.0	21.0	Hamburg, Germany	Los Angeles, Calif	Ballast	6,605	4,340
President.....	15	6.05	15	7.25	15	15.32	15	21.15	American	Dollar Line	502.0	62.0	29.0	New York, N. Y.	San Francisco, Cal	General	4,621 12,533	9,207
Garfield.....	15	6.05	15	7.25	15	15.32	15	21.15	American	Dollar Line	502.0	62.0	29.0	New York, N. Y.	San Francisco, Cal	General	4,621 12,533	9,207
Munares.....	15	6.05	15	7.25	15	15.32	15	21.15	American	Munson S. S. Line	370.0	53.0	23.0	Baltimore, Md	Tacoma, Wash	General	5,965 5,577	4,225
Astral.....	15	4.00	15	8.20	15	18.15	15	19.21	American	Standard Transp. Co.	439.5	58.0	22.0	New York, N. Y.	Los Angeles, Calif	Ballast	8,913	6,210
Justin.....	15	6.40	15	8.20	15	18.50	15	20.00	German	North German Lloyd	449.0	56.0	21.8	Hamburg, Germany	Vancouver, B. C.	General	3,000 7,933	5,799
Barneyd.....	14	6.35	15	9.35	15	19.35	16	4.51	Dutch.	Royal Neth. S. S. Co.	416.0	56.0	26.0	Hamburg, Germany	Corral, Chile	General	4,458 7,820	5,980
Canadian.....	15	7.10	15	12.05	15	20.25	15	21.34	British	Can. Nat. Steamships	400.0	52.0	18.10	Montreal, Canada	Alehalde, Australia	General	2,911 5,905	4,175
Scottish.....	15	12.30	15	12.35	15	19.46	16	2.08	American	Isthmian S. S. Lines	251.0	43.6	22.6	Baltimore, Md	Honolulu, T. H.	(*)	3,210 2,823	1,740
Santa Isabel.....	14	13.00	15	12.30	15	21.29	15	22.84	American	Isthmian S. S. Lines	251.0	43.6	22.6	Baltimore, Md	Honolulu, T. H.	Ballast	3,210 2,823	1,740
Lehore.....	14	13.00	15	12.30	15	21.29	15	22.84	American	Isthmian S. S. Lines	251.0	43.6	22.6	Baltimore, Md	Honolulu, T. H.	Ballast	3,210 2,823	1,740
Willkeno.....	15	4.55	15	13.80	15	22.01	15	23.15	British	Williams S. S. Line	415.0	52.7	17.6	Baltimore, Md	Seattle, Wash	General	3,000 7,750	5,805
Oropega.....	15	4.55	15	13.80	15	22.01	15	23.15	British	Williams S. S. Line	415.0	52.7	17.6	Baltimore, Md	Seattle, Wash	General	3,000 7,750	5,805
Australia.....	15	4.55	15	13.80	15	22.01	15	23.15	British	Williams S. S. Line	415.0	52.7	17.6	Baltimore, Md	Seattle, Wash	General	3,000 7,750	5,805
Norcoman.....	13	19.00	15	14.05	15	23.34	16	00.40	American	Pacific Steam Nav. Co.	509.7	66.0	25.0	Liverpool, England	Talcahuano, Chile	General	5,639 14,827	10,680
10.....	13	19.00	15	14.05	15	23.34	16	00.40	American	Pacific Steam Nav. Co.	509.7	66.0	25.0	Liverpool, England	Talcahuano, Chile	General	5,639 14,827	10,680
Cal.....	16	19.10	16	1.07	16	16.43	16	14.58	German.	Grace S. Clark	110.0	31.7	7.0	Rockland, Me.	Los Angeles, Calif	Ballast	12,514	8,427
	16	19.10	16	1.07	16	16.43	16	14.58	German.	Roland Line	216.5	32.9	12.6	Cristobal, C. Z.	Buenaventura, Col.	General	325 1,105	698

° Cement, paper, general.

° Coal tar products.

° Cotton, pipe, wax, steel, and lumber.

° Yacht, anchored in Gatun Lake.

° Mine planter.

° Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Day.	Hour.			Nature.	Tons.	Gross.	Net.
Cauca ¹¹	10	13.30	16	6.00	16	13.58	16	20.35	Colombian.	National Navigation Co.	107.0	22.9	8.3	Cristobal, C. Z.	Buenaventura, Col.	General	86	238	163
Rioito ¹²	15	00.30	16	6.10	16	14.40	16	18.45	Italian	Nav. Libera-Tristina	430.0	55.0	18.4	Treviso, Italy	Vancouver, B. C.	General	3,160	7,789	3,568
American Star.....	15	16.45	16	7.20	16	14.48	16	15.58	American	Texas S. S. Co.	416.0	56.0	20.0	Rio de Janeiro, Br	Los Angeles, Calif	Ballast	5,022	6,979	5,075
Notre Dame de Fourviere.....	15	18.50	16	7.20	16	15.30	16	16.35	American	Nelson Line	386.0	52.0	21.11	New York, N. Y.	Seattle, Wash.	General, steel	5,022	5,699	4,167
Lancaster.....	15	19.25	16	8.05	16	15.32	16	16.35	French	French Line	427.0	58.0	18.0	Havre, France	Vancouver, B. C.	General	2,408	8,043	5,454
Falsterbo ¹³	15	21.05	16	8.20	16	16.31	16	17.30	American	Argonaut S. S. Line.	434.0	57.7	26.6	Baltimore, Md	Portland, Ore	Steel, general	8,897	7,935	5,841
Charles Christenson.....	15	21.10	16	9.05	16	16.56	16	20.00	Swedish	Texas S. S. Co.	349.0	50.0	23.0	Port Arthur, Tex	Melbourne, Austlia	(¹⁴)	5,672	4,917	3,528
Dilworth ¹⁵	16	5.20	16	10.00	16	17.20	16	18.45	American	Arrow Line	410.0	54.0	20.10	Jacksonville, Fla.	Portland, Ore	General	4,879	6,083	4,915
Ani.....	16	8.20	16	11.05	16	17.44	16	18.45	American	Tide-water Oil Co.	435.0	56.0	22.0	New York, N. Y.	Los Angeles, Calif	Ballast	7,441	5,077	
Limon.....	16	8.55	16	11.10	16	19.05	16	23.45	Belgian	Com. Ind. d' Com. Arm.	400.0	52.0	29.0	Blyth, England	Antofagasta, Chile	General, coke	7,031	6,617	4,792
Minnesota.....	16	15.05	16	13.43	16	20.40	16	23.07	American	United Fruit Co.	330.6	44.0	19.3	Cristobal, C. Z.	San Francisco, Cal.	General, bananas	456	3,684	2,231
Motor Sailor.....	16	13.00	16	14.55	16	21.28	26	23.07	American	Amer-Hawaiian Line	407.7	53.7	20.1	Boston, Mass.	Portland, Ore	General	4,012	7,150	5,024
						16	16.30			U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.	Ballast			

¹¹ Motor ship.¹² Tanker.¹³ Kerosene, asphalt, lubricating oil, and grease.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Cauca ¹¹	9	22.40	10	6.20	10	13.50	10	16.05	Colombian.	National Navigation Co.	107.2	22.9	11.6	Buenaventura, Col	Cristobal, C. Z.	Coffee, hides, etc.	293	238	163
Huguenot ¹²	10	0.55	10	7.20	10	15.15	12	8.40	American	B. L. Shipping Co.	434.8	56.3	27.4	Long Beach, Calif	Newburgh, N. Y.	Gas and fuel oil.	10,099	7,394	5,099
S-12 ¹³	10	21.00	11	6.30	11	20.10	11	21.00	British	U. S. Navy	231.0	21.0		Bahoa, C. Z.	Cristobal, C. Z.	Nitrates	8,193	6,037	4,510
Shakespeare.....	10	21.45	11	6.50	11	20.40	11	22.00	American	Shakespeare Ship. Co.	407.0	53.5	24.4	Liquine, Chile	Azores ¹⁴	Lumber	6,801	6,572	4,900
San Vincente.....	11	3.00	11	7.35	11	16.00	11	22.00	British	Quaker Line	410.5	57.8	24.0	Portland, Ore	Wilmington, N. C.	General	3,170	9,158	6,117
Essequibo.....	11	5.30	11	7.57	11	18.10	11	21.25	German	Pacific Steam Nav. Co.	450.0	57.8	23.0	Talcahuano, Chile	New York, N. Y.	General	6,686	9,139	6,666
Portland ¹⁵	11	5.30	11	7.57	11	18.10	11	21.25	German	Hamburg-American Line	462.2	61.3	25.0	Vancouver, B. C.	Hamburg, Germany	Nitrates	7,400	5,710	4,022
Grangepark.....	11	6.05	11	9.15	11	21.20	11	22.40	British	J. & J. Denholm	400.0	58.7	27.0	Tucupilla, Chile	New York, N. Y.	General	2,363	6,015	4,281
Colombia.....	10	10.15	11	9.01	11	19.45	11	22.38	American	Panama Mail S. S. Co.	380.0	58.2	23.0	San Francisco, Cal	New York, N. Y.	General	8,005	9,936	6,561
Orta.....	11	1.00	11	10.01	11	19.45	11	22.38	British	Pacific Steam Nav. Co.	485.4	53.2	30.1	Magallanes, Chile	Liverpool, England	(¹⁶)	1,056	2,851	1,776
Araucaria.....	11	7.00	11	10.23	11	22.25	12	13.20	British	Pacific Steam Nav. Co.	303.0	43.0	16.0	Callao, Peru	New York, N. Y.	(¹⁷)	1,056	2,851	1,776
San Leopoldo ¹¹	11	9.00	11	11.04	11	22.35	12	9.20	British	Anglo-Mexican Pet. Co.	401.9	54.4	18.0	Valparaiso, Chile	Aruba, D. W. I.	Ballast	6,975	4,623	
Mayebashi.....	11	6.15	11	12.50	11	23.20	12	10.40	Japanese	Nippon Yusen Kaisha.	445.0	58.0	21.0	Manila, P. I.	Boston, Mass	General	5,273	8,012	5,749
Maru.....	11	14.15	11	15.17	12	13.08	12	15.43	British	C. T. Bowring & Co.	385.0	53.6	23.6	Vancouver, B. C.	United Kingdom	Wheat	7,000	5,458	3,787
Ronda.....	11	16.00	11	6.26	12	14.55	12	21.15	American	Grace Line	408.0	52.2	20.0	Callao, Peru	New York, N. Y.	Copper, lead, gen.	3,116	6,672	4,905
Santa Cecilia.....	11	16.30	12	6.46	12	16.25	12	16.35	American	Panama Mail S. S. Co.	261.1	40.0	14.6	San Francisco, Cal	Cristobal, C. Z.	General	160	2,352	1,549
Corinto.....	11	20.12	7	7.03	12	16.15	12	16.15	Norwegian	W. L. Comyn Co.	341.6	48.2	22.0	Vancouver, B. C.	Immingham, Eng	Wheat, lumber	4,950	4,381	3,269
Regulus.....	11	21.40	12	7.49	12	17.30	12	17.30	American	Pomona S. S. Co.	440.0	56.0	29.6	Everett, Wash.	Baltimore, Md	Lumber	10,000	8,324	6,036
Pomona.....	11	21.40	12	7.49	12	17.30	12	17.30	American	Pomona S. S. Co.	440.0	56.0	29.6	Everett, Wash.	Baltimore, Md	Lumber	10,000	8,324	6,036

¹¹ Tanker.¹² Motor ship.¹³ For orders.¹⁴ Submarine.¹⁵ Wool, cotton, and sugar.¹⁶ Cotton, coffee, and cocoa.¹⁷ Cotton, coffee, and cocoa.

Chattanooga	12	6.00	12	8.14	12	18.45	12	18.45	American	U. S. Steel Prod. Co.	424.2	56.2	26.0	Seattle, Wash.	Philadelphia, Pa.	Lumber, general	8,383	7,611	5,450
City	12	6.30	12	8.45	12	19.00	12	19.00	British	Isthmian S. S. Lines	358.0	52.0	23.4	Iquique, Chile.	Pensacola, Fla.	Nitrates	7,200	5,138	3,673
Quevics	12	11.34	12	11.51	12	20.00	12	20.00	American	Amer-Hawaiian Line	404.6	53.9	26.0	Portland, Oreg.	Boston, Mass.	Lumber, general	6,454	6,760	4,450
Columbian	12	14.55	12	15.43	13	11.00	13	11.00	American	Luckenbach Line	446.0	56.1	30.6	Seattle, Wash.	Boston, Mass.	General	7,618	8,552	6,236
K. I.	12	15.15	12	16.56	13	12.25	13	17.58	Japanese	Osaka Shosen Kaisha	407.2	50.8	18.0	Hongkong, China.	Philadelphia, Pa.	General	2,480	6,539	4,773
Lucienbach.	13	4.00	13	6.21	13	14.20	13	14.20	American	Standard Transp. Co.	408.3	62.7	27.3	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	11,267	9,431	6,946
Havre Maru.	13	4.00	13	6.53	13	15.32	13	22.25	French	Cha. Auxilare Nav.	425.6	56.7	27.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,265	7,106	5,065
Empire Arrow	13	7.33	13	7.33	15.55	13	15.55	Panama	Panama Government	125.6	23.5		Bahama, C. Z.	Philadelphia, Pa.	Crude oil	5,625	4,297	2,718	
Monique	12	15.20	13	7.23	13	16.00	13	16.00	Norwegian	Chr. Michelsen	345.0	48.0	25.6	Talara, Peru	Vallo, Norway	Crude oil	6,552	6,784	5,107
Conrad Mohr.	12	18.30	13	7.23	13	17.10	13	17.10	British	S. P. W. Smith & Sons	401.8	54.3	23.8	Vancouver, B. C.	Manchester, Eng.	General	6,782	5,601	3,913
East Lynn	12	18.40	13	7.49	13	17.30	13	17.30	American	T. P. Gallagher & Co.	391.8	51.3	27.0	Manila, P. I.	New York, N. Y.	Cocunut oil	5,306	5,746	4,093
Romulus	12	17.00	13	8.36	13	18.15	13	18.15	Norwegian	W. L. Conyn	365.4	52.3	25.3	Vancouver, B. C.	Liverpool, England	Wheat, cotton	7,000	6,583	4,808
Evangel	12	20.45	13	9.10	13	19.30	13	19.30	American	Dimon S. Co.	410.5	54.4	33.3	Seattle, Wash.	New York, N. Y.	Lumber	7,000	6,583	4,808
Pacific Pine.	13	7.00	13	9.18	13	18.40	13	18.40	American	Transmarine Lines	324.0	46.7	23.5	N. Westminister, B. C.	Newark, N. J.	Wheat	3,844	3,984	2,628
Suralco	13	7.00	13	10.11	13	19.50	13	19.50	British	Sir W. R. Smith & Sons	420.0	56.2	24.6	Vancouver, B. C.	Avonmouth, Eng.	Wheat, lumber	8,412		
Great City	13	3.55	13	11.50	13	20.30	13	20.30	American	McCormick S. S. Co.	401.4	53.2	27.0	Portland, Oreg.	Baltimore, Md.	Lumber, general	8,213	7,082	5,167
Hauptman.	14	3.20	14	6.14	14	13.50	14	15.42	American	Associated Oil S. Co.	419.5	56.5	26.1	San Francisco, Cal.	New York, N. Y.	Gasoline	9,556	7,900	5,025
Solana	13	18.00	14	6.45	14	13.50	14	15.42	British	Donaldson Bros. Ltd	415.9	54.0	27.0	Victoria, B. C.	New York, N. Y.	General	6,472	6,809	4,842
Gracia	13	22.00	14	7.22	14	14.14	14	16.15	Dutch	Holland-American Line	485.6	62.2	29.0	Vancouver, B. C.	Rotterdam, Holland	General	7,750	0,786	7,551
Dindiekl	13	23.00	14	7.44	14	15.30	14	16.45	British	Moore Line, Ltd.	375.0	62.9	35.3	Fiji Islands	London, England	General	7,509	9,030	4,615
Jedemoor	13	3.20	14	8.13	14	15.05	10	19.43	American	United Fruit Co.	330.6	44.1	17.2	San Francisco, Cal.	Cristobal, C. Z.	Raw sugar	801	3,684	2,234
Umon	14	4.30	14	9.06	14	17.35	10	17.35	American	Ore S. S. Corp.	429.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	General	11,800	7,847	5,185
Finmore	14	8.30	14	9.46	14	18.05	14	18.05	Danish	East Asiatic Co., Ltd	425.3	55.2	33.0	Vancouver, B. C.	Copenhagen, Den.	Lumber, general	9,420	7,407	5,065
Peru	14	11.00	14	11.42	14	19.03	14	19.15	Belgium	Soc. Anonyme d'Arm.	457.0	57.0	26.0	San Francisco, Cal.	Rotterdam, Holland	Diesel oil	8,930	7,415	4,976
Labrador	15	1.45	15	6.28	15	13.18	15	13.48	British	Anglo-Mexican Pet. Co.	407.4	52.4	25.4	Los Angeles, Calif.	Lizardes, Eng. ¹⁵	Gasoline	7,362	6,157	4,137
San Salvador	15	1.30	15	7.30	15	15.45	15	15.45	American	Richfield Oil Co.	426.2	59.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,171	7,978	5,839
Samuel Q.	15	5.35	15	7.41	15	18.45	15	18.45	American	Tidewater Oil Co.	424.4	58.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,293	7,333	5,183
Brown	14	20.45	15	7.52	15	19.45	15	22.30	Japanese	Kokusa Kisen Kaisha	335.0	51.0	25.9	Vancouver, B. C.	Falmouth, England	Wheat	7,600	5,928	4,381
Ohio Maru	14	17.00	15	8.11	15	19.40	15	19.40	American	Malloy Trans. Lines	333.8	48.0	23.0	Tacoma, Wash.	Poughkeepsie, N. Y.	Lumber	4,600	4,112	2,846
Mallemak	14	22.00	15	8.59	15	20.45	15	20.45	American	Williams S. S. Corp.	415.0	56.0	26.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	8,500	7,717	5,762
Willbrook	14	23.00	15	9.33	15	21.55	15	23.15	British	J. & J. Denholm, Ltd	409.0	53.5	27.0	Tocopilla, Chile	Azores ¹⁵	Nitrates	7,900	6,565	4,728
Empark	15	0.00	15	10.00	15	22.05	15	22.05	American	Luckenbach Line	471.0	59.2	22.6	Portland, Oreg.	Mobile, Ala.	General	4,889	9,027	6,539
Paul	15	3.00	15	10.25	15	22.15	15	22.15	British	Union Cold Storage	420.0	59.4	25.0	Vancouver, B. C.	London, England	Lumber, general	4,732	7,506	5,261
Oregon Star.	15	6.00	15	10.43	15	23.10	15	23.10	American	Ore S. S. Corp.	449.1	57.2	30.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	12,000	7,808	5,139
Antio	15	6.10	15	10.23	15	23.10	15	23.10	Swedish	Johnson Line	392.0	52.6	24.6	Vancouver, B. C.	Stockholm, Sweden	Wheat, fruit	5,518	6,650	4,919
Antio-Johnson ¹⁵	15	6.10	15	10.23	15	23.10	15	23.10	Swedish	Johnson Line	392.0	52.6	24.6	Vancouver, B. C.	Stockholm, Sweden	Wheat, fruit	5,518	6,650	4,919
Hadnot ¹⁵	15	9.45	15	11.36	15	23.30	15	23.30	British	J. I. Jacobs & Co., Ltd.	416.0	59.6	26.5	Los Angeles, Calif.	Ellersham, England	Gasoline	9,704	7,655	5,129
Laurelwood ¹⁵	15	8.00	15	11.36	15	23.30	15	23.30	American	Cites Service Trans. Co.	436.9	59.6	26.5	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,000	6,706	4,639
Dakota	15	10.55	15	12.08	15	23.10	15	23.10	American	Amer-Hawaiian Line	407.7	53.7	27.8	Seattle, Wash.	Boston, Mass.	General	8,983	7,156	5,094
Draxton	15	12.20	15	14.05	16	1.30	17	13.00	German	Hamburg-American Line	227.5	54.4	14.5	Guayaquil, Ecuador	Cristobal, C. Z.	General	1,020	1,633	1,041
Durazzo	15	6.30	15	14.42	16	1.55	17	17.05	German	Hamburg-American Line	369.6	54.2	19.5	Valparaiso, Chile	Hamburg, Germany	General	8,004	6,791	4,997
Spreewald ¹⁵	15	6.30	15	5.56	16	15.20	16	15.20	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	New York, N. Y.	General	21,654	15,351	4,297
Stredore	16	2.30	16	5.36	16	15.20	16	15.20	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	New York, N. Y.	General	21,654	15,351	4,297
Salinas ¹⁵	15	7.45	16	6.39	16	16.40	17	14.00	American	U. S. Navy	462.0	60.0	23.3	Los Angeles, Calif.	Cristobal, C. Z. ¹⁵	Iron ore	11,000		
Edwin	15	15.45	16	7.22	16	17.55	16	17.55	American	Arrow Line	410.0	54.2	24.6	Everett, Wash.	New York, N. Y.	Lumber	6,938	6,603	4,932
Christenson.	15	17.50	16	7.40	16	16.50	16	16.50	British	C. T. Bowring & Co.	407.4	52.2	25.6	La Libertad, Ecua	Philadelphia, Pa.	Crude oil	7,878	6,046	4,326
El Cervo	15	17.50	16	7.40	16	16.50	16	16.50	British	C. T. Bowring & Co.	407.4	52.2	25.6	La Libertad, Ecua	Philadelphia, Pa.	Crude oil	7,878	6,046	4,326

Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Pilot.....	15	16.40	16	8.20	16	18.25	16	18.25	German.....	F. Laeisz.....	399.0	54.8	24.6	Iquique, Chile.....	Alexandria, Egypt.....	Nitrates.....	6,800	4,362
All America ¹⁹	16	9.00	16	19.15	16	19.15	16	22.00	American.....	All America Cables.....	278.4	37.0	13.7	Bahoa, C. Z.....	Cristobal, C. Z.....			
Cedar Branch.....	16	1.00	16	9.22	16	19.15	16	20.55	British.....	Nadila, S. S. Co.....	390.5	51.0	24.0	Valparaiso, Chile.....	Liverpool, England.....			
King John ²⁰	16	00.50	16	10.29	16	19.40	16	21.15	British.....	Dodd, Thomson & Co.....	400.7	54.8	24.0	Suva, Fiji Islands.....	Lands End, Eng. ²¹			

¹⁹ Tanker.²⁰ Motor ship.²¹ For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 10.....	Calamares.....	United Fruit Co.....	Port Limon, C. R.....	November 10.....	Wanks.....	Stand. Fruit & S. S. Co.....	San Blas, R. P.....
November 10.....	NC 144-M ²²	Pan-American Airways.....	Managua via wayports.	November 10.....	Calamares.....	United Fruit Co.....	New York via Habana.
November 11.....	Pearl Marie ²³	G. I. Bryan.....	Colon, R. P.....	November 10.....	Ancon.....	Panama R. R. S. S. Line.....	New Orleans and waypts.
November 11.....	Crynsen.....	Royal Neth. S. S. Co.....	Amsterdam via wayports	November 11.....	Parismina.....	United Fruit Co.....	Bluefields, Nicaragua.
November 11.....	Pastores.....	United Fruit Co.....	Managua via wayports.	November 11.....	Pearl Marie ²³	United Fruit Co.....	Colon, R. P.....
November 11.....	Pan-American Airways.....	Pan-American Airways.....	Managua via wayports.	November 12.....	Anachueuna ²⁴	United Fruit Co.....	Guayaquil via wayports.
November 12.....	Anachueuna ²⁴	United Fruit Co.....	Colon, R. P.....	November 12.....	No. 9107 ²²	Pan-American Airways.....	Managua via wayports.
November 12.....	Metapan.....	United Fruit Co.....	New York via Kingston.	November 12.....	No. 9654 ²²	Pan-American Airways.....	Curacao via wayports.
November 13.....	Seadta Airplane Co.....	Seadta Airplane Co.....	Barranquilla via wayports.	November 12.....	No. 300-N ²²	Pan-American Airways.....	Port Limon, C. R.....
November 13.....	C. Z. 103 ²²	Isthmian Airways.....	U. S. via wayports.	November 12.....	Crynsen.....	Royal Neth. S. S. Co.....	Port Limon, C. R.....
November 13.....	Inapaquina ²⁴	United Fruit Co.....	Colon, R. P.....	November 13.....	Pastores.....	United Fruit Co.....	Colon, R. P.....
November 13.....	Annetta I. ²⁴	A. Tagarapitos.....	New Orleans, La.....	November 13.....	Inapaquina ²⁴	United Fruit Co.....	Colon, R. P.....
November 14.....	Suriname.....	United Fruit Co.....	Curacao via wayports.	November 13.....	Annetta I. ²⁴	Pan-American Airways.....	Managua via wayports.
November 14.....	300-N ²²	Pan-American Airways.....	Port Limon, C. R.....	November 14.....	No. 9685 ²²	Seadta Airplane Co.....	Barranquilla via waypts.
November 14.....	Pasalero ²³	Gough Brothers.....	Port Limon, C. R.....	November 14.....	Darden C-35 ²²	United Fruit Co.....	New York via waypts.
November 15.....	Amapala.....	Stand. Fruit & S. S. Co.....	New Orleans via Habana.	November 15.....	Metapan.....	United Fruit Co.....	Bluefields, Nicaragua.
November 15.....	Crynsen.....	Royal Neth. S. S. Co.....	Port Limon, C. R.....	November 15.....	Linda S. ²³	A. L. Surgeon.....	Puerto Colombia.
November 15.....	Pan-American Airways.....	Pan-American Airways.....	Guayaquil via wayports.	November 15.....	Suriname.....	Pan-American Airways.....	Managua via wayports.
November 15.....	United Fruit Co.....	United Fruit Co.....	Puerto Colombia.	November 16.....	No. 9688 ²²	United Fruit Co.....	Colon, R. P.....
November 16.....	A. L. Surgeon.....	Stand. Fruit & S. S. Co.....	Colon, R. P.....	November 16.....	Inapaquina ²⁴	United Fruit Co.....	New Orleans and waypts.
November 16.....	Wanks.....	Stand. Fruit & S. S. Co.....	San Blas, R. P.....	November 16.....	Amapala.....	Stand. Fruit & S. S. Co.....	Amsterdam via wayports.
November 16.....	Cuba.....	French Line.....	St. Nazaire via wayports.	November 16.....	Crynsen.....	Royal Neth. S. S. Co.....	New York via Kingston.
November 16.....	Mercan.....	Leyland S. S. Line.....	Port Limon, C. R.....	November 16.....	Manqui.....	United Fruit Co.....	Port Limon, C. R.....
November 16.....	Ruga.....	Hamburg-American Line.....	Tampico, Mexico.....				
November 16.....	Heredia.....	United Fruit Co.....	New Orleans via Habana.				
November 16.....	United Fruit Co.....	United Fruit Co.....	Colon, R. P.....				
November 16.....	Inapaquina ²⁴	Pan-American Airways.....	Managua via wayports.				
November 16.....	No. 9685 ²²						

²² Air mail carrier.²³ Motor schooner.²⁴ Motor boat.

* Other than ships passing through the Canal.

(Continued on page 232, column 2.)

Cargo Through Canal During October, 1929.

On pages 226 and 227 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in October, 1929. This cargo, segregated according to direction, as compared with October, 1928, and the differences, is shown in the following tabulation:

	October, 1929.	October, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	848,347	875,641	-27,294
Pacific to Atlantic.....	1,997,296	1,706,836	+290,460
Totals.....	2,845,643	2,582,477	+263,166

As shown above, cargo tonnage from the Atlantic to the Pacific decreased 27,294 tons under October, 1928, while that in the opposite direction gained 290,460 tons, making a combined increase over the corresponding month a year ago of 263,166 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-four and seven-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 25.8 per cent in Europe. Cargo originating in the United States was 45,580 tons, or 7.7 per cent, less than the tonnage from the United States in October, 1928, and the proportion of the total tonnage in October, 1928, was also greater (68.0 per cent). Cargo from Europe gained 23,995 tons, or 12.3 per cent, in actual tonnage and the proportion of the total cargo was also higher during the past month.

Destination.—Forty-two and seven-tenths per cent of the Pacific-bound cargo was destined to the United States; 21.1 per cent to Asia; 15.8 per cent to South America; and 14.6 per cent to Australasia. Tonnage to the United States, and Asia, decreased 11,874 tons, or 3.2 per cent; and 37,822 tons, or 17.5 per cent, respectively; and that to South America increased 30,717 tons, or 29.7 per cent, as compared to the amounts destined to these areas in October, 1928. The percentage of the total cargo to Asia was lower and that to South America higher last month than in October, 1928, while that to the United States remained the same. Tonnage to Australasia increased 158 tons, or 0.1 per cent, over October, 1928. The proportion of the total cargo to this region showed a small increase over October, 1928.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 56.6 per cent came from the west coast of the United States; 30.9 per cent from South America; 3.1 per cent from Asia; 5.8 per cent from Canada; and 3.4 per cent from Australasia. Cargo tonnage from the United States, Australasia, and Asia, showed relative as well as actual increases over October, 1928, of 197,653 tons, or 21.2 per cent; 43,089 tons, or 171.5 per cent; and 30,880 tons, or 103.3 per cent, respectively. Cargo tonnage from South America increased 55,632 tons, or 9.9 per cent, while that from Canada decreased 35,415 tons, or 23.5 per cent. Both of these areas show a relative decrease.

Destination.—Segregated according to destination, 53.5 per cent of the cargo in this direction went to the United States, and 38.6 per cent to Europe, these two destination accounting for over 92 per cent of the tonnage from the Pacific to the Atlantic during October, 1929.

Tonnage to the United States increased 224,351 tons, or 26.5 per cent; to Europe 56,149 tons, or 7.8 per cent; and to Canada 47,778 tons, or 93.7 per cent. Cargo tonnage to these areas also increased in their relation to the total cargo tonnage.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 86.2 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 13.8 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for October, 1929, or October, 1928, are listed in the following tabulation, showing differences:

Commodity.	October, 1929.	October, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Asphalt.....	2,865	16,256	-13,391
Automobiles.....	19,755	22,955	-3,200
Automobile accessories.....	8,125	10,115	-1,990
Cement.....	36,647	27,344	+9,303
Chemicals.....	12,772	7,418	+5,354
Coal and coke.....	22,681	9,227	+13,454
Cotton.....	33,117	51,085	-17,968
Manufactured goods:			
Iron and steel.....	200,858	217,665	-16,807
Machinery.....	15,520	13,954	+1,566
Railroad material.....	13,535	21,251	-7,716
Tinplate.....	23,455	12,412	+11,043
Textiles.....	10,792	10,180	+612
Miscellaneous.....	14,591	18,243	-3,652
Metals, various.....	23,182	18,585	+4,597
Oils, mineral.....	51,371	76,960	-25,589
Paper.....	22,373	18,075	+4,298
Phosphates.....	36,597	15,498	+21,099
Sulphur.....	30,982	16,063	+14,919
Tobacco.....	11,317	24,679	-13,362

The above 19 commodity groups comprise 69.6 per cent of the cargo moving from the Atlantic to the Pacific. Nine of the items showed increases over October, 1928, and 10 decreases. Shipments of phosphates and sulphur showed the heaviest increases, while mineral oils and manufactures of iron and steel showed the largest decreases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 99.6 per cent of all cargo moving from the Pacific to the Atlantic during the month of October, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

	October, 1929.	October, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	27,642	29,166	-1,524
Beans.....	10,983	27,790	-16,807
Canned goods (fish, fruit, vegetables, etc.).....	102,898	143,233	-40,355
Cold storage (food products).....	21,515	10,981	+10,534
Copra.....	6,971	16,037	-9,066
Flour.....	10,277	13,482	-3,205
Fruit, dried.....	30,648	63,305	-32,657
Fruit, fresh.....	12,855	14,259	-1,404
Lumber.....	322,170	280,022	+42,148
Metals (principally copper).....	59,601	57,621	+1,980
Nitrates.....	274,583	226,267	+48,316
Oils, mineral.....	605,365	358,484	+246,881
Ores (principally iron).....	151,271	153,315	-2,044
Rice.....	8,816	10,556	-1,740
Sugar.....	62,480	35,200	+27,280
Wheat.....	124,105	167,551	-43,446

* Does not include fresh fruit.

The foregoing 16 commodity groups comprise 91.7 per cent of the cargo from the Pacific to the Atlantic during October, 1929. As will be noted above, shipments of lumber increased 42,148 tons; nitrates, 48,316 tons; and mineral oils, 246,881 tons over October, 1928. The heaviest decreases were in canned goods, 40,335 tons, and in wheat, 43,446 tons. Of the commodities shown above, there were 6 increases and 10 decreases as compared with October, 1928.

(Continued on next page.)

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *October 26, 1929.*

No. 620.

PANAMA BAY, R. P.

The U. S. S. *Niagara*, recently surveying in Panama Bay, reports:

H. O. Chart 1019, in latitude 8° 35' 45" N., longitude 79° 15' 00" W., indicates a rock with the notation: "Rock Rep. (1924)." In connection with the completed survey of Perlas Islands the area in the vicinity of the reported rock was thoroughly dragged. Although the *Niagara's* sweep boats covered an area of about six square miles no rock was developed in the vicinity.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *November 11, 1929.*

No. 628.

The following is quoted from Notice to Mariners, Washington, D. C., November 2, 1929:

Panama, Panama Bay, Balboa Harbor, light discontinued. Lighted beacon No. 6, showing a flashing red light, located eastward of the Canal channel at the northern edge of Balboa Harbor, has been permanently discontinued.

Approximate position: 8° 57' 35" N., 79° 34' 30" W.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *November 16, 1929.*

No. 634.

AID TO NAVIGATION.

Panama Canal, Atlantic approach, gas and whistling buoy replaced. On November 15, 1929, the combination gas and whistling buoy, lost on October 29th, was replaced, and its location changed. The new location is in 180 feet of water, near the prolongation of the axis of the entrance ship channel, 8½ miles from the east breakwater light, Colon Harbor.

Position: Lat. 9° 32' 09" N., Long. 79° 55' 02.5" W.

Bearings (degrees true): East breakwater light 180° 45', Farallon Suncio light 68° 30', Verde Island (center) 83° 00'.

Buoy is surmounted by pyramidal lattice-work steel structure, 16½ feet high, supporting a 375 mm. lens lantern, under which, is located an 18-inch whistle, operated by the action of the sea. A first-class spar, similar in color, has been placed near the buoy as a marker.

Color of Buoy: Black and white, vertical stripes.

Characteristics of light: Flashing white, 12 flashes per minute, light 1 second, dark 4 seconds. Visibility, 10 miles.

NOTE.—See Notice to Mariners No. 625.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *November 18, 1929.*

No. 635.

The following messages were received by the Hydrographic Office through the Balboa radio:

1. The Lighthouse Division, Panama Canal, reports that Trollope Rock gas buoy was replaced November 17.

Approximate position: Latitude 8° 05' 45" north, longitude 78° 37' 45" west. (See Notice to Mariners No. 632.)

* * * *

H. BURGESS,
Governor.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, October, 1929.—Continued from page 225.

(Figures represent tons of 2,240 pounds.)

From—	SOUTH AMERICA.					NORTH AMERICA.					ASIA.					AUSTRALASIA.			Grand totals.	Per cent of total cargo.			
	Chile	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. ¹	Total, Asia.	Australia.			New Zealand.	Total, Australasia.	
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports	15,717.1	745	801	7,437	2,784	28,484	239,086		1,654.1	3,368	5,119	247,227	30,169	18,105	9,703	30,700	78,677	22,171	6,701		28,872	383,260	45.1
South Atlantic ports							2,074					2,074	7,582	1,669	2,358	986	12,565				14,669	1.7	
Gulf ports	1,053	515	354	268	10	2,200	41,386				550	41,936	59,189	14,393	4,718	6,482	84,782	13,603	2,947	6,766	23,316	152,234	17.9
Totals, United States	16,770.2	2,601	1,155	7,705	2,794	30,684	282,546		1,654.1	3,368	5,669	291,237	88,940	34,167	16,779	38,168	176,054	35,774	9,648	6,766	52,188	550,163	64.7
Central America—																							
Cristobal, C. Z. ²	3,817.1	565	952	1,862	835	9,031	3,811	50	9,086	58		13,005									22,036	2.6	
East coast of Canada							4,151	2,500				6,651	1,400	200			1,600	2,988	5,355		8,343	16,594	2.0
West Indies	7,865				56	7,921	17					30							6,980		6,980	14,931	1.8
East coast of Mexico and Central America	7,347					7,347	455					455										7,802	0.9
Totals, North America	35,799.3	825.2	1,907	9,567	3,685	54,983	290,980	2,563	10,740.1	426	5,669	311,378	88,340	34,367	16,779	38,168	177,654	38,762	21,983	6,766	67,511	611,526	72.0
EUROPE:																							
British Isles	14,886	2,052	253	1,744	8,147	27,082	8,513	4,776			6,000	19,289					400				46,055	92,826	10.9
Belgium	4,555	346	118	3,447	86	8,552	26,414	1,873	1,023			29,310									37,862	4.5	
France	1,820			195	75	2,090	3,222	230	130			3,582					5,672				5,672	0.7	
Germany	3,748	430	1,177	1,090	220	6,665	8,949	1,384	200	517		11,050					9,672				17,715	2.1	
Holland	622	10		176	153	961	9,036	636				9,672					10,633				10,633	1.2	
Italy	54			15	1,983	2,052	1,072	1,292	558			2,922					4,974				4,974	0.6	
Norway and Sweden	541	862	427	900		2,730	3,241	95	1,460			4,796					11,626				11,626	1.4	
Spain and Portugal	62			28	348	438						8,305					438				438	0.1	
Europe ¹	1,001	706	10	26,774	28,491	4,223	1,710	2,372				8,305									36,796	4.3	
Totals, Europe	27,289.4	4,406	1,985	7,595	37,786	79,061	64,670	11,996	5,743	517	6,000	88,926		400			400		4,100	46,055	6,496	18,279	2.2
East coast of South America												11,074	501				501						
Grand totals	63,088.8	4,394	4,092	17,162	41,471	134,252	361,832	19,451	16,483	1,943	11,669	411,378	88,341	34,767	16,779	38,168	178,555	42,862	74,534	6,766	124,162	848,347	100.0
Per cent of total cargo:																							
October, 1929	7.4	1.0	0.5	2.0	4.9	15.8	42.7	2.3	1.9	0.2	1.4	48.5	10.5	4.1	2.0	4.5	21.1	5.0	8.8	0.8	14.6	100.0	
October, 1928	4.6	1.2	0.5	1.8	3.7	11.8	42.7	2.0	3.0	1.0	0.6	49.3	13.2	6.1	2.3	3.1	24.7	5.7	7.2	1.3	14.2	100.0	
October, 1927	5.7	1.7	0.6	2.2	4.7	14.9	38.5	2.0	1.8	0.1	1.3	43.7	14.0	5.5	2.9	1.8	24.2	8.1	8.0	1.1	17.2	100.0	

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and trans-shipment cargo.

¹ Includes both local and transit cargo.

² General cargo not routed so as to allow segregation between definite ports.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, October, 1929.
(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.										EUROPE.												Grand totals.	Per cent of total cargo.
	UNITED STATES.					NORTH AMERICA.					EUROPE.													
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Cen- tral America.	Cristobal, C. Z.²	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.¹	Total, Europe.	East coast of South America.	Egypt.		
SOUTH AMERICA:																								
Chile.....	142,368		33,200	175,568		702		43	176,313	10,143	1,100	2518,890	8,329	5214,569	5,126	5,742	183,422	247,398	209,030	432,761			21.7	
Colombia.....	490			490			3,970		4,460		225									4,716			0.2	
Ecuador.....	16,830			16,830			3,344		20,174	102		119	9	101	374			23		256			1.1	
Peru.....	29,964	3,003		32,967	72,846	42	174		106,029	25,197	199	825	1411,572	2,576			2,200		6,140	48,723	360		7.7	
West coast of South America¹.....										2,781				3						486	3,270		0.2	
Totals, S. America.	189,652	3,003	33,200	225,855	72,846	744	7,531		306,976	38,223	1,524	85019,023	19,913	2,729	14,943	7,326	5,765	190,079	309,375	380,030	616,761		30.9	
NORTH AMERICA:																								
West coast of Canada.....	20,379		1,895	22,274	18,574	4,500		754	45,348	40,849	4,556	11	1,517	3,499	3,790	3,020	3,080		6,748	67,070	2,702		5.8	
West coast of C. Am.	40			40		52			846															
West coast of U. S.	700,012	15,325	37,951	753,288		10,921	48	2,805	767,062	215,617	4,825	3,701	11,320	27,461	8,559	5,280	10,774		66,841	354,378	10,246		56.6	
Hawaii.....	2,514		45	2,559					2,559	505		179		89			415			1,188			0.2	
Totals, N. America.	722,945	15,325	39,891	778,161	18,574	15,473	48	3,559	815,815	256,971	9,381	3,891	12,837	31,049	12,349	8,300	14,269		73,589	422,636	12,948		62.6	
Asia:																								
China.....	8,817			8,817		7,431		943	17,191														0.9	
Japan.....	6,812		49	6,861		68		20	6,949														0.3	
Philippines.....	23,638		5,719	29,357					29,357	6,400													1.5	
Far East¹.....	869			869					869														0.4	
Totals, Asia.....	40,136		5,768	45,904		7,499		963	51,366	6,400										6,400			3.1	
Australasia:																								
Australia.....	10,794			10,794	7,260		25		18,079														0.9	
New Zealand.....	780			780	134				914	26,351										26,351			1.4	
Australasia¹.....	8,005			8,005					8,005	6,771							8,250			15,021			1.1	
Totals, Australasia.....	19,579			19,579	7,394		25		26,998	33,122							8,250			41,372			3.4	
Grand totals.....	972,312	18,328	78,859	1,069,499	89,814	23,716	48	12,078	1,204,155	334,716	10,905	4,730	31,871	50,962	15,078	23,243	29,845	5,765	263,608	770,783	13,329	9,030	100.0	
Per cent of total cargo:																								
October, 1929.....	48.7	0.9	3.9	53.5	4.9	1.2		0.6	60.2	16.7	0.6	0.2	1.6	2.5	0.8	1.2	1.5	0.3	13.2	38.6	0.7	0.5	.....	
October, 1928.....	44.9	1.4	3.2	49.5	3.1	1.5	0.7	1.5	56.3	18.4	0.8	0.2	2.4	2.8	2.1	1.1	0.5	2.0	11.5	41.8	0.5	1.4	.....	
October, 1927.....	51.6	3.3	1.9	56.8	2.5	2.4	4.5	4.5	66.2	15.4	0.7	0.2	1.7	2.2	2.4	0.6	0.5	0.3	7.2	31.2	0.6	2.0	.....	

¹ General cargo not routed so as to allow aggregation between definite ports.

² Includes both local and transit cargo.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending November 16, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Tongking	East Asiatic Co.	November 2.	November 4.	680	
Santa Maria	Grace Line.	November 3.	November 4.	1	
Cauca	National Navigation Co.	November 2.	November 2.		18
Victoria	Orient S. S. Co.	November 5.	November 6.	515	
Charles R. McCormick	McCormick S. S. Co.	November 6.	November 7.	31	
Rotorua	N. Z. Shipping Co.	November 6.	November 7.	6	
California	Panama-Pacific Line	November 8.	November 8.		181
Knute Nelson	Fred Olsen & Co.	November 8.	November 10.	1,635	
Deroche	Union Oil Co.	November 9.	November 9.	11,500	
Shabonee	Standard Transp. Co.	November 10.	November 12.	6,699	
Nitro	U. S. Government	November 10.	November 11.	3	
Colombia	Panama Mail S. S. Co.	November 10.	November 11.	315	
Corinto	Panama Mail S. S. Co.	November 11.	November 12.	30	
Mayebashi Maru	Nippon Yusen Kaisha	November 11.	November 11.	167	
Arana	Pacific Steam Navigation Co.	November 11.	November 11.	7	
Ruabine	N. Z. Shipping Co.	November 12.	November 12.		6
Guatemala	Panama Mail S. S. Co.	November 12.	November 12.	33	
Losada	Pacific Steam Nav. Co.	November 13.	November 13.		50
Champerico	Pacific Steam Nav. Co.	November 13.	November 13.		3
Santa Teresa	Grace Line.	November 14.	November 14.	1	
Rakuyo Maru	Nippon Yusen Kaisha	November 14.	November 15.	288	
Barneveld	Royal Neth. S. S. Co.	November 15.	November 16.	218	1
Spreewald	Hamburg-American Line	November 15.	November 15.	75	
Balboa	Johnson Line	November 15.	November 16.	511	

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Traffic by Nationality for October, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of October, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for October, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British	79	442,983	327,372	545,180	328,939	\$368,367.84	254,407
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,576
Colombian	2	287	277	440	275	336.85	315
Danish	2	10,507	7,531	12,472	7,596	7,456.03	6,070
Danzig	3	17,983	15,668	26,428	15,059	12,947.76	
Dutch	6	29,887	22,250	36,439	21,736	27,812.50	20,389
French	5	24,587	18,394	30,064	17,873	19,407.19	7,275
German	15	59,656	42,210	69,273	42,573	52,711.40	48,926
Italian	4	21,976	18,495	29,876	17,284	21,040.25	5,483
Japanese	18	32,362	27,753	41,056	27,257	44,744.35	38,371
Norwegian	14	65,174	43,143	71,628	43,263	50,247.96	59,801
Panamanian	2	171	160	293	156	197.65	133
Swedish	4	18,749	12,470	30,363	15,502	14,145.87	15,647
United States	130	655,592	503,435	816,518	502,567	563,727.15	381,874
Yugoslav	2	9,587	6,882	10,937	6,883	8,252.26	7,080
Totals, October, 1929	277	1,394,206	1,049,506	1,728,277	1,050,939	1,195,727.56	848,347
Totals, October, 1928	306	1,381,688	1,050,917	1,718,872	1,048,282	1,190,585.26	875,641
Totals, October, 1927	289	1,345,683	1,041,924	1,686,239	1,034,897	1,167,843.28	700,592

* Includes 2 naval vessels having a total of 20,800 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	¹ 76	371,787	287,645	472,558	286,024	\$360,829.74	519,905
Chilean.....	2	7,735	6,033	10,889	6,233	7,541.25	7,948
Colombian.....	5	1,237	1,171	1,983	1,177	1,452.15	1,310
Danish.....	4	13,986	10,811	16,271	10,831	13,513.75	22,956
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,160
Dutch.....	7	33,896	22,315	37,610	22,425	27,893.75	46,699
French.....	3	14,485	10,449	17,159	10,465	13,061.25	24,163
German.....	¹ 19	64,668	47,088	75,343	45,957	\$61,726.60	95,284
Greek.....	4	15,381	10,369	16,657	10,289	12,961.25	28,581
Italian.....	3	18,306	12,516	22,318	13,542	15,645.00	16,064
Japanese.....	7	33,037	27,157	42,325	26,970	\$34,255.00	38,952
Norwegian.....	16	76,374	53,643	89,252	53,628	67,053.75	120,019
Panaman.....	1	47	47	86	47	35.25	.....
Swedish.....	8	35,501	25,943	52,541	32,553	31,947.66	68,367
United States.....	127	643,420	495,427	804,851	494,611	619,028.75	961,898
Yugoslav.....	4	17,756	13,312	21,275	12,370	16,640.00	33,990
Totals, October, 1929.....	287	1,353,743	1,029,194	1,690,057	1,032,129	1,290,170.15	1,997,296
Totals, October 1928.....	251	1,133,692	867,994	1,436,367	874,503	1,084,360.04	1,706,836
Totals, October, 1927.....	278	1,240,069	971,385	1,587,793	975,218	1,212,272.69	2,017,054

¹ Includes naval vessel of 5,350 displacement tons.² Includes naval vessel of 6,053 displacement tons.³ Includes supplemental bill of \$475 addition tolls on naval vessel transiting the preceding month.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	¹ 155	814,770	615,017	1,017,738	614,963	\$729,197.58	774,312
Chilean.....	3	12,440	9,499	18,199	10,209	11,873.75	10,524
Colombian.....	7	1,524	1,448	2,423	1,452	1,789.00	1,625
Danish.....	6	24,493	18,342	28,743	18,427	20,969.78	29,026
Danzig.....	4	24,110	20,936	35,367	20,066	19,532.76	11,160
Dutch.....	13	63,783	44,565	74,049	44,161	55,706.25	67,088
French.....	8	39,072	28,843	47,223	28,338	32,468.44	31,438
German.....	³ 4	124,324	89,298	144,616	88,530	\$114,438.00	144,210
Greek.....	4	15,381	10,369	16,657	10,289	12,961.25	28,581
Italian.....	7	40,282	31,011	52,194	30,826	36,685.25	21,547
Japanese.....	¹ 15	65,399	54,910	83,381	54,227	\$78,999.35	77,323
Norwegian.....	30	141,548	96,786	160,880	96,891	117,301.71	179,820
Panaman.....	3	218	207	379	203	232.90	133
Swedish.....	12	54,250	38,413	82,904	48,055	46,093.53	84,014
United States.....	257	1,299,012	998,862	1,621,369	997,178	1,182,755.90	1,343,772
Yugoslav.....	6	27,343	20,194	32,212	19,253	24,892.26	41,070
Totals, October, 1929.....	564	2,747,949	2,078,700	3,418,334	2,083,068	2,485,897.71	2,845,643
Totals, October, 1928.....	557	2,517,380	1,918,911	3,155,239	1,922,785	2,274,945.30	2,582,477
Totals, October, 1927.....	567	2,585,752	2,013,309	3,274,032	2,010,115	2,380,115.97	2,717,646

¹ Includes naval vessel of 5,350 displacement tons.² Includes naval vessel of 6,053 displacement tons.³ Includes 2 naval vessels having a total of 20,800 displacement tons. Tolls also include supplemental bill of \$475 additional tolls on naval vessel transiting the preceding month.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., November 18, 1929.

No. 638.

CORRECTION TO NOTICE No. 604.

A radio beacon was established at Cape Mala, R. P., September 11, 1929.

Position of center line of towers: North Tower, latitude 7° 28' 08.8" north, longitude 79° 58' 59.8" west. South Tower, latitude 7° 28' 08.8" north, longitude 80° 00' 00.3" west.

Azimuth of aerial: 16° 37' from the true north. Period of operation: From the 16th to 25th and from the 46th to 55th minute of each hour. (Former notice read "lasts 10 minutes, beginning on first and third quarter of the hour.")

Frequency: 295 kilocycles. Characteristics: Groups of 2 dashes, repeated. Height of towers, 80 feet; elevation of top of towers about 125 feet.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from October 27 to November 9, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cristobal	Panama R. R. S. S. Line	October 23.	October 27.		933
Cerigo	Hamburg-American Line		October 27.		586
Nitrokris	Hamburg-American Line		October 27.		42
Wanks	Standard Fruit & S. S. Co.		October 27.		1
Vaba	Atlantic Oriental Line		October 28.		(²)
Hercidia	United Fruit Co.		October 27.		36
Venezuela	Panama Mail S. S. Co.	October 27.	October 29.	531	258
Ulua	United Fruit Co.		October 27.	43	107
Nosa Prince	N. O. & S. A. S. S. Line	October 27.	October 27.	82	1,263
Cauca	National Navigation Co.	October 27.	November 2.	291	69
Takeboyo Maru	Nippon Yusen Kaisha	October 27.	October 27.	107	(²)
Maravi	United Fruit Co.	October 27.	October 27.	44	567
Axel Johnson	Johnson Line	October 27.	October 27.	7	(²)
Acajutla	Pacific Steam Nav. Co.	October 27.	November 2.	82	1,090
Rhodophis	Hamburg-American Line	October 28.	October 29.	125	360
Suriname	United Fruit Co.	October 28.	October 28.	360	70
Volunteer	U. S. Shipping Board	October 28.	October 28.	649	(²)
Tolosa	United Fruit Co.	October 28.	October 30.	346	91
Simon Bolivar	Royal Neth. S. S. Co.	October 29.	October 29.	10	17
Pellerin de la Touche	French Line	October 29.	October 31.	141	397
Margaret Johnson	Jonhson Line	October 29.	October 30.	142	(²)
Juan S. Elcano	Spanish Line	October 29.	October 31.	176	316
Modavia	Donaldson Line	October 29.	October 31.	(¹)	440
Pearl Marie	Feuillebois	October 29.	October 29.	(¹)	36
Bennekorn	Royal Neth. S. S. Co.	October 30.	October 31.	332	346
Magdalena	Hamburg-American Line	October 30.	October 30.	176	17
Manizales	North German Lloyd	October 30.	November 2.	964	328
Linda S.	Feuillebois	October 30.	October 31.	(¹)	44
El Salvador	Panama Mail S. S. Co.	October 30.	October 31.	385	178
Zacapa	United Fruit Co.	October 30.	October 31.	501	216
Guayaquil	Panama R. R. S. S. Line	October 31.	November 1.	385	650
La Perla	United Fruit Co.	October 31.	November 2.	667	383
Saramacca	United Fruit Co.	October 31.	October 31.	802	85
Poseidon	Hamburg-American Line	October 31.	October 31.	30	(²)
Baarn	Royal Neth. S. S. Co.	October 31.	October 31.	54	(²)
Baralt	Royal Neth. S. S. Co.	October 31.	November 2.	669	44
Nebraska	Pacific Steam Nav. Co.	October 31.	November 1.	16	8
Georgie	French Line	November 1.	November 2.	157	128
Heluan	Hamburg-American Line	November 1.	November 1.	55	(²)
Amapala	Stand. Fruit & S. S. Co.	November 1.	November 2.	358	486
Simon Bolivar	Royal Neth. S. S. Co.	November 1.	November 2.	1	500
Buenaventura	Panama R. R. S. S. Line	November 1.	November 2.	1,385	78
Suriname	United Fruit Co.	November 2.	November 2.	112	130
Cartago	United Fruit Co.	November 2.	November 3.	138	389
Tong King	Danish East Asiatic Co.	November 2.	November 2.	128	(²)
Alaska	French Line	November 2.	November 2.	362	(²)
Wanks	Stand. Fruit & S. S. Co.	November 2.	November 3.	125	1
Mayari	United Fruit Co.	November 2.	November 3.	486	662
Santa Rita	Grace Line	November 2.	November 2.	447	(²)
Mayan	Gulf-Caribbean Line	November 3.	November 4.	745	57
Tolosa	United Fruit Co.	November 3.	November 3.	32	499
Oakland	Hamburg-American Line	November 3.	November 4.	4	374
La Paz	Pacific Steam Nav. Co.	November 4.	November 4.	152	14
Santa Maria	Grace Line	November 4.	November 4.	10	(²)
Saramacca	United Fruit Co.	November 4.	November 4.	75	16
Calamares	United Fruit Co.	November 4.	November 6.	424	109
Havel	North German Lloyd	November 5.	November 5.	(¹)	112
Champerico	Pacific Steam Nav. Co.	November 6.		274	
Carare	United Fruit Co.	November 6.	November 6.	1½	2
Observer	T. & J. Harrison	November 6.	November 7.	608	(²)
Caldas	National Navigation Co.	November 6.	November 9.	253	88
Roland	North German Lloyd	November 6.	November 8.	394	777
Ancon	Panama R. R. S. S. Line	November 6.		4,078	
Santa Marta	United Fruit Co.	November 6.	November 7.	401	215
Linda S.	Feuillebois	November 6.	November 7.	(¹)	25
Indiana	French Line	November 6.	November 7.	(¹)	75
Ebro	Pacific Steam Nav. Co.	November 7.	November 8.	28	8
Knute Nelson	Norway-Pacific Line	November 7.	November 8.	489	300
San Jose	United Fruit Co.	November 7.	November 9.	746	640
Saramacca	United Fruit Co.	November 8.	November 8.	113	74
Antonietta	Italo-Chileano Co.	November 8.	November 8.	120	(²)
Atlantida	Stand. Fruit & S. S. Co.	November 8.	November 9.	169	456
Wanks	Stand. Fruit & S. S. Co.	November 8.		109	
Macabi	United Fruit Co.	November 8.	November 9.	1½	299
Parismina	United Fruit Co.	November 9.		942	

¹ No cargo discharged.

² No cargo laded.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for the remainder of 1929, of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the passenger ships *Ancon* and *Cristobal* are engaged, sailing alternately.

Steamer.	Leave New York 4 P. M.	Leave Port au Prince P. M.	Arrive Cristobal A. M.	Leave Cristobal 3 P. M.	Leave Port au Prince P. M.	Arrive New York A. M.
Cristobal.....	November 12.	November 17.	November 20.	November 24.	November 27.	December 2.
Ancon.....	November 26.	December 1..	December 4..	December 8..	December 11..	December 16.
Cristobal.....	December 10..	December 15.	December 18..	December 23..	December 26..	December 31.
Ancon.....	December 24..	December 29..	January 1.....	January 5.....	January 8....	January 13..

Effective April 30, steamers sail on daylight saving time.

Due to discontinuance of the daylight saving time, departures after S. S. *Cristobal*, Sept. 17th, will be at 4 p. m. standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9).....	1018	1020	1013	84.0
Balboa (dock 18).....	1011	1021	1005	83.0

(NOTE.—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will always save time by applying to the nearest American Consul.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 222.

PORT OF BALBOA.

* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
November 10	Shabonee	Standard Transp. Co.	November 12	Shabonee	Standard Transp. Co.
November 14	Rakoyo Maru	Nippon Yusen Kaisha	November 15	Rakoyo Maru	Nippon Yusen Kaisha
November 15	Dos Hermanos ²⁵	A. Valdez	November 15	Dos Hermanos ²⁵	A. Valdez
November 15	Cicamola ²⁶	Chiriqui Land Co.	November 16	Cicamola ²⁶	Chiriqui Land Co.
November 16	Bokuyo Maru	Nippon Yusen Kaisha	November 16	Bokuyo Maru	Nippon Yusen Kaisha
²⁵ Motor schooner.			²⁶ Motor yacht.		
			* Other than ships passing through the Canal.		
			For—		
			Los Angeles, Calif.		
			Valparaiso, Chile.		
			Panama Bay, R. P.		
			Panama Bay, R. P.		
			Hongkong, China.		

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By order of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., November 27, 1929. No. 17.

Death of Secretary of War James W. Good.

Hon. James W. Good, Secretary of War of the United States, died in Washington, D. C., on November 18, 1929. Death was due to complications which followed an operation for acute appendicitis on November 13.

Governor Harry Burgess sent the following radiogram to Mrs. Good on November 19:

On behalf of myself and other officers and employees of The Panama Canal and Panama Railroad Company, I wish to extend to you and your family our warm sympathy in your distressing bereavement. Mr. Good, as a member of Congress and as Secretary of War, was closely identified with our activities here. We feel that in the death of Mr. Good, who served so ably in high positions, we and the Nation have suffered a great loss.

The Governor also issued a public announcement of the death of the Secretary and directed that the National flag on all public buildings and floating equipment of The Panama Canal and Panama Railroad Company be flown at half-mast up to and including December 18.

New Motor Ship of Holland-America Line Transits Canal.

The new motor ship *Delftdijk*, of the Holland-America Line, operated by the North Pacific Coast Line, joint service of the Holland-America Line and the Royal Mail Steam Packet Co., transited the Canal on November 14, 1929. The new vessel is of 10,220 gross and 6,384 net tons, 509 feet long and 64.6 feet beam, and is equipped for passengers and refrigerated cargo. It will be used to augment the present service between Rotterdam and English ports and the west coast of the United States and Canada.

Other vessels running on this service are the *Lochmonar*, *Lochgoil*, *Lochkatrine*, *Drechtdijk*, *Dinteldijk*, *Noorderdijk*, and *Moerdijk*.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., November 25, 1929.

No. 642.

The following is quoted from Notice to Mariners, Washington, November 16, 1929:

Colombia, Cartagena harbor, information concerning shoal. Information has been received from the New York manager of the Edward L. Gedin Co., shipping agents, that Santa Cruz Bank and the note. (Bank rep. removed) shown against the shoal close northward will be expunged from the charts.

Approximate position: 10° 20' 30" north, 75° 30' 45" west.

H. BURGESS,
Governor.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

CANAL WORK IN OCTOBER, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of October, 1929.

BALBOA HEIGHTS, C. Z., November 20, 1929.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of October, 1929:

NUMBER OF TRANSITS.

During the month 564 commercial vessels and 8 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 42 vessels belonging to the United States Government, 1 transit of a Panaman Government vessel and 1 transit of a vessel solely for repairs, on which no tolls were collected, making a total of 616 transits for the month, or a daily average of 19.9.

Tolls on the 564 commercial vessels amounted to \$2,485,897.71, and on the launches to \$39.15, a total of \$2,485,936.86, or a daily average on all traffic of \$80,191.51. Total commercial traffic for the past month increased 41 transits and \$284,108.31 in tolls as compared with the previous month. As compared with October, 1928, last month's traffic showed an increase of 7 transits and \$210,952.41 in tolls.

The amount of tolls collected, \$2,485,897.71 for the commercial transits in October, 1929, is the second largest tolls collection for a month since the opening of the Canal. It is less by \$16,917.41 than the tolls collection of \$2,502,815.12 in January, 1929, a record month.

The total numbers of craft of all kinds transiting the Canal during the month of October, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	October, 1929.	October, 1928.	October, 1927.
Commercial vessels.....	564	557	567
Launches (under 20 tons measurement).....	8	10	14
Noncommercial vessels:			
United States Government.....	42	30	23
Panaman Government.....	1	1	1
Colombian Government.....			
For repairs.....	1	4	2
Totals.....	616	602	607

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun.....	16	13	29
Pedro Miguel.....	18	15	33
Miraflores.....	18	15	33
Totals.....	52	43	95

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1929, to the end of October, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January.....	540	603	2,422,770	2,771,280	2,372,061	2,858,835	\$2,212,752.50	\$2,502,815.12
February.....	547	522	2,460,111	2,423,530	2,660,425	2,550,495	2,253,755.37	2,211,951.20
March.....	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April.....	531	540	2,384,491	2,483,176	2,473,884	2,719,665	2,137,607.82	2,281,087.27
May.....	503	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,989.83	2,296,546.57
June.....	481	503	2,227,865	2,332,431	2,139,565	2,424,002	2,015,211.05	2,137,805.97
July.....	509	527	2,318,395	2,463,280	2,291,955	2,594,162	2,109,033.19	2,239,582.37
August.....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,377,437.86
September.....	487	523	2,295,033	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October.....	557	564	2,515,380	2,747,949	2,552,477	2,845,643	2,274,945.30	2,485,897.71
Totals.....	5,228	5,373	23,777,000	25,305,512	24,184,964	26,390,928	21,706,995.54	23,038,789.02

¹Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for October, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages or the fiscal year ended June 30, 1929:

	October, 1929.	October, 1928.	October, 1927.	Average per month for fiscal year 1929.
Number of transits.....	564	557	567	534
Panama Canal net tonnage.....	2,747,949	2,515,380	2,585,752	2,486,483
United States net tonnage.....	2,078,700	1,918,911	2,013,309	1,899,487
Registered gross tonnage.....	3,418,334	3,155,239	3,274,032	3,122,066
Registered net tonnage.....	2,083,068	1,922,785	2,010,115	1,908,360
Tolls.....	\$2,485,897.71	\$2,274,945.30	\$2,380,115.97	\$2,260,614.74
Tons of cargo.....	2,845,643	2,582,477	2,717,636	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1929.
	October, 1929.	October, 1928.	October, 1927.	
Number of transits.....	18.19	17.97	18.29	17.57
Panama Canal net tonnage.....	88,644	81,141	83,411	81,747
Tolls.....	\$80,190.25	\$73,385.33	\$76,777.93	\$74,321.58
Tons of cargo carried.....	91,795	83,305	87,666	84,008

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of October, 1929, as compared with October, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	October, 1929.	October, 1928.	October, 1927.
Panama Canal net tonnage.....	4,872	4,516	4,560
United States net tonnage.....	3,686	3,445	3,551
Registered gross tonnage.....	6,061	5,665	5,774
Registered net tonnage.....	3,693	3,452	3,545
Tolls.....	\$4,407.62	\$4,084.28	\$4,197.74
Tons of cargo (including vessels in ballast).....	5,045	4,636	4,793
Tons of cargo (laden vessels only).....	5,941	5,688	5,870

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.931 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of October, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
British.....	\$729,197.58	\$767,789.40	\$38,591.82	
Chilean.....	11,873.75	12,440.00	566.25	
Colombian.....	1,789.00	1,524.00		\$265.00
Danish.....	20,969.78	22,083.40	1,113.62	
Danzig.....	19,532.76	16,916.80		2,615.96
Dutch.....	55,706.25	63,783.00	8,076.75	
French.....	32,468.44	35,031.20	2,612.76	
German.....	\$114,438.00	\$127,302.50	12,864.50	
Greek.....	12,961.25	15,381.00	2,419.75	
Italian.....	36,685.25	38,586.40	1,901.15	
Japanese.....	\$78,999.35	\$76,274.00		2,725.35
Norwegian.....	117,301.71	135,133.00	17,836.29	
Panaman.....	232.90	199.20		33.70
Swedish.....	46,093.53	51,040.40	4,946.87	
United States.....	1,182,755.90	1,204,843.60	22,087.70	
Yugoslav.....	24,892.26	25,259.80	367.54	
Totals.....	2,485,897.71	2,593,642.70	113,385.00	5,640.01
Net increase for all traffic.....			107,744.99	

¹ Includes \$2,675 collected for naval vessel at \$0.50 per displacement ton.

² Includes \$3,026.50 collected for naval vessels at \$0.50 per displacement ton.

³ Includes \$10,400 collected for naval vessels at \$0.50 per displacement ton and \$475.00 supplemental bill.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$15,989.62
United States foreign trade.....	5,525.88
United States—Canal Zone trade.....	572.20
Net increase.....	22,087.70

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in October, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British.....	.79	1.41	1.12
Chilean.....	.55	1.03	.85
Colombian.....	1.10	1.06	1.07
Danish.....	1.35	1.64	1.57
Danzig.....		1.82	1.82
Dutch.....	.68	1.38	1.05
French.....	.50	1.67	1.08
German.....	.82	1.47	1.16
Greek.....		1.86	1.86
Italian.....	.31	.88	.60
Japanese.....	1.19	1.18	1.18
Norwegian.....	1.20	1.57	1.43
Panaman.....	.78		.78
Swedish.....	1.10	2.14	1.82
United States.....	.91	1.49	1.26
Yugoslav.....	1.62	1.91	1.86
Averages, October, 1929.....	.87	1.48	1.23
Averages, October, 1928.....	.92	1.51	1.24
Averages, October, 1927.....	.82	1.69	1.35

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of October is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	4	18,353	\$18,931.25	59	328,464	\$335,846.25
Ballast.....	53	299,435	215,593.20	1	3,892	2,802.24
General cargo ships:						
Laden.....	193	956,113	864,049.55	223	1,017,812	942,769.75
Ballast.....	25	120,305	86,753.56	2	3,575	2,575.41
Noncargo-carrying ships:						
Naval.....	2		10,400.00	2		6,176.50
Totals.....	277	1,394,206	1,195,727.56	287	1,353,743	1,290,170.15
Method of propulsion:						
Steam.....	208	1,030,655	909,969.97	222	1,027,449	989,089.34
Motor.....	69	363,551	285,757.59	64	324,409	298,818.81
Sail.....				1	1,885	2,262.00
Totals.....	277	1,394,206	1,195,727.56	287	1,353,743	1,290,170.15

Of the 430 steam-driven vessels, 289 were oil burning, 132 coal burning, and 9 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of October, 1929. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers.....	¹ 2	12,100	\$6,050.00	¹ 2	11,350	\$5,675.00
Gunboats.....	¹ 1	1,575	787.50			
Launches.....	¹ 1	5	3.75			
Mine sweepers.....	¹ 3	2,850	1,425.00	¹ 2	1,900	950.00
Submarines.....	¹ 4	3,448	1,724.00	¹ 5	3,810	1,905.00
Supply ships.....	¹ 1	3,434	4,292.50	¹ 2	8,785	10,981.25
Survey ships.....				¹ 1	2,600	1,300.00
Tankers.....	¹ 2	12,038	11,920.50			
Tugs.....	¹ 2	2,000	1,000.00	¹ 1	1,000	500.00
U. S. Army vessels:						
Launches.....	¹ 4	20	15.00			
Mine planters.....	¹ 1	1,208	604.00	¹ 1	1,208	604.00
Tugs.....	¹ 1	46	34.50	¹ 2	46	69.00
Transports.....	¹ 3	11,269	14,086.25	¹ 1	3,908	4,885.00
Totals, U. S. Government.....	25		41,943.00	17		26,869.25
Panaman Government vessels:						
Transports.....				¹ 1	101	72.72
Vessels for repair.....	¹ 1	831	1,038.75			
Grand totals.....	26		42,981.75	18		26,941.97

¹ Indicates displacement tonnage. ² Indicates Panama Canal net tonnage. ³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of October, 1929, carried cargo as follows: Atlantic to Pacific, 9,723 tons; Pacific to Atlantic, 3,761 tons; total, 13,484 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of October, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	6	19	\$17.25
Pacific to Atlantic.....	2	22	21.90
Totals.....	8	41	39.15

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of October, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons	20,544	42,885	63,429
Local cargo shipped..... tons	11,392	427	11,819
Transit cargo arriving..... tons	2,809,898	2,903,275	5,713,173
Transit cargo clearing..... tons	2,825,037	2,897,453	5,722,490
Cargo received for transshipment..... tons	33,041	119	33,160
Cargo transshipped..... tons	28,492	138	28,630
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	109	40	149
Number of withdrawals.....	622	205	827
Tons received.....	4,164	270	4,434
Tons withdrawn.....	4,822	239	5,061
Packages received.....	9,302	2,431	11,733
Packages withdrawn.....	6,593	2,263	8,856
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	56	5	61
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons	20,212	246	20,458
Coal issued, miscellaneous:			
Panama Canal departments..... tons	89	5	94
U. S. Army, including vessels..... tons	27	33	60
Individuals and companies.....	272		272
Panama Railroad Company..... tons	7		7
Transferred to Navy..... tons	284		284
Total sales and issues..... tons	20,891	284	21,175
Coal on hand October 1, 1929..... tons	23,852		23,852
Coal on hand November 1, 1929..... tons	32,048		32,048
Coal received during month..... tons	19,287		19,287
Coal received from Navy..... tons		284	284
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls.	4,451.35	13,967.36	18,418.71
Panama Railroad Company..... bbls.	1,068.35	519.62	1,587.97
U. S. Army and Navy..... bbls.	584.10	139.15	723.25
Individuals and companies..... bbls.		173.48	173.48
Total sales and issues..... bbls.	6,103.80	14,799.61	20,903.41
Fuel oil received during October, 1929..... bbls.		62,932.19	62,932.19
Fuel on hand November 1, 1929..... bbls.	68,620.43	68,641.80	137,262.23
Diesel oil sold during October, 1929..... bbls.	158.41	1,838.80	1,997.21
Diesel oil on hand November 1, 1929..... bbls.	15,636.31	34,954.77	50,591.08
Miscellaneous transfers October, 1929..... bbls.	2,158.71	951.89	3,110.60
Gasoline and kerosene pumped for The Panama Canal..... bbls.	6,962.48	13,613.98	20,576.46
Gasoline pumped for individuals and companies..... bbls.	705.95	6,162.41	6,868.36
Oil pumped for individuals and companies..... bbls.	606,660.75	379,717.29	986,378.04
Oil pumped for U. S. Shipping Board..... bbls.	420.59	830.76	1,251.35
Oil pumped for U. S. Navy..... bbls.	4,107.00	1,065.24	5,172.24
Total fuel oil, gasoline and kerosene handled..... bbls.	627,277.69	481,912.15	1,109,189.84
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	17	11	28
Measured for Panama Canal net tonnage.....	4	4	8
Remeasured for Panama Canal net tonnage.....	18	7	25
Panama Canal net tonnage corrected.....	4	7	11
U. S. equivalent tonnage corrected.....	15	17	32
Services of harbor equipment:			
Tugs, total operating hours.....	520 ³	354 ¹	875
Launches, total operating hours.....	1,513 ¹	1,759 ¹	3,273
Revenue from tug service, pilotage, etc:			
Tug revenue.....	\$15,160.00	\$10,081.25	\$25,241.25
Pilotage.....	20,078.00	7,744.00	27,822.00
Seamen.....	13,197.00	13,280.00	26,477.00
Launch service.....	1,792.00	3,079.00	4,871.00
Wharfage.....	16,904.04	4,941.99	21,846.03
Ships measured.....	125.00	115.00	240.00
Miscellaneous.....	2,467.05	453.50	2,920.55

* Increase of 9,800 tons on account of inventory adjustment.

	Cristobal.	Balboa.	Total.
Ships repaired at Panama Canal shops:			
Commercial.....	50	11	61
U. S. Army and Navy.....	7	3	10
Panama Canal equipment.....	3	17	20
Totals.....	60	31	91
Vessels dry-docked:			
Commercial.....	5	3	8
U. S. Army and Navy.....	1	1	2
Panama Canal equipment.....		3	3
Totals.....	6	7	13
Clearances issued.....	344	281	625
Bills of health issued.....	359	280	639

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal..	672	3,841,021	2,356,596	605	3,568,751	2,195,048
Vessels entering port but not transiting Canal..	79	349,158	208,296	7	38,251	25,146
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	130	789,595	480,353	106	609,618	366,686
<i>Ships clearing.</i>						
All vessels, including those transiting Canal..	676	3,855,343	2,365,543	603	3,556,975	2,187,738
Vessels clearing port but not transiting Canal..	83	357,803	213,351	7	43,545	27,920
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	121	767,143	467,347	105	605,064	363,965

¹ Includes 34 airplanes of 146 gross tons.² Includes 38 airplanes of 176 gross tons.³ Includes 8 airplanes of 16 gross tons.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,688	919	2,607	114	81	195
From Pacific ports.....	201	215	416	328	329	657
Total disembarking.....	1,889	1,134	3,023	442	410	852
Embarking:						
For Atlantic ports.....	1,026	1,118	2,144	84	168	252
For Pacific ports.....	292	138	430	306	169	475
Total embarking.....	1,318	1,256	2,574	390	337	727
Remaining on board:						
From Atlantic to Pacific ports.....	2,056	2,999	5,055	2,171	2,963	5,134
From Pacific to Atlantic ports.....	981	1,106	2,087	1,210	1,279	2,489
From Atlantic to Atlantic ports.....	553	276	829	21	597	618
From Pacific to Pacific ports.....						
Total remaining on board.....	3,590	4,381	7,971	3,402	4,839	8,241
Total arriving.....	5,479	5,515	10,994	3,844	5,249	9,093
Total departing.....	4,908	5,637	10,545	3,792	5,176	8,968

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	277	54	19.5
Pacific to Atlantic.....	287	53	18.5
Totals.....	564	107	18.9

In addition to the aforesaid, 92 passenger-carrying vessels called at the port of Cristobal and 3 at the port of Balboa, without transiting the Canal, making a total of 202 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of October, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$2,769.86	\$15,365.00	\$34,277.56	\$206.93	\$7,210.80	\$59,830.15
Government vessels.....	148.05	513.56	4,881.55	75.29	232.20	6,850.65
P. R. R. vessels.....	2.70	89.48	1,710.29	817.67	54.38	2,674.52
Total sales, October, 1929...	2,920.61	15,968.04	40,869.40	1,099.89	8,497.38	69,355.32
Total sales, October, 1928....	3,225.87	12,899.70	42,843.28	1,057.09	6,798.18	66,824.21
Total sales, October, 1927....	2,624.34	14,271.83	34,419.47	1,148.24	6,629.82	59,093.70
Sales at Balboa to:						
Commercial vessels.....	1,064.91	11,886.83	19,235.52	813.10	6,413.67	39,414.03
Government vessels.....	501.80	2,996.71	22,864.65	555.20	1,629.91	28,548.27
P. R. R. vessels.....				36.69		36.69
Total sales, October, 1929...	1,566.71	14,883.54	42,100.17	1,404.99	8,043.58	67,998.99
Total sales, October, 1928....	606.95	19,660.73	40,075.87	935.58	7,260.91	68,540.04
Total sales October, 1927....	1,420.83	14,569.73	37,558.46	1,007.36	4,761.25	59,317.63

The aggregate sales to Government vessels during the month was \$35,398.92; to Panama Railroad vessels, \$2,711.21; and to other commercial vessels, \$99,244.18, making the total sales to all vessels, \$137,354.31.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of October, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.			Oct. 1929.	Oct. 1928.	Oct. 1927.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	269	266	535	13	15	28	563	539	553
Pedro Miguel.....	274	274	548	12	16	28	576	576	572
Miraflores.....	275	273	548	12	14	26	574	569	573
Number of vessels put through locks.									
Gatun.....	292	283	575	43	40	83	658	612	636
Pedro Miguel.....	288	281	569	38	40	78	647	673	667
Miraflores.....	288	281	569	38	38	76	645	672	676

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	52	43	41
Panama Canal equipment.....	29	33	33
Panaman Government vessels.....	1	1	1
Vessels for repairs.....	1	1	1

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in October, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	2,278,270,000	1,836,530,000	1,737,860,000
Leakage.....	30,000,000	9,000,000	20,000,000
Maintenance.....	8,990,000		15,860,000
Totals, October, 1929.....	2,317,260,000	1,845,530,000	1,773,720,000
Totals, September, 1929.....	2,073,300,000	1,700,940,000	1,612,780,000
Totals, October, 1928.....	2,221,740,000	1,863,340,000	1,779,450,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of October, 1929, are shown in comparative form in the following tabulation:

	October.		October—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	3,396	4,001	8,126	2,031	3,573
Maximum momentary discharge for the month.....	22,860	23,702	108,300		
Gatun Lake watershed, total yield.....	10,464	10,999	27,260	9,432	12,729
Gatun Lake watershed, net yield.....	9,832	10,445	36,805	8,810	12,168
Draft on Gatun Lake for lockages and power.....	3,058	2,948	2,948	1,191	2,341

* October 22, 1923.

* October, 1914, not included.

The discharge of the Chagres River at Alhajuela was 5 per cent below the October average, or 3,396 c. f. s. compared with a 28-year average of 3,573 c. f. s. The maximum momentary discharge for the month was 22,860 c. f. s. at elevation 100.90, on the 18th and the minimum 1,665 c. f. s. at elevation 92.85 on the 10th.

The total yield of the Gatun Lake watershed was 18 per cent below the 16-year October average, or 10,464 c. f. s. compared with an average of 12,729 c. f. s. Maximum and minimum total yields of record for October are 27,260 c. f. s. in 1923 and 9,432 c. f. s. in 1926, respectively. The lake varied from 85.90 feet elevation on the 1st to 86.58 feet on the 31st, and ended at elevation 86.55 feet.

Miraflores Lake varied from elevation 53.12 feet on the 3d and 15th to 54.34 feet on the 29th, averaged 53.65 feet, and ended at elevation 53.37 feet.

SEISMOLOGY.

Slight seismic disturbances were recorded during the month, on the 6th, 17th, 19th, and 24th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,331,200 kilowatt hours, and the computed water consumption was 4,069,275,466 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 20,600 kilowatt hours, and the fuel oil consumption was 65.46 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 43 vessels during the month. There were 427 work orders issued during the month, which is the same number as issued during the previous month.

MECHANICAL DIVISION.

During the month of October, 1929, miscellaneous repairs were made on 60 vessels at Cristobal and 31 at Balboa. Six vessels were dry-docked at Cristobal and 7 at Balboa. The general overhaul of the United States Navy's submarine *S-12* was carried forward, and that on the submarines *S-11* and *S-15* was completed during the month. The Panama Canal tug *Gorgona* was docked, damaged hull repaired and semiannual overhaul of deck and engine-room machinery completed. The dredge *Cascadas* was docked and work was carried forward on annual overhaul. General overhaul of the tug *Favorite* was completed.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. Twenty-two thousand five hundred cubic yards of material were moved and 6 culverts constructed in connection with the grading of

the new Madden Road. At the site of the Madden Dam the operation of diamond drills was continued throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 714,439,000 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during October with an average movement of 0.3 feet toward the Canal between stations 1770-00 and 1797-00 W.

There was a slight surface movement at Cucaracha Signal Station slide during the month.

During the night of the 20th the bank broke about 75 feet back from the water's edge on West Lirio slide, but the amount of material entering the prism was small.

On October 29th a portion of East Lirio slide showed a settlement, the material pushing over the prism line for about 40 feet. About 15,000 cubic yards moved into the prism.

A general surface movement over the South Cucaracha slide occurred during October. The channel was not affected.

There was no interference with shipping on account of slides during the month.

The total excavation during October, 1929, was 479,827 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Maintenance.....	23,950	77,750	101,700
Canal prism, Pacific entrance—			
Project No. 1.....	86,100	81,400	167,500
Project No. 1 (extension).....	4,050		4,050
Maintenance.....	32,550	2,000	34,550
Balboa inner harbor—			
Project No. 1.....			
Maintenance.....			
Plant excavation:			
Albrook Field.....	170,000		170,000
Dredging sand at Chame.....	2,027		2,027
Totals.....	318,677	161,150	479,827

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and fourteen trips were made, and 47 Panama Canal, 26 U. S. Army, and 3,771 other vehicles, a total of 3,844, were ferried across the Canal.

MADDEN DAM PROJECT.

Studies of the relative merits of dam sites No. 1 and No. 5 were continued. Computations and preliminary designs of a curved gravity dam and studies of methods of constructing foundations for the dam were made. Diversion flumes and coffer-dam heights were determined to pass all river flows except in flood stages. The Bureau of Reclamation, Washington, agreed to act as consulting engineers for the project.

SCHOOLS.

The Canal Zone white schools opened on October 1st. The colored schools operate on a 12-month basis. Compared with October, 1928, the white school attendance was increased by 161 pupils and that of the colored schools by 951 pupils, with two additional white teachers and 24 additional colored teachers to take care of the increased enrollment.

The following tabulation shows the enrollment and number of teachers for October, 1928 and 1929:

	October, 1928.	October, 1929.
White schools:		
Gross enrollment.....	2,449	2,610
Teachers.....	86	88
Colored schools:		
Gross enrollment.....	2,838	3,789
Teachers.....	61	85

OCCUPANTS OF QUARTERS.

The number of persons, including men, women and children, occupying Panama Canal quarters on October 31, 1929, was 22,082, composed of 7,734 Americans, 2,807 of whom were men, 2,307 women, and 2,620 children; 243 Europeans, 94 of whom were men, 38 women, and 111 children; and 14,105 West Indians, 4,174 of whom were men, 2,609 women, and 7,322 children. The total number of persons in quarters on October 31, 1928, was 21,578.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of October 16, 1929, with a comparison of the working force for the preceding month and for October, 1928:

	As of October 16, 1929.			Total employees.	
	Gold.	Silver.	Total.	September, 1929.	October, 1928.
Operation and Maintenance:					
Office.....	50	75	125	104	99
Electrical.....	152	168	320	311	329
Municipal Engineering.....	85	771	856	857	988
Lock Operation.....	242	712	954	957	909
Dredging.....	194	1,052	1,246	1,251	1,096
Madden Project.....	29	677	706	796	
Mechanical.....	506	902	1,408	1,452	1,354
Marine.....	208	610	818	908	842
Fortifications.....	27	298	325	297	327
Totals.....	1,493	5,265	6,758	6,933	5,944
Supply Department:					
Quartermaster.....	208	2,269	2,477	2,312	2,112
Commissary.....	239	1,272	1,511	1,519	1,419
Cattle Industry—Plantations.....	3	115	118	117	132
Hotel Tivoli.....	9	105	114	113	107
Hotel Washington.....	9	98	107	108	102
Transportation.....	72	233	305	290	265
Totals.....	540	4,092	4,632	4,459	4,137
Accounting Department.....	201	6	207	203	202
Health Department.....	250	893	1,183	1,282	1,158
Executive Department.....	530	321	851	835	818
Totals.....	1,021	1,220	2,241	2,320	2,178
Panama Railroad Company:					
Superintendent.....	48	299	347	343	318
Transportation.....	61	121	182	190	180
Receiving and Forwarding Agency.....	97	1,212	1,309	1,783	1,844
Coaling Stations.....	49	269	318	292	319
Totals.....	255	1,901	2,156	2,608	2,661
Grand totals, October, 1929.....	3,309	12,478	15,787		
Grand totals, September, 1929.....	3,298	13,022		16,320	
Grand totals, October, 1928.....	3,140	11,780			14,920

Additions to the gold force on the Isthmus in October were as follows: Employed in the United States, 31; reemployed in the United States, 5; employed on the Isthmus, 11; reemployed on the Isthmus, 7; total, 54. Separations from the gold force totaled 35, as follows: Resigned, 19; discharged, 15; died, 1. At the end of the month there were on file 385 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 231 deaths occurred during the month of October, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 20.98 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 30; tuberculosis (respiratory), 24; diarrhea and enteritis, 18; nephritis (acute and chronic), 17; organic diseases of the heart, 14. There were 13 deaths from syphilis; 11 from apoplexy; 10 from cancer; 2 from typhoid, and 1 from dysentery. There were 30 deaths among nonresidents. These are not included in the above statistics.

There were 433 live births, and 21 stillbirths reported during the month. This is equivalent to an annual birth rate of 39.32 per 1,000 population. Deaths among children under 1 year of age numbered 57, giving an infant mortality rate based on the number of live births reported, of 131.64.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during the month of October, 1929, was 125, of whom 24 were employees (9 white and 15 colored), 22 were families of employees (3 white and 19 colored), 21 were Canal Zone agriculturists, 21 were other civilian nonemployees, and 37 were Army and Navy personnel.

There was one death from malaria among residents, a Canal Zone agriculturist.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled \$596,432.23, of which \$571,463.88 was for the Department of Operation and Maintenance and \$24,968.35 for other Panama Canal Departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$40,777.79.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of September, 1929, as compared with September, 1928, with the figures for the first three months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of October at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	September, 1929.	September, 1928.	To end of September.	
			This year.	Last year.
Tolls.....	\$2,201,833.29	\$2,125,982.10	\$6,788,892.17	\$6,417,763.94
Other receipts.....	335,150.54	324,178.44	1,053,081.85	958,184.17
Total transit revenues.....	2,536,983.83	2,450,160.54	7,841,974.02	7,375,948.11
Total transit expenses.....	1,103,396.22	1,004,841.96	3,282,244.68	3,117,793.73
Net transit revenues.....	1,433,587.61	1,445,318.58	4,559,729.34	4,258,154.38
Three per cent capital charge.....	619,953.99	617,134.86	1,860,715.31	1,847,912.40
Transit surplus.....	813,633.62	828,183.72	2,699,014.03	2,410,241.98
Business revenues.....	1,440,047.96	1,209,257.85	4,811,347.26	3,810,693.78
Business expenses.....	1,390,316.87	1,147,972.40	4,537,990.89	3,614,772.44
Net business revenues.....	49,731.09	61,285.45	273,356.37	195,921.34
Three per cent capital charge.....	61,822.42	60,666.36	198,587.51	194,752.22
Business surplus or deficit.....	12,091.33	619.09	74,768.86	1,169.12
Combined revenues.....	3,977,081.79	3,659,418.39	12,653,321.28	11,186,641.89
Combined expenses.....	2,493,713.09	2,152,814.36	7,820,235.57	6,732,566.17
Net revenues.....	1,483,318.70	1,506,604.03	4,833,085.71	4,454,075.72
Three per cent capital charges.....	681,776.41	677,801.22	2,059,302.82	2,042,664.62
Combined surplus.....	801,542.29	828,802.81	2,773,782.89	2,411,411.10

* Denotes deficit.

Respectfully,

H. BURGESS.

Governor.

Panama Canal Radio Beacons.

A notice to mariners, furnishing corrected data on the radio beacon established at Cape Mala, Panama, on September 11, 1929, was published in THE PANAMA CANAL RECORD of last week. This beacon is located at the entrance to the Gulf of Panama, as an aid to ships in passage to or from the Pacific entrance to the Panama Canal. The positions of the center lines of the towers are as follows: North tower, latitude 7° 28' 08.8"; longitude, 79° 59' 59.8"; south tower, latitude 7° 28' 06.7"; longitude 80° 00' 00.3". The azimuth of the aerial is 16° 37' from the true north.

A radio beacon for the Atlantic entrance of the Canal was established at Cristobal on July 20, 1929, as published in notice to mariners No. 570 (a) in THE PANAMA CANAL RECORD of July 31, 1929. The positions of the center lines of the towers for this beacon are as follows: East tower, latitude $9^{\circ} 21' 23.23''$; longitude, $79^{\circ} 55' 01.34''$; west tower, latitude $9^{\circ} 21' 23.76''$; longitude, $79^{\circ} 55' 3.75''$. The azimuth of the aerial is $102^{\circ} 16' 30''$ from the true north.

These stations send out signals at different periods and with different characteristics so as not to overlap. Cristobal's period of operation is the first ten minutes of each whole half hour; frequency, 305 kilocycles; characteristics, 76 long dashes per minute. Cape Mala's period of operation is from the 16th to the 25th and from the 46th to the 55th minute of each hour; frequency 295 kilocycles; characteristics, groups of 2 dashes repeated.

The signals are transmitted mechanically, under the control of clock-work, located where it can be inspected conveniently and frequently. They are operated and maintained by the Communication Officer, 15th Naval District.

Radio beacons have the primary value of enabling the navigator to get his bearings in obscure weather, but are also being used in fair weather. Those operating for the Canal entrances are said to be the first established south of the United States.

The master of the motor ship *Pacific Exporter*, upon his arrival at Cristobal on November 22, informed the Panama Canal pilot that at approximately 4 p. m. the previous day, while about 200 miles from Cristobal he was able to take a radio bearing of the radio beacon at Cristobal mole and a bearing using the radio beacon at Cape Mala, and the fix was within one mile of his observed position at that time.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending November 23, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Caldas.....	National Navigation Co.....	November 17.	November 18.	5	
Bodegraven.....	Royal Neth. S. S. Co.....	November 17.	November 18.	86	
Durazzo.....	Hamburg-American Line.....	November 17.	November 17.	56	
San Francisco.....	Hamburg-American Line.....	November 18.	November 18.	58	
Davanger.....	Westfal, Larsen & Co.....	November 18.	November 21.	9,340	
Cambrai.....	U. S. Government.....	November 19.	November 20.	117	40
Corinto.....	Panama Mail S. S. Co.....	November 21.	November 21.		1
City of Rayville.....	U. S. Shipping Board.....	November 22.	November 22.	3	
Virginia.....	Panama-Pacific Line.....	November 22.	November 22.		179
Caldas.....	National Navigation Co.....	November 23.	November 23.		20

United States Intercoastal Traffic by Commodities for October, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for October, 1929, and the totals for October, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

(Continued on page 251.)

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, November 23, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Florence	17	8 30	17	9 01	17	15 22	17	16 50	American.	Luckenbach Line	401 0	52 3	21 5	New Orleans, La.	Seattle, Wash.	General	3,858	6,002
Luckenbach.	17	9 50	17	10 03	17	16 20	17	17 07	American.	Gulf-Pacific Line	374 0	56 2	16 0	Tampa, Fla.	Seattle, Wash.	General	1,189	3,984
Point Montara	17	10 10	17	10 20	17	17 01	17	18 00	American.	Norton, Lilly & Co.	440 0	46 0	15 6	Baltimore, Md.	Everett, Wash.	Ballast	8,312	2,612
Hefron	17	6 15	17	12 20	17	19 49	17	20 55	British.	Union S. S. Co. of N. Z.	234 0	46 0	18 7	Liverpool, England	Wellington, N. Z.	Coal	2,245	2,709
Kaimiro	16	1 30	17	13 00	17	20 00	17	21 03	German.	Hamburg-American Line	227 0	34 4	14 0	Cristobal, C. Z.	Guayaquil, Ecuador	General	250	1,633
Durazo	17	09 15	17	13 30	17	20 50	17	21 50	German.	Hamburg-American Line	409 1	53 11	33 7	Hamburg, Germany	Valparaiso, Chile	General	6,246	7,173
Adolf Von	16	16 40	17	14 00	17	21 35	18	12 45	American.	U. S. Navy	403 0	60 0	19 0	Cristobal, C. Z.	Los Angeles, Calif.	Ballast	6,751	4,795
Beyer	17	16 03	17	16 20	18	11 35	18	12 45	American.	Huasteca Petroleum Co.	416 8	55 0	21 6	Aruba, D. W. I.	Los Angeles, Calif.	Ballast	8,454	6,314
W. L. Steed	17	1 00	18	5 53	18	12 45	18	15 15	German.	Hamburg-American Line	432 3	59 0	22 6	Hamburg, Germany	Portland, Ore.	General	5,049	9,402
San Francisco	17	17 15	18	6 10	18	13 49	18	15 15	American.	Sun Oil Co.	430 5	66 0	21 0	Chester, Pa.	Los Angeles, Calif.	Ballast	9,402	6,386
Deaware Sun	17	22 10	18	7 30	18	14 43	18	16 15	American.	General Petroleum Co.	467 6	62 7	21 0	New York, N. Y.	Los Angeles, Calif.	Ballast	9,700	6,804
Broad Arrow	18	0 35	18	8 10	18	15 36	18	16 55	American.	Pacific Petroleum Co.	409 0	54 2	19 0	Wilmington, Del.	Seattle, Wash.	General	4,507	6,755
Oran	18	8 43	18	12 30	18	19 25	18	20 43	Norwegian.	Brugsgaard Kios. & Co.	400 2	52 2	25 0	Antwerp, Belgium	Los Angeles, Calif.	General	6,582	4,887
Hektor	18	13 10	18	13 45	18	20 28	19	2 04	British.	Imperial Oil Co.	471 0	63 0	21 0	Montreal, Canada	Talara, Peru	Ballast	9,231	5,513
Rognotte	18	14 50	18	16 55	19	9 32	19	10 30	British.	International Pet. Co.	565 0	75 6	25 0	New York, N. Y.	Los Angeles, Calif.	Ballast	16,780	9,885
C. O. Still-	18	20 25	19	6 15	19	13 57	19	15 40	American.	Norton, Lilly & Co.	395 0	55 0	26 6	Baltimore, Md.	Vancouver, B. C.	General	7,373	6,993
man	18	21 35	19	6 20	19	15 19	19	16 35	British.	Sir R. Roper & Co.	405 1	53 6	15 0	Boston, Mass.	Vancouver, B. C.	Ballast	5,858	4,900
William A.	19	6 35	19	7 15	19	14 27	20	13 00	American.	U. S. Army	436 9	58 0	24 0	Brooklyn, N. Y.	San Francisco, Cal.	General	414	4,365
McKenney	18	21 55	19	7 20	19	15 49	19	17 30	Norwegian.	Fern Line	382 0	53 3	25 0	Boca Grande, Fla.	Shanghai, China	General	6,761	6,112
Gulfoal	19	4 35	19	8 35	19	16 04	19	17 30	American.	Amer-Hawaiian Line	491 5	58 2	19 0	Boston, Mass.	Seattle, Wash.	General	3,000	10,491
Cambril	19	6 50	19	11 00	19	17 10	19	18 45	British.	Ellerman & Bucknall	447 5	57 8	26 3	Liverpool, England	Fremantle, Aust'lia	General	5,280	6,691
Pembank	19	10 25	19	10 00	19	18 09	19	21 52	British.	J. Langdon Ross, Ltd.	400 3	52 3	14 6	Baltimore, Md.	Paita, Peru	Ballast	5,803	4,098
Virginia	19	14 18	19	14 25	19	21 00	19	21 52	American.	Standard Transp. Co.	468 3	62 7	18 0	New York, N. Y.	Los Angeles, Calif.	Ballast	10,084	7,388
City of	19	19 00	20	6 30	20	14 21	20	15 40	American.	U. S. Army	101 9	23 5		Cristobal, C. Z.	Gatun, C. Z.	Ballast		
Windsor	19	19 00	20	6 30	20	14 21	20	15 40	British.	Sheaf S. S. Co.	405 0	55 0	23 0	Tampa, Fla.	Yokohama, Japan	General	7,700	9,589
Antonio	19	20 35	20	6 15	20	15 11	20	19 22	British.	British Mollasses Co.	473 0	63 0	15 6	New Orleans, La.	Los Angeles, Calif.	Ballast	9,589	6,416
China Arrow	19	20 35	20	6 15	20	15 11	20	19 22	American.	Texas S. S. Co.	416 8	56 1	20 0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,150	5,830
Edw. P. Nones	19	20 35	20	6 15	20	15 11	20	19 22	American.	South American S. S. Co.	421 2	56 0	26 3	New York, N. Y.	Valparaiso, Chile	General	3,032	7,764
J. 10	19	20 30	20	9 26	20	16 20	20	17 30	Chilean.	Miguel de Larraza Co.	388 4	53 0	17 6	New York, N. Y.	Talcahuano, Chile	General	3,000	
Sheaf Crown	19	20 35	20	6 15	20	15 11	20	19 22	British.	British Mollasses Co.	473 0	63 0	15 6	New Orleans, La.	Los Angeles, Calif.	Ballast	9,589	6,416
Albeduke	19	20 35	20	6 15	20	15 11	20	19 22	American.	Texas S. S. Co.	416 8	56 1	20 0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,150	5,830
Illinois	19	20 30	20	9 26	20	16 20	20	17 30	Chilean.	Miguel de Larraza Co.	388 4	53 0	17 6	New York, N. Y.	Talcahuano, Chile	General	3,032	7,764
Teno	20	9 55	20	12 25	20	19 25	20	20 19	British.	Luckenbach Line	445 0	58 0	22 6	Boston, Mass.	Seattle, Wash.	General	4,622	8,699
Miguel de	20	12 15	20	13 30	20	20 12	20	21 04	American.	Luckenbach Line	445 0	58 0	22 6	Boston, Mass.	Seattle, Wash.	General	4,622	8,699
Larraza	20	12 15	20	13 30	20	20 12	20	21 04	American.	Luckenbach Line	445 0	58 0	22 6	Boston, Mass.	Seattle, Wash.	General	4,622	8,699
Horace	20	12 15	20	13 30	20	20 12	20	21 04	American.	Luckenbach Line	445 0	58 0	22 6	Boston, Mass.	Seattle, Wash.	General	4,622	8,699
Luckenbach.	20	12 15	20	13 30	20	20 12	20	21 04	American.	Luckenbach Line	445 0	58 0	22 6	Boston, Mass.	Seattle, Wash.	General	4,622	8,699

¹ Launch.

² Transport.

³ Motor ship.

⁴ Tug.

[illegible]

1 Tanker.

6 Bagg,

7 Cruiser.

⁹ Mines weeper.

10 Towing barges.

and material.

THROUGH THE CANAL--PACIFIC TO ATLANTIC.

ETIC.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Calgarolite	17	17.30	17	19.08	18	11.10	18	11.10	British	Imperial Oil Co.	521.5	70.4	29.7	Talara, Peru	Halifax, Canada.	Crude oil	16,000	12,339	8,067
Sadle	17	16.00	18	5.45	18	13.20	18	13.20	German	North German Lloyd.	473.8	61.1	27.4	Vancouver, B. C.	Antwerp, Belgium	General	8,973	9,335	6,844
Tamarca	18	5.30	18	7.25	18	14.45	18	23.40	British	Shaw, Savill & Albion.	500.4	63.2	28.0	Auckland, N. Z.	London, England	General	6,100	13,592	9,383
Wido	17	23.30	18	7.33	18	17.05	18	20.50	German	North German Lloyd.	393.3	54.3	25.1	Valparaiso, Chile.	Bremen, Germany	General	7,707	9,585	4,621
Santa Elisa	18	6.00	18	8.05	18	15.40	19	00.10	American	Grace Line.	360.3	51.7	24.0	New York, N. Y.	New York, N. Y.	General	3,196	5,957	4,325
Bodegraven	17	16.30	18	8.40	18	17.25	18	22.35	Dutch	Royal Ned. S. S. Co.	400.9	58.2	25.6	Corral, Chile	Hamburg, Germany	General	7,892	7,884	6,018
Leme	18	2.30	18	8.41	18	18.00	18	21.05	Italian	Navy, Liberia-Triestina.	450.0	57.0	27.4	Vancouver, B. C.	Trieste, Italy	General	9,207	8,805	6,497
Caldas	17	21.45	18	9.20	18	17.30	18	18.30	Colombian	National Navigation Co.	116.0	21.1	10.5	Buenaventura, Col.	Cristobal, C. Z.	General	232	211	124
Sea Thrush	18	11.05	18	11.49	18	18.45	18	18.45	American	Shepard S. S. Co.	410.0	55.0	24.0	Seattle, Wash.	Philadelphia, Pa.	Lumber, general.	7,236	6,625	4,841
Nosa Chief	18	13.50	18	14.40	18	21.55	19	00.40	American	N. O. & S. A. S. Line.	299.4	54.0	23.0	Corral, Chile	New Orleans, La.	Nitrates	3,673	3,256	2,610
Pennsylvania	18	11.30	19	6.13	19	14.05	19	14.55	American	Panama Pacific Line.	586.4	80.3	32.0	San Francisco, Cal.	New York, N. Y.	General	9,202	25,262	18,194
Chilcop	18	19.10	19	7.10	19	14.55	19	13.25	American	Chile S. S. Co., Inc.	411.5	54.1	24.0	Chuanai, Chile	New York, N. Y.	General	7,485	6,609	4,973
Empirestar	18	21.41	19	7.10	19	13.25	19	13.25	British	Blue Star Line.	423.4	57.2	30.0	Portland, Ore.	Buenos Aires, Arg.	Frozen, general.	3,598	7,744	5,621
Falcor	19	4.30	19	8.55	19	16.20	19	16.20	American	Ore S. S. Corp.	449.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	12,008	7,808	5,139
Salvador	19	4.00	19	8.55	19	17.40	19	17.40	British	Pacific Steam Nav. Co.	215.0	33.5	13.6	Champerico, Guat.	Cristobal, C. Z.	Coffee, skins, etc.	189	1,270	735
Norasil	19	6.00	19	8.51	19	17.40	19	17.40	Norwegian	Fens Samuelsen.	342.0	48.0	21.0	Pisagua, Chile.	Savannah, Ga.	Nitrates	5,040	3,929	2,798
Pacific	19	9.05	19	10.00	19	18.00	19	18.00	British	Furness, Withy & Co.	436.0	60.3	26.9	Vancouver, B. C.	Glasgow, Scotland	General	8,063	9,725	6,942
Birmingham	19	10.30	19	11.10	19	18.45	19	22.45	American	Isthmian S. S. Lines	395.5	55.0	25.6	Everett, Wash.	Newark, N. J.	Lumber	7,575	7,304	5,188
City	19	11.50	19	12.30	19	19.50	19	21.00	German	Roland Line	452.0	57.2	15.0	Champerico, Guat.	New Orleans, La.	Ballast	7,615	5,496	
Grandon	19	13.20	19	14.10	19	21.50	19	21.50	American	Luckenbach Line	449.0	60.0	30.8	Portland, Ore.	Boston, Mass.	Lumber, general	9,000	9,294	6,865
Lillian	19	15.20	19	17.19	19	20.50	19	20.50	American	Amer-Hawaiian Line	404.6	64.9	26.1	Portland, Ore.	Boston, Mass.	General	7,037	6,779	4,921
Kansan	19	13.20	19	14.10	19	21.50	19	21.50	American	U. S. Navy	384.0	64.9	25.9	Bahoa, C. Z.	Cristobal, C. Z.	General	13,682	9,619	6,455
Rochester	19	15.20	19	17.19	19	20.50	19	20.50	American	Sun Oil Co.	480.6	66.0	28.6	Los Angeles, Calif.	Giesher, Pa.	Gasoline	3,428	3,984	2,645
Sunolt	19	20.45	20	6.00	20	13.50	20	16.45	American	Swayne & Hoyt	324.0	52.2	22.0	Portland, Ore.	New Orleans, La.	(19)	2,133	3,705	4,167
Point Gorda	20	2.50	20	7.32	20	15.15	20	15.15	American	Redwood Line	386.8	52.2	18.0	San Francisco, Cal.	Mobile, Ala.	General	169	45	31
Dochet	20	7.15	20	8.01	20	17.00	20	17.00	American	Western Freighters Co.	56.0	16.5	9.6	Vancouver, B. C.	Belize, Brit. Hond.	Ballast	7,150	5,742	4,180
Oulathouan	19	22.30	20	10.36	20	17.35	21	9.35	Dutch	Royal Ned. S. S. Co.	202.9	33.1	12.6	Guayaquil, Ecuador	Cristobal, C. Z.	Nitrates	8,750	6,252	4,973
Barat	20	11.40	20	12.43	20	19.20	20	19.20	Italian	Italo Cilena Anon. Nav.	406.8	48.8	26.2	Liquique, Chile	Cristobal, C. Z.	(20)	21,206	15,551	10,551
Nitro	20	13.50	20	14.51	20	22.45	21	00.45	American	U. S. Army	101.5	23.6	9.3	Paraiso, C. Z.	New Orleans, La.	Nitrates	7,125	4,916	
Edward P.	20	16.05	20	16.52	21	11.55	21	11.55	Danish	Du Pont de Nemours	381.5	53.9	27.3	Liquique, Chile	New York, N. Y.	Iron ore	4,000	3,984	2,628
Nordpal	20	16.05	20	16.52	21	11.55	21	11.55	American	Ore S. S. Corp.	530.3	72.2	33.6	Cruz Grande, Chile	New York, N. Y.	General	2,447	2,800	1,723
Marore	21	1.45	21	2.54	21	16.45	21	16.45	American	Watfall, Laregen & Co.	425.0	56.8	25.6	Los Angeles, Calif.	Curaçao, D. W. I.	Lumber	898	1,132	
Davanger	21	2.51	21	7.03	21	15.21	21	15.40	Norwegian	Transit, Laregen & Co.	324.0	46.2	25.0	Tacoma, Wash.	New York, N. Y.	Lumber	4,000	3,984	2,628
Sunungto	21	00.30	21	7.13	21	17.55	21	17.55	American	Western Freighters Co.	303.0	43.0	18.0	Seattle, Wash.	Pto. Mexico, Mex.	Lumber	2,447	2,800	1,723
Orion	21	6.15	21	8.09	21	18.25	21	22.25	Danish	Orion S. S. Co.	303.0	43.0	18.0	Seattle, Wash.	Pto. Mexico, Mex.	Lumber	2,447	2,800	1,723
Manizates	21	6.15	21	8.09	21	18.25	21	22.25	German	North German Lloyd	216.5	32.9	14.3	Guayaquil, Ecuador	Cristobal, C. Z.	General	898	1,132	

* Tanker.

* Motor ship.

* Tug.

* Cruiser

* Copper, ore, and general.

* Lumber, explosives, and general.

* Towing barge.

Aladdin	21	8 40	21	11 37	21	19 50	21	22 20	American	Standard Transp. Co.	435 6	56 2	27 6	Los Angeles, Calif	New York, N. Y.	Fuel oil	9,714	7,408	5,112
India Arrow	21	12 00	21	12 48	21	20 20	21	20 20	American	Standard Transp. Co.	468 3	64 7	26 6	Los Angeles, Calif	New York, N. Y.	Gasoline	11,203	10,084	7,388
Cerigo	21	12 15	21	13 30	21	21 45	25	6 03	German	Hamburg-American Line	227 2	33 4	13 0	Guayaquil, Ecuador	Cristobal, C. Z.	(*)	625	1,572	1,011
Robert E.	21	23 45	22	6 05	22	13 45	22	14 40	American	Tidewater Oil Co.	424 4	58 2	26 6	San Francisco, Cal.	New York, N. Y.	Gasoline	9,116	7,333	5,182
San Mateo	22	4 50	22	6 45	22	15 40	23	15 05	American	United Fruit Co.	315 2	42 2	19 8	San Francisco, Cal.	Cristobal, C. Z.	General	825	3,496	2,141
Neches	22	7 15	22	8 24	22	19 30	25	7 00	American	U. S. Navy	475 0	56 0	27 0	Los Angeles, Calif	Cristobal, C. Z.	Gasoline, Diesel	9,180		
Herman Falk	22	8 00	22	11 31	22	21 15	22	21 15	American	Oil Transport Co.	431 0	59 2	26 0	Los Angeles, Calif	New York, N. Y.	Gasoline	9,522	7,862	5,049
Queen Maund	22	8 10	22	11 36	22	20 10	22	20 10	British	Thomas Dunlop & Sons	400 2	52 8	25 0	Tocopilla, Chile	Pensacola, Fla.	Nitrates	7,500	5,748	3,954
San Felipe	22	11 20	22	12 14	22	22 26	22	22 26	American	Quaker Line	409 8	54 2	26 6	Everett, Wash.	Boston, Mass	Lumber, pulp	7,412	6,821	4,927
Ulysses	22	11 20	22	14 25	22	23 28	23	3 08	American	American Tankers Corp	514 6	65 2	18 3	Balboa, C. Z.	Boston, Mass	Ballast	9,200	7,568	5,283
Atlantic Sun	22	16 50	23	6 17	23	13 48	23	13 48	American	Sun Oil Co.	429 3	59 2	26 0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,200	7,568	5,283
Oregonian	22	20 35	23	6 47	23	15 05	23	15 05	Panamanian	Amer-Hawaiian Line	404 6	53 9	28 0	Seattle, Wash.	Boston, Mass	General	7,800	6,754	4,800
Anachucua	22	15 00	23	6 52	23	13 45			Panamanian	United Fruit Co.	105 0	15 3	5 0	Balboa, C. Z.	Cristobal, C. Z.	Ballast	92		47
Denver	22	7 32	23	7 32	23	15 30	25	23 58	American	U. S. Navy	202 0	44 0	17 0	Balboa, C. Z.	Cristobal, C. Z.	Wood, hides, gen.	70	1,273	706
Acuña	22	19 50	23	7 14	23	15 25			British	Pacific Steam Nav. Co.	215 7	33 5	13 0	Champerico, Guat	Cristobal, C. Z.				
Herman F.	22	21 55	23	7 43	23	18 05	23	18 05	American	Union Sulphur Co.	399 4	54 2	25 6	Portland, Oreg.	New York, N. Y.	Lumber	7,200	6,581	4,784
Pacific Cedar	23	2 30	23	8 25	23	16 50	23	16 50	American	Dimon S. Corp.	399 4	54 7	23 6	Aberdeen, Wash	New York, N. Y.	Lumber	6,750	6,138	4,354
Ranga	23	9 20	23	10 06	23	18 45	23	18 45	British	Shaw, Savill & Albion	478 0	63 8	24 6	Pt. Chalmers, N. Z.	New York, N. Y.	Frozen, general	8,500	11,070	7,931
King Edward	23	9 35	23	10 51	23	19 10	23	19 10	British	Dodd, Thomson & Co.	400 6	54 8	23 6	Vancouver, B. C.	Falmouth, England	Wheat	7,401	6,472	4,676
Streakland	23	8 03	23	17 04	24	12 55	24	12 55	Swedish	Ore S. S. Corp.	561 3	72 2	33 8	Cruz Grande, Chile	New York, N. Y.	Iron ore	22,146	15,425	4,421
Edward P.	23								American	U. S. Army	101 0	23 5		Balboa, C. Z.	Cristobal, C. Z.				
Nones	23								American										

* Tanker.

* Ivory nuts and coffee.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 17	Pastores	United Fruit Co.	Port Limon, C. R.	November 17	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
November 17	Coppename	United Fruit Co.	Bocas, R. P.	November 17	Rugia	Hamburg-American Line	Puerto Colombia.
November 17	Lalla	Gulf-Caribbean S. S. Line	Colon, R. P.	November 17	Mercan	Leyland S. S. Line	Liverpool via waypts.
November 17	Anachucua	United Fruit Co.	New Orleans, La.	November 17	Pastores	United Fruit Co.	New York via Habana.
November 18	Antillan	Leyland S. S. Line	Liverpool via waypts.	November 17	Coppename	United Fruit Co.	New Orleans, La.
November 18	Suriname	United Fruit Co.	Puerto Colombia.	November 17	Heredia	United Fruit Co.	New Orleans via waypts.
November 18	Ulua	United Fruit Co.	New York via Habana.	November 17	Anachucua	United Fruit Co.	Colon, R. P.
November 18	No. 9688	Pan-American Airways	Managua via waypts.	November 18	Cuba	French Line	Havre via waypts.
November 19	Annetta I.	Colon, R. P.	Avonmouth via waypts.	November 18	Suriname	United Fruit Co.	Bocas, R. P.
November 20	Teutonia	Elders & Fyffes Line	Hamburg via waypts.	November 18	Lalla	Gulf-Caribbean S. S. Line	New Orleans via waypts.
November 20	Cristobal	Panama, R. R. S. S. Line	New York via Haiti	November 19	Antillan	Leyland S. S. Line	Port Limon, C. R.
November 20	Sixola	United Fruit Co.	Barranquilla via waypts.	November 19	N. C. 9664	Pan-American Airways	Managua via waypts.
November 20	Darien C-35	Seadta Airplane Co.	Colon, R. P.	November 19	N. C. 144-M	Pan-American Airways	Guayaquil via waypts.
November 21	Inapuna	United Fruit Co.	Colon, R. P.	November 19	N. C. 300-N	Pan-American Airways	Curacao via waypts.
November 21	Pearl Maiden	G. I. Bryan	Colon, R. P.	November 20	Ulua	United Fruit Co.	Brownsville via waypts.
November 21	N. C. 300-N	Pan-American Airways	Curacao via waypts.	November 20	Cavina	Elders & Fyffes Line	Port Limon, C. R.
November 21	No. 9664	Pan-American Airways	Managua via waypts.	November 20	Annetta I.	A. Tagarapulos	Bristed via waypts.

* Other than ships passing through the Canal.

* Motor boat.

* Air mail carrier.

* Motor schooner.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 22.	Suriname.	United Fruit Co.	Bocas, R. P.	November 20.	Toutonia	Hamburg-American Line.	Port Limon, C. R.
November 22.	Atlantida	Stand. Fruit & S. Co.	New Orleans via Habana.	November 21.	No. 9688 ²⁵	Pan-American Airways	Managua via wayports.
November 22.	N. C. 144-M ²⁵	Pan-American Airways	Guayaquil via wayports.	November 21.	Sixola	United Fruit Co.	New York via wayports.
November 22.	Atlantic C-29 ²⁵	Seadta Airplane Co.	Buenaventura via wayports.	November 21.	Pearl Marie ²⁷	G. I. Bryan	Bluefields, Nicaragua.
November 23.	Genevieve Lykes	Lykes Brothers S. S. Co.	Manzanillo, Cuba.	November 21.	Inapaquin ²⁶	United Fruit Co.	Colon, R. P.
November 23.	Maravi	United Fruit Co.	Cartagena, Colombia.	November 21.	Darien C-35 ²⁵	Seadta Airplane Co.	Barraquilla, Colombia.
November 23.	Wauks	Stand. Fruit & S. Co.	San Blas, R. P.	November 22.	Suriname	United Fruit Co.	New Orleans, La.
November 23.	No. 9688 ²⁵	Pan-American Airways	Managua via wayports.	November 23.	Atlantico C-29 ²⁵	Seadta Airplane Co.	Buenaventura via wayports.
November 23.	Cartago	United Fruit Co.	New Orleans via Habana.	November 23.	Atlantida	Standard Fruit & S. S. Co.	New Orleans via wayports.
November 23.	Inapaquina ²⁶	United Fruit Co.	Colon, R. P.	November 23.	Inapaquina ²⁶	United Fruit Co.	Colon, R. P.
November 23.	Annetta I. ²⁶	A. Tagaraulos	Colon, R. P.	November 23.	Annetta I. ²⁶	A. Tagaraulos	Colon, R. P.
November 23.	Ulysses	American Tankers Corp.	High seas.	November 23.	No. 9685 ²⁵	Pan-American Airways	Managua via wayports.
November 23.				November 23.	Maravi	United Fruit Co.	New York via Kingston.

PORT OF BALBOA.

²⁵ Air mail carrier. ²⁶ Motor boat. ²⁷ Motor schooner.

November 19.	El Sona ²⁷	Hans Elliot.	Bayano River, R. P.	November 19.	El Sona ²⁷	Hans Elliot.	Panama Bay, R. P.
November 22.	La Union ²⁷	Pacifico Rios Proprietario.	Panama Bay, R. P.	November 22.	La Union ²⁷	Pacifico Rios Proprietario.	Panama Bay, R. P.
November 22.	Dos Hermanos ²⁷	A. Valdez	Bayano River, R. P.	November 22.	Dos Hermanos ²⁷	A. Valdez	Panama Bay, R. P.
November 22.	Real ²⁷	Hans Elliot.	Bayano River, R. P.	November 22.	Real ²⁷	Hans Elliot.	Panama Bay, R. P.
November 22.	Sambu ²⁷	Hans Elliot.	Bayano River, R. P.	November 22.	Sambu ²⁷	Hans Elliot.	Panama Bay, R. P.
November 22.	La Masoeta ²⁷	Hans Elliot.	Bayano River, R. P.	November 22.	La Masoeta	Hans Elliot.	Panama Bay, R. P.

²⁷ Motor schooner.

* Other than ships passing through the Canal.

United States Intercoastal Traffic.—Continued from page 245.

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements.....	975	81	1,056
Alfalfa.....		238	238
Alfalfa meal.....		617	617
Ammunition.....	60		60
Asbestos.....	627		627
Asphalt.....	246	85	331
Automobiles.....	3,283	98	3,381
Automobile accessories.....	2,299	10	2,309
Bark.....		150	150
Barley.....		65	65
Beans.....	82	9,788	9,870
Borax.....		1,161	1,161
Bricks.....	88		88
Burlap.....	119	68	187
Calcium carbide.....	196		196
Camphor.....		124	124
Canned:			
Fish.....	240	16,507	16,747
Fruit.....	463	34,622	35,085
Meat.....	144		144
Milk.....	40	1,074	1,114
Soup.....	5,465	206	5,671
Vegetables.....	1,669	9,690	11,359
Miscellaneous.....	1,504	12,231	13,735
Carbon black.....		50	50
Celite filtereal.....		415	415
Cement.....	460	14	474
Charcoal.....	88		88
Chemicals.....	3,335	832	4,167
Coal.....	2,430		2,430
Cocoanuts.....	4	326	330
Coffee.....	64	513	577
Cold storage:			
Butter.....		350	350
Cheese.....	46	111	157
Eggs.....		45	45
Lard.....	10		10
Other.....	7	150	157
Confectionery.....	732		732
Copra.....		38	38
Cotton.....	251	833	1,089
Cyanide.....	230		230
Drugs.....	991	8	999
Earthenware.....	168	14	182
Eggs, dried.....		72	72
Explosives.....	22	88	110
Flour.....	100	5,819	5,919
Fruit:			
Dried.....	153	16,032	16,185
Fresh.....		2,630	2,630
Fuller's earth.....	18		18
Furniture.....	723	67	780
General.....	59,910	9,695	69,605
Glass and glassware.....	2,146	153	2,299
Glue.....		40	40
Granite.....	26		26
Hair.....		63	63
Hardwoods.....	1,252	200	1,452
Hay.....		771	771
Hemp.....		1,257	1,257
Honey.....		49	49
Hops.....		100	100
Jute.....	118	20	138
Linoleum.....	795		795
Liquors.....	313		313
Lumber.....	1,512	202,011	203,523
Malt.....	95		95
Manufactured goods:			
Iron and steel.....	122,272	1,028	123,300
Machinery.....	4,230	1,042	5,272
Railroad material.....	1,467		1,467
Tinplate.....	9,183	271	9,454
Textiles.....	3,965	318	4,283
Miscellaneous.....	9,010	3,590	12,609
Matches.....	77	38	115
Metals:			
Antimony.....		114	114
Copper.....	38	9,521	9,559
Iron.....	2,847		2,847
Lead.....		394	394
Scrap.....	2,000	584	2,584
Tin.....	24	27	51
Zinc.....		2,336	2,336
Other.....	60	23	83

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Milk, powdered.....	23	734	757
Molasses.....	141	.....	141
Musical instruments.....	12	.....	12
Nuts.....	38	83	121
Oats.....	58	150	208
Oils:			
Cottonseed.....	85	.....	85
Gas oil, fuel oil.....	.....	59,933	59,933
Gasoline, benzine, naphtha.....	.....	261,463	261,463
Kerosene.....	.....	38,221	38,221
Lubricating and greases.....	3,342	452	3,794
Vegetable.....	53	28	81
Wood.....	42	13	55
Other.....	.....	20	20
Ores:			
Copper.....	1,300	800	2,100
Magnesite.....	.....	2,114	2,114
Manganese.....	.....	1,144	1,144
Zinc.....	.....	32	32
Other.....	37	.....	37
Paint.....	668	175	843
Paper.....	4,333	9,945	14,278
Paper pulp.....	.....	7,434	7,434
Paper roofing.....	.....	27	27
Peanuts.....	106	123	229
Peas.....	.....	472	472
Phosphates.....	1,264	286	1,550
Plaster.....	.....	50	50
Porcelain.....	85	286	371
Rags.....	183	259	442
Rice.....	931	250	1,181
Rope.....	191	135	326
Rosin.....	621	.....	621
Rubber:			
Manufactured.....	1,216	525	1,741
Raw.....	22	.....	22
Scrap.....	.....	21	21
Salt.....	197	300	497
Seeds:			
Grass.....	.....	58	58
Hemp.....	.....	205	205
Other.....	.....	1,597	1,597
Shells.....	1,173	.....	1,173
Silk.....	.....	1,835	1,835
Skins and hides.....	.....	2,381	2,381
Slate.....	488	.....	488
Soap.....	4,131	54	4,185
Soda.....	739	.....	739
Soda ash.....	1,098	.....	1,098
Soda, bicarbonate.....	95	.....	95
Soda, caustic.....	448	.....	448
Starch.....	66	.....	66
Sugar.....	19	7,885	7,904
Sulphur.....	7,101	.....	7,101
Syrup.....	223	.....	223
Talc.....	.....	240	240
Tallow.....	.....	549	549
Tar.....	55	.....	55
Tea.....	.....	158	158
Tobacco.....	2,763	75	2,838
Toys.....	211	59	270
Turpentine.....	116	.....	116
Vegetables.....	18	.....	18
Waste.....	39	184	223
Wax.....	90	152	242
Wheat.....	.....	150	150
Wine.....	.....	353	353
Wool.....	.....	3,016	3,016
Zinc oxide.....	53	.....	53
Totals, October, 1929.....	282,546	753,288	1,035,834
Totals, October, 1928.....	298,721	538,857	837,578
Totals, October, 1927.....	210,464	807,849	1,018,313

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., December 4, 1929. No. 18.

Traffic Through the Panama Canal in November, 1929.

During the month of November, 1929, 525 commercial vessels and 4 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,244,895.94 and on the launches \$28.98, or a total tolls collection of \$2,244,924.92.

The daily average number of commercial transits for the month was 17.50 and the average tolls collection was \$74,829.86, as compared with an average of 18.19 transits and \$80,190.25 in tolls for the previous month, and an average of 17.57 transits and \$74,197.91 in tolls for November, 1928. The average amount of tolls paid by each of the commercial transits was \$4,275.99, as compared with \$4,407.62 for the month of October, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 11 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 11 months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,924.92	17.50	74,829.96
Totals, first 11 months of calendar year, 1929.....	5,908	25,283,713.94	17.69	75,699.74
Totals, first 11 months of calendar year, 1928.....	5,755	23,932,933.02	17.18	71,441.59
Totals, first 11 months of calendar year, 1927.....	5,496	23,832,563.19	16.46	71,354.98

As compared with the first 11 months of the calendar year 1928, the corresponding period this year has had 153 more transits and \$1,350,780.92 more in tolls.

Redwood Line Increases Intercoastal Service.

The steamship *Delight*, recently purchased by the Redwood Line, transited the Canal on December 1, 1929, en route from west coast ports of the United States to New Orleans, Houston, and Mobile. This is the first voyage of the *Delight* as one of the Redwood fleet in intercoastal service. The line announces that a regular fortnightly service will be maintained.

The *Delight* is of 4,814 gross and 2,991 net tons, 379.9 feet long, 53.1 feet beam. The other vessels in this service are the *Manhattan Island*, *Dio*, *Abron*, *Dochet*, and *Sabotawan*.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 30, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Virgilio	22	11:28	24	6:00	24	13:32	24	21:40	Italian	Nav. Gen. Italiana	484.0	61.0	23.8	Genoa, Italy	Valparaiso, Chile.	General	1,810	12,941	9,329
Barat	23	19:20	24	6:15	24	13:32	24	15:00	Dutch	Royal Neth. S. S. Co.	200.0	33.0	12.2	Cristobal, C. Z.	Guayaquil, Ecuador	General	126	1,183	742
Atlanta City	23	20:45	24	7:00	24	14:37	24	16:30	American	Isthmian S. S. Lines	424.0	56.0	26.5	Baltimore, Md.	Belawan Deli, Sum.	General	8,014	7,611	5,450
Malayan	24	1:40	24	7:35	24	14:46	24	16:30	British	Prince, Line, Ltd	441.6	60.3	24.6	New York, N. Y.	Manila, P. I.	General	6,119	9,209	6,245
Herbjorn	24	8:40	24	8:55	24	15:31	25	5:15	Norwegian.	Anglo-Saxon Pet. Co.	441.0	59.2	18.0	Thameshaven, Eng.	Los Angeles, Calif.	Ballast	8,083	5,725	5,725
Tai Yin	24	12:45	24	13:30	24	19:49	24	21:15	Norwegian.	Barber S. S. Line	461.0	60.4	25.0	New York, N. Y.	Shanghai, China.	General	5,762	9,997	7,063
Manizales	21	19:30	24	14:00	24	21:00	24	22:00	German	North German Lloyd	216.6	32.9	11.9	Cristobal, C. Z.	Guayaquil, Ecuador	General	206	1,132	741
Killing	24	16:45	24	17:10	24	23:10	25	21:00	British	Merrill Chapman, Scott	172.0	30.0	14.0	Kingsdon, Jamaica.	Chile.	Ballast	575	152	
Pacific Hemlock	24	16:35	24	17:05	25	9:17	25	10:36	American	Dimon S. S. Corp.	409.7	54.2	18.6	New York, N. Y.	Tacoma, Wash.	General	4,737	6,330	4,916
Eclipse	24	17:20	24	17:45	25	11:39	25	13:00	American	Tampa Intercoast Co.	440.0	56.0	19.0	Galveston, Texas	Manila, P. I.	Cotton, general	3,933	8,293	6,078
Cerigo	21	21:25	25	6:05	25	13:31	25	17:20	German	Hamburg-American Line	227.0	34.6	13.10	Cristobal, C. Z.	Guayaquil, Ecuador	General	151	1,572	1,011
Narenda	24	5:35	25	6:25	25	13:40	25	14:40	British	Royal Mail S. P. Co.	450.0	58.0	21.0	Antwerp, Belgium	Vancouver, B. C.	General, bananas	3,435	8,856	6,559
Neches	22	19:30	25	7:00	25	14:32	25	15:40	American	U. S. Navy	477.0	55.0	19.8	Cristobal, C. Z.	Los Angeles, Calif.	Ballast	7,481	4,975	
S. C. T. Dodd	24	20:15	25	7:30	25	14:47	25	16:30	American	Standard Oil Co.	425.0	57.2	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast	5,630	5,668	4,297
Mundella	24	22:45	25	8:30	25	15:43	25	17:01	American	Munson, McCork Line	370.0	53.0	23.0	Baltimore, Md.	Seattle, Wash.	Steel, general	7,812	6,242	4,471
Masmar	25	8:55	25	9:40	25	16:51	25	18:05	American	Calmar S. S. Corp.	385.0	51.0	27.0	Baltimore, Md.	Tacoma, Wash.	General, steel	6,975	5,712	4,033
Beachpark	25	11:20	25	14:00	25	21:50	25	23:05	British	Norton, Lilly & Co.	400.9	52.0	25.10	Mobile, Ala.	Valparaiso, Chile	General	5,792		
Makana	25	3:50	25	15:12	25	22:40	26	00:02	British	Shaw, Savill & Albion	500.9	63.0	27.3	Liverpool, England	Auckland, N. Z.	General			
Robbo	25	18:50	25	19:25	26	9:33	26	10:53	American	Isthmian S. S. Lines	424.8	55.2	26.0	Baltimore, Md.	Bellingham, Wash.	(⁴)	7,849	7,473	5,536
Godfellow	25	7:20	26	6:10	26	12:38	27	1:25	American	Panama Mail S. S. Co.	360.2	51.6	24.7	New York, N. Y.	San Francisco, Cal.	General, coffee	1,662	5,710	4,023
El Salvador	23	15:23	26	6:03	26	13:30	26	15:35	British	F. & W. Ritson	398.5	53.8	20.3	Liverpool, England	Corral, Chile.	General	3,000	5,761	3,881
Sir Karl	25	20:30	26	7:15	26	14:15	26	15:15	Norwegian.	Anglo-Saxon Pet. Co.	450.0	59.2	19.0	Barrow, England	Los Angeles, Calif.	Ballast	8,045	5,592	
Tolluna	26	7:30	26	8:20	26	15:13	26	16:15	Norwegian.	Grace Line	417.8	54.0	16.0	Savannah, Ga.	Iquique, Chile.	Ballast	7,176	5,219	
Herman Frisch	26	7:55	26	10:55	26	16:48	26	18:01	American	Texas-Gulf Sulphur Co.	356.0	51.9	25.6	Galveston, Tex.	Bellingham, Wash.	Crude sulphur	5,700	5,349	2,960
Carl Legien	25	9:15	26	10:35	26	18:05	26	20:50	German	Hamburg-American Line	409.8	53.9	21.3	Hamburg, Germany	San Antonio, Chile.	General	4,419	7,145	5,474
Cedarhurst	23	19:30	26	14:20	26	21:50	26	23:06	American	Anglo-Saxon Pet. Co.	390.0	54.0	16.3	Curacao, D. W. I.	Los Angeles, Calif.	Ballast	6,209	4,303	
Missourian	26	15:58	26	16:30	27	9:26	27	10:50	American	Amer-Hawaiian Line	445.0	59.0	19.0	Boston, Mass.	Seattle, Wash.	General	3,244	8,507	6,020
Santa Tecla	26	1:15	27	6:15	27	14:11	27	14:55	American	N. O. & S. A. S. S. Line.	298.6	50.0	18.6	Mobile, Ala.	Tacahuano, Chile.	General	3,070	2,832	1,893
Fort Armstrong	26	22:25	27	6:20	27	14:21	27	15:35	American	Nelson Line.	324.0	46.2	21.6	Philadelphia, Pa.	Tacoma, Wash.	General	3,341	3,984	2,628
San Gabriel	26	22:03	27	6:30	27	14:40	27	15:45	American	States S. S. Line.	387.0	52.3	19.0	Baltimore, Md.	Portland, Oreg.	General	5,000	5,719	4,023
City of Los Angeles	27	5:45	27	7:35	27	15:47	28	1:28	American	Los Angeles S. S. Co.	560.0	62.0	24.0	Santos, Brazil	Los Angeles, Calif.	Coffee	81	15,041	9,704
West Notus	27	1:55	27	7:35	27	16:40	27	18:05	American	McCormick S. S. Co.	410.5	54.3	18.4	Buenos Aires, Arg.	San Francisco, Cal.	(⁵)	2,285	6,583	5,014
Baldhill	27	6:23	27	8:20	27	17:09	27	18:05	American	Richfield Oil Co.	416.0	56.2	19.5	New York, N. Y.	Los Angeles, Calif.	Ballast	6,721	4,806	
Salvador	19	17:40	27	9:25	27	17:32	27	19:35	British	Pacific Steam Nav. Co.	215.0	33.0	16.2	Cristobal, C. Z.	Champerico, Guat.	General	1,084	1,270	735

⁴ General and steel products.⁵ Tug.⁶ Motor ship.⁷ Tanker.⁸ Bones, coffee, and cocoa.

F. J.	Ship	27	7 10	27	10 00	27	18 04	27	19 35	American	Luckenbach Line	446.0	56.0	23.6	Boston, Mass. Philadelphia, Pa. Hamburg, Germany Corpus Christi, Tex. Hamburg, Germany Baltimore, Md. Pt. Arthur, Tex. New York, N. Y.	Tacoma, Wash. Seattle, Wash. Tacoma, Wash. Corral, Chile. Callcuta, India. Shanghai, China. Talcabano, Chile.	General	4,721	8,508	6,179
San Lucas	27	7 40	27	10 50	27	18 23	27	19 35	American	Quaker Line	415.0	55.7	19.0	General	3,122	7,643	5,657			
Pendulo	27	11 45	27	12 05	27	19 05	28	20 21	American	Baltic-Amer. Pet. Co.	470.0	46.0	19.8	Ballast	3,500	9,302	6,127			
Point Sur	27	10 03	27	13 05	27	20 25	28	21 30	American	Gulf-Pacific Line	321.0	43.0	21.0	General	3,500	9,302	6,127			
Ansterdam	27	5 55	28	6 10	28	13 04	28	23 54	Dutch	Royal Neth. S. S. Co.	474.0	46.0	23.5	General	4,385	11,638	7,744			
Silverpine	27	20 10	28	6 15	28	13 54	28	15 15	British	Kerr S. S. Co.	400.3	55.3	19.0	General	2,733	7,473	5,644			
Quebec City	27	2 50	28	7 20	28	14 47	28	18 05	British	Reardon-Smith Line	402.0	54.3	25.0	General	7,645	7,004	5,406			
Santa Maria	28	5 45	28	9 35	28	16 08	29	20 00	American	Grace Line	466.0	64.0	23.0	General	2,978	10,626	6,680			
Canadian	28	10 45	28	11 45	28	18 31	28	20 06	British	Can. Nat. Steamships	400.0	52.0	21.0	General	4,641	5,858	4,108			
Constance	28	12 10	28	12 25	28	19 24	28	20 45	American	Los Angeles S. S. Co.	409.6	54.2	19.6	General	5,633	6,021	4,891			
Chandler	28	13 48	28	14 10	28	21 20	28	23 02	British	Anglo-Mexican Pet. Co.	395.3	55.1	17.5	Fuel oil	8,002	6,741	4,344			
San Lambert	28	18 55	28	20 05	29	9 30	29	11 00	Norwegian	B. A. Saane	265.0	42.0	17.0	Cement	2,100	2,018	1,377			
Skard	28	18 55	28	20 05	29	9 30	29	11 00	Norwegian	B. A. Saane	265.0	42.0	17.0	Cement	2,100	2,018	1,377			
Bessie J.	28	19 55	28	21 15	29	11 30	29	13 09	American	Frank Judd	468.3	62.7	21.0	Ballast	9,744	7,140	4,750			
Dirie Arrow	28	19 55	28	21 15	29	11 30	29	13 09	American	Standard Oil Co.	468.3	62.7	21.0	Ballast	9,744	7,140	4,750			
Charles H.	28	22 45	29	6 10	29	14 10	29	15 20	American	Argonaut S. S. Line	404.6	53.9	26.10	General, steel	6,937	6,755	4,750			
Craup	28	25 30	29	7 20	29	14 50	29	16 25	American	Dollar S. S. Line	502.1	62.1	26.4	General	4,482	12,660	9,254			
President Polk	28	23 50	29	7 20	29	15 50	29	17 35	American	Standard Oil Co.	468.3	62.7	19.6	Ballast	9,841	6,946	4,946			
Levant Arrow	28	25 30	29	7 20	29	15 50	29	17 35	American	Dollar S. S. Line	502.1	62.1	26.4	General	4,482	12,660	9,254			
Ireland	28	2 50	29	8 30	29	16 40	29	20 30	Danish	Danish-French S. S. Co.	326.2	50.1	12.0	Ballast	3,820	3,791	2,791			
Tortwood	28	6 30	29	8 40	29	16 40	29	17 50	British	Constantine S. S. Line	378.0	52.5	18.0	Bones	2,758	3,330	3,820			
Fort Erie	28	7 00	29	9 40	29	17 02	30	19 25	British	Com'lth & Dom. Line	470.0	58.4	26.0	General	4,208	9,381	6,915			
Aniston City	28	9 55	29	10 50	29	18 15	29	20 00	American	Island S. S. Lines	424.2	56.2	24.6	General	7,595	7,611	5,450			
Thomas H.	28	14 30	29	14 35	29	20 50	29	22 18	American	Standard Shipping Co.	425.0	57.0	22.0	Ballast	7,481	4,766	4,766			
Wheeler	28	19 20	30	6 05	30	17 47	30	19 25	American	United Fruit Co.	330.6	44.7	17.3	General, bananas	425	3,683	2,373			
Paparta	28	15 00	30	6 10	30	13 04	30	21 25	Colombian	National Navigation Co.	107.0	22.9	8.2	General	51	238	163			
Cauca	28	7 25	30	7 45	30	14 37	30	18 42	British	Anglo-Saxon Pet. Co.	430.0	58.0	23.0	Ballast	7,285	4,856	4,856			
Benedict	30	9 05	30	9 40	30	17 52	30	19 35	American	Amer-Hawaiian Line	404.6	53.0	19.0	General	3,364	6,756	4,776			
Montanan	30	9 05	30	9 40	30	17 52	30	19 35	American	Amer-Hawaiian Line	404.6	53.0	19.0	General	3,364	6,756	4,776			
Skal	30	9 45	30	9 55	30	17 52	30	19 35	Danish	Moore & McCormack	301.7	44.2	21.0	General	3,245	3,048	2,169			
Canadian	30	9 55	30	10 20	30	17 06	30	18 42	British	Can. Nat. Steamships	400.0	52.0	20.0	General	2,894	5,956	4,172			
Victor	30	9 55	30	10 20	30	17 06	30	18 42	British	Can. Nat. Steamships	400.0	52.0	20.0	General	2,894	5,956	4,172			
Mary	30	12 25	30	12 35	30	19 04	30	20 25	American	Shell Eastern Pet. Prod.	410.5	54.0	18.0	Ballast	6,114	4,125	4,125			
Luckenbach	30	11 00	30	19 40	12-1	9 37	12-1	10 51	American	Ore S. S. Corp.	549.6	72.2	21.0	Ballast	14,538	9,348	9,348			
Chilore	30	11 00	30	19 40	12-1	9 37	12-1	10 51	American	Ore S. S. Corp.	549.6	72.2	21.0	Ballast	14,538	9,348	9,348			
Captain C. S.	30	11 00	30	19 40	12-1	9 37	12-1	10 51	American	Ore S. S. Corp.	549.6	72.2	21.0	Ballast	14,538	9,348	9,348			
Crowl	30	11 00	30	19 40	12-1	9 37	12-1	10 51	American	Ore S. S. Corp.	549.6	72.2	21.0	Ballast	14,538	9,348	9,348			

Ship	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile Tocopilla, Chile San Antonio, Chile Valparaiso, Chile	Nitrate Nitrate General General	4,685	3,981	2,600
Nosa Queen	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile	Nitrate	4,685	3,981	2,600
Iskok	24	5 30	24	15 25	24	17 15	25	9 30	Yugoslav	Yugoslav Lloyd	423.6	56.0	26.0	Tocopilla, Chile	Nitrate	1,966	4,446	4,741
Colombo	24	6 00	24	8 02	24	14 20	25	9 30	Italian	Navig. Gen. Italiana	518.0	60.0	23.2	San Antonio, Chile	General	1,956	12,553	7,516
Tacoma Star	24	6 45	24	8 15	24	16 30	24	19 40	British	Blue Star Line	450.0	52.0	25.6	Valparaiso, Chile	General	5,615	8,240	5,375
Japan	24	7 00	24	8 25	24	17 40	24	23 30	German	North German Lloyd	393.4	54.3	26.6	Newcastle, Eng.	General	7,930	6,583	4,626
Christenson	24	8 05	24	9 04	24	17 45	24	17 45	American	Sudden & Christenson	409.5	54.2	25.1	Valparaiso, Chile	General	7,405	6,615	4,966

Ship	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile Tocopilla, Chile San Antonio, Chile Valparaiso, Chile	Nitrate Nitrate General General	4,685	3,981	2,600
Nosa Queen	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile	Nitrate	4,685	3,981	2,600
Iskok	24	5 30	24	15 25	24	17 15	25	9 30	Yugoslav	Yugoslav Lloyd	423.6	56.0	26.0	Tocopilla, Chile	Nitrate	1,966	4,446	4,741
Colombo	24	6 00	24	8 02	24	14 20	25	9 30	Italian	Navig. Gen. Italiana	518.0	60.0	23.2	San Antonio, Chile	General	1,956	12,553	7,516
Tacoma Star	24	6 45	24	8 15	24	16 30	24	19 40	British	Blue Star Line	450.0	52.0	25.6	Valparaiso, Chile	General	5,615	8,240	5,375
Japan	24	7 00	24	8 25	24	17 40	24	23 30	German	North German Lloyd	393.4	54.3	26.6	Newcastle, Eng.	General	7,930	6,583	4,626
Christenson	24	8 05	24	9 04	24	17 45	24	17 45	American	Sudden & Christenson	409.5	54.2	25.1	Valparaiso, Chile	General	7,405	6,615	4,966

Ship	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile Tocopilla, Chile San Antonio, Chile Valparaiso, Chile	Nitrate Nitrate General General	4,685	3,981	2,600
Nosa Queen	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile	Nitrate	4,685	3,981	2,600
Iskok	24	5 30	24	15 25	24	17 15	25	9 30	Yugoslav	Yugoslav Lloyd	423.6	56.0	26.0	Tocopilla, Chile	Nitrate	1,966	4,446	4,741
Colombo	24	6 00	24	8 02	24	14 20	25	9 30	Italian	Navig. Gen. Italiana	518.0	60.0	23.2	San Antonio, Chile	General	1,956	12,553	7,516
Tacoma Star	24	6 45	24	8 15	24	16 30	24	19 40	British	Blue Star Line	450.0	52.0	25.6	Valparaiso, Chile	General	5,615	8,240	5,375
Japan	24	7 00	24	8 25	24	17 40	24	23 30	German	North German Lloyd	393.4	54.3	26.6	Newcastle, Eng.	General	7,930	6,583	4,626
Christenson	24	8 05	24	9 04	24	17 45	24	17 45	American	Sudden & Christenson	409.5	54.2	25.1	Valparaiso, Chile	General	7,405	6,615	4,966

Ship	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile Tocopilla, Chile San Antonio, Chile Valparaiso, Chile	Nitrate Nitrate General General	4,685	3,981	2,600
Nosa Queen	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile	Nitrate	4,685	3,981	2,600
Iskok	24	5 30	24	15 25	24	17 15	25	9 30	Yugoslav	Yugoslav Lloyd	423.6	56.0	26.0	Tocopilla, Chile	Nitrate	1,966	4,446	4,741
Colombo	24	6 00	24	8 02	24	14 20	25	9 30	Italian	Navig. Gen. Italiana	518.0	60.0	23.2	San Antonio, Chile	General	1,956	12,553	7,516
Tacoma Star	24	6 45	24	8 15	24	16 30	24	19 40	British	Blue Star Line	450.0	52.0	25.6	Valparaiso, Chile	General	5,615	8,240	5,375
Japan	24	7 00	24	8 25	24	17 40	24	23 30	German	North German Lloyd	393.4	54.3	26.6	Newcastle, Eng.	General	7,930	6,583	4,626
Christenson	24	8 05	24	9 04	24	17 45	24	17 45	American	Sudden & Christenson	409.5	54.2	25.1	Valparaiso, Chile	General	7,405	6,615	4,966

Ship	24	3 00	24	13 45	24	13 45	24	13 45	American	N. O. & S. A. S. Co.	324.0	46.2	24.0	Talcabano, Chile Tocopilla, Chile San Antonio, Chile Valparaiso, Chile	Nitrate Nitrate General
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9 Towing barge.

General, steel, sulphate, and cotton.

8 General, steel, sulphate, and cotton.

7 Case oil and petroleum products.

6 Launch.

5 Tanker.

4 Case oil and petroleum products.

3 Launch.

2 Tanker.

1 Case oil and petroleum products.

0 Launch.

9 Towing barge.

8 General, steel, sulphate, and cotton.

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8 General, steel, sulphate, and cotton.

7 Case oil and petroleum products.

6 Launch.

5 Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	Gross.	Net.
Somme ¹¹	24	13.15	24	14.00	24	21.25	26	11.30	American	U. S. Army	448.0	58.0	24.0		San Francisco, Cal.	Brooklyn, N. Y.	Army supplies.	224		
City of San Francisco ¹²	24	13.42	24	14.47	24	21.50			American	Panama Mail S. S. Co.	296.1	45.9	17.5		San Francisco, Cal.	Cristobal, C. Z.	General.	553	3,848	2,606
Oceida.....	24	21.50	25	6.15	25	13.45	25	13.45	American	Ford Motor Co.	251.0	43.6	20.6		New York, N. Y.	New York, N. Y.	General.	2,490	2,656	1,621
S-20 ¹³	25	6.14	25	6.14	25	13.48			American	U. S. Navy	231.0	31.0			Aberdeen, Wash.	Cristobal, C. Z.	(¹⁷)			
San Diego.....	24	22.40	25	6.27	25	14.00	25	15.30	Norwegian	Brugsdug Kusterud	415.0	55.0	25.8		Vancouver, B. C.	Haute, France	General	7,880	7,296	5,445
Hancock.....	25	3.00	25	7.27	25	15.15	25	15.15	American	States S. S. Co.	376.4	52.2	24.0		Seattle, Wash.	Baltimore, Md.	Lumber, general	4,879	5,455	3,879
Aconcagua.....	25	1.00	25	8.51	25	15.05	25	20.38	Chilean	Chilean Line	222.6	56.2	20.0		Valparaiso, Chile	New York, N. Y.	General	2,749	7,764	4,705
Wilmington.....	25	7.30	25	8.10	25	17.55	25	22.20	British	J. & J. Denholm.	280.0	41.9	17.9		Potosi, Nicaragua.	Cristobal, C. Z.	Rustic wood	2,350	2,168	1,331
S-11 ¹⁴	25	9.07	25	9.07	25	16.00			American	U. S. Navy	231.0	31.0			Balboa, C. Z.	Cristobal, C. Z.				
S-16 ¹⁵	25	9.07	25	9.07	25	16.00			American	U. S. Navy	231.0	31.0			Balboa, C. Z.	Cristobal, C. Z.				
S-15 ¹⁶	25	9.17	25	9.17	25	17.30			American	U. S. Navy	231.0	31.0			Balboa, C. Z.	Cristobal, C. Z.				
S-17 ¹⁷	25	9.17	25	9.17	25	17.30			American	U. S. Navy	231.0	31.0			Balboa, C. Z.	Cristobal, C. Z.				
Paul Shoup ¹⁸	25	12.40	25	13.35	25	21.00	25	21.00	American	Associated Oil Co.	424.4	58.2	26.6		Balboa, C. Z.	Cristobal, C. Z.	Gasoline.	9,200	7,333	5,182
Ecuador.....	25	9.40	26	6.24	26	13.50	27	00.13	American	Panama Mail S. S. Co.	380.6	48.7	22.0		San Francisco, Cal.	New York, N. Y.	General.	2,810	5,926	4,178
Swan ¹⁹	26	6.25	26	6.25	26	14.45			American	U. S. Navy	188.0	22.9	11.0		Buenaventura, Col.	Cristobal, C. Z.	(¹⁸)	274	238	163
Cauca ²⁰	25	16.15	26	6.26	26	15.08	26	18.05	Colombian.	National Navigation Co.	107.0	22.9	11.0		Buenaventura, Col.	Cristobal, C. Z.	General	3,567	2,640	
Amalgenborg.....	26	2.00	26	6.59	26	15.08	26	18.05	Danish	C. K. Hansen.	320.0	47.2	14.0		Corral, Chile	Point Moro, Cuba.	Ballast.	6,737	7,141	5,467
Emil Kirckhoff.....	26	6.30	26	8.05	26	15.50	27	2.00	German.	Hamburg-American line	409.8	53.8	23.6		Corral, Chile	Hamburg, Germany	General			
Rio Nozara ²¹	26	6.00	26	8.48	26	18.45			Costa Rican	National Navigation Co.	155.7	29.6	8.0		Puntarenas, C. R.	Cristobal, C. Z.	Ballast.		501	331
Franklin K. Lane ²²	26	7.40	26	9.04	26	17.50	26	17.50	American	Pan-American Pet. Co.	435.0	56.2	26.0		Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,664	7,405	5,131
Walter A. Luckenbach.....	26	8.25	26	9.25	26	16.30	26	16.30	American	Luckenbach Line	446.5	56.1	30.0		Portland, Oreg.	Boston, Mass.	(¹⁹)	8,681	8,785	6,567
Santa Veronica.....	26	7.30	26	12.37	26	19.40	26	19.40	American	Isthmian S. S. Lines	251.0	43.6	22.0		Tacoma, Wash.	Baltimore, Md.	Lumber, general	2,922	2,923	1,740
Buffalo Bridge.....	25	17.25	26	13.45	26	20.45	26	20.45	American	Chas. Nelson & Co.	324.0	46.2	24.0		Seattle, Wash.	Baltimore, Md.	Lumber, general	4,000	3,985	2,630
Texas.....	26	13.45	26	14.22	26	21.45	26	21.45	American	Amer-Hawaiian Line	471.8	57.2	29.4		Portland, Oreg.	Boston, Mass.	General	9,309	9,154	6,966
Republic ²³	26	16.30	26	17.28	27	11.30	27	11.30	American	Petroleum Nav. Co.	391.8	51.3	25.6		Los Angeles, Calif.	New York, N. Y.	Kerosene	6,413	5,551	3,581
No. 5 ²⁴	25	25	25	25	25	25			American	U. S. Navy					Balboa, C. Z.	Cristobal, C. Z.				
No. 1 ²⁵	25	25	25	25	25	25			American	U. S. Navy					Balboa, C. Z.	Cristobal, C. Z.				
Markland ²⁶	26	20.15	27	6.11	27	14.05			Norwegian	O. & A. Tregus	402.3	55.3	26.0		Los Angeles, Calif.	Hamburg, Germany	Gasoline	8,642	6,474	4,321
Atlas ²⁷	26	20.15	27	6.15	27	15.30	27	15.30	American	Standard Transp. Co.	430.0	58.2	26.9		Los Angeles, Calif.	New York, N. Y.	Gasoline	10,600	7,348	5,164
Steel Engineer.....	27	2.03	27	7.17	27	16.55	27	23.36	American	Isthmian S. S. Lines	424.4	56.2	26.0		Vancouver, B. C.	Avonmouth, Eng.	(²⁰)	7,298	7,611	5,450
Buenaventura.....	27	3.30	27	7.59	27	15.42			American	Panama R. S. S. Line	251.0	43.0	15.2		Guayaquil-Ecuador	New York, N. Y.	(²¹)	959	2,873	1,776
Cid.....	27	4.20	27	8.15	27	17.13	28	00.55	British	Pacific Steam Nav. Co.	264.8	41.2	16.8		Guayaquil-Ecuador	New York, N. Y.	(²²)	558	2,746	1,626
Leokarine ²⁸	27	4.30	27	9.10	27	18.00	28	00.25	British	Royal Mail S. P. Co.	485.4	62.0	28.0		Victoria, B. C.	Rotterdam, Holland	General, grain	8,470	10,802	7,595
S-10 ²⁹	27	9.33	27	9.33	27	17.10			American	U. S. Navy	231.0	31.0			Balboa, C. Z.	Cristobal, C. Z.				

¹ Tanker.¹¹ Transport.¹² Motor ship.¹³ General, pulp, and lead.¹⁴ Submarine.¹⁵ Grain and canned goods.¹⁶ Tug.¹⁷ Launch.¹⁸ Motor boat.¹⁹ Ivory nuts, sugar, wood, coffee, rice, cocoa.²⁰ Lumber and auto parts.²¹ Wood, coffee, and cocoa.²² Towing barge.

8-12	27	9	33	27	17	10	27	13	45	American	U. S. Navy	431.0	230.0	57.2	29.6	Balboa, C. Z.	Cristobal, Z.	10,827	7,956	4,865
27	6	15	27	9	42	27	18	25	27	American	Ore S. S. Corp.	439.3	29.6	56.2	25.4	Cruz Grande, Chile	Iron ore	9,400	7,709	5,477
27	7	50	27	10	41	27	18	30	27	American	Pan-American Pet. Co.	429.3	56.2	56.1	25.4	Los Angeles, Calif.	Gasoline	7,181	6,563	4,799
27	8	50	27	10	41	27	18	30	27	American	Standard Oil Co.	429.3	56.2	56.1	25.4	Los Angeles, Calif.	Gasoline	7,181	6,563	4,799
27	8	50	27	10	41	27	18	30	27	American	Standard Oil Co.	429.3	56.2	56.1	25.4	Los Angeles, Calif.	Gasoline	7,181	6,563	4,799
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27	8	50	27	10	41	27	18	30	27	American	Standard Oil Co.	429.3	56.2	56.1	25.4	Los Angeles,				

28 Lumber, copper, and pulp.

Wheat, fishmeal, and lumber.

²⁶ General and coconut oil.

For orders.

²³ Submarine.

1

are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 24	Ulua	United Fruit Co.	Port Limon, C. R.	November 24	Wants	Stand Fruit & S. S. Co.	San Blas, R. P.
November 25	Manuel Armas	Spanish Line	Barcelona via waypoints.	November 24	Guastavie Lykes	Light Brothers S. S. Co.	Manzanillo
November 25	No. 8	U. S. S. S. S.	Managua via waypoints.	November 24	Ulua	United Fruit Co.	New York via Habana
November 25	No. 9855 1°	Par-American Airways	Managua via waypoints.	November 24	Cristofal	Panama R. R. S. S. Line	New York via Haiti.
November 26	Acacia 31°	U. S. Light House Service	Guantanamo, Cuba.	November 25	Linda S. 2°	A. L. Surgeon	Bluefields, Nicaragua.
November 26	Orinoco	Hamburg-American Line	Huanabana via waypoints.	November 25	Cartago.	United Fruit Co.	New Orleans and waypoints.

29 Motor schooner.
30 Air mail carrier.
31 Lighthouse tender.

Air mail carrier.

* Other than ships passing through the Canal.

* Other than ships passing through the Canal.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 24.	Ulua	United Fruit Co.	Port Limon, C. R.	November 24	Wants	Stand Fruit & S. S. Co.	San Blas, R. P.
November 25.	Manuel Armas.	Spanish Line.	Barcelona via waypoints.	November 24	Guastaveiro Lykes	Light Brothers S. S. Co.	Manzanillo.
November 25.	No. 8.	Spanish Line.	Managua via waypoints.	November 24	Ulua	United Fruit Co.	New York via Habana.
November 25.	No. 9855 1°	Pan-American Airways	Managua via waypoints.	November 24	Cristofal	Panama R. R. S. S. Line.	New York via Haiti.
November 26.	Acacia 31°	U. S. Light-house Service	Guantanamo, Cuba.	November 25.	Linda S. 2°	A. L. Surgeon	Bluefields, Nicaragua.
November 26.	Orinoco	Hamburg-American Line.	Huanabana via waypoints.	November 25.	Cartago.	United Fruit Co.	New Orleans and waypoints.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.					* DEPARTURES.				
* ARRIVALS.			From—		Date.	Vessel.	Line.	For—	
November 25	Stuyvesant.	Royal Neth. S. S. Co.	Amsterdam via wayports.		November 26	Ulysses	American Tankers Corp.	New York.	
November 26	Mayari	United Fruit Co.	New York via wayports.		November 26	Manuel Armas	Spanish Line	Barcelona via wayports.	
November 27	Carmania ³²	R. Feuillois	Colon, R. P.		November 26	Orinoco	Hamburg-American Line	Port Limon, C. R.	
November 27	Impeo ³²	Colon Import & Export Co.	Colon, R. P.		November 26	Stuyvesant	Royal Netherlands S. S. Co.	Port Limon, C. R.	
November 27	Yacapa	United Fruit Co.	New York via Kingston.		November 26	N. C. 144-M ³³	Pan-American Airways	Guayaquil via wayports.	
November 27	Flandre	Seadta Airplane Co.	Havre via wayports.		November 26	N. C. 300-N ³³	Pan-American Airways	Managua via wayports.	
November 27	Darien C-35 ³³	Cayamel Fruit Co.	Barranquilla.		November 26	No. 9664 ³²	R. Feuillois	Bluefields, Nicaragua.	
November 27	San Juan ³⁴	United Fruit Co.	New York via wayports.		November 27	Carmenia ³²	Seadta Airplane Co.	Barranquilla & Cartagena.	
November 28	Toloo	Pan-American Airways	Managua via wayports.		November 28	Darien C-35 ³³	Pan-American Airways	Managua via wayports.	
November 28	No. 9664 ³¹	United Fruit Co.	New Orleans, La.		November 28	No. 9688 ³²	United Fruit Co.	New York via wayports.	
November 28	Coppename	United Fruit Co.	Liverpool via wayports.		November 28	Zacapa	French Line	Havre via wayports.	
November 28	Oranau	Pan-American Airways	Curacao via wayports.		November 28	Flandre	United Fruit Co.	Colon, R. P.	
November 28	N. C. 300-N ³³	United Fruit Co.	Bocas, R. P.		November 29	Anachucuna ³⁵	United Fruit Co.	Cartagena & Pto. Colon.	
November 29	Saramacca	Stand. Fruit & S. S. Co.	Port Limon, C. R.		November 29	Coppename	United Fruit Co.	New York via wayports.	
November 29	Stand. Fruit & S. S. Co.	Royal Neth. S. S. Co.	New Orleans via Habana.		November 29	Toloo	Cayamel Fruit Co.	Bluefields, Nicaragua.	
November 29	Stuyvesant	Pan-American Airways	Guayaquil via wayports.		November 29	San Juan ³⁴	United Fruit Co.	New Orleans, La.	
November 29	N. C. 144-M ³¹	Seadta Airplane Co.	Buenaventura via wayp'ts.		November 29	Saramacca	Scadta Airplane Co.	Buenaventura via wayp'ts.	
November 29	Cundinamarca C-33 ³³	United Fruit Co.	Colon, R. P.		November 30	Cundinamarca C-33 ³³	Stand. Fruit & S. S. Co.	New Orleans via wayports.	
November 30	Anachucuna ³⁵	Stand. Fruit & S. S. Co.	San Blas, R. P.		November 30	Amapala	Pan-American Airways	Managua via wayports.	
November 30	Wanks	Hamburg-American Line	Port Limon, C. R.		November 30	No. 9685 ³²	Leyland S. S. Line	Port Limon, C. R.	
November 30	Orinoco	Port Limon, C. R.	Port Limon, C. R.		November 30	Oranau	Mayari	New York via Kingston.	
November 30	Leyland S. S. Line	Hamburg via wayports.	Hamburg via wayports.		November 30	Stuyvesant	Royal Neth. S. S. Co.	Amsterdam via wayp'ts.	
November 30	Eupatoria	United Fruit Co.	New Orleans via Habana.		November 30	Antillian	Leyland S. S. Line	Liverpool via wayports.	
November 30	Paraismina	Pan-American Airways	Managua via wayports.		November 30	Eupatoria	Hamburg-American Line	Tampico, Mexico.	
November 30	No. 9688 ³¹								
³² Motor schooner.			³⁴ Tug.		³⁵ Motor boat.				
					PORT OF BALBOA.				
November 24	Cricamola ³⁶	Chiriqui Land Co.	Panama Bay, R. P.		November 25	Cricamola ³⁶	Chiriqui Land Co.	Panama Bay, R. P.	
November 26	Real ³⁷	Hans Elliot	Panama Bay, R. P.		November 27	Real ³⁷	Hans Elliot	Panama Bay, R. P.	
November 29	Real ³⁷	Hans Elliot	Panama Bay, R. P.		November 27	Real ³⁷	Hans Elliot	Panama Bay, R. P.	
November 29	Dos Hermanos ³⁷	A. Valdez	Bayano River, R. P.		November 29	Dos Hermanos ³⁷	A. Valdez	Panama Bay, R. P.	
November 29	Sambu ³⁷	Hans Elliot	Panama Bay, R. P.						
³⁶ Motor yacht.			³⁷ Motor schooner.						
* Other than ships passing through the Canal.									

Cargo of Bones.

The steamship *Toftwood* of British registry, with a whole cargo consisting of 2,758 tons of bones, transited the Canal on November 29, 1929, en route from Leningrad, Russia, to San Francisco.

This is believed to be the first ship through the Canal to carry a whole cargo of bones.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from November 10 to November 30, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ancon.	Panama R. R. S. S. Line.		November 10.		1,068
Parishmina.	United Fruit Co.		November 10.		65
St. Andre.	French Line.	November 10.	November 11.	256	167
Calamares.	United Fruit Co.	November 10.	November 10.	43	138
Guatemala.	Panama Mail S. S. Line.	November 10.	November 11.	516	386
Pearl Marie.	R. Feuillebois.	November 11.	November 11.	(¹)	38
Santa Cruz.	Grace Line.	November 11.	November 11.	3	445
Essequibo.	Pacific Steam Nav. Co.	November 11.	November 11.	27	80
Orita.	Pacific Steam Nav. Co.	November 11.	November 11.	18	(²)
Colombia.	Panama Mail S. S. Line.	November 11.	November 11.	263	307
Crynssen.	Royal Neth. S. S. Co.	November 11.	November 12.	20	5
Antiochia.	Hamburg-American Line.	November 11.	November 12.	(¹)	355
Almagro.	Pacific Steam Nav. Co.	November 11.	November 12.	37	64
Arana.	Pacific Steam Nav. Co.	November 11.	November 12.	298	17
Delftdyk.	Holland-America Line.	November 11.	November 12.	62	113
Mayebashi Maru.	Nippon Yusen Kaisha.	November 11.	November 12.	189	(²)
Pastores.	United Fruit Co.	November 11.	November 13.	460	63
Golden Gate.	Knut Knutsen.	November 12.	November 12.	46	(²)
Santa Cecilia.	Grace Line.	November 12.	November 12.	168	11
Nosa King.	N. O. & S. A. S. S. Line.	November 12.	November 13.	64	587
Corinto.	Panama Mail S. S. Line.	November 12.	November 21.	160	2,169
Havre Maru.	Osaka Shosen Kaisha.	November 13.	November 13.	252	(²)
Pensylvanie.	French Line.	November 13.	November 14.	206	98
Bogota.	Pacific Steam Nav. Co.	November 13.	November 14.	44	69
Metapan.	United Fruit Co.	November 13.	November 14.	331	574
Barneveld.	Royal Neth. S. S. Co.	November 13.	November 15.	232	204
Suriname.	United Fruit Co.	November 14.	November 14.	754	(²)
Dinteldijk.	Holland-America Line.	November 14.	November 14.	(¹)	91
Balboa.	Johnson S. S. Line.	November 14.	November 14.	68	70
Limon.	United Fruit Co.	November 14.	November 16.	602	451
Linda S.	R. Feuillebois.	November 15.	November 15.	(¹)	40
Oropesa.	Pacific Steam Nav. Co.	November 15.	November 15.	70	85
Annie Johnson.	Johnson S. S. Line.	November 15.	November 15.	(¹)	10
Amapala.	Stand. Fruit & S. S. Co.	November 15.	November 16.	191	630
Rialto.	Nav. Libera-Triestina.	November 15.	November 15.	116	57
Crijnsen.	Royal Neth. S. S. Co.	November 15.	November 16.	(¹)	139
Notre Dame de					
Fourviere.	French Line.	November 15.	November 16.	10	184
Manaque.	United Fruit Co.	November 15.	November 16.	71	793
Spreewald.	Hamburg-American Line.	November 15.	November 16.	117	(²)
Durazzo.	Hamburg-American Line.	November 15.	November 17.	1,030	1,164
Wanks.	Stand. Fruit & S. S. Co.	November 16.	November 17.	100	3
Rugia.	Hamburg-American Line.	November 16.	November 17.	14½	443
Heredia.	United Fruit Co.	November 16.	November 17.	475	152
Cuba.	French Line.	November 16.	November 18.	65	504
Mertian.	Leyland S. S. Line.	November 16.	November 18.	(¹)	303
Pastores.	United Fruit Co.	November 17.	November 17.	66	247
Adolph von Bayer.	Hamburg-American Line.	November 17.	November 17.	107	44
Coppename.	United Fruit Co.	November 17.	November 17.	5	195
San Francisco.	Hamburg-American Line.	November 17.	November 18.	218	379
Laila.	Gulf-Caribbean Line.	November 17.	November 18.	959	16
Antillian.	Leyland S. S. Line.	November 17.	November 18.	850	(²)
Caldas.	National Navigation Co.	November 17.	November 23.	254	128½
Bodegraven.	Royal Neth. S. S. Co.	November 18.	November 18.	217	(²)
Wido.	North German Lloyd.	November 18.	November 18.	80	15
Suriname.	United Fruit Co.	November 18.	November 18.	20	87
Santa Elisa.	Grace Line.	November 18.	November 18.	11	352
Nosa Chief.	N. O. & S. A. S. S. Line.	November 18.	November 18.	(¹)	4
Ulua.	United Fruit Co.	November 18.	November 20.	681	18
Castletown.	Nelson Line.	November 19.	November 21.	520	(²)
Murla.	North German Lloyd.	November 19.	November 21.	489	729
Salvador.	Pacific Steam Nav. Co.	November 19.	November 27.	189	1,085
Cavina.	Elders & Fyfes.	November 20.	November 20.	2	(²)
Teutonia.	Hamburg-American Line.	November 20.	November 20.	83	1
Baralt.	Royal Neth. S. S. Co.	November 20.	November 24.	169	126
Sixola.	United Fruit Co.	November 20.	November 21.	276	458
Pacific Exporter.	Furness, Withy & Co.	November 20.	November 22.	(¹)	319
Orbita.	Pacific Steam Nav. Co.	November 20.	November 21.	77	9

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cristobal	Panama R. R. S. S. Line	November 20	November 24	6,294	1,777
Pearl Marie	R. Feuillebois	November 21	November 21	(¹)	38
Santa Rita	Grace Line	November 21	November 21	(¹)	40
Cerigo	Hamburg-American Line	November 21	November 24	705	209
Manizales	Hamburg-American Line	November 21	November 24	929	210
Suriname	United Fruit Co.	November 22	November 22	85	39
San Mateo	United Fruit Co.	November 22	November 22	574	638
Atlantida	Stand. Fruit & S. S. Co.	November 22	November 23	220	549
Virgilio	Italian Line	November 22	November 24	316	32
Maravi	United Fruit Co.	November 23	November 23	110	768
Acajutla	Pacific Steam Nav. Co.	November 23	November 23	70	
Wanks	Stand. Fruit & S. S. Co.	November 23	November 24	107	3
Genevieve Lykes	Lykes Brothers	November 23	November 24	245	(²)
Cedarhurst	Spencer Kellog & Sons	November 23	November 25	7,852	(²)
Cartago	United Fruit Co.	November 23	November 25	1,716	7
Rapot	North German Lloyd	November 24	November 24	236	48
City of San Francisco	Panama Mail S. S. Co.	November 24	November 24	569	
Ulua	United Fruit Co.	November 24	November 24	32	92 ²
Narenta	Pacific Steam Nav. Co.	November 24	November 25	632	354
Colombo	Italian Line	November 24	November 25	4	356
Manuel Arnus	Spanish Line	November 24	November 26	199	390
Linda S.	R. Feuillebois	November 25	November 25	(¹)	43
Aconagua	Chilean Line	November 25	November 25	14	(²)
El Salvador	Panama Mail S. S. Co.	November 25	November 26	537	356
Carl Legien	Hamburg-American Line	November 25	November 26	113	576
Stuyvesant	Royal Neth. S. S. Co.	November 26	November 26	2	9
Orinoco	Hamburg-American Line	November 11	November 26	138	17
Ecuador	Panama Mail S. S. Co.	November 26	November 26	170	96
Santa Tecla	Grace Line	November 26	November 26	(¹)	1,843
Emil Kirdorf	Hamburg-American Line	November 26	November 27	340	87
Mayari	United Fruit Co.	November 26	November 30	1,860	293
Cauca	National Navigation Co.	November 26	November 30	308	51
Carmania	R. Feuillebois	November 27	November 27	(¹)	65
Buenaventura	Panama R. R. S. S. Line	November 27	November 28	197	445
Zacapa	United Fruit Co.	November 27	November 28	564	333
Amsterdam	Royal Neth. S. S. Co.	November 27	November 28	250	59
Flandre	French Line	November 27	November 28	326	434
Cid	Pacific Steam Nav. Co.	November 27	November 28	181	32
Lockkatrine	Pacific Steam Nav. Co.	November 27	November 28	(¹)	126
San Juan	Cuyamel Fruit Co.	November 27	November 29	70	60
Saint Joseph	French Line	November 28	November 28	479	(²)
Santa Maria	Grace Line	November 28	November 28	2	(²)
Toba Maru	Nippon Yusen Kaisha	November 28	November 29	420	(²)
Toloo	United Fruit Co.	November 28	November 29	717	229
Coppename	United Fruit Co.	November 28	November 29	809	4
Esparta	United Fruit Co.	November 28	November 30	567	434
Oranian	Leyland S. S. Line	November 28	November 30	512	2
Saramacca	United Fruit Co.	November 29	November 29	54	560
Alkmaar	Royal Neth. S. S. Co.	November 29	November 29	37	(²)
Stuyvesant	Royal Neth. S. S. Co.	November 29	November 30	(¹)	323
Anapala	Stand. Fruit & S. S. Co.	November 29	November 30	428	523
Orduna	Pacific Steam Nav. Co.	November 29	November 30	117	21
Wanks	Stand. Fruit & S. S. Co.	November 30	November 30	127	
Eupatoria	Hamburg-American Line	November 30	November 30	161	(²)
Santa Inez	Grace Line	November 30	November 30	309	(²)
Nevada	French Line	November 30	November 30	144	
Orinoco	Hamburg-American Line	November 30	November 30	38	
Parismina	United Fruit Co.	November 30	November 30	472	
Guayaquil	Panama R. R. S. S. Line	November 30	November 30	1,294	
Antillian	Leyland S. S. Line	November 30	November 30	2	470
Champerico	Pacific Steam Nav. Co.	November 30	November 13		2,064

* No cargo discharged.

* No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending November 30, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
D. G. Schofield	Standard Oil Co.	November 24	November 25	11,000	
Ecuador	Panama Mail S. S. Co.	November 25	November 26	113	
Buffalo Bridge	Charles Nelson & Co.	November 25	November 26	120	
El Salvador	Panama Mail S. S. Co.	November 26	November 26	30	1
Cid	Pacific Steam Nav. Co.	November 27	November 27	1	
Toba Maru	Nippon Yusen Kaisha	November 28	November 28	290	
Amsterdam	Royal Neth. S. S. Co.	November 28	November 28	214	
Triumph	U. S. Shipping Board	November 29	November 29	294	
Santa Inez	Grace Line	November 29	November 30	5	

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., December 11, 1929. No. 19.

Tanker Traffic Through the Panama Canal in November, 1929.

During the month of November, 1929, 102 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 565,602, on which tolls of \$494,682.90 were collected. Cargo amounted to 510,352 tons, including 9,200 tons of coal-tar products, 6,782 tons of coconut oil, and 494,370 tons of mineral oils. In point of net tonnage, tanker traffic increased 29.1 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage in tankers increased 17.6 per cent over the cargo tonnage of November, 1928.

Tanker traffic comprised 19.4 per cent of the total commercial transits through the Canal during the month; made up 22.6 per cent of the total Panama Canal net tonnage; were the source of 22.0 per cent of the total tolls collected; and carried 20.1 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of November, 1929, segregated by direction of transits and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for November, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Belgian.....	1	5,410	\$3,895.20	.....
British.....	8	43,333	32,767.61	8,002
Danzig.....	1	6,127	4,411.44	.....
German.....	1	4,340	3,124.80	.....
Norwegian.....	4	19,734	14,208.48	.....
United States.....	35	208,086	152,809.00	11,535
Totals, November, 1929.....	50	287,030	211,216.53	19,537
Totals, October, 1929.....	57	317,788	234,524.45	25,093
Totals, September, 1929.....	52	282,383	207,007.88	11,600
Totals, November, 1928.....	37	204,612	149,609.70	9,244
<i>Pacific to Atlantic.</i>				
Belgian.....	1	4,976	5,710.00	8,930
British.....	6	35,159	37,207.50	68,543
Danzig.....	2	11,856	13,000.00	22,497
French.....	2	9,977	10,782.50	18,780
German.....	1	4,186	4,468.75	8,445
Norwegian.....	3	12,155	11,169.52	14,267
United States.....	37	200,263	201,128.10	349,353
Totals, November, 1929.....	52	278,572	283,466.37	490,815
Totals, October, 1929.....	60	332,356	338,648.49	610,165
Totals, September, 1929.....	49	267,364	270,361.74	465,053
Totals, November, 1928.....	44	233,612	241,705.35	424,708

* Includes 9,200 tons coal-tar products.

* Includes 6,782 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during November, 1929, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	34	204,632	\$150,322.12	11,535
Europe to United States	8	41,139	29,620.08	
Canada to South America	2	13,582	9,779.04	
Europe to South America	2	9,136	6,577.92	
United States to South America	1	4,326	3,114.72	
South America to United States	1	5,075	3,654.00	
West Indies to United States	1	4,795	3,452.40	
West Indies to South America	1	4,345	4,696.25	8,002

PACIFIC TO ATLANTIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	35	190,734	\$191,026.25	333,079
United States to Europe	9	45,118	48,821.25	85,058
United States to West Indies	2	10,532	8,945.77	9,492
South America to Canada	2	15,102	15,907.50	31,800
South America to Europe	2	8,847	9,436.25	16,725
South America to United States	1	4,326	4,633.75	7,879
Philippine Islands to United States	1	3,913	4,695.60	6,782

* Coconut oil.

Of the tanker traffic passing through the Canal in November, 1929, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for November, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
November, 1929	42	245,284	\$177,967.21	2,335
October, 1929	40	227,317	165,551.16	1,040
September, 1929	39	212,663	153,455.82	
November, 1928	29	160,638	115,659.36	
<i>From Los Angeles.</i>				
November, 1929	41	221,317	221,858.27	381,328
October, 1929	41	226,240	227,992.50	409,611
September, 1929	37	206,294	208,251.65	365,120
November, 1928	33	174,578	180,329.10	317,050

Traffic by Nationality for November, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of November, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both direction, together with the corresponding totals for November, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	2	10,202	9,091	14,913	8,639	\$9,072.70	7,031
British	69	355,129	259,371	425,866	258,598	306,929.71	248,528
Chilean	2	7,735	6,033	10,889	6,233	7,541.25	3,781
Colombian	5	737	718	1,113	716	869.30	422
Danish	5	15,299	10,562	17,404	10,644	12,868.27	15,434
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	
Dutch	5	23,474	14,836	26,004	15,079	18,545.00	12,535
French	5	23,658	19,573	30,691	19,605	24,333.30	14,914
German	14	49,870	33,475	55,976	33,409	40,266.05	36,767
Italian	3	18,920	13,211	23,463	14,279	16,513.75	5,434
Japanese	5	25,657	20,782	32,878	20,637	25,797.55	27,106
Norwegian	13	60,626	44,668	73,293	44,046	49,294.73	42,006
Panamanian	3	7,049	4,092	7,216	4,082	5,110.30	3,744
Swedish	5	24,076	16,635	46,153	20,176	17,856.49	12,945
United States	134	698,026	534,439	869,436	533,312	593,683.95	380,243
Totals, November, 1929	271	1,326,585	992,754	1,644,234	994,462	1,133,093.79	810,890
Totals, November, 1928	275	1,340,040	1,010,176	1,652,246	1,010,593	1,144,261.24	780,752
Totals, November, 1927	296	1,372,032	1,066,378	1,733,018	1,064,837	1,181,440.24	597,434

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	1	4,976	4,568	7,138	3,988	\$5,710.00	8,930
British.....	55	257,119	193,858	321,610	195,617	244,820.88	330,430
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	2,748
Colombian.....	4	574	554	880	550	690.30	1,083
Costa Rican.....	1	331	333	497	255	249.75	.....
Danish.....	7	26,194	19,565	29,962	19,748	24,034.85	37,430
Danzig.....	2	11,856	10,400	17,489	10,052	13,000.00	22,497
Dutch.....	5	27,021	18,329	30,319	18,512	22,911.25	33,580
French.....	6	29,150	21,937	36,370	21,623	27,421.25	48,879
German.....	17	76,858	52,256	87,374	52,278	64,648.37	100,010
Italian.....	4	22,447	18,323	30,945	17,957	22,797.15	25,919
Japanese.....	6	29,792	24,264	36,836	23,889	30,150.95	36,845
Norwegian.....	14	63,609	46,798	75,439	46,620	56,397.32	86,358
Panamanian.....	1	47	47	86	47	56.40	.....
Swedish.....	3	13,836	10,376	35,636	12,427	12,970.00	49,464
United States.....	121	577,933	447,219	723,946	446,371	558,354.93	891,057
Yugoslav.....	6	25,873	18,605	29,969	18,629	23,256.25	48,511
Totals, November, 1929..	254	1,172,321	890,898	1,471,806	892,539	1,111,802.15	1,723,741
Totals, November, 1928..	252	1,128,257	866,882	1,426,332	872,177	1,081,676.24	1,720,878
Totals, November, 1927..	263	1,219,685	948,485	1,519,491	942,258	1,187,827.75	1,891,448

* Includes naval vessel of 5,300 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	3	15,178	13,659	22,051	12,627	\$14,782.70	15,961
British.....	124	612,248	453,229	747,476	454,215	551,750.59	578,958
Chilean.....	3	12,440	9,499	18,199	10,209	11,873.75	6,529
Colombian.....	9	1,311	1,272	1,993	1,266	1,559.60	1,505
Costa Rican.....	1	331	333	497	255	249.75	.....
Danish.....	12	41,493	30,127	47,366	30,392	36,903.12	52,864
Danzig.....	3	17,983	15,668	26,428	15,059	17,411.44	22,497
Dutch.....	10	50,495	33,165	56,323	33,591	41,456.25	46,115
French.....	11	52,808	41,510	67,061	41,228	51,754.55	63,793
German.....	31	126,728	85,731	143,350	85,687	104,914.42	136,777
Italian.....	7	41,367	31,534	54,408	32,236	39,310.90	31,353
Japanese.....	11	55,449	45,046	69,714	44,526	55,948.50	63,951
Norwegian.....	27	124,235	91,466	148,732	90,666	105,692.05	128,364
Panamanian.....	4	7,096	4,139	7,302	4,129	5,166.70	3,744
Swedish.....	8	37,912	27,011	81,789	32,603	30,826.49	62,409
United States.....	255	1,275,959	981,658	1,593,382	979,653	1,152,038.88	1,271,300
Yugoslav.....	6	25,873	18,605	29,969	18,629	23,256.25	48,511
Totals, November, 1929..	525	2,498,906	1,883,652	3,116,040	1,887,001	2,244,895.94	2,534,631
Totals, November, 1928..	527	2,468,297	1,877,058	3,078,578	1,882,770	2,225,937.48	2,501,630
Totals, November, 1927..	559	2,591,717	2,014,863	3,252,509	2,007,095	2,369,267.99	2,488,882

* Includes naval vessel of 5,300 displacement tons.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., December 7, 1929.

To all steamship agents and masters—Following regulation is in force at the Atlantic terminal:

Pilots shall not leave vessels bound to point north of the mole buoy, Cristobal, until after the mole buoy has been passed and the vessel steadied on her proper course. In case the master of the vessel desires the pilot to remain on board longer, even to just inside the breakwater, the pilot will do so. If the master requests the services of the pilot to a point outside and clear of the breakwater, this service shall be supplied at a cost of \$25.

A speed of six (6) knots shall not be exceeded entering or leaving either Canal port.

C. H. WOODWARD,
Marine Superintendent.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 7, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
New Jersey ¹	30	23.40	1	6.15	1	13.04	1	14.15	American	Texas S. S. Co.	416.0	56.0	19.0	New York, N. Y.	Los Angeles, Calif	Ballast	7,230	5,058
St. Michel ²	30	11.08	1	7.10	1	14.48	2	5.05	American	U. S. Army	436.0	58.0	24.10	New York, N. Y.	Balboa, C. Z.	Army supplies	400	5,099
Huguenot ¹	1	6.55	1	8.35	1	15.57	2	5.05	American	Richfield Oil Co.	434.8	56.2	18.7	New York, N. Y.	Los Angeles, Calif	Ballast	7,394	1,944
Guayaquil ¹	30	5.15	1	12.05	1	19.37	2	1.18	American	Panama R. R. S. S. Line	251.0	43.6	20.0	New York, N. Y.	Guayaquil, Ecuador	General	1,366	7,820
Witrin ¹	1	11.50	1	12.05	1	19.05	2	1.18	German	North German Lloyd	449.0	58.0	16.6	Bremen, Germany	Vancouver, B. C.	Ballast	7,820	5,661
Harry	1	12.30	1	13.05	1	20.12	1	21.18	American	Luckenbach	448.9	60.2	20.0	Houston, Texas	Seattle, Wash.	General	3,200	6,853
Vancouver ¹	30	1.00	1	13.25	1	20.40	2	5.05	British	Imperial Oil Co.	510.0	68.2	23.9	Halifax, N. S.	Talara, Peru	General	11,573	7,096
Aradale ¹	1	11.55	1	14.25	1	21.53	2	7.57	British	Amer.-Australian Line.	410.0	54.0	20.6	New York, N. Y.	Dunedin, N. Z.	General	3,750	5,533
Valdivia ²	28	6.30	2	8.30	2	14.59	2	2.52	Chilean	Chilean Government	265.9	41.0	15.9	Haïve, France	Talcahuano, Chile	Naval stores	2,500	1,267
El Paquiquino ²	2	6.10	2	6.10	2	12.56	2	22.40	Panamanian	Panamanian Gov't	125.0	23.0	16.0	Colon, R. I.	Panama, R. P.	Ballast	444	2,888
Alvarado	1	17.55	2	13.10	2	20.25	3	10.38	British	Pacific Steam Nav. Co.	303.0	43.0	16.10	New York, N. Y.	Guayaquil, Ecuador	General	444	2,844
Robin Hood	2	16.10	2	16.25	3	9.24	3	10.38	American	Island S. S. Lines	324.8	53.2	26.0	Baltimore, Md.	Vancouver, B. C.	General	8,606	7,473
Acahula	23	15.25	3	6.00	3	13.20	3	13.30	British	Pacific Steam Nav. Co.	215.7	33.5	17.3	Cristobal, C. Z.	Champerico, Guatemala	General	1,163	1,273
Nieheroy	1	18.15	3	6.05	3	14.05	3	13.30	British	Royal Mail S. P. Co.	450.0	58.0	22.0	Rotterdam, Holland	Vancouver, B. C.	General	3,475	8,874
Yaye Mari	2	21.03	3	7.20	3	14.32	3	16.25	Japanese	Kokusai Kisen Kaisha.	425.0	53.8	22.6	Newport News, Va.	Kobe, Japan	Tobacco, cotton	5,164	5,174
Solana	3	00.13	3	7.30	3	14.38	3	16.35	American	Tidewater Oil Co.	419.5	56.5	20.0	New York, N. Y.	San Francisco, Cal.	Ballast	5,101	5,025
Silver Belle ²	3	1.55	3	8.30	3	15.21	3	17.20	British	Silver Line, Ltd.	425.0	53.0	23.6	New York, N. Y.	Shanghai, China	General	2,916	4,637
San Clemente	3	3.05	3	8.50	3	17.09	3	18.30	American	Quaker Line	410.0	54.4	17.6	Wilmington, Del.	Tacoma, Wash.	General	2,916	4,637
R. D. Leonard	3	2.20	3	9.40	3	17.59	3	21.20	American	Union Oil Co.	265.9	39.0	18.0	Philadelphia, Pa.	Oil, Calif	Lubricating oil	2,851	1,936
Sacramento ⁴	2	14.12	3	9.50	3	17.59	3	21.20	American	U. S. Navy	224.0	40.0	13.11	Cristobal, C. Z.	Balboa, C. Z.	Ballast	5,963	9,201
Rinuataki	3	1.50	3	12.50	3	20.08	3	22.35	British	N. Z. Shipping Co.	458.0	58.0	26.1	London, England	New Plymouth, N. Z.	General	7,847	5,185
Firenze	3	8.40	3	14.00	3	21.09	3	23.01	American	Ore S. S. Corp.	449.1	57.2	20.10	Baltimore, Md.	Cruz Grande, Chile	Ballast	9,841	6,946
Empire Arrow	3	14.20	3	14.30	3	21.58	3	23.01	American	Standard Oil Co.	468.3	62.7	20.0	New York, N. Y.	Los Angeles, Calif	Ballast	9,841	6,946
Chetopa	3	17.33	3	18.50	4	9.31			American	Nelson Line	324.0	46.2	18.6	Baltimore, Md.	Seattle, Wash.	General	2,150	3,984
E. J. Hooper	No. 1		3	9.32					American	E. J. Hooper				Cristobal, C. Z.	Gatun, C. Z.	(?)	3	3
D. R. M. No. 3 ⁶	3		3	9.32					American	De Castro & Son				Cristobal, C. Z.	Gatun, C. Z.	Ballast	11	11
C. Z. No. 4888 ⁶	3		3	9.32					American	De Castro & Son				Cristobal, C. Z.	Gatun, C. Z.	Ballast	11	11
Santa Clara ⁵	3		3	15.02					American	Marine Engineering Co.				Cristobal, C. Z.	Gatun, C. Z.	(s)	3	3
No. 2 ⁶	3		3	15.02					American	Marine Engineering Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast	11	11
Samuel Q.	4	6.25	4	6.50	4	13.35	4	17.35	American	Tidewater Oil Co.	424.4	58.0	20.0	New York, N. Y.	Los Angeles, Calif	Ballast	7,333	5,183
Brown ¹	4	6.30	4	7.05	4	14.27	4	15.30	American	Atlantic Refining Co.	364.9	51.0	22.0	Fall River, Mass.	Los Angeles, Calif	Ballast	5,474	3,528
J. W. Van	4	6.57	4	7.35	4	14.55	4	15.50	Norwegian	Fern Line	381.4	53.6	23.8	Houston, Texas	Yokohama, Japan	General	6,350	4,580
Fernmoor ³	4	7.08	4	8.35	4	15.41	4	17.00	American	Am. Hawaiian Line	419.0	53.7	20.0	Boston, Mass.	Seattle, Wash.	General	2,645	7,380
Alaskan	4	7.30	4	9.40	4	16.37	4	17.35	American	Sun Oil Co.	423.3	59.2	21.0	Philadelphia, Pa.	Los Angeles, Calif	Ballast	7,709	5,562
Sunbeam ¹	4	7.30	4	9.40	4	16.37	4	17.35	American	Sun Oil Co.	423.3	59.2	21.0	Philadelphia, Pa.	Los Angeles, Calif	Ballast	7,709	5,562

¹ Towing barge No. 2.² Towing barge D. R. M. No. 3.³ Barge.⁴ Launch.⁵ Gunboat.⁶ Motor ship.⁷ Transport.⁸ Tanker

	4	9 40	4	10 38	4	17 29	4	18 30	Japanese	400 0	54.5	20.0	Baltimore, Md	Kobe, Japan	General	4,004	5,790	4,178
Calcutta Marn.																		
General G. W.																		
Getty	4	9 05	4	9 05	4	14 30	5	15 50	American	89 0	22 0	19 3	Cristobal, C. Z.	Balboa, C. Z.	Ballast	7,808	5,139	
Spartan	4	15 45	5	6 00	5	14 30	5	15 50	American	449 1	57 2	19 3	Cruz Grande, Chile	Los Angeles, Calif.	Ballast	11,224	7,895	
W. S. Rheem	4	23 25	5	7 18	5	15 16	5	16 20	American	500 0	68 2	17 6	Baltimore, Md					
Canadian																		
Ranger	5	7 22	5	8 30	5	16 03	5	17 45	British	400 0	52 0	19 0	Montreal, Canada	Vancouver, B. C.	General	4,300	5,879	4,121
Alachucua	5	6 30	5	8 35	5	12 15	5	17 45	Panamaian	105 0	15 3	5 0	Cristobal, C. Z.	Balboa, C. Z.	General	27	62	47
Pacific Pioneer	4	16 18	5	16 10	5	11 25	6	19 15	British	435 0	50 0	20 3	Glasgow, Scotland	Vancouver, B. C.	General	1,201	9,680	6,043
Impero	5	13 15	5	18 05	6	12 15	6	13 30	Italian	442 0	62 0	19 7	Marselles, France	Talcahuano, Chile	General	7,709	7,004	4,849
Essequibo	5	15 15	6	6 10	6	16 18	6	17 34	British	450 0	57 8	25 10	New York, N. Y.	Talcahuano, Chile	General	2,402	9,158	6,176
Oroya	5	18 10	6	6 25	6	16 24	7	18 45	British	525 3	82 3	27 0	Liverpool, England	Talcahuano, Chile	General	4,734	13,187	9,067
Pennsylvania	6	6 03	6	7 15	6	16 53	7	3 00	American	586 4	80 3	27 0	New York, N. Y.	San Francisco, Cal.	General	3,089	25,262	18,194
Limerick	5	22 50	6	7 40	6	17 41	6	19 15	American	440 0	56 0	27 5	Baltimore, Md	Manila, P. I.	Case oil, general	7,346	8,308	5,850
Courgeois	6	4 05	6	8 42	6	18 25	7	4 48	British	460 5	62 7	21 0	Falmouth, England	Aelaide, Australia	General	4,425	10,921	7,559
Belpaire	5	10 15	6	10 15	6	18 50	7	4 48	British	414 4	57 4	23 5	Philadelphia, Pa.	Valparaiso, Chile	General	5,113	7,532	4,793
Longa	6	10 15	6	11 40	6	19 40	7	15 55	Norwegian	406 5	54 2	20 0	Hull, England	Valparaiso, Chile	General	2,500	7,346	4,993
Vendembare	6	7 30	6	11 50	6	19 15	6	22 08	French	408 0	61 9	21 0	Hamburg, Germany	Los Angeles, Calif	Ballast	6,046	4,326	
Actor	4	15 30	6	13 05	6	20 40	6	22 08	British	410 0	53 0	17 3	Philadelphia, Pa.	La Libertad, Leuca	Ballast	6,666	4,707	
Schwarzwald	5	11 45	6	13 50	6	21 40	6	23 10	German	399 0	54 2	17 6	Liverpool, England	San Antonio, Chile	General	6,095	6,571	4,607
Helen Whittier	6	9 55	6	14 55	6	22 40	6	23 48	American	409 6	56 0	18 0	Hamburg, Germany	Portland, Oreg	General	3,000	6,667	4,949
Hadnot	6	19 05	6	19 15	7	9 30	7	10 50	American	416 0	54 2	17 6	New York, N. Y.	Los Angeles, Calif	Ballast	6,706	4,639	
Steelore	6	3 55	7	6 15	7	14 06	7	15 15	American	550 0	72 2	21 3	Baltimore, Md	Cruz Grande, Chile	Ballast	15,551	4,297	
Nosa Chief	6	4 30	7	6 05	7	15 15	7	16 30	American	300 0	45 0	19 6	New Orleans, La.	Talcahuano, Chile	General	2,502	3,256	2,010
Point Arena	7	4 30	7	6 25	7	15 15	7	16 30	American	324 0	46 0	16 8	New Orleans, La.	Seattle, Wash	General	2,200	3,984	2,612
Leona																		
Luckenbach	6	23 45	7	7 15	7	15 25	7	16 30	American	425 0	53 0	21 0	New York, N. Y.	Seattle, Wash	General	4,195	7,217	5,295
Sir Osborn	7	1 55	7	7 20	7	15 59	7	19 08	Norwegian	471 8	64 4	20 0	Falmouth, England	Los Angeles, Calif	Ballast	9,562	6,604	
Holnden	7	3 55	7	8 20	7	16 27	7	17 40	American	386 8	52 2	19 3	Baltimore, Md	Tacoma, Wash	General	4,672	5,680	4,080
Willpolo	5	16 50	7	9 05	7	16 20	7	21 00	Columbian	116 0	21 0	8 3	Cristobal, C. Z.	Buenaventura, Col	General	60	821	124
Caldas	5	9 00	7	10 04	7	17 15	7	18 10	British	425 0	50 0	18 9	Glasgow, Scotland	Vancouver, B. C.	General	1,400	7,817	5,442
Gregalia	7	3 25	7	11 30	7	18 58	7	21 18	American	450 2	54 0	21 0	New York, N. Y.	Los Angeles, Calif	Ballast	7,978	8,839	
Pat Doteny	6	13 40	7	12 45	8	2 45	8	2 45	American	325 0	48 0	19 0	Cristobal, C. Z.	San Francisco, Cal	General	221	4,083	2,961
La Perla	7	15 30	7	16 35	8	10 18	8	10 15	British	200 0	37 0	14 0	Antwerp, Belgium	Shanghai, China	Liquors	405	1,850	1,280
Copeman																		
Walter D.	7	16 10	7	16 45	8	8 50	8	9 43	American	308 2	48 0	20 0	Baltimore, Md	Tacoma, Wash	General	3,388	4,606	3,271
Munson																		

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Motor boat.

Tug.

Tanker.

Royalstar	30	22.00	1	6.22	1	13.10	1	13.10	British	450 0	58.5	27.0	Vancouver, B. C.	Newcastle, Eng.	General	6,070	8,561	5,815
Edgar F.																		
Luckenbach	30	23.00	1	7.01	1	14.00	1	14.00	American	325 0	57.3	23.6	Portland, Oreg.	Mobile, Ala.	Lumber, general	3,028	8,568	6,648
Pear Branch	1	6.30	1	7.33	1	15.30	1	15.30	British	388 6	53.9	23.0	Coronel, Chile	Liverpool, England	General	5,911	5,760	3,866
Oldham	1	10.00	1	10.57	1	18.10	1	18.10	American	335.5	55.0	23.0	Whalla, Australia	Baltimore, Md	Ore, wool, skins	5,548	7,327	5,829
Commercial																		
Traveler	1	12.45	1	13.31	1	20.40	1	23.05	American	380.3	53.1	24.5	Cruz Grande, Chile	Baltimore, Md	Iron ore	7,100	5,657	4,133
Delight	1	12.50	1	13.47	1	20.42	1	20.42	American	379.9	53.1	18.6	Seattle, Wash.	Mobile, Ala.	General	1,445	5,667	4,103
Tanker																		

Motor ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Clear'd for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	To—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Temple Pier	1	14.45	1	15.53	2	11.45	2	17.40	British.	Lambert Brothers	390.0	53.0	24.0	Cruz Grande, Chile	Baltimore, Md	Iron ore.	7,800	5,726	4,165
Santa Barbara ¹²	1	15.25	2	6.05	2	12.55	2	15.05	American.	Grace Line	466.0	64.0	23.0	Talcahuano, Chile	New York, N. Y.	General.	2,638	10,687	6,683
Meton ¹³	2	2.40	2	6.55	2	14.43	3	14.43	American.	Penn. Shipping Co.	425.8	57.0	26.0	San Francisco, Cal	New York, N. Y.	Gasoline.	9,133	7,484	5,212
Sacramento ¹³	2	7.13	2	7.13	2	14.14	3	9.50	American.	U. S. Navy	224.0	40.0	12.6	Balboa, C. Z.	Cristobal, C. Z.		425	1,076	567
Prince Albert	1	16.40	2	7.22	2	15.45	2	17.30	British.	Pan-Am. Shipping Co.	232.0	30.0	14.6	Vancouver, B. C.	Halifax, N. S.	Liquors.			
General M. H.	1	18.30	2	7.40	2	16.50	2	16.50	American.	Sudden & Christenson	402.6	53.0	27.0	Everett, Wash.	Baltimore, Md	Lumber, copper.	7,698	6,575	4,912
Sagadahoc	2	8.10	2	9.17	2	17.10	2	17.50	American.	Arronau S. S. Co.	420.5	54.2	27.0	Seattle, Wash.	Baltimore, Md	Yber, pulp, ore.	8,089	7,340	5,360
Hudson	2	11.15	2	12.05	2	20.05	3	12.02	French.	French Line	306.2	50.7	25.8	Le Havre, France	Baltimore, Md	Nitrate, general.	6,591	5,948	4,225
Sutropeo	2	13.15	2	14.03	2	21.15	3	21.15	American.	Transmarine Lines	324.0	40.0	25.0	Vancouver, B. C.	Fort Newark, N. J.	Lumber.	3,800	3,984	2,612
California	2	12.36	3	6.13	3	13.55	3	14.30	American.	Panama-Pacific Line	574.4	80.3	29.2	San Francisco, Cal	New York, N. Y.	General.	6,818	24,504	17,565
Eureka	2	15.45	3	6.36	3	14.55	3	14.55	American.	Planet S. S. Line, Inc	399.7	55.2	26.0	Vancouver, B. C.	Dublin, Ireland	(*)	8,014	7,381	5,595
General G. W.																			
Getty ¹⁴	2	20.20	3	6.43	3	14.50	4	9.00	American.	U. S. Army	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.	Lumber, pulp.	7,041	7,470	5,529
Robin Adair	2	20.20	3	7.14	3	16.10	3	16.10	American.	Isthmian S. S. Lines	424.8	55.2	24.4	Seattle, Wash.	New York, N. Y.				
Dorothy	3	1.05	3	7.56	3	17.55	3	17.55	American.	Lukenbach Line	448.9	60.2	29.0	Portland, Ore.	Boston, Mass.	Lumber, general.	9,000	9,294	6,861
Sylvan Arrow	3	6.03	3	8.43	3	18.40	3	18.40	American.	Standard Transp. Co.	467.6	62.7	28.3	Los Angeles, Calif	New York, N. Y.	Gas oil.	12,499	9,698	6,862
Nevadan	3	8.50	3	9.35	3	19.10	3	19.10	American.	Amer.-Hawian Line	460.0	57.8	25.0	Portland, Ore.	Boston, Mass.	General.	7,071	6,829	4,627
Betterton	3	9.45	3	10.39	3	19.45	3	19.45	American.	Associated Oil Co.	431.0	59.2	28.4	Los Angeles, Calif	New York, N. Y.	Gas oil, bulk.	9,500	7,863	5,104
Parana	3	14.45	3	15.30	4	11.40	4	15.00	Danish.	East Asiatic Co.	398.0	56.0	27.0	Vancouver, B. C.	Hamburg, Germany	General.	9,337	7,088	5,219
Darden	3	15.00	3	16.05	4	12.55	4	12.55	American.	Kellogg S. S. Corp.	391.4	51.2	24.0	Manila, P. I.	New York, N. Y.	Cocount oil.	6,609	5,410	3,627
Remuera	3	17.05	4	6.26	4	14.05	4	14.05	British.	N. Z. Shipping Co.	485.0	62.3	26.0	Napier, N. Z.	London, England	Frozen, general.	6,603	11,911	8,945
Savona	3	22.50	4	6.51	4	15.20	4	16.10	Italian.	Nav. Libera-Tristina	404.2	54.0	24.0	Vancouver, B. C.	Naples, Italy	Wheat, general.	7,531	5,869	4,239
St. Michel ¹⁵	1	14.48	4	7.18	4	15.00	4	15.00	American.	U. S. Army	448.0	58.0	26.5	Balboa, C. Z.	New York, N. Y.	Army supplies.			
Pacific Groove ¹²	4	4.20	4	8.35	4	15.45	4	15.45	British.	Furness, Withy & Co.	450.3	60.8	26.5	Vancouver, B. C.	London, England	General.	7,462	10,086	7,226
Java Arrow ¹²	4	10.15	4	10.59	4	18.50	4	18.50	American.	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif	New York, N. Y.	Gasoline.	11,198	10,084	7,388
Robin Gray	4	13.00	4	13.44	4	20.45	4	20.45	American.	Seas Shipping Co.	424.5	55.2	25.6	Seattle, Wash.	New York, N. Y.	Lumber.	7,200	7,472	5,542
Renscheid	4	17.00	4	17.54	5	12.50	5	20.00	German.	North German Lloyd	449.3	58.2	25.0	San Antonio, Chile	Poughkeepsie, N. Y.	General.	8,058	7,518	5,366
Bethore	4	21.47	5	7.11	5	16.17	5	16.15	American.	Ore S. S. Corp.	550.3	73.2	33.0	Cruz Grande, Chile	Baltimore, Md	Iron ore.	21,457	15,476	4,554
Negada	4	4.10	5	7.13	5	16.35	5	16.55	German.	Hamburg-American Line	410.8	50.8	28.0	Chile	Antwerp, Belgium	General.	8,687	9,478	4,530
Loreto ¹²	4	18.10	5	7.07	5	16.45	5	17.45	British.	Pacific Steam Nav. Co.	406.2	54.2	27.0	Corral, Chile	Antwerp, Belgium	Nitrate, cotton.	8,609	7,384	5,037
Caldas ¹²	4	22.30	5	8.04	5	16.50	7	9.05	Colombian.	National Navigation Co.	116.0	21.1	10.0	Buenaventura, Col	Liverpool, England	General.	2481	211	124
Triumph ¹²	23	7.45	5	9.09	5	19.25	5	17.25	American.	Rossvait S. S. Co., S. B.	446.0	56.0	22.0	Ilolo, P. I.	Cristobal, C. Z.	General.	6,431	8,278	5,839
San Marcos	5	11.45	5	12.28	5	20.05	5	21.45	American.	States S. S. Co.	410.0	54.0	25.0	Seattle, Wash.	New York, N. Y.	Lumber.	6,858	6,765	4,895
San Marcos	5	12.50	5	18.10	6	11.40	6	11.40	British.	Homestead S. S. Co.	450.0	62.3	26.0	San Francisco, Cal	Gibraltar, N. Y.	Kerosene.	10,653	8,121	5,488
Leport	6	4.00	6	6.10	6	15.50	6	15.50	American.	Ore S. S. Corp.	550.9	73.2	34.10	Cruz Grande, Chile	New York, N. Y.	Iron ore.	20,000	14,323	4,635
La Perla	5	16.25	6	6.26	6	13.40	7	12.45	American.	United Fruit Co.	325.2	48.1	21.3	San Francisco, Cal	Cristobal, C. Z.	General.	758	4,033	2,261

1 Tanker.

12 Motor ship.

13 Light cruiser.

14 Tug.

15 Transport

16 Grain, lumber, and general.

17 For orders.

Tamahuia ¹	5 18 30	6 7 10	6 17 25	6 17 25	American.	Richfield Oil Co.....	500 0	71 2 30 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	15,167 11,667	8,542
Penelope ²	6 1 30	6 8 15	6 18 35	6 18 38	Danzig	Baltic-Amer. Pet. Co.....	470 1	63 2 26 6	Talara, Peru	Rotterdam, Holland	Naphtha.....	11,100 9,302	6,127
David.....	6 1 30	6 8 51	6 19 10	6 19 10	American.	Tidewater Oil Co.....	430 0	59 2 24 6	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	8,803 7,620	5,325
McKelvey ¹	6 9 15	6 10 10	6 20 10	6 20 10	British.	British Tankers Co.....	430 0	57 2 26 6	Los Angeles, Calif.	Land's End ¹⁷	Gas oil.....	9,147 7,174	4,964
British Star ¹	6 9 30	6 12 15	6 20 17	6 21 45	British.	Pacific Steam Nav. Co.....	385 1	52 2 26 0	Talcahuano, Chile	Liverpool, England	(18) Gas oil.....	6,529 5,656	3,823
Lagarto ¹²	6 12 50	6 13 40	6 21 05	6 21 45	British.	Tampa Intercean. Co.....	290 1	41 7 16 7	Champerico, Guat	Cristobal, C. Z.	(19) Gas oil.....	273 2,597	1,587
Champerico.....	6 16 30	6 18 15	7 12 40	7 14 55	American.	DuPont de Nemours Co.....	429 6	60 2 17 0	Manila, P. I.	New Orleans, La.	(20) Nitrates.....	3,788 8,978	6,525
Elmer Allen.....	6 17 00	6 18 49	7 12 15	7 13 30	British.	Standard Transp. Co.....	401 0	52 3 25 5	Tocopilla, Chile	Savannah, Ga.	Gasoline.....	7,425 5,775	4,049
Chan Skene.....	6 19 30	7 6 04	7 14 10	7 15 10	American.	Standard Transp. Co.....	468 3	62 7 28 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	11,345 10,084	7,388
K. R. Kingsbury ¹	7 00 25	7 6 43	7 15 25	7 15 25	American.	Standard Oil Co. of Cal.	440 0	58 2 27 0	Los Angeles, Calif.	Bayonne, N. J.	Gasoline.....	9,380 9,033	5,938
Hindanger ¹²	7 18 00	7 7 20	7 16 30	7 16 30	Norwegian.	Radial-Langen & Co.....	398 0	54 7 23 0	Vancouver, B. C.	Buenos Aires, Arg.	Lumber, general	6,023 6,854	5,132
Willzipo.....	6 23 45	7 8 01	7 16 45	7 16 45	American.	Williams S. Corp.....	415 0	55 7 26 0	Seattle, Wash.	Baltimore, Md.	Lumber, general	7,480 7,731	5,805
Kentuckian.....	7 1 10	7 8 36	7 17 45	7 17 45	American.	Amer.-Hawaiian Line.....	414 5	53 7 27 6	Seattle, Wash.	Boston, Mass.	General	7,220 7,049	4,941
Cal.....	7 6 00	7 9 15	7 18 00	9 10 55	German.	Roland Line.....	216 5	53 9 15 0	Guayaquil, Ecuador	Cristobal, C. Z.	General	960 1,105	698
Cities Service Empire ¹	7 11 00	7 12 06	7 21 20	8 00 30	American.	Cities Service Trans. Co	464 7	60 2 28 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	11,517 8,561	5,997
Anahuenua ¹²	6 12 15	7 6 20	7 14 05	7 14 05	Panamanian	United Fruit Co.....	105 0	15 3	Balboa, C. Z.	Cristobal, C. Z.	Ballast	290 32	47
Cauca ¹²	7 15 00	7 16 22	8 11 40	8 11 40	Colombian.	National Navigation Co.	107 2	21 9 11 3	Buenaventura, Col.	Cristobal, C. Z.	Coffee.....	290 238	163
Calmar ¹²	7 15 45	7 17 23	8 11 40	8 11 05	American.	Calmar Line.....	384 6	52 2 25 6	Seattle, Wash.	Baltimore, Md.	Copper, lumber.	7,015 6,347	4,453

Tanker.

¹⁸ Oats, nitrate, sugar, and cotton.¹⁹ Coffee, wood, and hides.²⁰ Copra, coconut oil.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 2.....	Ariguaní	Elders & Fyffes Line	Avonmouth via wayports.	December 1.....	Orinoco	Hamburg-American Line	Hamburg via wayports.
December 2.....	Calamares	United Fruit Co	New York via Habana.	December 2.....	Linda S. ²¹	A. L. Surgeon	Bluefields and Pt. Limon.
December 2.....	No. 9685 ²¹	Pan-American Airways	Managua via wayports.	December 2.....	Inapaquina ²¹	United Fruit Co	Colon, R. P.
December 2.....	Linda S. ²²	Colon, R. P.	Colon, R. P.	December 2.....	Anachucua ²¹	United Fruit Co	Colon, R. P.
December 2.....	Anachucua ²¹	United Fruit Co	Colon, R. P.	December 2.....	Annetta I. ²¹	A. Tagarapulos	Colon, R. P.
December 2.....	Annetta I. ²³	A. Tagarapulos	Colon, R. P.	December 2.....	Parisma	United Fruit Co	New Orleans via wayports.
December 2.....	Inapaquina ²³	United Fruit Co	Puerto Colombia.	December 2.....	Ariguaní	Elders & Fyffes Line	Avonmouth via Pt. Limon.
December 3.....	Coppename	United Fruit Co	Colon, R. P.	December 3.....	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
December 4.....	Ancon	Panama R. R. S. S. Line	New York via Haiti.	December 3.....	No. 9688 ²¹	Pan-American Airways	Managua via wayports.
December 4.....	Santa Maria	United Fruit Co	New York via wayports.	December 3.....	No. 144-M ²¹	Pan-American Airways	Guayaquil via wayports.
December 4.....	Genevieve Lykes	Lykes Brothers S. S. Co	New York via Kingston.	December 3.....	No. 300-N ²¹	Pan-American Airways	Cartagena via wayports.
December 4.....	Mayan	Gulf-Caribbean S. Co	Manzanillo, Cuba.	December 3.....	Coppename	United Fruit Co	Bocas, R. P.
December 4.....	Darien C-35 ²²	Seadta Airplane Co	New Orleans, La.	December 4.....	Calamares	United Fruit Co	Port Limon, C. R.
December 4.....	Ariguaní	Lykes Brothers S. S. Co	Barraquilla via wayp ¹⁸ .	December 4.....	Acacia ²³	U. S. Lighthouse Service	Puerto Colombia.
December 4.....	R. Feuillebois	Colon, R. P.	Colon, R. P.	December 4.....	Macabi	United Fruit Co	Colon, R. P.
December 4.....	Ariguaní	Colon, R. P.	Colon, R. P.	December 4.....	Annetta I. ²⁴	A. Tagarapulos	Bluefields, Nicaragua.
December 4.....	I. V. Pearl ²³	R. Ebanke	Colon, R. P.	December 4.....	Carmania ²²	R. Feuillebois	Trinidad, B. W. I.
December 4.....	No. 300-N ²⁴	Pan-American Airways	Cartagena via wayports.	December 4.....	I. V. Pearl ²²	Lykes Brothers S. S. Co.	Galveston, Texas.
December 5.....	Inapaquina ²⁴	United Fruit Co	Colon, R. P.	December 5.....	Genevieve Lykes	Lykes Brothers S. S. Co.	

²¹ Air mail carrier. ²² Motor schooner. ²³ Lighthouse tender. ²⁴ Motor boat. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.					* DEPARTURES.		
* ARRIVALS.			From—				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 6.	Granada	Stand. Fruit & S. S. Co.	New Orleans via Habana.	December 5.	No. 5664 ²⁵	Pan-American Airways	Managua via wayports.
December 6.	Suriname	United Fruit Co.	New Orleans, La.	December 5.	Santa Marta	United Fruit Co	New York via wayports.
December 6.	Charles Pratt	Standard Shipping Co.	Baytown, Texas.	December 5.	Mayan	Gulf-Caribbean S. S. Co.	Tampa via wayports.
December 6.	No. 144-M ²⁵	Pan-American Airways.	Guayaquil via wayports.	December 5.	Darien C-35 ²⁵	Seadfa Airplane Co.	Barranquilla, Colombia.
December 6.	CundinamarcaC-33 ²⁵	Seadfa Airplane Co.	Buenaventura via wayports.	December 5.	Inapaquina ²⁶	United Fruit Co	Colon, R. P.
December 6.	No. 9688 ²⁵	Pan-American Airways.	Managua via wayports.	December 6.	Pearl Marie ²⁷	G. I. Bryan	Bluefields, Nicaragua.
December 6.	C. A. Canfield	Pan-American Pet. Co.	Aruba, D. W. I.	December 6.	Suriname	United Fruit Co.	Port Limon via Bocas.
December 6.	Coppename	United Fruit Co.	Port Limon, C. R.	December 7.	Granada	Stand. Fruit & S. S. Co.	New Orleans via wayports.
December 6.	Pearl Marie ²⁷	G. I. Bryan	Colon, R. P.	December 7.	CundinamarcaC-33 ²⁵	Seadfa Airplane Co.	Buenaventura via wayports.
December 7.	Wanka	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 7.	Impeco ²⁷	Colon Import & Export Co	Colon, R. P.
December 7.	Inapaquina ²⁶	United Fruit Co.	Colon, R. P.	December 7.	Inapaquina ²⁶	United Fruit Co	Colon, R. P.
December 7.	Heredia	New Orleans via Habana.	New Orleans via wayports.	December 7.	Anuetta I. ²⁶	A. Tagarapulos	New Orleans, La.
December 7.	Annetta I. ²⁶	A. Tagarapulos	Colon, R. P.	December 7.	Coppename	United Fruit Co	Managua via wayports.
December 7.	No. 9664 ²⁵	Pan-American Airways	Managua via wayports.	December 7.	No. 9685 ²⁵	Pan-American Airways	Managua via wayports.
				December 7.	Charles Pratt	Standard Shipping Co	Cartagena, Colombia.
PORT OF BALBOA.							
²⁵ Air mail carrier.		²⁶ Motor boat.		²⁷ Motor schooner.			
December 6.	Almirante ²⁸	Haus Elliot	Panama Bay, R. P.	December 7.	Almirante ²⁸	Haus Elliot	Panama Bay, R. P.
December 6.	Real ²⁸	Haus Elliot	Panama Bay, R. P.	December 7.	Real ²⁸	Haus Elliot	Panama Bay, R. P.
December 6.	Sambu ²⁸	Haus Elliot	Panama Bay, R. P.	December 7.	Sambu ²⁸	Haus Elliot	Panama Bay, R. P.
December 6.	La Union ²⁸	Haus Elliot	Panama Bay, R. P.	December 7.	La Union ²⁸	Haus Elliot	Panama Bay, R. P.
December 6.	La Mascota ²⁸	Haus Elliot	Panama Bay, R. P.	December 7.	La Mascota ²⁸	Haus Elliot	Panama Bay, R. P.
December 6.	Dos Hermanos ²⁸	A. Valdez	Panama Bay, R. P.	December 7.	Dos Hermanos ²⁸	A. Valdez	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁸ Motor schooner.

Commercial Traffic Through the Panama Canal in November, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of November, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for November, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States.....	97	519,451	396,100	642,585	396,456	\$437,327.38	280,937
East coast of United States to west coast of South America:							
British.....	8	31,824	25,845	42,381	26,117	29,296.53	15,932
Chilean.....	2	7,735	6,033	10,889	6,233	7,541.25	3,781
Danish.....	1	2,169	1,278	2,242	1,311	1,597.50	3,245
Swedish.....	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States.....	12	52,725	44,020	75,668	44,031	42,200.06	17,364
Totals.....	25	103,370	84,662	161,856	86,454	87,055.58	40,322
Europe to west coast of South America:							
Belgian.....	1	4,792	4,142	6,512	4,038	5,177.50	7,031
British.....	6	38,980	30,169	50,909	31,090	37,711.25	23,342
Danish.....	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch.....	2	13,724	8,051	14,224	8,048	10,063.75	9,121
French.....	2	8,548	7,567	11,158	7,570	9,325.80	4,020
German.....	4	19,765	13,721	21,539	13,120	17,151.25	18,429
Italian.....	2	12,895	8,155	16,365	9,781	10,193.75	2,274
Norwegian.....	2	6,806	5,641	9,050	5,157	5,965.23	6,264
Totals.....	20	111,637	82,714	138,696	83,811	99,999.97	70,481
East coast of United States to Far East:							
British.....	7	36,156	23,137	37,230	23,019	28,921.25	51,527
Danish.....	1	2,562	1,481	2,480	1,471	1,851.25	3,450
Japanese.....	4	19,836	16,612	25,611	16,260	20,585.05	24,174
Norwegian.....	2	8,803	4,972	8,449	4,948	6,215.00	13,413
Panamanian.....	1	6,955	3,998	7,044	3,988	4,997.50	3,635
United States.....	3	16,397	10,395	17,061	10,350	12,993.75	23,264
Totals.....	18	90,709	60,595	97,875	60,021	75,563.80	119,463
Europe to west coast of United States:							
Belgian.....	1	5,410	4,949	8,401	4,601	3,895.20	.....
British.....	6	26,573	22,537	35,090	21,407	22,146.62	10,108
German.....	2	10,684	7,588	13,123	7,694	7,907.30	5,049
Norwegian.....	4	20,711	17,207	28,652	17,031	16,054.50	6,582
Swedish.....	2	11,631	6,732	11,373	8,286	8,415.00	7,273
Totals.....	15	75,009	59,013	96,639	59,019	58,418.62	29,012
Europe to west coast of Canada:							
British.....	6	36,790	24,685	40,096	24,759	30,856.25	8,422
Danish.....	1	5,317	4,219	6,645	4,244	5,273.75	6,155
Dutch.....	1	8,266	6,197	10,220	6,385	7,746.25	3,245
French.....	2	10,386	8,343	13,572	8,378	10,428.75	4,170
German.....	2	12,186	7,480	12,810	7,812	9,350.00	7,719
Italian.....	1	6,025	5,056	7,098	4,498	6,320.00	3,160
Norwegian.....	2	11,491	9,186	14,584	9,217	11,432.50	6,961
Totals.....	15	90,461	65,166	105,025	65,293	81,457.50	39,832
Cristobal to west coast of South America:							
Colombian.....	5	737	718	1,113	716	869.30	422
Dutch.....	2	1,484	588	1,560	646	735.00	169
German.....	5	4,232	2,879	5,398	2,974	3,598.75	1,181
Totals.....	12	6,453	4,185	8,071	4,336	5,203.05	1,772
East coast of United States to Philippine Islands:							
British.....	3	17,506	10,293	18,623	10,465	12,866.25	20,032
Norwegian.....	1	7,063	4,017	6,744	4,109	5,021.25	5,762
United States.....	4	23,702	18,670	27,913	18,393	23,337.50	25,850
Totals.....	8	48,271	32,980	53,280	32,967	41,225.00	51,644

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British.....	5	29,919	20,639	32,225	20,412	\$25,798.75	20,454
Swedish.....	1	3,528	2,417	4,104	3,128	3,021.25	5,672
United States.....	2	10,201	8,036	11,524	7,153	10,045.00	5,327
Totals.....	8	43,648	31,092	47,853	30,693	38,865.00	31,453
Europe to Australasia:							
British.....	7	52,367	37,114	61,413	37,762	46,392.50	41,772
French.....	1	4,724	3,663	5,961	3,637	4,578.75	6,724
Totals.....	8	57,091	40,777	67,374	41,419	50,971.25	48,496
Cristobal to west coast of United States:							
United States.....	6	12,917	11,624	18,760	11,443	14,476.95	4,565
East coast of Canada to Australasia:							
British.....	4	16,983	14,333	20,934	12,762	17,688.90	14,546
East coast of South America to west coast of United States:							
Norwegian.....	1	4,375	2,431	4,000	2,485	3,038.75	924
United States.....	3	19,793	14,656	24,726	14,579	16,884.00	2,366
Totals.....	4	24,168	17,087	28,726	17,064	19,922.75	3,290
Around the world:							
British.....	2	11,683	6,332	10,433	6,181	7,915.00	7,897
Japanese.....	1	5,821	4,170	7,267	4,387	5,212.50	2,932
United States.....	3	26,956	18,766	31,531	18,733	23,457.50	14,251
Totals.....	6	44,460	29,268	49,231	29,301	36,585.00	25,080
Europe to west coast of Cen- tral America:							
British.....	1	3,748	3,022	4,888	2,989	3,777.50	5,000
German.....	1	3,003	1,807	3,106	1,809	2,258.75	4,389
Norwegian.....	1	1,377	1,214	1,814	1,099	1,517.50	2,100
Totals.....	3	8,128	6,043	9,808	5,897	7,553.75	11,489
Cristobal to west coast of Central America:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	4,252
Foreign vessels in ballast— United States inter- coastal:							
British.....	1	6,416	5,415	8,966	5,329	4,619.52	.....
Danish.....	1	2,791	1,875	3,173	1,928	2,009.52	.....
Totals.....	2	9,207	7,290	12,139	7,257	6,629.04	.....
Canadian intercoastal:							
British.....	2	8,294	6,567	10,838	6,669	8,208.75	6,641
East coast of Canada to west coast of South Amer- ica:							
British.....	2	13,582	11,536	21,010	11,042	9,776.04	.....
West Indies to west coast of United States:							
United States.....	2	9,098	7,043	11,441	7,091	6,550.56	.....
West Indies to west coast of South America:							
British.....	2	4,497	3,859	6,618	3,861	4,805.69	8,002
Cristobal to west coast of South America:							
Panamanian.....	2	94	94	172	94	112.80	109
East coast of United States to west coast of Canada:							
British.....	1	4,300	3,035	4,870	3,021	3,096.00	.....
East coast of United States to Hawaiian Islands:							
United States.....	1	1,740	1,542	2,647	1,542	1,927.50	3,210
West Indies to west coast of Canada:							
British.....	1	2,207	1,239	2,338	1,249	1,548.75	4,300
West Indies to west coast of Central America:							
British.....	1	5,453	3,554	5,527	3,548	3,926.16	.....
South American intercoastal:							
Danish.....	1	2,460	1,709	2,864	1,690	2,136.25	2,584

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons. of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of South America to west coast of Canada: United States.....	1	5,046	3,587	5,580	3,541	\$4,483.75	3,109
East coast of Central America to Australasia: British.....	1	4,823	3,492	6,646	4,201	4,365.00	6,301
Grand totals, November, 1929.	271	1,326,585	992,754	1,644,234	994,462	1,133,093.79	810,890
Grand totals, November, 1928.	275	1,340,040	1,010,176	1,652,246	1,010,593	1,144,261.24	780,752
Grand totals, November, 1927.	296	1,372,032	1,066,378	1,733,018	1,064,837	1,181,440.24	597,434

PACIFIC TO ATLANTIC.

United States intercoastal: United States.....	92	459,024	353,691	569,003	353,260	\$441,681.53	694,639
West coast of Canada to Europe:							
British.....	19	94,070	68,075	110,980	68,728	85,718.75	122,486
Danish.....	1	5,660	5,233	6,919	5,223	6,541.25	9,420
Dutch.....	2	13,617	10,639	17,054	10,613	13,298.75	15,736
French.....	2	10,000	6,573	11,092	6,724	8,216.25	15,405
German.....	4	24,739	15,237	26,148	15,636	19,046.25	31,393
Italian.....	1	6,497	4,905	8,124	5,128	6,131.25	9,207
Japanese.....	2	9,039	8,617	11,700	8,482	10,592.20	15,200
Norwegian.....	4	18,946	13,202	21,181	13,001	16,502.50	26,483
Swedish.....	1	4,919	2,890	4,960	3,665	3,612.50	5,518
United States.....	2	10,414	7,128	11,543	7,113	8,910.00	15,019
Totals.....	38	197,951	142,499	229,701	144,313	178,569.70	265,867
West coast of South America to east coast of United States:							
British.....	6	21,532	16,710	28,454	17,236	20,887.50	27,368
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	2,748
Danish.....	2	5,946	5,010	7,632	4,693	6,206.15	11,632
Norwegian.....	3	12,456	10,538	15,849	10,566	12,926.55	22,156
Swedish.....	2	8,917	7,486	30,676	8,762	9,357.50	43,946
United States.....	17	78,110	61,871	104,855	61,736	77,219.05	151,042
Yugoslav.....	1	4,570	3,271	5,291	3,299	4,088.75	8,400
Totals.....	32	136,236	108,352	200,067	110,268	135,018.00	267,292
West coast of South America to Europe:							
British.....	9	48,620	36,200	59,557	37,013	45,250.00	66,522
Danzig.....	1	5,929	5,193	8,745	5,026	6,491.25	11,100
Dutch.....	2	12,662	7,396	12,485	7,576	9,245.00	17,675
French.....	1	4,187	3,353	5,505	3,366	4,191.25	7,167
German.....	5	25,035	18,582	29,916	18,272	23,240.00	37,857
Italian.....	2	11,696	9,246	16,993	9,199	11,557.50	9,107
Norwegian.....	3	12,303	8,328	13,997	8,097	10,410.00	20,206
Yugoslav.....	5	21,303	15,334	24,678	15,330	19,167.50	40,111
Totals.....	28	141,735	103,642	171,876	103,879	129,552.50	209,745
West coast of United States to Europe:							
Belgian.....	1	4,976	4,568	7,138	3,988	5,710.00	8,930
British.....	4	19,734	16,753	27,329	16,566	20,941.25	36,014
Danish.....	2	10,405	6,149	10,142	6,667	7,686.25	13,931
Danzig.....	1	5,927	5,207	8,744	5,026	6,508.75	11,397
French.....	3	14,913	12,011	19,773	11,533	15,013.75	26,307
German.....	3	14,433	10,157	17,437	10,037	12,696.25	21,416
Italian.....	1	4,254	4,172	5,828	3,630	5,108.40	7,605
Norwegian.....	2	8,159	6,442	10,623	6,437	8,052.50	14,552
United States.....	2	7,594	5,593	8,953	5,550	6,991.25	11,340
Totals.....	19	90,395	71,052	115,967	69,434	88,708.40	151,492
West coast of South America to Cristobal:							
Colombian.....	4	574	554	880	550	690.30	1,083
Dutch.....	1	742	294	780	323	367.50	169
German.....	3	2,793	1,642	3,304	1,718	2,052.50	2,544
Totals.....	8	4,109	2,490	4,964	2,591	3,110.30	3,796

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of United States to Cristobal:							
United States	6	13,262	10,761	17,515	10,569	\$13,451.25	2,743
Australasia to Europe:							
British	5	35,703	25,546	42,042	25,928	31,932.50	34,872
Philippine Islands to east coast of United States:							
Japanese	2	11,492	8,743	14,000	8,604	10,928.75	11,832
Norwegian	1	6,829	3,673	6,687	4,085	4,966.25	2,961
United States	1	3,913	3,850	5,105	3,749	4,695.60	6,782
Totals	4	22,234	16,566	25,792	16,438	20,590.60	21,575
West coast of Central America to Cristobal:							
British	3	3,028	2,568	4,831	2,715	3,210.00	533
Costa Rican	1	331	333	497	255	249.75	.....
Totals	4	3,359	2,901	5,328	2,970	3,459.75	533
West coast of United States to West Indies:							
Norwegian	1	4,916	4,315	7,102	4,434	3,559.52	.....
United States	1	5,616	4,325	6,972	4,394	5,406.25	9,492
Totals	2	10,532	8,640	14,074	8,828	8,945.77	9,492
West coast of Central America to east coast of United States:							
British	1	1,331	1,165	1,931	1,182	1,456.25	2,350
German	1	5,496	3,703	5,883	3,705	3,937.12	.....
Totals	2	6,827	4,868	7,814	4,887	5,413.37	2,350
West coast of South America to Canada:							
British	2	15,102	12,726	23,350	12,300	15,907.50	31,800
West coast of South America to West Indies:							
British	1	4,623	3,273	5,671	3,149	3,328.56	.....
Danish	1	2,460	1,709	2,864	1,690	1,771.20	.....
Totals	2	7,083	4,982	8,535	4,839	5,099.76	.....
West coast of United States to east coast S. America:							
British	1	5,621	4,484	7,199	4,524	5,605.00	3,598
West coast of United States to east coast of Central America:							
Danish	1	1,723	1,464	2,405	1,475	1,830.00	2,447
West coast of Canada to east coast of Central America:							
British	1	31	29	43	29	22.32	.....
West coast of South America to Egypt:							
German	1	4,362	2,925	4,686	2,910	3,656.25	6,800
Far East to east coast of United States:							
Japanese	1	4,773	3,516	5,652	3,451	4,395.00	2,313
Far East to West Indies:							
Japanese	1	4,488	3,388	5,484	3,352	4,235.00	7,500
Far East to Europe:							
British	1	3,370	3,056	4,784	2,917	3,820.00	3,527
Australasia to east coast of Canada:							
British	1	4,354	3,273	5,439	3,330	4,091.25	1,360
Australasia to West Indies:							
British	1	.....	.....	.....	.....	2,650.00	.....
Balboa to Cristobal:							
Panamanian	1	47	47	86	47	56.40	.....
Grand totals, November, 1929.	254	1,172,321	890,898	1,471,806	892,539	1,111,802.15	1,723,741
Grand totals, November, 1928	252	1,128,257	866,882	1,426,332	872,177	1,081,676.24	1,720,878
Grand totals, November, 1927.	263	1,219,685	948,485	1,519,491	942,258	1,187,827.75	1,891,448

* Naval vessel of 5,300 displacement tons.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., December 18, 1929. No. 20.

Holiday Greetings.

BALBOA HEIGHTS, C. Z., *December 18, 1929.*

It gives me great pleasure to extend to the personnel of The Panama Canal and the Panama Railroad Company, to the patrons and friends of the Canal, and to the people of the Republic of Panama, sincere good wishes for a Merry Christmas and a happy and prosperous New Year.

"On earth peace to men of good will." The spirit of loyalty, co-operation and friendship which prevails among the Canal people has contributed vitally to our successful operations, within and without, during the present year. May such spirit continue and increase, and bring to each the comfort of a useful and happy life.

C. H. WOODWARD,

Acting Governor, The Panama Canal.

Canal Traffic During First Fifteen Days of December.

During the first 15 days of December, 264 commercial vessels and 5 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,154,682.55 and on the launches \$27.45, or a total tolls collection of \$1,154,710.

The daily average of transits of commercial vessels was 17.6 and the average tolls collection \$76,978.84 as compared with an average of 18.47 transits and \$79,172.95 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,373.80, as compared with \$4,336.16 for the first 15 days of November.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 11½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 11½ months of the calendar years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,924.62	17.50	74,829.96
December (first 15 days).....	264	1,154,682.55	17.60	76,978.84
Totals, first 11½ months of calendar, year, 1929.....	6,172	26,438,396.49	17.68	75,754.72
Totals, first 11½ months of calendar, year, 1928.....	6,044	25,155,316.63	17.27	71,872.33
Totals, first 11½ months of calendar, year, 1927.....	5,790	25,016,123.57	16.59	71,679.44

As compared with the first 11½ months of the calendar year 1928, the corresponding period this year has had 128 more transits and \$1,283,079.86 more in tolls.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, December 14, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Saint Jean	7	6 25	8	6 05	8	13 45	8	15 00	French.	French Line.	397.0	50.3	20.6	Havre, France.	Corral, Chile	General.	2,165	5,849	4,101
Algonquin	7	16 38	8	6 20	8	12 49	8	14 00	American.	Standard Transp. Co.	435.0	56.0	21.0	Portland, Me.	Los Angeles, Calif.	Ballast.	7,602	5,337	4,301
Hamburg Maru	7	22 25	8	7 20	8	14 34	8	15 55	Japanese.	Osaka Shosen Kaisha	440.0	54.0	21.0	New York, N. Y.	Dairen, China.	General.	3,995	6,004	4,301
Georgian	8	4 23	8	7 25	8	15 07	8	16 25	American.	Amer-Hawaiian Line.	434.0	57.7	17.0	Boston, Mass.	Portland, Oreg.	General.	2,406	7,893	5,912
Sabotawan	8	9 45	8	10 15	8	16 52	8	18 30	American.	Redwood Line.	337.0	52.2	23.0	New Orleans, La.	Seattle, Wash.	General.	6,787	5,703	4,193
Leikanger	7	23 05	8	10 25	8	16 59	8	18 10	Norwegian.	Westfal, Larsen & Co.	375.3	52.3	15.2	Buenos Aires, Arg.	Vancouver, B. C.	(4)	1,257	3,953	4,354
Brimanger	8	4 05	8	11 40	8	18 47	8	23 02	Norwegian.	Westfal, Larsen & Co.	398.0	54.7	15.0	Newcastle, Eng.	Los Angeles, Cal.	Ballast.	6,853	5,246	
Tuscaloosa	8	19 20	8	20 10	9	9 13	9	11 14	American.	U. S. Steel Prod. Co.	424.0	56.2	24.0	Baltimore, Md.	Tacoma, Wash.	General, steel.	6,955	7,611	5,450
City	8	1 10	9	6 05	9	13 40	9	23 21	American.	Panama Mail S. S. Co.	378.0	48.7	23.5	New York, N. Y.	San Francisco, Cal.	General.	3,260	6,015	4,281
Colombia	8	18 50	9	6 20	9	14 53	10	00 54	British.	N. Z. Shipping Co.	531.0	70.0	29.3	London, England.	Auckland, N. Z.	General.	7,740	18,206	13,500
Rangitanga	8	18 13	9	7 10	9	15 50	9	16 55	American.	Isthmian S. S. Lines	424.0	56.2	27.0	New York, N. Y.	Singapore, S. S. Sett.	General.	8,120	7,668	5,509
Steel Traveler.	9	6 25	9	8 55	9	16 40	9	18 00	British.	Prince Line, Ltd.	450.0	58.0	22.0	New York, N. Y.	Manila, P. I.	General.	4,724	8,594	6,089
Royal Prince.	9	8 30	9	9 45	9	17 30	9	19 15	American.	Quaker Line.	395.0	55.0	18.0	Wilmington, Del.	Tacoma, Wash.	General.	2,502	7,330	5,233
San Pedro	9	8 30	9	9 45	9	17 30	9	19 15	American.	Quaker Line.	395.0	55.0	18.0	Wilmington, Del.	Tacoma, Wash.	General.	2,502	7,330	5,233
Ashburton	9	8 50	9	10 10	9	17 34	9	22 40	British.	DuPont de Nemours	400.0	52.0	19.0	Norfolk, Va.	Talcahuano, Chile	General, coal.	4,615	5,997	4,307
Cal.	7	18 00	9	10 55	9	18 17	9	19 35	German.	Roland Line.	216.5	32.9	12 11	Cristobal, C. Z.	Guayaquil, Ecuador	General.	361	1,105	698
Schwaben.	8	23 40	9	11 35	9	18 35	10	2 45	German.	North German Lloyd.	491.0	63.8	25.0	Hamburg, Germany	Vancouver, B. C.	General.	5,671	10,002	6,743
Lion.	9	6 38	9	12 45	9	19 28	10	4 00	Norwegian.	Anglo-Saxon Pet. Co.	451.0	59.0	18.0	Amsterdam, Holland	Los Angeles, Calif.	Ballast.	8,099	5,338	
Rosier.	9	14 35	9	14 55	9	22 35	10	6 36	British.	Anglo-Saxon Pet. Co.	405.0	52.0	25.0	Tampico, Mexico.	Los Angeles, Calif.	General.	6,315	6,565	5,141
Kako Maru.	9	18 00	9	18 55	10	11 29	10	12 30	Japanese.	Nippon Yusen Kaisha.	405.0	53.0	24.0	Baltimore, Md.	Adelaide, Australia.	Asphalt.	5,452	7,025	5,055
Chikassaw City	9	22 25	10	6 00	10	13 45	10	15 00	American.	U. S. Steel Prod. Co.	395.5	55.0	27.5	Mobile, Ala.	Kobe, Japan.	General.	8,570	7,322	5,237
Canadian	10	4 00	10	6 25	10	13 51	10	15 50	British.	Can. Nat. Steamships	400.0	52.4	21.6	Montreal, Canada	Vancouver, B. C.	General.	2,800	5,893	4,414
Prospector.	10	6 43	10	7 28	10	15 07	10	16 15	American.	Calmar S. S. Corp.	384.4	51.2	27.0	Portland, Oreg.	Seattle, Wash.	General, steel.	7,752	6,327	4,433
Oakmar	9	22 40	10	8 49	10	15 37	10	18 30	American.	Ford Motor Co.	251.0	43.0	18.6	Chesler, Pa.	Portland, Oreg.	Auto parts.	2,161	2,656	1,621
Onondaga	10	7 10	10	10 05	10	17 05	10	18 30	American.	Transmarine Lines	324.0	46.0	17.4	Newark, N. J.	San Francisco, Cal.	General.	950	3,984	2,612
Susaculco.	10	1 10	10	11 05	10	17 59	10	19 24	British.	Can. Nat. Steamships	400.0	56.0	25.4	Montreal, Canada	Adelaide, Australia.	General.	3,650	7,680	5,494
Constructor.	10	1 10	10	11 05	10	17 59	10	19 24	American.	Amer-Hawaiian Line	472.0	57.2	20.0	Boston, Mass.	Tacoma, Wash.	General.	2,569	9,258	6,944
City of Mexico.	10	16 18	10	18 05	11	9 25	11	10 30	American.	Amer-Hawaiian Line	472.0	57.2	20.0	Boston, Mass.	Tacoma, Wash.	General.	2,569	9,258	6,944
Kimberley	10	20 10	10	20 30	11	11 37	11	13 45	British.	Ellerman & Bucknall.	416.0	56.0	25.0	Philadelphia, Pa.	Yokohama, Japan.	General.	5,358	7,987	6,093
Lady May	10	20 10	10	20 30	11	11 37	11	13 45	American.	G. M. Downer	416.0	56.0	25.0	Philadelphia, Pa.	Gatun, C. Z.	Ballast.	5	5	5
City of San Francisco	24	21 50	11	6 10	11	14 59	11	14 00	American.	Panama Mail S. S. Co.	296.0	45.0	20.7	Cristobal, C. Z.	San Francisco, Cal.	General.	2,800	3,848	2,606
Scopas	10	19 35	11	6 25	11	14 57	11	16 00	Dutch.	Anglo-Saxon Pet. Co.	412.0	58.0	19.0	London, England	Los Angeles, Calif.	Ballast.	6,296	4,395	
Robert E.	11	1 35	11	6 28	11	16 26	11	17 50	American.	Tidewater Oil Co.	424.4	58.2	21.9	New York, N. Y.	Los Angeles, Calif.	Ballast.	7,333	5,182	
Hopkins	11	4 25	11	7 35	11	16 48	11	21 38	British.	Bank Line, Ltd.	420.0	53.9	19.6	Mobile, Ala.	Yokohama, Japan.	Cotton, scrap iron.	4,007	7,137	5,054
Birchbank	11	4 25	11	7 35	11	16 48	11	21 38	British.	Bank Line, Ltd.	420.0	53.9	19.6	Mobile, Ala.	Yokohama, Japan.	Cotton, scrap iron.	4,007	7,137	5,054
Tanker.									* Motor ship.										
									* Launch.										

* Motor ship.

† Launch.

‡ Tanker.

Apple Branch.	11	3	45	11	8	12	11	17	15	11	18	52	British	F. & W. Ritson	376.0	51	6	19.0	Coronel, Chile.	General	2,729	5,112	3,511
Kinderjorne	9	7	10	11	8	10	11	17	50	12	3	05	British	Holland & Dom. Line.	469.4	63	0	20.4	Addelaide, Australia	General	2,093	10,678	7,674
Port Gadjie.	11	6	12	11	9	20	11	18	18	11	19	35	Dutch	Rotterdam, Holland	477.0	58	4	22.8	Vancouver, B. C.	General	4,564	8,515	6,060
Feltoe	10	9	05	11	9	35	11	19	00	11	20	10	American	Ore S. S. Corp.	449.1	57	2	20.0	Cruz Grande, Chile	Ballast	7,808	5,139	
Robert	11	10	18	11	11	30	11	19	10	11	20	10	American	Luckenbach Line	445.0	54	0	19.0	Seattle, Wash.	General	4,123	8,895	6,375
West Ira.	11	4	20	11	11	55	11	19	50	11	21	00	American	McCormick S. S. Co	410.5	58	0	19.2	N Westminster, B. C.	General	2,849	5,297	
India	11	7	20	11	12	40	11	20	43	11	21	35	Norwegian	Scand-Sov. Pacific Co.	380.0	63	7	24.0	Corral, Chile	General	6,954	5,413	3,985
India Arrow	11	10	50	11	13	30	11	21	01	11	22	15	American	Standard Transp. Co.	468.3	62	7	18.0	Los Angeles, Calif.	Ballast	6,100	10,084	7,388
Myrtlebank	11	11	20	11	14	30	11	21	48	11	23	10	British	Bank Line, Ltd.	420.0	53	9	22.0	Hongkong, China.	(s)	6,100	7,091	4,991
Santa Elisa.	11	15	00	11	6	14	12	15	20	12	17	40	American	Grace Line	360.3	51	7	23.6	Tacubano, Chile.	General	2,172	5,957	4,325
Cauca	8	11	10	12	6	00	12	15	14	12	21	00	Colombian	National Navigation Co.	107.0	22	9	8.6	Buenaventura, Col.	General	124	238	163
Santa Cecilia	11	16	25	12	6	05	12	16	04	12	20	18	American	Grace Line	408.0	55	0	19.10	Callao, Peru	General	1,606	6,672	4,905
Marore	10	11	10	12	7	15	12	16	58	12	18	10	American	Ore S. S. Corp.	550.3	72	9	21.3	Cruz Grande, Chile	Ballast	15,551	4,297	
Bugsten	11	14	18	12	7	45	12	17	21	12	18	25	Norwegian	Tundborg Raderi	388.0	52	7	19.0	Los Angeles, Calif.	Ballast	5,469	3,744	
Ojoren	11	14	50	12	8	35	12	17	40	12	21	28	Swedish	Anglo-Mexican Oil Co.	389.7	49	0	16.0	Los Angeles, Calif.	Ballast	5,633	3,335	
Sutro	11	16	50	12	8	35	12	17	52	12	18	00	American	Transmarine Lines.	324.0	46	2	14.0	Mobile, Ala.	General	1,241	6,993	5,397
King City	11	19	35	12	9	10	12	18	28	12	19	56	British	Reardon Smith Line	400.0	51	0	24.6	San Francisco, Cal.	General	7,943	6,993	5,397
England Maru	12	2	00	12	9	30	12	18	50	12	20	18	Japanese	Kokusan Kisen Kaisha	385.0	51	0	24.6	Yawata, Japan	General	5,833	6,214	4,665
Sweland	12	6	05	12	10	05	12	19	20	13	20	35	Swedish	Ore S. S. Corp.	390.0	55	5	16.0	Cruz Grande, Chile	Ballast	15,425	4,421	
Yarg	12	10	35	12	11	15	12	20	06	13	3	47	Norwegian	Leif Hoegh	404.0	54	0	24.6	Talara, Peru	Ballast	6,169	6,755	4,886
Henry S. Grove	12	11	15	12	11	25	12	20	33	12	21	46	American	Argonaut S. S. Co.	449.0	57	0	20.6	Portland, Oreg.	Steel, general	2,536	7,750	5,282
Erlangen	11	11	15	12	12	30	12	20	55	12	22	00	German	Roland Line	449.0	57	0	20.6	Champerico, Guat.	General	3,759	8,005	5,953
Abraham	12	7	12	12	14	19	12	21	26	14	14	30	Norwegian	Fred Olsen & Co.	436.0	56	0	19.6	Vancouver, B. C.	General	5,418	9,267	6,884
Lincoln	11	9	10	12	14	24	12	22	21	12	23	26	German	Hamburg-American Line	461.0	61	11	23.10	Portland, Oreg.	General, bananas	8,473	6,050	
Seattle	11	9	40	12	14	35	12	22	50	13	00	01	American	Shell Oil Co.	464.0	60	0	19.0	Los Angeles, Calif.	Ballast	6,411	8,987	6,612
Swittarrow	11	00	40	12	14	35	12	22	50	13	00	01	American	Tampa Intercean Co.	439.6	60	0	23.6	Iloilo, P. I.	General, case oil	8,291	5,822	
Patrick Henry	12	15	50	13	6	15	13	13	12	13	14	10	American	Anglo-Saxon Pet. Co.	458.0	59	8	18.0	Los Angeles, Calif.	Ballast	2,843	12,512	9,178
Orkanger	12	18	53	13	6	25	13	14	12	13	17	35	Norwegian	Dollar Line	502.0	62	0	27.0	Manila, P. I.	General	5,947	6,775	5,061
President	13	5	35	13	7	25	13	14	50	13	21	58	American	Barber S. S. Line	416.0	55	6	26.0	Shanghai, China	General, case oil	3,073	7,037	5,327
Adams	12	18	55	13	7	35	13	15	38	13	16	30	British	North German Lloyd	401.9	58	2	23.0	Adelaide, Australia	General	7,816	5,785	
Kendal Castle	13	1	05	13	8	25	13	16	01	13	16	55	American	Federal Steam Nav. Co.	520.0	64	0	31.1	Vancouver, B. C.	Ballast	12,995	12,930	9,300
Unico	13	9	05	13	9	10	13	16	14	13	17	10	German	Canadian Export Co.	405.0	55	0	24.0	Los Angeles, Calif.	General	8,683	7,042	5,208
Cumberland	13	9	30	13	9	50	13	17	30	13	22	44	British	Standard Transp. Co.	410.0	56	0	20.0	Los Angeles, Calif.	Ballast	8,201	6,207	
Bonington	13	1	00	13	11	10	13	18	03	13	22	26	British	Nav. Libera-Fristiana	430.0	55	3	17.4	Vancouver, B. C.	General	3,010	7,784	6,035
Tiger	13	11	55	13	12	05	13	19	58	13	21	22	American	Moore & McCormack	407.0	55	2	26.4	Cavite, P. I.	Navy coal	7,081	6,597	4,752
Fella	12	16	00	13	12	40	13	20	15	13	21	22	Italian	Sir R. Roper	421.0	54	0	16.0	Vancouver, B. C.	Ballast	6,265	4,571	
Commercial	13	13	45	13	14	00	13	21	25	13	22	44	American	Tidewater Oil Co.	424.0	58	2	22.0	Los Angeles, Calif.	Ballast	7,333	5,182	
Guide	13	12	15	13	14	25	13	22	04	13	23	25	British	Messageries Maritimes	413.0	56	0	24.6	Noumea, New Cal	General	2,820	7,043	5,364
Haxby	13	14	07	13	14	25	13	22	20	13	23	25	American	Aust.-American Line	410.5	54	0	21.0	San Francisco, Cal.	General	5,238	6,903	5,155
Paul Shoup	13	6	10	14	16	15	14	12	55	14	18	40	American	Nelson Line	324.0	46	2	22.0	Los Angeles, Calif.	General	2,600	3,984	2,628
Antinous	13	6	10	14	16	15	14	12	55	14	18	40	American	Royal Mail S. P. Co.	435.6	62	3	22.0	Vancouver, B. C.	General	3,958	10,803	7,606
Australand	14	8	55	14	11	35	14	18	02	14	19	24	British	Cresby McGee & Co.	390.0	54	0	25.0	Yokohama, Japan	General	6,970	6,246	
Tashmoo	13	6	00	14	12	42	14	19	46	14	23	20	British										
Loehlig	13	6	00	14	12	42	14	19	46	14	23	20	British										
Forthbridge	14	13	55	14	14	10	14	21	20	14	23	06	American										

s Case oil, steel.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Water draft.			Nature.	Tons.	
Borga ⁶	7	16.30	8	6.04	8	13.50	8	20.05	Norwegian.	Fred Olson & Co	362.0	52.0	25.0	Vancouver, B. C.	London, England	Wheat, general	6,161	3,706
Donau	8	10.25	8	11.30	8	18.45	8	22.25	German.	North German Lloyd	520.6	63.6	26.6	Vancouver, B. C.	Hamburg, Germany	General	9,539	7,698
Chateau																		
Thiery ⁷	6	22.55	8	12.19	8	18.35	8	18.35	American	U. S. Army	448.0	56.0	24.6	Honolulu, T. H.	New York, N. S.	Army supplies.	167	5,189
Arizona	8	17.45	8	18.42	9	11.25	10	10.05	French	French Line	425.0	54.8	25.0	Le Havre, France.	Halifax, N. S.	Crude oil.	7,495	5,278
Ontario ⁸	8	15.00	9	6.34	10	11.25	10	11.25	British	Imperial Oil, Ltd	470.0	63.2	28.0	Cabo Blanco, Peru	Halifax, N. S.	Crude oil.	11,620	9,981
Marsolite ⁶	8	16.50	9	6.34	9	13.45	9	13.45	American	Charles Nelson & Co.	324.0	46.9	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	4,920	2,628
Dalworth	8	22.30	9	7.33	9	14.35	9	15.45	British	Canadian Transp., Ltd	400.0	53.5	24.1	Vancouver, B. C.	Birmingham, Eng.	General	9,600	4,686
Baldwin	9	6.00	9	7.52	9	16.25	9	20.05	British	Pacific Steam Nav. Co.	400.0	52.3	25.8	Corral, Chile	Hull, England	Lumber	7,141	4,113
Salamanca	9	6.00	9	8.35	9	18.00	9	20.15	American	Transmarine Lines.	324.0	46.2	22.8	Portland, Oreg.	Pt. Newark, N. J.	Lumber	3,985	3,868
Ebro	9	8.10	9	9.39	9	17.05	9	21.00	British	Pacific Steam Nav. Co.	450.3	56.8	23.6	Talcahuano, Chile	New York, N. Y.	General	2,900	3,301
Santa Cruz	9	8.34	9	11.00	9	18.45	9	23.38	American	Grace Line	384.0	50.2	21.2	Callao, Peru	New York, N. Y.	General	3,848	5,534
Lochnagar ⁶	9	10.30	9	11.34	9	19.35	9	23.20	British	Royal Mail S. P. Co.	485.0	63.0	29.0	Vancouver, B. C.	Rotterdam, Holland	General	8,551	7,581
Durazzo	9	10.30	9	12.18	9	20.05	9	23.20	German	Hamburg-American Line	227.5	54.2	13.6	Guayaquil, Ecuador	Cristobal, C. Z.	General	569	1,633
Willmott	9	11.04	9	12.39	9	20.15	9	20.15	German	Dimon S. S. Corp.	390.2	54.2	25.0	Seattle, Wash.	Philadelphia, Pa.	Lumber	6,000	4,463
Panquaco ⁸	9	14.55	10	11.55	10	11.55	10	11.55	Panamanian	Panamanian Govt.	125.6	23.5		Balboa, C. Z.	Cristobal, C. Z.	General	2,349	4,353
Venezuela	9	8.36	10	6.15	10	13.35	11	6.05	American	Panama Mail S. S. Co.	380.0	48.7	22.4	San Francisco, Cal.	New York, N. Y.	General	724	1,132
Manizales	9	16.30	10	6.27	10	14.35	11	6.05	German	Roland Line	216.6	32.9	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	10,517	8,913
Astral ²	9	21.00	10	7.10	10	15.10	10	15.10	American	Standard Transp. Co.	439.5	58.0	29.4	Los Angeles, Calif.	New York, N. Y.	Gas oil	5,115	8,336
Fresnostar	10	6.10	10	7.19	10	15.50	10	15.50	British	Blue Star Line	450.0	58.0	24.5	Vancouver, B. C.	Hull, England	Frozen, general.	9,700	5,400
Larry Doheny	10	6.05	10	8.13	10	16.00	10	17.00	American	Richfield Oil Co.	430.0	59.2	28.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	7,536	5,198
Iowan	10	6.55	10	8.40	10	16.18	10	16.18	American	Amer.-Hawaiian Line	407.7	53.7	28.0	Portland, Oreg.	Boston, Mass.	General	7,200	6,377
Kileredane	10	6.00	10	9.02	10	18.05	10	21.00	British	Limerick S. S. Co.	400.0	52.5	26.6	Pimental, Peru	Marseilles, France	Sugar	3,580	4,564
Canadian																		
Brishier	10	15.30	10	16.20	11	12.20	11	14.50	British	Can. Nat. Steamships	400.3	52.2	20.0	Cairns, Australia	Halifax, N. S.	(¹²)	8,972	6,179
Katrina	8	20.10	11	6.18	11	14.45	11	14.45	American	Lackenbach Line	446.0	56.1	29.0	Portland, Oreg.	Boston, Mass.	General	8,972	6,179
Mary Pinchot	8	20.18	11	6.18	11	14.53	11	14.53	American	Gifford Pinchot	147.0	28.0	15.6	Papeete, Tahiti	New York, N. Y.	Yacht	255	129
Canadian																		
Exporter	10	23.30	11	7.07	11	17.25	11	19.25	British	Can. Nat. Steamships	400.0	52.3	15.0	Auckland, N. Z.	Montreal, Canada	General	1,300	
Gogovale	10	20.30	11	7.32	11	18.45	11	21.45	British	Crawford Shipping Co.	385.0	52.0	23.6	Vancouver, B. C.	Grangemouth, Eng.	Lumber, wheat.	6,977	
Ocidental	11	2.30	11	8.14	11	18.45	11	21.45	British	Texas Co.	416.8	56.1	27.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,500	
Atlantic	11	2.30	11	8.52	11	19.15	11	19.15	Greek	Rethymos & Kuluks dis.	410.7	54.1	24.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	9,150	6,221
San Bernardino	11	6.00	11	9.12	11	19.40	11	19.40	American	Quaker Line	410.5	54.2	26.4	Pt. Alberni, B. C.	New London, Conn.	Lumber	7,200	4,873
Hernando	11	7.20	11	10.11	11	21.10	11	22.10	Norwegian	Brusaard Kosterud	389.5	54.1	21.5	Vancouver, B. C.	Rotterdam, Holland	General	6,000	5,746
Saxevia	11	8.00	11	10.14	11	21.30	11	22.30	British	Anglo Saxon Pet. Co.	416.7	53.8	23.8	Los Angeles, Calif.	Land's End, Eng.	Gasoline	7,296	4,239
Dwight	11	8.10	11	10.16	11	22.00	11	22.00	British	Pennsylvania S. S. Co.	435.0	56.0	26.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,440	
William Penn ⁸	8	6.05	11	11.26					American	Roosevelt S. S. Co., S. B.	439.6	60.2	22.1	Saigon, Indo-China	New York, N. Y.	Rice, general	4,246	6,226

⁷ Transport.⁸ Revenue cutter.⁹ Wheat, lumber, and fruits.¹⁰ Copper, nitrate, and oats.¹¹ Motor ship.¹² Meat, wool, hides, and legs.¹³ For orders.

Ship	Date	Vessel	Line	From—	Date	Vessel	Line	For—
Panama	11 8 35	11 12 08	11 22 45	British	Royal Mail S. P. Co.	Seattle, Wash.	Liverpool, England	Frozen, general
Breda	11 6 15	11 12 22	11 23 59	Dutch	Royal Neth. S. S. Co.	Guayal, Chile	Rotterdam, Holland	Nitrate, general
Barth	11 1 05	11 12 11	11 23 00	Dutch	Royal Neth. S. S. Co.	Corral, Chile	Cristobal, C. Z.	General
Amplaria	11 13 00	11 14 03	12 00 30	12 5 05	British	Anglo Saxon Pst. Co.	Rouen, France	Kerosene
Americaland	11 21 55	12 01 12	15 30	Swedish	Ore S. S. Corp.	San Francisco, Cal.	Baltimore, Md	Iron ore
Vancouver	11 25 00	12 07 12	19 25	British	Imperial Oil Co., Ltd.	Cruz Grande, Chile	Halifax, N. S.	Crude oil
James McGee	11 20 20	12 07 12	19 00	12 19 05	American	Standard Shipping Co.	New York, N. Y.	Crude oil
Edonpark	11 20 20	12 07 12	19 00	12 21 20	British	J. & J. Denton	Tacoma, Wash.	Nitrates
Elmworth	11 22 00	12 08 12	20 40	12 21 20	American	R. S. Daiglen & Co.	Azores ^{1,2}	Wheat
San Jose	12 06 00	12 08 12	20 40	12 23 25	British	United Fruit Co.	San Francisco, Cal.	General
H. H. Asquith	12 07 20	12 09 12	22 00	12 23 25	British	Williams & Morley	Cruz Grande, Chile	General
Nosa Prince	12 11 40	12 12 40	12 40	12 22 45	American	N. O. & S. A. S. Co.	Baltimore, Md	Iron ore
Lake Ormeau	12 13 00	12 13 51	12 51	12 23 40	American	Dupont de Nemours	Portland, Ore	Nitrate and ore
Queen Eleanor	12 13 15	12 14 35	12 22	12 22 40	British	U. S. Navy	Chesler, Pa	(15)
Vega	12 8 20	13 06 13	14 00	14 17 30	American	U. S. Navy	Boston, Mass	Nitrates
W. L. Stead	12 3 00	13 06 13	14 55	13 14 55	American	Huasteca Petroleum Co.	Boston, Mass	(16)
Hercules	12 15 10	13 07 13	18 12	13 18 12	Norwegian	F. C. Larsen	Baltimore, Md	Gasoline
David Lloyd	12 15 45	13 07 13	19 15	13 21 05	British	Moore & McCormick	Liverpool, England	Sugar
Canadian	13 09 50	13 10 37	13 19 35	14 2 20	British	Can. Nat. Steamship	Baltimore, Md	Iron ore
Almagro	13 11 00	13 11 43	13 19 55	14 17 10	British	Pacific Steam Nav. Co.	Halifax, N. S.	General
Lisbon Maru	13 16 10	13 16 20	13 20 24	00 45	Japanese	Nippon Yusen Kaisha	New York, N. Y.	General
El Cervo	13 21 03	14 06 14	14 00	14 00	British	C. T. Bowring & Co.	Boston, Mass	Bears, tea, oil
Californian	13 22 10	14 06 14	14 05	14 15 05	American	Amer-Hawaiian Line	Philadelphia, Pa.	Crude petroleum
Thermion	13 1 30	14 07 14	14 16 12	14 16 12	Greek	Kassos Steam Nav. Co.	Boston, Mass	General
Michael I.	14 1 30	14 08 14	14 17 35	14 20 20	Greek	S. Livanos & Co.	Baltimore, Md	Iron ore
Newton Ash	14 3 25	14 08 14	14 18 00	14 19 50	British	Tyneside S. S. Co., Ltd	Azores ^{1,2}	Nitrates
General W. M.	14 9 02	14 17 20	14 19 15	15 10 20	American	U. S. Army	London, England	General
Graham	14 10 50	14 11 39	14 19 15	15 10 20	British	Shaw, Savill & Albion	Cristobal, C. Z.	Frozen, general
Corinthia	14 12 40	14 13 22	14 19 55	14 19 55	American	Standard Transp. Co.	London, England	Gasoline
China Arrow	14 13 00	14 13 56	14 22 00	14 22 00	American	Sun Oil Co.	New York, N. Y.	Gasoline
Delaware Sun	14 16 30	14 18 20	15 11 00	15 11 00	American	Luckenbach Line	Chester, Pa	Gasoline
Julia	14 17 15	14 18 52	15 11 50	15 11 50	American	Argonaut S. S. Co	Mobile, Ala	General
Luckenbach	14 17 15	14 18 52	15 11 50	15 11 50	American	Argonaut S. S. Co	Portland, R. I.	General
Pacific	14 17 15	14 18 52	15 11 50	15 11 50	American	U. S. Navy	Longview, Wash.	Lumber
L-10	14 17 15	14 18 52	15 11 50	15 11 50	American	Balboa, C. Z.	Cristobal, C. Z.	Launch

* Tanker.

* Mine plunger.

* Miscellaneous naval stores.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date	Vessel	Line	From—	Date	Vessel	Line	For—
December 8	Macabi	United Fruit Co.	Puerto Colombia	December 8	Calamarcas	United Fruit Co.	New York via Habana.
December 8	Calamarcas	United Fruit Co.	Port Limon, C. R.	December 8	Atcon	Panama R. R. S. S. Line	New York via Haiti.
December 8	Lisbeth	Lykes Brothers S. S. Co	Tampa, Florida.	December 8	Macabi	United Fruit Co.	New York via Kingston.
December 9	Guadeloupe	French Line	St. Nazaire via waypoints	December 9	Hercules	United Fruit Co.	New Orleans via waypoints.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 9.	No. 9635 ¹⁷ .	Pan-American Airways	Managua via wayports.	December 9.	C. A. Canfield.	Pan-American Petroleum Co.	Aruba, D. W. I.
December 9.	Pastores	United Fruit Co.	New York via Habana.	December 10.	No. 9688 ¹⁷ .	Pan-American Airways	Tela via wayports.
December 10.	Anachucuna ¹⁸ .	United Fruit Co.	Colon, R. P.	December 10.	No. 300-N ¹⁷ .	Pan-American Airways	Curacao via wayports.
December 10.	Inapaquina ¹⁸ .	United Fruit Co.	Colon, R. P.	December 10.	No. 144-M ¹⁷ .	Pan-American Airways	Guayaquil via wayports.
December 10.	Francia	Guand S. S. Line	New York via wayports.	December 10.	Francia	Guand S. S. Line	New York via wayports.
December 10.	Savona	Nav. Libera-Primitiva	High seas for repairs.	December 10.	Anachucuna ¹⁸ .	United Fruit Co.	Colon, R. P.
December 11.	Swiftarrow	Shell Oil Co.	Puerto Cabezas.	December 11.	Guadeloupe.	French Line	Havre via wayports.
December 11.	Wauia	Stand. Fruit & S. S. Co.	Curacao, D. W. I.	December 11.	Aneteta I. ¹⁸ .	United Fruit Co.	Colon, R. P.
December 11.	Metapan.	United Fruit Co.	New York via Kingston.	December 11.	Pastores	Standard Fruit & S. S. Co.	Port Limon, C. R.
December 11.	Darien C-35 ¹⁷ .	Standard Fruit & S. S. Co.	Barauquia via wayports.	December 12.	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
December 12.	Aneteta I. ¹⁸ .	Standard Fruit & S. S. Co.	Colon, R. P.	December 12.	Inapaquina ¹⁸ .	United Fruit Co.	Colon, R. P.
December 12.	Venezuela	Royal Nether. S. S. Co.	Amsterdam via wayports.	December 12.	Metapan.	United Fruit Co.	New York via wayports.
December 13.	No. 9638 ¹⁷ .	Pan-American Airways	Tela via wayports.	December 12.	No. 9107 ¹⁷ .	Pan-American Airways	Curacao via wayports.
December 13.	No. 144-M ¹⁷ .	Pan-American Airways	New Orleans via Habana.	December 12.	Darien C-35 ¹⁷ .	Standard Fruit & S. S. Co.	Barraquilla, Colombia.
December 13.	No. 9107 ¹⁷ .	Pan-American Airways	Guayaquil via wayports.	December 13.	Venezuela	Royal Nether. S. S. Co.	Port Limon, C. R.
December 13.	No. 300-N ¹⁷ .	Pan-American Airways	Curacao via wayports.	December 13.	Anachucuna ¹⁸ .	United Fruit Co.	Colon, R. P.
December 13.	Cundinamarca C-33 ¹⁷ .	Pan-American Airways	Buenaventura via wayports.	December 14.	Cundinamarca C-33 ¹⁷ .	Standard Fruit & S. S. Co.	Buenaventura via wayports.
December 13.	Anachucuna ¹⁸ .	United Fruit Co.	Bocas, R. P.	December 14.	Suriname	Standard Fruit & S. S. Co.	New Orleans.
December 13.	Wanks	Stand. Fruit & S. S. Co.	Colon, R. P.	December 14.	Oranien	R. Feuillebois	New Orleans and wayports.
December 14.	Castilla	United Fruit Co.	San Blas, R. P.	December 14.	Carmania ¹⁹ .	Leyland S. S. Line.	Bluefields, Nicaragua.
December 14.	Teutonia	Hamburg-American Line	Colon, R. P.	December 14.	Teutonia	Hamburg-American Line	Liverpool via wayports.
December 14.	Oranien	Leyland S. S. Line	New York, N. Y.	December 14.	Venezuela.	Royal Nether. S. S. Co.	Puerto Colombia.
December 14.	Camden	United Fruit Co.	Tampico via wayports.				Amsterdam via wayports.
December 14.	Venezuela	Royal Nether. S. S. Co.	Port Limon, C. R.				
December 14.	Managu.	United Fruit Co.	Curacao, D. W. I.				
December 14.	Cartago.	United Fruit Co.	Port Limon, C. R.				
December 14.	No. 9685 ¹⁷ .	Pan-American Airways	New Orleans via Habana.				
December 14.			Managua via wayports.				

¹⁷ Air mail carrier. ¹⁸ Motor boat. ¹⁹ Motor schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 10.	Tejon	General Petroleum Co.	Los Angeles, Calif.	December 11.	Tejon	General Petroleum Co.	Los Angeles, Calif.
December 11.	Real ²⁰ .	Hans Elliot.	Panama Bay, R. P.	December 12.	Real ²⁰ .	Hans Elliot.	Panama Bay, R. P.
December 12.	Dos Hermanos ²⁰ .	A. Valdez.	Panama Bay, R. P.	December 12.	Dos Hermanos ²⁰ .	A. Valdez.	Panama Bay, R. P.
December 14.	Sambu ²⁰ .	Hans Elliot.	Panama Bay, R. P.	December 14.	Sambu ²⁰ .	Hans Elliot.	Panama Bay, R. P.
December 14.	Real ²⁰ .	Hans Elliot.	Panama Bay, R. P.	December 14.	Real ²⁰ .	Hans Elliot.	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁰ Motor schooner.¹⁷ Air mail carrier. ¹⁸ Motor boat. ¹⁹ Motor schooner.

Transit of Motor Ship "Rangitata" on Maiden Voyage.

The new motor ship *Rangitata*, owned by the Federal Steam Navigation Co. and operated by the New Zealand Shipping Co., transited the Canal on December 9, 1929, en route from London to Auckland, New Zealand, on its first voyage. The *Rangitata*, which is of 16,737 gross and 10,314 net tons, 531 feet long and 70.2 feet beam, is a sister ship of the *Rangitiki*, which transited the Canal for the first time on March 6, 1929, and these vessels will be followed by another new sister ship, the *Rangitane*, due at the Canal the latter part of this month.

The New Zealand Shipping Co.'s fleet of passenger and cargo vessels operating on regular schedule between English and New Zealand ports, via Pitcairn Island or Suva, now includes the following: *Rangitiki*, *Rangitata*, *Rangitane*, *Rotorua*, *Remuera*, *Ruahine*, *Ruapehu*, *Rimutaka*, with intermediate sailings of cargo ships.

Cargo Through Canal During November, 1929.

On pages 282 and 283 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in November, 1929. This cargo, segregated according to direction, as compared with November, 1928, and the differences, are shown in the following tabulation:

	November, 1929.	November, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	810,890	780,752	+30,138
Pacific to Atlantic.....	1,723,741	1,720,878	+2,863
Totals.....	2,534,631	2,501,630	+33,001

It will be noted from the above that the Atlantic to Pacific tonnage increased 30,138 tons over that in November, 1928, and that from the Pacific to the Atlantic 2,863 tons, making a total increase of cargo tonnage in both directions over November, 1928, of 33,001 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-eight and one-tenth per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 23.7 per cent in Europe. Cargo originating in the United States was 9,454 tons, or 1.7 per cent, greater than the amount coming from that area in November, 1928. Cargo from the United States showed a slightly lower percentage of the total than that originating in the same area in November, 1928. Cargo from Europe showed a small actual increase amounting to 821 tons over November last year, although the percentage of the total in November, 1929, was slightly lower than for November, 1928. Cargo from Canada increased 2,822 tons; the West Indies, 7,636 tons; the east coast of Central America, 4,193 tons; and the east coast of South America, 5,873 tons. Each of these areas showed relative as well as actual increases over November, 1928.

Destination.—Forty-two and eight-tenths per cent of the Pacific-bound cargo was destined to the United States; 22.9 per cent to Asia; 15.2 per cent to South America; and 12.3 per cent to Australasia. Tonnage to the United States increased 39,507 tons, or 12.8 per cent; that to South America 3,943, or 3.3 per cent; and that to Australasia 23,279 tons, or 30.1 per cent over the tonnage for November, 1928.

Cargo to Asia decreased 53,689 tons, or 22.5 per cent under November of last year. The percentage which the cargo destined to the United States and Australasia formed of the total showed an increase as compared with November, 1928; that to South America remained the same, while that to Asia showed a decrease.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 55.8 per cent originated on the west coast of the United States; 30.1 per cent in South America; 9.8 per cent in Canada; 2.1 per cent in Australasia; and 2.0 per cent in Asia. Cargo from the United States, South America, and Asia showed increases in actual tonnage over November, 1928, of 6,840 tons, or 0.7 per cent, 95,591 tons, or 22.5 per cent, and 2,814 tons, or 8.8 per cent, respectively. These areas also showed an increase in the relative amount of tonnage, as compared to November, 1928. Cargo tonnage from Canada decreased 95,438, or 36.1 per cent, and that from Australasia, 9,560, or 20.9 per cent. Cargo from Canada and Australasia also showed relative decreases under November, last year.

Destination.—Segregated according to destination, 57.4 per cent of the cargo in this direction went to the United States, and 37.7 per cent to Europe. Tonnage to the United States showed an increase of 123,488 tons, or 14.3 per cent, and that to Europe decreased 105,653 tons, or 14.0 per cent, as compared to November, 1928. The per cent of the total cargo destined to the United States increased from 50.3 for November, 1928, to 57.4 for November, 1929, while that to Europe decreased from 43.9 per cent to 37.7 per cent for the same months.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 88 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for November, 1929, or November, 1928, are listed in the following tabulation, showing differences:

Commodity.	November, 1929.	November, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	17,802	6,819	+10,983
Automobiles.....	18,983	21,500	-2,517
Cement.....	36,536	25,060	+11,476
Coal and coke.....	28,844	30,285	-1,981
Cotton.....	39,360	58,635	-19,275
Manufactured goods:			
Iron and steel.....	199,384	187,726	+11,668
Machinery.....	15,637	15,022	+615
Railroad material.....	15,702	15,346	+356
Tinplate.....	20,246	21,059	-813
Textiles.....	10,347	12,052	-1,705
Miscellaneous.....	17,682	16,019	+1,663
Metal scrap.....	17,484	5,313	+12,171
Mineral oils.....	46,057	62,136	-16,079
Paper.....	18,988	13,707	+5,281
Phosphates.....	23,202	13,946	+9,256
Salt.....	6,006	11,340	-5,334
Sulphur.....	13,225	3,685	+9,540
Tobacco.....	10,861	22,131	-11,270

The above 18 commodity groups comprise 68.5 per cent of the cargo moving from the Atlantic to the Pacific during November, 1929. It

will be noted that 10 of these items showed increases while 8 show decreases, as compared to November, 1928.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of November, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	November, 1929.	November, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley	22,210	22,352	-142
Beans	10,145	13,437	-3,292
Canned goods (fish, fruit, vegetables, etc.)	98,019	105,665	-7,646
Cold storage (food products) ¹	15,938	22,300	-6,362
Cotton	10,929	9,610	+1,319
Flour	8,298	11,621	-3,323
Fruit, dried	40,793	45,104	-4,311
Fruit, fresh	14,405	28,094	-13,689
Lumber	266,994	251,668	+15,326
Metals, various	62,422	60,643	+1,779
Nitrates	211,554	213,033	-1,479
Oils, mineral	485,583	436,749	+48,834
Ores, principally iron	183,667	95,134	+88,533
Sugar	35,639	32,847	+2,792
Wheat	121,984	256,583	-134,599

¹ Not including fresh fruit.

The above 15 commodity groups comprise over 92 per cent of the cargo moving from the Pacific to Atlantic during November, 1929. Six of the items show increases and 9 decreases. The most important differences comprise an increase of 48,834 tons of mineral oils; 88,533 tons of ores, which include an increase of 80,797 tons of iron ore from Chile to the United States; and a decrease of 134,599 tons of wheat. The amount of wheat from the west coast of the United States to Europe declined from 53,478 tons in November, 1928, to 2,400 tons in November, 1929, and that from the west coast of Canada to Europe, from 199,066 tons to 118,790 tons.

(Continued on next page.)

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., December 6, 1929.

No. 647.

AIDS TO NAVIGATORS.

1. *Buoy, Guayaquil River, Ecuador.* This office is informed, through the Minister of Foreign Relations of Ecuador, that the inner buoy at the Mala Bar, Guayaquil River, has been replaced as follows:

Position: Latitude, 2° 48' 55" S., longitude, 79° 53' 15" W.

Characteristics: Flashing white; period, 3 seconds; flash .03 seconds, eclipse 2.7 seconds.

Visibility: 6 miles; painted red.

This buoy was reported missing in Notice to Mariners No. 521, March 16, 1929.

2. *Sea Range, Balboa, C. Z.* On Saturday, December 8, 1929, the new permanent entrance sea range lights will be in operation.

Azimuth of range, 141° 44' 36" true.

Position of lights: New range light No. 1, latitude, 8° 57' 34.46" N., longitude, 79° 34' 45.11" W., new range light No. 2, latitude, 8° 59' 13.31" N., longitude, 79° 36' 04.40" W.

Visibility, 22.5 nautical miles or 15 nautical miles beyond the Canal entrance buoys No. 1 and No. 2.

Characteristics: Occulting, period: 5 seconds; 4.5 seconds light and 0.5 seconds eclipse.

Compare with Notice to Mariners No. 592, August 24, 1929.

H. BURGESS,
Governor.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, November, 1929.—Continued from page 281.

(Figures represent tons of 2,240 pounds.)

FROM—	SOUTH AMERICA.				NORTH AMERICA.				ASIA.				AUSTRALASIA.			Per cent of total cargo.								
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaii.	Total, North America.	Japan.	China.	Philippines.		Far East. ¹	Total, Asia.	Australia.	New Zealand.	Australasia. ¹	Total, Australasia.	Grand totals.	
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports	14,484	1,784	1,016	4,746	4,650	26,680	226,698	670	1,266	5,133	233,767	36,359	23,665	12,069	12,627	84,720	22,908	6,730	6,730	29,638	374,805	46.3		
South Atlantic ports	105				705	85	9,367			7,367	5,447	8,852	544	1,557	1,104	12,057					20,319	2.5		
Gulf ports	7,825		125	191	458	8,999	49,334	2,650		2,335	160	54,479	68,284	11,403	2,129	5,824	87,040	2,076	24	3,572	5,672	156,390	19.3	
Totals, United States	22,414	1,784	1,141	5,642	5,193	36,174	283,399	3,320	1,266	2,355	293,295	613,113	113,495	35,612	15,755	19,555	184,417	24,984	6,754	3,572	35,310	551,514	68.1	
Cristobal, C. Z. ²	2,279	1,032	581	1,182	1,665	6,739	4,029		3,098		12,130											18,869	2.3	
East coast of Canada								6,641		109	6,750								5,805	4,741	3,800	14,346	21,096	2.5
West Indies	8,012					8,012	6	1,671			1,671											9,689	1.2	
East coast of Central America																			6,301			6,301	6,301	0.8
Totals, North America	32,705	2,816	1,722	6,824	6,858	50,925	237,434	11,635	9,364	2,444	5,293	316,170	113,495	35,612	15,755	19,555	184,417	37,040	11,495	7,372	55,957	607,469	74.9	
EUROPE:																								
British Isles	12,725	149	379	4,042	4,782	22,077	4,905	3,531	5,000		13,436								2,245	35,870		38,115	73,628	9.1
Belgium	7,046	369	245	1,104	66	8,830	20,793	1,873	1,128		23,794											32,624	4.2	
Denmark						58	238																238	0.0
France	2,625		89	521	663	3,898	2,486	397	152		3,035											6,933	0.7	
Germany	2,879	275	67	1,256	181	4,658	3,383	3,622	320		9,218											13,876	1.7	
Holland	2,489	26	15	380		2,910	3,340	303	132		3,775								6,724	6,724	13,409	17,134	1.7	
Italy	118				33	1,771	1,922	527			3,525											5,447	0.7	
Norway and Sweden	4,779		14	29	5,110	9,932	6,137	14	4,292	1,939	12,382											22,314	2.7	
Russia							2,758				2,758											2,758	0.3	
Spain and Portugal	211		6	71	83	51	422	48	14		62											484	0.1	
Europe ¹	1,969	1,408	664	1,363	9,084	14,488	4,830	807		20	5,657											20,145	2.5	
Totals, Europe	34,841	2,233	1,544	8,991	21,766	69,375	51,461	8,335	14,735	2,611	77,042								2,245	35,870	6,724	44,839	191,856	23.7
East coast of South America																								
	2,764				3	2,767	8,238	135			8,373												11,565	1.4
Grand totals	67,546	7,813	3,266	15,815	28,027	123,067	347,133	20,605	24,099	5,055	293,402	185,113	882,355	612	15,755	19,553	184,842	39,355	47,365	14,096	100,796	810,890	100.0	
Per cent of total cargo:																								
November, 1929	8.3	1.0	0.4	2.0	3.5	15.2	42.8	2.5	3.0	0.6	0.7	49.6	14.1	4.4	2.0	2.4	22.9	4.8	5.8	1.7	12.3	100.0	.....	
November, 1928	5.9	1.6	0.4	1.8	5.5	15.2	39.5	1.6	1.3		1.9	44.3	15.5	6.4	1.9	6.8	30.6	4.5	4.8	0.6	9.9	100.0	.....	
November, 1927	7.3	1.2	0.8	3.0	2.3	14.6	35.5	4.2	3.7	0.2	0.9	44.5	12.5	4.1	3.2	2.0	21.8	14.6	4.2	0.3	19.1	100.0	.....	

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, November, 1929.

(Figures represent tons of 2,240 pounds.)

From —	NORTH AMERICA.										EUROPE.												Grand totals.	Per cent of total cargo.	
	UNITED STATES.																								
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Cen- tral America.	Cristobal, C. Z. ²	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. ¹	Total, Europe.	East coast of South America.	Egypt.			Africa.
SOUTH AMERICA:																									
Chile	187,684	5,040	48,108	240,832	128		344	241,304	15,592	3,872	4	1,552	4,500	276	8,532	775			134,218	169,321		6,800			
Colombia	1,140			1,140			4,097	5,237																	
Ecuador	1,403			1,403			2,784	4,187	4				35	4	491					534	23				
Peru	15,300	2,882		18,182	1,800	9		50,085	10,897	1,684			511,964		26	8,027			2,732	35,335					
West coast of South America ¹	2,866			2,866			598	3,464	258				7		8				2,872	3,145					
Totals, S. America.	209,333	7,922	48,108	264,423	31,800	137	7,917	304,277	26,751	5,556	4	1,557	16,506	280	9,057	8,802			139,822	208,335	23	6,800			
NORTH AMERICA:																									
W. coast of Canada.	17,703			17,703		2,525	65	20,293	74,109	2,516	1,000	10,150	9,975	5,576	5,317	3,205			39,026	147,874	782				
W. coast of Cen. Am.	2,364			2,364		418	994	3,776																	
West coast of U. S.	639,916	19,885	19,355	679,156		15,421	3,056	700,659	119,567	14,557	1,338	17,109	44,275	4,850	3,302	8,728	1,436		39,917	255,379	4,361				
Totals, N. Amer.	659,933	19,885	19,355	699,223		18,364	3,026	4,115	724,728	193,976	17,073	2,338	27,259	54,250	7,426	8,619	11,933	1,436	78,943	403,253	5,143				
ASIA:																									
China	5,739			5,739				5,739																	
Japan	4,467			4,467			167	4,634																	
Philippines	12,187			12,187				12,187																	
Far East ¹	1,328			1,328		7,500		8,828	3,527											3,537					
Totals, Asia.	23,721			23,721		7,500	167	31,388	3,527											3,527					
AUSTRALASIA:																									
Australia	37	144	1,300	1,481				1,481																	
New Zealand					125			125	19,409											19,409					
Australasia¹									15,217											15,217					
Totals, Australasia	37	144	1,300	1,481	125			1,606	34,626											34,626					
Grand totals	892,131	27,951	68,763	988,848	31,925	26,001	3,026	12,199	1,061,999	258,880	22,629	2,312	28,816	70,756	7,700	17,676	20,735	1,436	218,705	619,741	5,166	6,800			
Per cent of total cargo:																									
November, 1929	51.8	1.6	4.0	57.4	1.8	1.5	0.2	0.7	61.6	15.1	1.3	0.1	1.7	4.1	0.4	1.0	1.2	0.1	12.7	37.7	0.3	0.4			
November, 1928	46.4	0.6	3.3	50.3	1.4	2.1	0.5	1.3	55.6	19.4	1.4	0.1	2.4	2.9	3.0	0.6	0.8	2.8	10.5	43.9	0.5				
November, 1927	41.5	1.9	2.2	45.6	1.4	2.4	0.1	3.4	52.9	13.5	1.2	0.6	1.9	3.7	1.3	2.5	1.5	1.8	16.1	44.1	2.3	0.7			

¹ General cargo not routed so as to allow segregation between definite ports.² Includes both local and transit cargo.

United States Intercoastal Traffic by Commodities for November, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for November, 1929, and the totals for November, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements.....	1,895		1,895
Alfalfa.....		310	310
Alfalfa meal.....		206	206
Ammonia.....	62		62
Asbestos.....	162		162
Asphalt.....	330	154	484
Automobiles.....	767	60	827
Automobile accessories.....	311	30	341
Bark.....	12		12
Barley.....		273	273
Beans.....	122	6,873	6,995
Borax.....	207	543	750
Bricks.....	50		50
Burlap.....	294		294
Camphor.....		16	16
Canned:			
Fish.....	208	18,430	18,638
Fruit.....	132	28,752	28,884
Meat.....	7	6	13
Milk.....	98	518	616
Soup.....	1,750		1,750
Vegetables.....	1,207	8,976	10,183
Miscellaneous.....	2,368	13,314	15,682
Carbon black.....	351	40	391
Celite filtercel.....		332	332
Cement.....	687	54	741
Charcoal.....	230	80	310
Chemicals.....	2,010	830	2,840
China and fire clay.....	400		400
Coal.....	4,647		4,647
Cocoa.....	16		16
Coconuts.....		86	86
Coffee.....	40	76	116
Coke.....	1,909		1,909
Cold storage:			
Cheese.....	65		65
Fish.....	42		42
Lard.....	40	63	103
Other.....	80		80
Confectionary.....	1,107		1,107
Copra.....		71	71
Cork.....	55		55
Corn.....	36		36
Cotton.....	256	959	1,215
Cyanide.....	35		35
Drugs.....	1,892		1,892
Dyes.....	22		22
Earthenware.....	349	10	359
Explosives.....	86		86
Flour.....	78	4,862	4,940
Fruit:			
Dried.....	195	15,235	15,430
Fresh.....	38	200	238
Fuller's earth.....	518		518
Furniture.....	801	40	841
General.....	40,739	18,435	59,174
Glass and glassware.....	1,857	72	1,929
Glue.....	40	78	118
Granite.....	106		106
Guano.....	27		27
Hair.....		16	16
Hardwoods.....	1,407	40	1,447
Hay.....		11	11
Hemp.....		1,337	1,337
Honey.....	25	266	291
Ink.....	28		28

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Iodine.....	1		1
Jute.....	70		70
Lime.....	15		15
Linoleum.....	510	36	546
Liquors.....	45		45
Lumber.....	2,881	178,150	181,031
Malt.....	71		71
Manufactured goods:			
Iron and steel.....	123,373	1,279	124,652
Machinery.....	4,023	1,018	5,041
Railroad material.....	1,649		1,649
Tinplate.....	8,760		8,760
Textiles.....	3,341	407	3,748
Miscellaneous.....	11,554	2,344	13,898
Marble.....	324		324
Matches.....	55		55
Metals:			
Antimony.....		30	30
Copper.....	85	8,574	8,659
Iron.....	1,254		1,254
Lead.....		1,904	1,904
Scrap.....	521	302	823
Tin.....		44	44
Zinc.....	115	2,785	2,900
Other.....	200		200
Milk, powdered.....		612	612
Molasses.....	238		238
Musical instruments.....	75		75
Nuts.....	124	315	439
Oats.....	49		49
Oils:			
Cottonseed.....	112		112
Crude.....	10		10
Gas oil, fuel oil.....	91	48,541	48,632
Gasoline, benzine, naphtha.....	25	267,769	267,794
Kerosene.....		13,381	13,381
Linseed.....	38		38
Lubricating and greases.....	2,743	1,842	4,585
Olive.....	35	33	68
Vegetable.....	171	25	196
Wood.....	21	35	56
Other.....		684	684
Ores:			
Copper.....		500	500
Magnesite.....		1,164	1,164
Zinc.....		1,000	1,000
Other.....		27	27
Paint.....	873	1,647	2,520
Paper.....	6,021	6,041	12,062
Paper pulp.....	27	6,122	6,149
Paper roofing.....	59		59
Peanuts.....	182	50	232
Peas.....		28	28
Phosphates.....	1,074		1,074
Porcelain.....	103	1,775	1,878
Rags.....	123	605	728
Rice.....	1,111		1,111
Rope.....	154	149	303
Rosin.....	1,979	63	2,042
Rubber:			
Manufactured.....	1,166		1,166
Raw.....	81		81
Scrap.....		46	46
Salt.....	75		75
Sand.....	1,420		1,420
Seeds:			
Cotton.....	12		12
Grass.....	15	12	27
Other.....		464	464
Shells.....	1,530	8	1,538
Silk.....		1,178	1,178
Skins and hides.....		724	724
Slag.....	846		846
Slate.....	505		505
Soap.....	3,475		3,475
Soda.....	280		280
Soda ash.....	3,233		3,233
Soda, bicarbonate.....	57		57
Soda, caustic.....	511		511
Starch.....	163		163
Sugar.....		2,654	2,654
Sulphur.....	11,425		11,425
Syrup.....	198		198
Tallow.....		382	382
Tar.....	11,196	30	11,226

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Tobacco.....	2,437	65	2,502
Toys.....	49	16	65
Turpentine.....	65	65	65
Waste.....	48	13	61
Wax.....	131	23	154
Wheat.....		38	38
Wine.....		299	299
Wool.....		2,269	2,269
Totals, November, 1929.....	283,399	679,156	962,555
Totals, November, 1928.....	234,851	638,489	873,340
Totals, November, 1927.....	169,663	605,019	774,682

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., from December 1 to December 14, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged Tons.	Laded. Tons.
Guayaquil.....	Panama R. R. S. S. Line.....		December 1.....		151
Parismina.....	United Fruit Co.....		December 1.....		128
Orinoco.....	Hamburg-American Line.....		December 1.....		80
Wanks.....	Stand. Fruit & S. S. Co.....		December 2.....		1 ¹ / ₂
Alvarado.....	Pacific Steam Nav. Co.....	December 1.....	December 2.....	74	66
Acajutla.....	Pacific Steam Nav. Co.....		December 3.....		1,170
Nietheroy.....	Pacific Steam Nav. Co.....	December 1.....	December 3.....	132	527
Linda S.....	R. Feuillebois.....	December 2.....	December 2.....	(¹)	36
Ariguani.....	Elder & Fyffes, Ltd.....	December 2.....	December 2.....	1	(²)
Santa Barbara.....	Grace Line.....	December 2.....	December 2.....	36	(²)
Hudson.....	French Line.....	December 2.....	December 3.....	300	(²)
Calamares.....	United Fruit Co.....	December 2.....	December 4.....	740	20
Coppename.....	United Fruit Co.....	December 3.....	December 3.....	94	102
Carmania.....	R. Feuillebois.....	December 4.....	December 4.....	(¹)	64 ¹ / ₂
Macabi.....	United Fruit Co.....	December 4.....	December 4.....	37	(²)
Pacific Pioneer.....	Furness, Withy & Co.....	December 4.....	December 5.....	(¹)	290
Genevieve Lykes.....	Lykes Brothers.....	December 4.....	December 5.....	265	(²)
Santa Marta.....	United Fruit Co.....	December 4.....	December 5.....	518	296
Mayan.....	Gulf-Caribbean S. S. Line.....	December 4.....	December 5.....	476	(²)
Actor.....	T. & J. Harrison.....	December 4.....	December 6.....	468	(²)
Ancon.....	Panama R. R. S. S. Line.....	December 4.....	December 8.....	3,948	983
Impero.....	Italo-Chileano Co.....	December 5.....	December 5.....	121	(²)
Remscheid.....	North German Lloyd Line.....	December 5.....	December 5.....	56	58
Schwarzwald.....	Hamburg-American Line.....	December 5.....	December 6.....	206	649
Oroya.....	Pacific Steam Nav. Co.....	December 5.....	December 6.....	69	89
Essequibo.....	Pacific Steam Nav. Co.....	December 5.....	December 6.....	38	67
Loriga.....	Pacific Steam Nav. Co.....	December 5.....	December 6.....	37	73
Gregalia.....	Donaldson S. S. Line.....	December 5.....	December 7.....	(¹)	357
Caldas.....	National Navigation Co.....	December 5.....	December 7.....	248	61
Suriname.....	United Fruit Co.....	December 6.....	December 6.....	790	37
Pearl Marie.....	R. Feuillebois.....	December 6.....	December 6.....	(¹)	36
Champerico.....	Pacific Steam Nav. Co.....	December 6.....	December 6.....	273	.....
Nosa Chief.....	N. O. & S. A. S. S. Line.....	December 6.....	December 7.....	68	416
Charles Pratt.....	Standard Shipping Co.....	December 6.....	December 7.....	14,800	(²)
La Perla.....	United Fruit Co.....	December 6.....	December 7.....	917	227
Coppename.....	United Fruit Co.....	December 6.....	December 7.....	51	3
C. A. Canfield.....	Pan-American Petroleum Co.....	December 6.....	December 9.....	9,506	(²)
Granada.....	Standard Fruit & S. S. Co.....	December 6.....	December 7.....	152	382
Saint Jean.....	French Line.....	December 7.....	December 7.....	239	136
Ethan Allen.....	Tampa Inter-ocean Co.....	December 7.....	December 7.....	9	(²)
Cali.....	Roland Line.....	December 7.....	December 9.....	971	361
Heredia.....	United Fruit Co.....	December 7.....	December 9.....	415	49
Wanks.....	Stand. Fruit & S. S. Co.....	December 7.....	December 11.....	239	136
Calamares.....	United Fruit Co.....	December 8.....	December 8.....	77	146
Macabi.....	United Fruit Co.....	December 8.....	December 8.....	56	655
Borga.....	Norway-Pacific Liane.....	December 8.....	December 8.....	(¹)	44
Donau.....	North German Lloyd.....	December 8.....	December 8.....	(¹)	127
Colombia.....	Panama Mail S. S. Co.....	December 8.....	December 9.....	413	100
Cauca.....	National Navigation Co.....	December 8.....	December 12.....	326	124
Lisbeth.....	Lykes Brothers.....	December 8.....	December 14.....	4,000	(²)
Durazzo.....	Hamburg-American Line.....	December 9.....	December 9.....	569	.....
Santa Cruz.....	Grace Line.....	December 9.....	December 9.....	144	118
Ballena.....	Pacific Steam Nav. Co.....	December 9.....	December 9.....	63	20
Lochmonar.....	Royal Mail S. P. Co.....	December 9.....	December 9.....	(¹)	35
Ebro.....	Pacific Steam Nav. Co.....	December 9.....	December 9.....	40	34
Onondaga.....	Ford Motor Co.....	December 9.....	December 10.....	(¹)	21 ¹ / ₂
Arizona.....	French Line.....	December 9.....	December 10.....	338	(²)
Guadeloupe.....	French Line.....	December 9.....	December 11.....	114	1,00 (

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Kinderdijk	Holland-America Line	December 9.	December 11.	315	279
Pastores	United Fruit Co.	December 9.	December 11.	857	48
Venezuela	Panama Mail S. S. Co.	December 10.	December 11.	185	200
Manizales	North German Lloyd	December 10.		775	
West Ira	McCormick S. S. Line	December 11.	December 11.	61	(²)
Swiftarrow	C. D. Mallory & Co.	December 11.	December 12.	12,000	(²)
Metapan	United Fruit Co.	December 11.	December 12.	826	361
Santa Cecilia	Grace Line	December 11.	December 12.	4	105
Santa Elisa	Grace Line	December 11.	December 12.	1	(²)
William Penn	Roosevelt S. S. Co., S. B.	December 11.	December 12.	178	(²)
Baralt	Royal Neth. S. S. Co.	December 11.		306	
Breda	Royal Neth. S. S. Co.	December 11.	December 12.	106	227
Waunta	Stand. Fruit & S. S. Co.	December 11.		430	
Seattle	Hamburg-American Line	December 11.	December 12.	8	308
Erlanger	North German Lloyd	December 11.	December 12.	104	177
Venezuela	Royal Neth. S. S. Co.	December 12.	December 12.	6	24
Abraham Lincoln	Norway-Pacific Line	December 12.	December 12.	235	(²)
Fella	Nav. Libera-Triestina	December 12.	December 13.	218	¹ / ₂
San Jose	United Fruit Co.	December 12.	December 14.	715	488
Suriname	United Fruit Co.	December 13.	December 13.	81	189
Antinous	French Line	December 13.	December 13.	(¹)	115
Amapala	Stand. Fruit & S. S. Co.	December 13.	December 14.	85	355
Litiopa	Anglo-Saxon Petroleum Co.	December 13.		6,700	
Lisbon Maru	Nippon Yusen Kaisha	December 13.	December 14.	130	(²)
Lochgoil	Pacific Steam Nav. Co.	December 13.	December 14.	127	438
Almagro	Pacific Steam Nav. Co.	December 13.	December 14.	274	(²)
Oranian	Leyland S. S. Line	December 14.	December 14.	40	142
Corinthia	White Star Line	December 14.	December 14.	60	(²)
Venezuela	Royal Nether. S. S. Co.	December 14.	December 14.	(²)	303
Wanks	Stand. Fruit & S. S. Co.	December 14.		84	
Manaqui	United Fruit Co.	December 14.	December 14.	227	1,025
Teutonia	Hamburg-American Line	December 14.	December 14.	5	237
Cartago	United Fruit Co.	December 14.		1,153	
Camden	United Fruit Co.	December 14.		9,326	
Tashmoo	Nelson S. S. Line	December 14.	December 14.	25	(²)

¹ No cargo discharged.² No cargo laded.³ One package.

Fast Voyage of "Delftdyk."

Press reports from California state that the new motor ship *Delftdyk*, sailing from Swansea on October 29, 1929, and transiting the Panama Canal on November 14, arrived at Los Angeles on November 23; and that this voyage of 25 days from Swansea to Los Angeles is considered a record. An item relative to the new vessel appeared in THE PANAMA CANAL RECORD of November 27, 1929.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.	11.00	14.00

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Ancon.....	December 24..	December 29..	January 1....	January 5....	January 8....	January 13..
Cristobal.....	January 7....	January 12....	January 15....	January 19....	January 22....	January 27..
Ancon.....	January 21....	January 26....	January 29....	February 2....	February 5....	February 10..
Cristobal.....	February 4....	February 9....	February 12....	February 16....	February 19....	February 24..
Ancon.....	February 18....	February 23....	February 26....	March 2....	March 5....	March 10....
Cristobal.....	March 4....	March 9....	March 12....	March 16....	March 19....	March 24....
Ancon.....	March 18....	March 23....	March 26....	March 30....	April 2....	April 7....
Cristobal.....	April 1....	April 6....	April 9....	April 13....	April 16....	April 21....
Ancon.....	April 15....	April 20....	April 23....	April 27....	April 30....	May 5....
Cristobal.....	April 29....	May 4....	May 7....	May 11....	May 14....	May 19....
Ancon.....	May 13....	May 18....	May 21....	May 25....	May 28....	June 2....
Cristobal.....	May 27....	June 1....	June 4....	June 8....	June 11....	June 16....
Ancon.....	June 10....	June 15....	June 18....	June 22....	June 25....	June 30....
Cristobal.....	June 24....	June 29....	July 2....	July 6....	July 9....	July 14....
Ancon.....	July 8....	July 13....	July 16....	July 20....	July 23....	July 28....
Cristobal.....	July 22....	July 27....	July 30....	August 3....	August 6....	August 11..
Ancon.....	August 5....	August 10....	August 13....	August 17....	August 20....	August 25..
Cristobal.....	August 19....	August 24....	August 27....	August 31....	September 3....	September 8..
Ancon.....	September 3....	September 8....	September 11....	September 15....	September 18....	September 23..
Cristobal.....	September 16....	September 21....	September 24....	September 28....	October 1....	October 6....
Ancon.....	September 30....	October 5....	October 8....	October 12....	October 15....	October 20....
Cristobal.....	October 15....	October 20....	October 23....	October 28....	October 31....	November 5....
Ancon.....	October 29....	November 2....	November 5....	November 9....	November 12....	November 17..
Cristobal.....	November 11....	November 16....	November 19....	November 23....	November 26....	December 1....
Ancon.....	November 25....	November 30....	December 3....	December 7....	December 10....	December 15..
Cristobal.....	December 9....	December 14....	December 17....	December 21....	December 24....	December 29..
Ancon.....	December 23....	December 28....	December 31....	January 4....	January 7....	January 12..

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Official Circular.

Acting Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., December 16, 1929.

To all concerned,—Effective December 16, 1929, and during the disability on account of illness of the undersigned, Captain C. H. Woodward will act as Governor of the Panama Canal.

J. L. SCHLEY,
Acting Governor.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 15 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., December 25, 1929. No. 21.

CANAL WORK IN NOVEMBER, 1929.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of November, 1929.

BALBOA HEIGHTS, C. Z., December 16, 1929.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of November, 1929:

NUMBER OF TRANSITS.

During the month 525 commercial vessels and 4 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 40 vessels belonging to the United States Government, 2 transits of a Panamanian Government vessel and 3 transits of vessels solely for repairs on which no tolls were collected, making a total of 574 transits for the month, or a daily average of 19.1.

Tolls on the 525 commercial vessels amounted to \$2,244,895.94, and on the launches to \$28.98, a total of \$2,244,924.92, or a daily average on all traffic of \$74,830.83. Total commercial traffic for the past month decreased 39 transits and \$241,001.77 in tolls as compared with the previous month. As compared with November, 1928, last month's traffic showed a decrease of 2 transits and an increase of \$18,958.46 in tolls.

The total numbers of craft of all kinds transiting the Canal during the month of November, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	November, 1929.	November, 1928.	November, 1927.
Commercial vessels.....	525	527	559
Launches (under 20 tons measurement).....	4	5	14
Noncommercial vessels:			
United States Government.....	40	29	36
Panamanian Government.....	2	2	.....
Colombian Government.....	.....	.....	1
For repairs.....	3	1	.....
Totals.....	574	564	610

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun.....	8	18	26
Pedro Miguel.....	23	24	47
Miraflores.....	24	25	49
Totals.....	55	67	122

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1929, to the end of November, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January...	540	603	2,422,770	2,771,280	2,372,061	2,858,835	\$2,212,752.50	\$2,502,815.12
February...	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March...	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April...	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May...	508	524	2,274,612	2,496,905	2,497,538	2,536,839	2,118,969.83	2,296,546.57
June...	481	503	2,227,865	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
July...	509	527	2,318,395	2,468,280	2,291,955	2,598,162	2,109,083.19	2,259,582.37
August...	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September...	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October...	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November...	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,895.94
Totals...	5,755	5,908	26,245,297	27,804,418	26,686,594	28,925,559	23,932,933.02	25,283,684.96

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for November, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the fiscal year ended June 30, 1929:

	November, 1929.	November, 1928.	November, 1927.	Average per month for fiscal year 1929.
Number of transits.....	525	527	559	534
Panama Canal net tonnage.....	2,498,906	2,468,297	2,591,717	2,486,483
United States net tonnage.....	1,883,652	1,877,058	2,014,863	1,899,487
Registered gross tonnage.....	3,116,040	3,078,578	3,252,509	3,122,066
Registered net tonnage.....	1,887,001	1,882,770	2,007,095	1,908,360
Tolls.....	\$2,244,895.94	\$2,225,937.48	\$2,369,267.99	\$2,260,614.74
Tons of cargo.....	2,534,631	2,501,630	2,488,882	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1929.
	November, 1929.	November, 1928.	November, 1927.	
Number of transits.....	17.50	17.57	18.63	17.57
Panama Canal net tonnage.....	83,297	82,276	86,391	81,747
Tolls.....	\$74,829.86	\$74,197.91	\$78,975.60	\$74,321.58
Tons of cargo carried.....	84,488	83,387	83,963	84,008

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of November, 1929, as compared with November, 1928 and 1927, are shown in the following tabulation:

	Average per vessel.		
	November, 1929.	November, 1928.	November, 1927.
Panama Canal net tonnage.....	4,760	4,683	4,636
United States net tonnage.....	3,588	3,562	3,604
Registered gross tonnage.....	5,935	5,842	5,818
Registered net tonnage.....	3,594	3,573	3,591
Tolls.....	\$4,275.99	\$4,223.79	\$4,238.40
Tons of cargo (including vessels in ballast).....	4,828	4,747	4,452
Tons of cargo (laden vessels only).....	5,633	5,698	5,593

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.929 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of November, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$14,782.70	\$13,014.00		\$1,768.70
British.....	551,750.59	587,964.00	36,213.41	
Chilean.....	11,873.75	12,440.00	566.25	
Colombian.....	1,559.60	1,311.00		248.60
Costa Rican.....	249.75	198.60		51.15
Danish.....	36,903.12	39,392.60	2,489.48	
Danzig.....	17,411.44	15,532.20		1,879.24
Dutch.....	41,456.25	50,495.00	9,038.75	
French.....	51,754.55	52,808.00	1,053.45	
German.....	104,914.42	122,793.60	17,879.18	
Italian.....	39,310.90	41,367.00	2,056.10	
Japanese.....	55,949.50	55,449.00		499.50
Norwegian.....	105,692.05	114,375.00	8,682.95	
Panamanian.....	5,166.70	7,096.00	1,929.30	
Swedish.....	30,826.49	34,345.20	3,518.71	
United States.....	1,152,038.88	1,175,417.80	23,378.92	
Yugoslav.....	23,256.25	25,873.00	2,616.75	
Totals.....	2,244,895.94	2,349,872.00	109,423.25	4,447.19
Net increase for all traffic.....			104,976.06	

* Includes \$2,650 collected for naval vessel at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$15,735.29
United States foreign trade.....	9,392.83
United States—Canal Zone trade.....	1,749.20
Net increase.....	23,378.92

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in November, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....	1.47	1.79	1.63
British.....	.85	1.31	1.06
Chilean.....	.49	.58	.52
Colombian.....	.57	1.89	1.15
Danish.....	1.23	1.53	1.46
Danzig.....		1.89	1.89
Dutch.....	.53	1.24	.91
French.....	.63	1.67	1.21
German.....	.81	1.40	1.17
Italian.....	.29	1.16	.76
Japanese.....	1.05	1.24	1.15
Norwegian.....	1.03	1.47	1.29
Panamanian.....	.53		.53
Swedish.....	.85	3.58	2.15
United States.....	.85	1.54	1.24
Yugoslav.....		1.87	1.87
Averages, November, 1929.....	.84	1.49	1.20
Averages, November, 1928.....	.85	1.53	1.22
Averages, November, 1927.....	.71	1.55	1.21

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of November is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	3	15,106	\$15,431.25	51	273,656	\$279,926.85
Ballast	47	271,924	195,785.28	1	4,916	3,539.52
General cargo ships:						
Laden	201	951,050	858,135.80	195	879,884	815,691.55
Ballast	18	88,254	63,558.52	5	12,941	9,328.95
Noncargo-carrying ships:						
Dredge				1	924	665.28
Naval				1		2,650.00
Tug	1	152	109.44			
Yacht	1	99	73.50			
Totals	271	1,326,585	1,133,093.79	254	1,172,321	1,111,802.15
Method of propulsion:						
Steam	211	1,030,481	899,747.38	201	923,849	886,047.13
Motor	60	296,104	233,346.41	53	248,472	225,755.02
Totals	271	1,326,585	1,133,093.79	254	1,172,321	1,111,802.15

Of the 412 steam-driven vessels, 276 were oil burning, 130 coal burning, and 6 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of November, 1929. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships	1	10,600	\$5,300.00			
Cruisers	2	17,800	8,900.00	2	17,800	\$8,900.00
Launches	3	15	11.25			
Mine sweepers	1	950	475.00	1	950	475.00
Submarines	8	6,898	3,449.00	9	7,774	3,887.00
Tankers	1	6,258	4,693.50	1	6,415	7,698.00
Tankers	1	5,103	3,674.16	1	4,860	6,075.00
U. S. Army vessels:						
Launches	3	15	11.25			
Mineplanters	1	1,208	604.00			
Tugs	3	320	240.00			
Transports	1	3,908	4,885.00	1	3,908	4,885.00
Totals, U. S. Government	25		32,243.16	15		31,920.00
Panamanian Government vessels:						
Transports	1	101	72.72	1	101	72.72
Vessels for repairs:						
Tankers	1	6,026	4,519.50			
Cable	1	875	630.00			
Cargo	1	5,791	4,343.25			
Grand totals	29		41,808.63	16		31,992.72

* Indicates displacement tonnage. * Indicates Panama Canal net tonnage * Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of November, 1929, carried cargo as follows: Atlantic to Pacific, 2,407 tons; Pacific to Atlantic, 18,974 tons; total, 21,381 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of November, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	4	38	\$28.98
Pacific to Atlantic			
Totals	4	38	28.98

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of November, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	24,388	47,203	71,591
Local cargo shipped..... tons..	10,922	495	11,417
Transit cargo arriving..... tons..	2,524,503	2,553,353	5,077,856
Transit cargo clearing..... tons..	2,513,151	2,551,381	5,064,532
Cargo received for transshipment..... tons..	30,244	101	30,345
Cargo transhipped..... tons..	29,571	110	29,681
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	100	27	127
Number of withdrawals.....	531	189	720
Tons received..... tons..	4,423	199	4,622
Tons withdrawn..... tons..	3,368	168	3,536
Packages received.....	5,342	1,976	7,309
Packages withdrawn.....	7,550	2,001	9,551
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	60	2	62
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	16,969		16,969
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	49	7	56
U. S. Army, including vessels..... tons..	208	1	209
Individuals and companies..... tons..	152	4	156
Transferred to Navy..... tons..	12		12
Total sales and issues..... tons..	17,390	12	17,402
Coal on hand, November 1, 1929..... tons..	33,155		33,155
Coal on hand, December 1, 1929..... tons..	34,436		34,436
Coal received during month..... tons..	18,671		18,671
Coal received from Navy..... tons..		12	12
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls..	4,965.78	17,521.58	22,487.36
Panama Railroad Company..... bbls..	617.95	101.04	718.99
U. S. Army and Navy..... bbls..		735.41	735.41
Individuals and companies..... bbls..		344.53	344.53
Total sales and issues..... bbls..	5,583.73	18,702.56	24,286.29
Fuel oil received during November (inventory overage)..... bbls..	279.18	56.03	335.21
Fuel oil on hand December 1, 1929..... bbls..	63,315.88	49,995.27	113,311.15
Diesel oil sold during November..... bbls..	84.15	2,104.89	2,189.04
Diesel oil on hand, December 1, 1929..... bbls..	15,480.01	32,161.51	47,641.52
Miscellaneous transfers..... bbls..	2,019.35	29,761.89	31,781.24
Gasoline and kerosene pumped for The Panama Canal..... bbls..	2,296.36	3,679.04	5,975.40
Gasoline pumped for individuals and companies..... bbls..	5,370.79	26,266.80	31,637.59
Oil pumped for individuals and companies..... bbls..	367,273.25	466,759.92	834,033.17
Oil pumped for U. S. Shipping Board..... bbls..	1,070.58		1,070.58
Oil pumped for U. S. Navy..... bbls..	70,032.00	33,866.00	103,898.00
Total fuel oil, gasoline, and kerosene handled..... bbls..	453,730.21	581,141.10	1,034,871.31
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	19	3	22
Measured for Panama Canal net tonnage.....	7	2	9
Remeasured for Panama Canal net tonnage.....	15	1	16
Panama Canal net tonnage corrected.....	4	4	8
U. S. equivalent tonnage corrected.....	20	10	30
Services of harbor equipment:			
Tugs, total operating hours.....	489 1/2	323 1/2	812 1/2
Launches, total operating hours.....	1,433 1/2	1,683	3,116 1/2

* Increase of 1,107 tons on account of inventory adjustment.

* Includes inventory overage of 2.08 barrels.

	Cristobal.	Balboa.	Total.
Revenue from tug services, pilotage, etc.:			
Tug revenue.....	\$13,418.75	\$10,608.75	\$24,027.50
Pilotage.....	18,318.00	7,730.00	26,048.00
Seamen.....	12,500.00	11,688.00	24,188.00
Launch service.....	2,096.00	3,012.00	5,108.00
Wharfage.....	15,471.15	5,588.88	21,060.03
Ships measured.....	60.00	60.00	120.00
Miscellaneous.....	2,090.81	383.50	2,474.31
Ships repaired at Panama Canal Shops:			
Commercial.....	65	12	77
Commerce Department.....	1		1
U. S. Army and Navy.....	6	5	11
Panama Canal equipment.....	5	10	15
Totals.....	77	27	104
Vessels dry-docked:			
Commercial.....	5	2	7
Commerce Department.....	1		1
U. S. Army and Navy.....	1	1	2
Panama Canal equipment.....	1	1	2
Totals.....	8	4	12
Clearances issued.....	316	283	599
Bills of health issued.....	323	285	608

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal.	623	3,481,169	2,115,141	559	3,251,348	1,993,240
Vessels entering port but not transiting Canal.	79	333,450	198,884	8	44,917	28,436
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	106	633,368	383,137	99	588,609	356,384
<i>Ships clearing.</i>						
All vessels, including those transiting Canal.	624	3,464,443	2,106,679	564	3,255,196	1,996,026
Vessels clearing port but not transiting Canal.	77	319,269	190,597	10	51,056	32,742
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	110	640,928	387,881	99	585,590	354,280

* Includes 35 airplanes of 172 gross tons.

* Includes 33 airplanes of 161 gross tons.

* Includes 10 airplanes of 20 gross tons.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,523	1,233	2,756	84	220	304
From Pacific ports.....	174	185	359	260	253	513
Total disembarking.....	1,697	1,418	3,115	344	473	817
Embarking:						
For Atlantic ports.....	872	607	1,479	33	50	83
For Pacific ports.....	216	93	309	273	216	489
Total embarking.....	1,088	700	1,788	306	266	572
Remaining on board:						
From Atlantic to Pacific ports.....	1,852	1,891	3,743	2,169	2,717	4,886
From Pacific to Atlantic ports.....	835	1,010	1,845	702	1,134	1,836
From Atlantic to Atlantic ports.....	649	208	857			
From Pacific to Pacific ports.....				32	525	557
Total remaining on board.....	3,336	3,109	6,445	2,903	4,376	7,279
Total arriving.....	5,033	4,527	9,560	3,247	4,849	8,096
Total departing.....	4,424	3,809	8,233	3,209	4,642	7,851

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	271	73	26.9
Pacific to Atlantic.....	254	44	17.3
Totals.....	525	117	22.3

In addition to the aforesaid, 75 passenger-carrying vessels called at the port of Cristobal and 2 at the port of Balboa without transiting the Canal, making a total of 194 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of November:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$2,697.00	\$14,682.43	\$31,503.00	\$174.32	\$7,092.23	\$56,148.98
Government vessels.....	106.65	359.67	4,173.25	41.20	620.67	5,301.44
P. R. R. vessels.....		122.48	1,469.75	759.49	62.42	2,414.14
Total sales, November, 1929.	2,803.65	15,164.58	37,146.00	975.01	7,775.32	63,864.56
Total sales, November, 1928.	3,067.30	15,982.62	45,069.98	1,332.17	8,134.37	73,586.44
Total sales, November, 1927.	2,117.80	12,068.52	32,321.47	893.48	7,384.59	54,785.86
Sales at Balboa to:						
Commercial vessels.....	1,097.06	10,032.73	19,905.45	450.73	5,044.20	36,530.16
Government vessels.....	374.18	2,488.22	12,703.60	210.02	1,509.69	17,285.71
P. R. R. vessels.....				31.83		31.83
Total sales, November, 1929.	1,471.24	12,520.94	32,609.05	692.58	6,553.89	53,847.70
Total sales, November, 1928.	1,587.63	11,644.95	19,267.52	720.79	13,717.25	46,938.14
Total sales, November, 1927.	2,226.41	13,449.86	32,417.26	527.14	5,207.66	53,828.33

The aggregate sales to Government vessels during the month was \$22,587.15; to Panama Railroad vessels, \$2,445.97; and to other commercial vessels, \$92,679.14, making the total sales to all vessels, \$117,712.26.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of November, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.			Nov. 1929.	Nov. 1928.	Nov. 1927.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	243	254	497	9	10	19	516	517	547
Pedro Miguel.....	247	263	510	12	19	31	541	545	562
Miraflores.....	247	262	509	11	19	30	539	544	563
Number of vessels put through locks.									
Gatun.....	256	275	531	42	50	92	623	576	643
Pedro Miguel.....	254	271	525	45	47	92	617	627	666
Miraflores.....	254	271	525	46	48	94	619	629	668

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	61	40	40
Panama Canal equipment.....	26	47	49
Panamanian Government vessels.....	2	2	2
Vessels for repairs.....	3	3	3

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in November, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	2,169,570,000	1,773,170,000	1,614,640,000
Leakage.....	30,000,000	9,000,000	20,000,000
Maintenance.....	11,090,000		13,770,000
Totals, November, 1929.....	2,210,660,000	1,782,170,000	1,648,410,000
Totals, October, 1929.....	2,317,260,000	1,845,530,000	1,773,720,000
Totals, November, 1928.....	2,171,460,000	1,761,940,000	1,699,860,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of November, 1929, are shown in comparative form in the following tabulations:

	November.		November—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	3,629	5,933	11,300	2,267	4,552
Maximum momentary discharge for the month.....	20,780	27,460	78,900		
Gatun Lake watershed, total yield.....	9,543	17,629	24,488	8,673	13,306
Gatun Lake watershed, net yield.....	8,892	17,120	23,950	8,435	12,795
Draft on Gatun Lake for lockages and power.....	3,022	2,954	3,022	1,066	2,328

¹ November 19, 1909.

² November, 1914, not included.

The discharge of the Chagres River at Alhajuela was 20 per cent below the November average, or 3,629 c. f. s. compared with a 28-year average of 4,552 c. f. s. The maximum momentary discharge for the month was 20,780 c. f. s. at elevation 101.15, on the 15th and the minimum 2,155 c. f. s. at elevation 93.25 on the 4th.

The total yield of the Gatun Lake watershed was 25 per cent below the 16-year November average, or 10,024 c. f. s. compared with an average of 13,341 c. f. s. Maximum and minimum total yields of records for November are 24,488 c. f. s. in 1917 and 8,673 c. f. s. in 1919, respectively. The lake varied from 86.44 feet elevation on the 16th to 86.89 feet on the 30th, and ended at elevation 86.88 feet.

Miraflores Lake varied from elevation 53.06 feet on the 16th to 54.61 feet on the 15th, averaged 53.79 feet, and ended at elevation 53.64 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month, on the 7th, 15th, 18th and 26th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,087 kilowatt hours, and the computed water consumption was 3,878,000,000 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 28,800 kilowatt hours, and the fuel oil consumption was 74.68 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 45 vessels during the month. There were 418 work orders issued during the month, as compared with 427 issued during the previous month.

MECHANICAL DIVISION.

During the month of November, 1929, miscellaneous repairs were made on 77 vessels at Cristobal and 27 at Balboa. Eight vessels were dry-docked at Cristobal and 4 at Balboa. The annual overhaul of the United States Navy's submarine *S-13* was carried forward during the month. The Panama Canal tug *Cocoli* was docked, and repairs were carried forward. The lighthouse tender *Acacia* was docked, cleaned, and had miscellaneous repairs made. Repairs were completed on the Panama Canal tug *Gorgona*, compressor barge, dredge *Cascadas*, and crane-boat *La Valley*.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. Eighteen thousand cubic yards of material were moved and 3 culverts constructed in connection with the grading of the new Madden Road. At the site of the Madden Dam the operation of diamond drills was continued throughout the month. Wash drilling was also in progress throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 700,996,000 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during November with an average movement of 1.2 feet toward the Canal between stations 1770-00 and 1797-00 W.

There was a slight surface movement at Cucaracha Signal Station slide during the month. There was a continuation of surface movement of West Lirio slide, but the amount of material entering the prism was small.

Due to heavy rains several small additional bank breaks occurred during the month. The amount of material entering the prism was small.

There was no interference with shipping on account of slides during the month.

The total excavation during November, 1929, was 377,765 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Gaillard Cut—			
Maintenance.....	28,350	42,500	70,850
Gatun Lake—			
Barge repair station.....	5,500	5,500	11,000
Pacific entrance—			
Project No. 1.....	74,000	54,050	128,050
Maintenance.....	28,000	1,700	29,700
Plant excavation:			
Albrook Field.....	136,700		136,700
Dredging sand at Chame.....	1,465		1,465
Totals.....	274,015	103,750	377,765

The ferry crossing at the north end of Pedro Miguel locks operated 30 days during the month. Five hundred and sixty-four trips were made, and 77 Panama Canal, 59 U. S. Army, and 3,660 other vehicles, a total of 3,796, were ferried across the Canal.

MADDEN DAM PROJECT.

A special report was submitted on November 14, 1929, recommending that the site designated "Dam Site No. 1" be adopted. Arrangements were completed to take over on December 1, 1929, the operations on Madden Dam explorations, handled by the Municipal Engineering Division. Over 76%, or 2,525 acres of the total area of 3,316 acres of the project, have been mapped.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on November 30, 1929, was 22,138, composed of 7,819 Americans, 2,854 of whom were men, 2,355 women, and 2,610 children; 253 Europeans, 93 of whom were men, 48 women, and 112 children; and 14,066 West Indians, 4,117 of whom were men, 2,601 women, and 7,348 children. The total number of persons in quarters on November 30, 1928, was 21,614.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of November 20, with a comparison of the working force for the preceding month and for November, 1928:

	As of November 20, 1929.			Total employees.	
	Gold.	Silver.	Total.	October, 1929.	November, 1928.
Operation and Maintenance:					
Office.....	53	107	160	125	100
Electrical.....	154	170	324	320	309
Municipal Engineering.....	85	777	862	856	1,060
Lock Operation.....	242	711	953	954	920
Dredging.....	192	1,083	1,275	1,246	1,102
Madden Project.....	37	611	648	706	
Mechanical.....	511	932	1,443	1,408	1,365
Marine.....	212	623	835	818	866
Fortifications.....	26	262	288	325	292
Totals.....	1,512	5,276	6,788	6,758	6,014
Supply Department:					
Quartermaster.....	213	2,349	2,562	2,477	2,005
Commissary.....	236	1,325	1,561	1,511	1,459
Cattle Industry—Plantations.....	3	120	123	118	143
Hotel Tivoli.....	9	103	112	114	111
Hotel Washington.....	9	101	110	107	105
Transportation.....	76	240	316	305	258
Totals.....	546	4,238	4,784	4,632	4,081

	As of November 20, 1929.			Total employees.	
	Gold.	Silver.	Total.	October, 1929.	November, 1928.
Accounting Department.....	203	7	210	207	205
Health Department.....	285	866	1,151	1,183	1,115
Executive Department.....	534	323	857	851	816
Totals.....	1,022	1,196	2,218	2,241	2,136
Panama Railroad Company:					
Superintendent.....	48	289	337	347	332
Transportation.....	61	128	189	182	180
Receiving and Forwarding Agency.....	95	1,237	1,332	1,309	1,482
Coaling Stations.....	44	221	265	318	359
Totals.....	248	1,875	2,123	2,156	2,353
Grand totals, November, 1929.....	3,328	12,585	15,913		
Grand totals, October, 1929.....	3,309	12,478		15,787	
Grand totals, November, 1928.....	3,120	11,464			14,584

Additions to the gold force on the Isthmus in November were as follows: Employed in the United States, 17; reemployed in the United States, 1; employed on the Isthmus, 12; reemployed on the Isthmus, 8; total, 38. Separations from the gold force totaled 28, as follows: Resigned, 17, discharged, 7; retired, 1; died, 3. At the end of the month there were on file 425 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 194 deaths occurred during the month of November, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.62 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 25; tuberculosis (respiratory), 24; diarrhea and enteritis, 14; nephritis (acute and chronic), 14; and cancer 12. There were 9 deaths from syphilis, 9 from organic diseases of the heart, 3 from amebic dysentery, and 1 each from typhoid fever and tetanus. There were 22 deaths among nonresidents. These are not included in the above statistics.

There were 296 live births, and 20 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 28.70. Deaths among children under 1 year of age numbered 45, giving an infant mortality rate, based on the number of live births reported, of 152.03.

The total number of malaria cases reported from the Zone and the Cities of Panama and Colon during the month of November, 1929, was 118, of whom 22 were employees (4 white and 18 colored), 12 were families of employees (1 white, 11 colored), 16 were Canal Zone agriculturists, 26 were other civilian nonemployees, and 42 were Army and Navy personnel.

There was 1 death from malaria among residents, a Panamanian child who received his infection in Taboga.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$451,970.81, of which \$407,355 was for the Department of Operation and Maintenance and \$44,615.81 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$41,775.65.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of October, 1929, as compared with October, 1928, with the figures for the first four months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of November at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	October, 1929.	October, 1928.	To end of October.	
			This year.	Last year.
Tolls.....	\$2,485,936.86	\$2,274,601.05	\$9,274,829.03	\$8,692,364.99
Other receipts.....	363,425.51	304,684.58	1,416,507.36	1,262,868.75
Total transit revenues.....	2,849,362.37	2,579,285.63	10,691,336.39	9,955,233.74
Total transit expenses.....	1,129,892.81	1,082,823.40	4,412,137.49	4,200,617.13
Net transit revenues.....	1,719,469.56	1,496,462.23	6,279,198.90	5,754,616.61
Three per cent capital charge.....	621,631.72	615,210.45	2,482,347.03	2,463,122.85
Transit surplus.....	1,097,837.84	881,251.78	3,796,851.87	3,291,493.76
Business revenues.....	1,506,447.00	1,257,014.11	6,317,794.26	5,067,707.89
Business expenses.....	1,437,121.11	1,193,230.35	5,975,112.00	4,808,002.79
Net business revenues.....	69,325.89	63,783.76	342,682.26	259,705.10
Three per cent capital charge.....	62,357.19	60,893.58	260,944.70	255,645.80
Business surplus.....	6,968.70	2,890.18	81,737.56	4,059.30
Combined revenues.....	4,355,809.37	3,836,299.74	17,009,130.65	15,022,941.63
Combined expenses.....	2,567,013.92	2,276,053.75	10,387,249.49	9,008,619.92
Net revenues.....	1,788,795.45	1,560,245.99	6,621,881.16	6,014,321.71
Three per cent capital charge.....	683,988.91	676,104.03	2,743,291.73	2,718,768.65
Combined surplus.....	1,104,806.54	884,141.96	3,887,589.43	3,295,553.06

Respectfully,

C. H. WOODWARD,
*Acting Governor.***Notice to Mariners.**THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., December 18, 1929.

No. 654.

Pacific coast, Balboa harbor, Sea range light. On Saturday, December 8, 1929, the new permanent entrance sea range lights were put in operation.*Azimuth of range:* 141° 44' 36" true.*Position of lights:* New range light No. 1, latitude 8° 57' 34.46" N., longitude 79° 34' 45.11" W. New range light No. 2, latitude 8° 59' 13.31" N., longitude 79° 36' 04.40" W.*Visibility:* 22.5 nautical miles or 15 nautical miles beyond the Canal entrance buoys Nos. 1 and 2.*Characteristics:* New range light No. 1, fixed white. New range light No. 2, occulting, period, 5 seconds, 4.5 seconds light and 0.5 second eclipse.

Compare with Notices to Mariners No. 592 and No. 647.

C. H. WOODWARD,
*Acting Governor.***Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending December 14, 1929.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Prince Alvert.....	Central American Shipping Co....	December 1...	December 2...	94	.....
St. Mihiel.....	U. S. Government.....	December 1...	December 4...	736	797
Remuera.....	N. Z. Shipping Co.....	December 3...	December 4...	1	.....
Negada.....	Kosmos Line.....	December 4...	December 5...	433	.....
Loriga.....	Pacific Steam Nav. Co.....	December 6...	December 6...	.....	50
Chateau Thierry.....	U. S. Government.....	December 7...	December 7...	1,201	31
Pennsylvania.....	Panama-Pacific Line.....	December 6...	December 6...	.....	197
Caldas.....	National Navigation Co.....	December 7...	December 7...	.....	1
William Penn.....	U. S. Shipping Board.....	December 8...	December 11...	715	.....
Copeman.....	G. A. Harrison.....	December 8...	December 9...	.....	60
Schwaben.....	North German Lloyd.....	December 9...	December 9...	238	213
Colombia.....	Panama Mail S. S. Co.....	December 9...	December 9...	26	3
Venezuela.....	Panama Mail S. S. Co.....	December 9...	December 9...	161	5
Tejon.....	Standard Transp. Co.....	December 10...	December 11...	10,050	.....
Breda.....	Dutch Line.....	December 11...	December 11...	170	.....
Cauca.....	National Navigation Co.....	December 12...	December 12...	.....	5
Santa Elisa.....	Grace Line.....	December 12...	December 12...	1	1
Santa Cecilia.....	Grace Line.....	December 12...	December 12...	1	80
Vega.....	U. S. Government.....	December 12...	December 12...	1	.....
Abraham Lincoln.....	Fred Olsen & Co.....	December 13...	December 14...	1,782	.....
Lisbon Maru.....	Nippon Yusen Kaisha.....	December 13...	December 13...	74	.....

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 21, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.	
San Jose.....	12	20	20	15	6	10	15	13	05	15	14	15	17	00	15	14	General, bananas	466	3,675	2,359
Rio Nozara ..	26	18	45	15	6	10	15	14	48	15	20	07	15	13	00	General	690	501	331	
Canadian																				
Highlander ..	14	16	50	15	6	14	15	13	59	15	15	17	British	Can. Nat. Steamships	Duen-din, N. Z.	General	4,713	6,192	4,402	
Pennsylvania ..	14	23	25	15	7	10	15	14	19	15	15	17	American	Amer.-Hawaiian Line.	Portland, Oreg.	General	3,802	7,107	5,041	
Sage Brush ..	15	7	05	15	7	20	15	15	25	15	16	30	American	Shepard S. S. Co.	Seattle, Wash.	General	2,343	6,602	4,754	
Edward P.																				
Notes 3	15	7	35	15	7	35	15	18	35							(*)				
Manizales	10	14	35	15	9	26	15	16	35							General	67	1,132	741	
Litopla	13	18	25	15	11	20	15	16	35							Ballast	5,524	3,612		
Pacific Pine ..	15	13	50	15	13	55	15	20	45							General	5,800	6,583	4,808	
Gottgen	15	3	30	15	14	15	15	22	35							General	4,731	6,720	4,744	
Gertman Falk ..	15	20	45	16	6	10	16	12	58							Ballast	7,862	5,049		
Steel Mariner ..	15	21	00	16	6	20	16	14	16							General	7,456	7,611	5,450	
Swired	15	21	25	16	7	20	16	14	58							General	1,594	3,983	2,629	
Laurel Branch ..	16	2	20	16	7	30	16	15	55							General	4,707	4,182	3,047	
Jefferson																(*)				
Myers	15	21	35	16	7	35	16	16	41							General	2,336	8,300	6,020	
Eleanor																Tacoma, Wash.				
Christensen ..	16	7	40	16	8	10	16	17	34							General	2,989	6,572	4,788	
Charlbury	16	10	45	16	11	05	16	18	16							Phosphate	7,200	6,030	4,421	
Republic	16	11	15	16	11	35	16	19	16							Ballast	5,551	3,881		
Ruhr	16	6	05	16	13	40	16	20	55							General	5,478	8,086	5,918	
Durazzo	9	20	05	16	14	15	16	22	00							General	212	1,633	1,041	
Nosa Queen ..	15	14	30	16	14	20	16	21	57							General	2,060	3,981	2,600	
Swan																Ballast	(*)			
Swan 4	16	14	40	16	16	14	16	16	08							General	38	1,183	742	
Berk	11	5	10	17	6	20	17	13	40							General	4,070	7,817	6,097	
Boskoop	16	5	10	17	6	15	17	14	39							General	2,391	7,717	5,763	
Willboro	16	23	55	17	7	20	17	15	36							General				
Paul																Portland, Oreg.				
Luckenbach ..	17	1	40	17	9	15	17	16	02							Seattle, Wash.	4,204	9,027	6,539	
Somme	17	12	50	18	6	15	18	13	03							General	262			
Columbe	18	06	01	18	6	15	18	13	51							San Francisco, Cal.	2,817	4,450		
Abington	18	2	40	18	7	25	18	15	49							General	8,317	7,660	5,531	
Lewis																Ballast				
Luckenbach ..	18	4	30	18	7	45	18	16	42							Seattle, Wash.	4,718	11,487	8,762	
Aconagua	17	22	15	18	9	58	18	17	34							Valparaiso, Chile	2,243	7,764	4,705	
Lake Gorin ..	18	14	03	18	14	15	18	21	23							Seattle, Wash.	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
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																General	2,042	2,692	1,808	
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																General	2,042	2,692	1,808	
																(*)				
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																General	2,042	2,692	1,808	
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																General	2,042	2,692	1,808	
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																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
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																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	
																(*)				
																General	4,718	11,487	8,762	
																General	2,243	7,764	4,705	
																General	2,042	2,692	1,808	

* Automobile parts and general.

* Logs, hard, wax, and machinery.

* Patent fuel, coal, and coke.

* Towing barge No. 48.

* Mine sweeper.

* Motor ship.

* Tanker.

Francis Massey	18	14	20	18	16	50	19	9	35	19	10	54	British	Andrew Weir & Co.	365	0	51	6	25	5	Tampico, Mexico	Auckland, N. Z.	6	308	5	525	4	07	Asphalt.	
Cape Horn	18	17	45	19	6	10	19	13	40	19	16	30	British	Lytle Shipping Co.	435	0	56	0	21	0	Newcastle, Eng.	San Francisco, Calif.	3	550	6	813	4	83	Coke and bricks.	
Dungeness	18	20	55	19	6	30	19	14	29	19	15	45	American	Texas S. S. Co.	425	0	56	0	21	0	Philadelphia, Pa.	Los Angeles, Calif.	7	628	5	336			Ballast.	
Chaguanon	18	17	45	19	6	30	19	14	29	19	15	45	American	Huacresta Petroleum Co.	429	3	59	2	20	0	Aruba, D. W. I.	Los Angeles, Calif.	7	709	5	477			Ballast.	
Dean Eury	18	22	45	19	7	25	19	14	55	19	15	50	American	Sun Oil Co.	429	0	59	0	20	0	Philadelphia, Pa.	Los Angeles, Calif.	7	508	5	283			Ballast.	
Atlantic Sun	18	22	45	19	7	25	19	14	55	19	15	50	American	Sun Oil Co.	429	0	59	0	20	0	Philadelphia, Pa.	Los Angeles, Calif.	7	508	5	283			Ballast.	
Chesapeake	19	7	25	19	8	20	19	16	11	19	18	55	British	Anglo-Amec. Oil Co.	476	8	63	8	17	0	London, England	Los Angeles, Calif.	9	151	6	465			Ballast.	
Conceptor	19	9	10	19	9	45	19	16	37				British	Anglo-Amec. Oil Co.	476	8	63	8	17	0	London, England	Los Angeles, Calif.	9	151	6	465			Ballast.	
Pratt	19	7	25	19	9	45	19	16	37					Can. Nat. Steamships	270	0	38	0	10	0	Kingston, Jamaica	Bahoa, C. Z.								
President	18	13	28	19	11	45	19	18	05	19	18	55	British	Furness, Witly & Co.	450	0	60	0	21	3	Glasgow, Scotland	Vancouver, B. C.	1	924	10	086			Gen., bananas	
Oreona	19	15	12	20	6	15	20	13	49	20	13	55	British	Pacific Steam Nav. Co.	511	0	62	0	25	9	Liverpool, England	Talcahuano, Chile	4	851	12	417			General	
Salta	19	15	20	20	6	15	20	13	49	20	13	55	Colombian	National Navigation Co.	116	0	21	0	8	6	Cristobal, C. Z.	Buenaventura, Chile	70	211		124			General	
Santa Inez	19	15	03	20	7	09	20	14	21	20	18	05	American	Grace Line	374	0	53	2	26	10	New York, N. Y.	Valparaiso, Chile	1	403	6	255	4	016	General	
California	20	6	15	20	7	45	20	15	08	21	00	30	American	Panama-Pacific Line.	570	4	80	3	20	0	New York, N. Y.	San Francisco, Calif.	2	973	24	506	17	565	General	
W. W. H. Libby	19	17	30	20	8	55	20	16	22	20	17	40	American	Standard Shipping Co.	463	0	60	2	18	0	Norfolk, Va.	Los Angeles, Calif.	8	461	6	104			Ballast	
Sunol	20	8	15	20	9	25	20	18	55	21	18	05	American	Sun Oil Co.	480	6	63	0	22	0	Quester, Pa.	Los Angeles, Calif.	9	619	6	456			Ballast	
Pueblo	20	15	10	20	20	21	8	55	21	18	05	American	Petroleum Nav. Co.	340	0	49	0	17	0	New York, N. Y.	Los Angeles, Calif.	4	613	2	978			Ballast		
Orazio	19	10	55	21	6	05	21	12	45	21	19	06	Italian	Univ. Generale Italiana.	484	0	61	0	26	40	Genoa, Italy	Talcahuano, Chile	2	229	12	927	9	373	General	
Sarmaca	20	4	55	21	6	20	21	13	33	21	15	20	American	United Fruit Co.	336	0	42	0	17	0	Pto. Colombia, Col.	San Francisco, Calif.	280	3	608	2	308		General	
Chas. R.	20	20	05	21	7	25	21	14	15	21	15	20	American	Sun Oil Co.	480	6	66	0	20	6	Chester, Pa.	Los Angeles, Calif.	9	620	9	620	6	476		Ballast
Onas R.														Musson, McCork Line	401	0	53	2	25	0	Wilmington, Del.	Seattle, Wash.	6	905	7	082	5	167	General	
McCormick	21	1	40	21	8	05	21	15	05	21	16	18	American	Islandstrand Moller Co.	402	0	55	0	25	5	Savannah, Ga.	Yokohama, Japan	6	522	6	085	4	289	Autos, pipe, gen.	
Masinda	21	1	40	21	10	00	21	17	49	21	19	06	British	Johnson Line	427	0	56	0	23	0	Stockholm, Sweden	Honolulu, T. H.	6	749	7	476	5	485	General	
Canada	21	16	50	21	17	00	22	12	33	23	00	32	Swedish	Amer-Hawaiian Line.	407	7	53	7	20	0	Boston, Mass	Portland, Oreg	3	561	7	156	5	094	General	
Dikot	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12	21	17	22	8	55	22	9	59	American	II. A. Boddien							Cristobal, C. Z	Gatun, C. Z.							Ballast.		
Dakota	21	17	12																											

Buchanans	14	1, 00	15	6, 28	15	14, 35	15	14, 35	British	Sir W. R. Smith & Sons	401. 6	54	3	24	0	N. Westminster, B. C.	Garston, England.	General.	7, 107	6, 656	4, 95
Georgias	14	22	20	15	6, 48	15	14, 55	15	14, 55	N. Livans	360. 0	51	9	34	4	Tocopilla, Chile	Azores ¹² .	Nitrates	7, 040	4, 776	3, 433
Singapore	15	4, 00	15	7, 25	15	15, 05	15	15, 05	Greek	Transmarine Lines.	324. 0	46	2	35	6	Newark, N. J.	Newark, N. J.	Lumber	4, 000	3, 984	2, 612
Singapore	15	8, 00	15	9, 22	15	17, 50	15	23, 10	German	Hamburg-American Line	438. 8	55	6	25	2	Valparaiso, Chile	Hamburg Germany	General	8, 583	7, 904	5, 017
Manabita	15	4, 20	15	10, 04	15	17, 45	15	17, 45	American	Redwood Line, Inc.	380. 8	52	2	16	0	Seattle, Wash.	Mobile, Ala.	General	11, 145	5, 696	4, 125
Baron	15	10, 50	15	11, 37	15	19, 25	16	5, 50	British	H. Hogarth & Sons	380. 0	49	5	23	4	Huacho, Peru	Marseilles, France.	Sugar	6, 500	4, 834	3, 540
Adriacian	16	3, 00	16	6, 14	16	14, 20	16	17, 14	British	Anglo-Mexican Pet. Co	409. 5	52	2	25	7	Port Angeles, Calif.	Lizards, Eng. ¹²	Gasoline.	7, 344	6, 237	4, 353
San Rosendo	15	22	40	16	6, 48	16	15, 12	16	15, 12	American	Arrow Line	407. 5	54	2	24	0	New York, N. Y.	Lumber	7, 282	6, 604	4, 861
San Carlos	15	23	30	16	7, 25	16	16, 10	17	15	Spanish.	Compania Naviera Soto.	400. 0	53	0	26	3	Taltal, Chile.	Nitrates.	8, 250	6, 040	4, 209
Aroa Mendi	15	23	30	16	7, 25	16	16, 10	17	15	Spanish.	Compania Naviera Soto.	400. 0	53	0	26	3	Taltal, Chile.	Nitrates.	8, 250	6, 040	4, 209
Gustaf E.	16	2, 30	16	8, 25	16	18, 25	16	20, 35	Swedish	Red. A. B. Reuter	418. 8	55	7	27	0	Los Angeles, Calif	Land's End, Eng. ¹²	Gasoline.	8, 350	6, 384	4, 497
Konter	16	9, 10	16	10, 30	16	18, 00	16	20, 25	American	Grace Line	360. 2	51	6	25	0	Talcahuano, Chile	New York, N. Y.	Copper, general	3, 956	5, 726	4, 086
San Teresa	16	9, 10	16	10, 30	16	18, 00	16	20, 25	American	Texas Co.	416. 8	59	1	23	6	Wilmington, Calif	Pt. Azores, Tex.	Gasoline	7, 663	6, 945	5, 032
Illinois	16	9, 10	16	10, 30	16	18, 00	16	20, 25	American	Texas Co.	416. 8	59	1	23	6	Wilmington, Calif	Pt. Azores, Tex.	Gasoline	7, 663	6, 945	5, 032
Nebaskan	16	11, 50	16	12, 24	16	19, 30	16	19, 30	American	Amer.-Hawaiian Line	471. 1	56	1	24	0	Portland, Oreg.	Boston, Mass.	General	6, 420	9, 032	6, 638
Willmar	16	12, 45	16	13, 19	16	21, 00	16	21, 00	American	Willmar S. S. Corp.	386. 8	52	2	23	0	Baltimore, Md.	Baltimore, Md.	Lumber, general	6, 845	5, 684	4, 070
Gothstar	16	13, 15	16	14, 19	16	22, 30	17	4, 30	British.	Blue Star Line	420. 5	54	7	22	0	Vancouver, B. C.	Newcastle, Eng.	General	4, 410	7, 521	5, 852
San Santa	16	13, 14	16	14, 15	16	22, 30	17	4, 30	American	Amer.-Ouban S. S. Co.	251. 0	43	6	22	0	Ancorettes, Wash.	Baltimore, Md.	General	2, 646	2, 823	1, 730
San Santa	16	13, 14	16	14, 15	16	22, 30	17	4, 30	American	Amer.-Ouban S. S. Co.	251. 0	43	6	22	0	Ancorettes, Wash.	Baltimore, Md.	General	2, 646	2, 823	1, 730
Virginia	16	12, 05	17	6, 20	17	13, 40	17	14, 15	American	Panama-Pacific Line	586. 4	80	3	25	0	San Francisco, Cal.	New York, N. Y.	Lumber, general	5, 220	55, 254	18, 170

Canned fruits and general.

1 Motor ship. . . 12 For orders.

2 Tanker

0

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Draft.			Nature.	Tons.	Gross.	Net.
Santa Ana	15	20.40	17	6.28	17	14.30	American	Orange Belt S. S. Co.	183.5	36.2	16.0	Seattle, Wash.	Tampa, Fla.		749		
Caldas	16	18.05	17	6.35	17	15.20	Columbian	National Navigation Co.	116.0	21.1	10.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee.	211	211	134
Felipe	17	1.30	17	7.40	17	15.20	Italian	Navy Libera-Tristina	203.0	42.1	23.0	Vancouver, B. C.	Trieste, Italy	General	8,646	7,795	6,041
Skard	17	1.00	17	10.16	17	17.55	Norwegian	B. A. Same	460.0	42.1	13.0	Punta Arenas, C. R.	London, England	Coffee	230	2,018	1,377
Orpesa	17	3.00	17	12.23	17	20.20	British	Pacific Steam Nav. Co.	530.0	66.3	29.2	Talcahuano, Chile	Liverpool, England	General	8,101	14,827	10,630
Andrea F.																	
Lukenbach.	17	15.25	17	16.17	18	11.20	American	Lukenbach Line	496.0	68.2	30.0	Portland, Ore.	Boston, Mass.	Lumber, general.	12,105	11,487	8,762
Reliance	17	15.20	17	16.33	18	11.50	British	Furness, Withy & Co.	435.9	60.1	26.4	Vancouver, B. C.	Glasgow, Scotland	General.	7,741	9,044	6,967
Doherty	18	00.30	18	6.11	18	13.35	American	Hunstock Petroleum Co.	435.0	56.2	26.0	Long Beach, Calif.	Baltimore, Md.	Gasoline.	9,615	7,604	5,111
City of Elwood	18	4.20	18	7.12	18	14.10	American	Roosevelt S. S. Co., S. B.	395.5	55.0	27.0	Hongkong, China.	New York, N. Y.	Sugar, general.	6,977	7,344	5,283
Carlin Edward																	
P. N. Jones	18	11.26	18	11.26	18	21.20	American	U. S. Army	101.0	23.5		Balboa, C. Z.	Cristobal, C. Z.		2,980	3,994	2,591
Point San Pablo	18	12.10	18	13.05	18	21.20	American	Swayne & Hoyt	324.0	46.2	22.0	Portland, Ore.	New Orleans, La.	Sugar.	2,675	1,802	1,646
Tusitola	18	16.30	18	17.30	21	13.30	American	Ship Tusitola, Inc.	261.0	39.3	20.7	Honolulu, T. H.	East coast U. S.	Gasoline.	7,846	5,942	4,037
Onishipper	18	19.50	19	6.05	19	13.45	British	Anglo-Saxon Pet. Co.	410.0	53.0	23.8	Los Angeles, Calif.	Bayonne, N. J.	Gasoline	9,450	7,481	4,975
S. C. T. Dodd	19	1.10	19	6.53	19	14.45	American	Standard Oil Co. of Cal.	425.0	57.2	28.7	Los Angeles, Calif.	Curacao, D. W. I.	Ballast.	6,741	6,741	4,345
San Lamberto	18	18.15	19	7.09	19	15.12	British	Anglo-Mexican Pet. Co.	395.5	55.2	23.0	Antofagasta, Chile	Hamburg, Germany	General, copper	6,714	6,652	4,704
Nitokris	19	2.00	19	8.32	19	16.40	German	Hamburg-American Line	410.9	50.7	26.0	Valparaiso, Chile	Hamburg, Germany	General.	6,547	8,510	6,357
Oakland	19	2.15	19	8.47	19	15.42	German	Hamburg-American Line	433.3	59.1	26.0	Vancouver, B. C.	Oakland, Norway	General	8,785	7,593	5,637
Theodore	19	3.00	19	9.20	19	17.15	Norwegian	Fred Olsen & Co.	425.5	55.2	28.2	Vancouver, B. C.	Oakland, Norway	General	8,785	7,593	5,637
Modavia	19	2.15	19	9.44	19	17.30	British	Donaldson Bros., Ltd.	387.0	53.1	27.2	Victoria, B. C.	Glasgow, Scotland	Fresh fruit, gen.	5,782	6,719	4,970
Salvador	19	4.30	19	9.55	19	18.13	British	Pacific Steam Nav. Co.	215.0	33.5	13.4	Champerico, Guat.	Cristobal, C. Z.		371	1,270	735
Cerigo	19	7.00	19	10.05	19	18.35	German	Hamburg-American Line	227.2	34.4	14.6	Guaymas, Mexico	Cristobal, C. Z.	Coffee, cocoa, etc.	1,012	1,572	1,011
Pacific Fir	19	7.00	19	10.41	19	18.35	American	Dimon S. S. Corp.	410.5	50.4	27.7	Seattle, Wash.	New York, N. Y.	Lumber	10,760	6,624	4,883
Aurora	19	11.35	19	12.28	19	18.18	American	Standard Transp. Co.	431.0	59.2	27.7	Seattle, Wash.	New York, N. Y.	Gas oil	7,111	6,825	5,112
Santa Cecilia	19	11.35	19	12.28	19	18.18	American	Argonaut S. S. Line	404.6	58.9	26.0	Los Angeles, Calif.	Baltimore, Md.	Lumber, general.	6,200	6,745	4,562
Grootendijk	19	23.00	20	5.54	20	11.35	Dutch	Ore S. S. Corp.	466.0	58.0	29.2	Seattle, Wash.	Antwerp, Belgium	Grain, general.	8,344	8,730	5,861
Chilore	19	23.00	20	5.54	20	11.35	American	Ore S. S. Corp.	466.0	58.0	29.2	Seattle, Wash.	Antwerp, Belgium	Grain, general.	8,344	8,730	5,861
Castlemoor	19	19.00	20	7.40	20	15.55	British	Moor Line, Ltd.	420.0	54.0	28.0	Cruz Grande, Chile	New York, N. Y.	Iron ore.	20,000	14,538	9,348
Agrios Nicolaos	19	23.00	20	7.40	20	15.55	Greek	Rehymnis & Kulukund	369.6	49.8	24.6	Chile	Baltimore, Md.	Iron ore.	20,000	14,538	9,348
Manizales	20	5.30	20	7.56	20	16.05	German	Roland Line	216.5	32.9	12.0	Buenaventura, Col.	Cristobal, C. Z.	Sugar.	6,700	4,846	3,502
Panama	20	5.30	20	7.56	20	16.05	American	Amer-Hawayan Line	407.7	53.7	26.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee	499	1,132	741
Vidovdan	20	7.45	20	8.58	20	19.25	Yugoslav	Baburizza & Co.	421.9	55.3	25.0	Antofagasta, Chile	New York, N. Y.	General.	6,081	7,098	5,065
Margaret																	
Johnson	20	12.15	20	13.37	20	20.38	Swedish	Johnson Line	407.3	55.0	26.4	Seattle, Wash.	Stockholm, Sweden	General.	5,784	7,048	5,337
Limon	20	14.00	20	15.12	20	21.48	American	United Fruit Co.	330.6	44.5	19.0	San Francisco, Cal.	New York, N. Y.	General.	1,043	3,684	2,234

* Tanker.

* Motor ship.

* Apples, salmon, and meat.

* Lumber, machinery, and general.

* For orders.

* Coffee, hides, wool, bullion, and general.

Toluca.....	20 15 30	20 16 19	21 11 20	21 12 25	Norwegian.	Grace Line.	417 8	54 5	29 0	Iquique, Chile.	Pensacola, Fla.	Nitrates.	9,300
Kalimba.....	20 16 15	20 17 20	21 11 25	21 17 20	British.	Moore & McCormack.	402 9	53 0	24 0	Caleta Colosa, Chile	Savannah, Ga.	Nitrates.	7,650
West Cape.....	20 23 45	21 6 58	21 15 25	21 20 40	American.	Munson, McCormack	409 5	54 2	23 3	Seattle, Wash.	Baltimore, Md.	Lumber, general.	8,500
Pako.....	21 9 55	21 10 43	21 18 45	21 23 10	British.	N. Z. Shipping Co.	450 0	58 2	24 0	Bluff, N. Z.	London, England.	Frozen, general.	6,711
Sutherland.....	21 12 40	21 13 43	21 21 00	21 21 00	American.	Nelson S. S. Co.	380 0	53 2	24 7	P. Angeles, Wash	Wilmington, Del.	Lumber.	5,654
Key West.....	21 16 16	21 16 54	22 11 50	22 13 05	Norwegian.	Knut Knutsen, O. A. S.	381 0	53 2	23 0	Valparaiso, Chile	Europe.	(*)	6,616
Challenger 14.	21 17 15	21 17 58	22 13 05	22 13 05	American.	Isthmian S. S. Line.	410 0	56 0	30 0	Vancouver, B. C.	London, England.	(*)	10,095

* Tanker.

** Nitrates, copper, and cotton cake.

** Grain, lumber, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 14.	Nora B. ²²	H. Blackwood	Colon, R. P.	December 15.	Nora B. ²²	H. Blackwood	Port Limon, C. R.
December 15.	Saramacca	United Fruit Co.	New Orleans, La.	December 15.	Wanka	Stand. Fruit & S. S. Co.	San Blas, R. P.
December 15.	Pastores	United Fruit Co.	Port Limon, C. R.	December 15.	Saramacca	United Fruit Co.	Puerto Colombia.
December 15.	Pasajeros ²²	Gough Brothers	New York via Habana.	December 15.	Pastores	United Fruit Co.	New York via Habana.
December 15.	Gun	United Fruit Co.	Tela via wayports.	December 15.	Manqui	United Fruit Co.	Port Limon via Kingdon.
December 16.	No. 9664 ²³	Pan-American Airways	New York via Haiti.	December 16.	Cartago	United Fruit Co.	Port Limon via Bocas.
December 18.	Cristobal	Panama R. S. S. Line	Colon, R. P.	December 16.	Camden	United Fruit Co.	New Orleans via waypts.
December 18.	Peral Marie ²⁴	R. Feuillebois	Colon, R. P.	December 16.	No. 9688 ²³	Pan-American Airways	Curacao, D. W. I.
December 18.	Camito	Elders & Fyffes Line	Avonmouth via wayports.	December 17.	No. 9107 ²⁴	Pan-American Airways	Tela via wayports.
December 18.	Marques de Comillas	Spanish Line	Batcelona via wayports.	December 17.	No. 144-M ²⁴	Pan-American Airways	Guayaquil via wayports.
December 18.	Sixola	United Fruit Co.	New York via Kingdon.	December 17.	Pasajeros ²²	Gough Brothers	Curacao via wayports.
December 18.	Darien C-35 ²³	Scadta Airplane Co.	Barraquilla via wayports	December 18.	Ulua	United Fruit Co.	Port Limon, C. R.
December 18.	Inapaquina ²⁴	United Fruit Co.	Colon, R. P.	December 18.	Camito	Elders & Fyffes Line	Port Limon, C. R.
December 18.	Anacheuna ²⁴	United Fruit Co.	Colon, R. P.	December 18.	Peral Marie ²²	R. Feuillebois	Bristol via wayports.
December 18.	Annetta I. ²⁴	A. Tagarapulos	Curacao via wayports.	December 18.	Inapaquina ²⁴	United Fruit Co.	Bluefields, Nicaragua.
December 19.	No. 9688 ²³	Pan-American Airways	Tela via wayports.	December 18.	Anacheuna ²⁴	United Fruit Co.	Colon, R. P.
December 19.	Copename	Pan-American Airways	New Orleans, La.	December 19.	Annetta I. ²⁴	A. Tagarapulos	Colon, R. P.
December 19.	Granada	United Fruit Co.	New Orleans via Habana.	December 19.	Sixola	Scadta Airplane Co.	New York via wayports.
December 20.	No. 9107 ²³	Pan-American Airways	Guayaquil via wayports.	December 19.	Darien C-35 ²³	Scadta Airplane Co.	Barraquilla via waypts.
December 20.	Cundinamarca C-33 ²⁴	United Fruit Co.	Buenaventura via waypts.	December 21.	Copename	United Fruit Co.	Buenaventura via waypts.
December 21.	Castilla	United Fruit Co.	Puerto Colombia.	December 21.	Gallina	United Fruit Co.	Port Limon via Bocas.
December 21.	Wanka	United Fruit Co.	Port Limon.	December 21.	Castilla	United Fruit Co.	New Orleans and waypts.
December 21.	Gallia	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 21.	Wanka	United Fruit Co.	New Orleans, La.
December 21.	Novian	Hamburg-American Line	Hamburg via wayports.	December 21.	Maravi	United Fruit Co.	High seas.
December 21.	Parisma	Leyland S. S. Line.	Liverpool via wayports.	December 21.	Anacheuna ²⁴	United Fruit Co.	New York via Kingdon.
December 21.	Inapaquina ²⁴	United Fruit Co.	New Orleans via Habana	December 21.	Inapaquina ²⁴	United Fruit Co.	Colon, R. P.
December 21.	Anacheuna ²⁴	United Fruit Co.	Colon, R. P.	December 21.	Annetta I. ²⁴	A. Tagarapulos	Colon, R. P.
December 21.	Annetta I. ²⁴	A. Tagarapulos	Colon, R. P.	December 21.	Annetta I. ²⁴	A. Tagarapulos	Colon, R. P.

** Motor schooner. ²³ Air mail carrier. ²⁴ Motor boat.

PORT OF BALBOA.

December 15.	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.	December 15.	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
December 15.	Frost ²⁵	West India Oil Co.	Talara, Peru.	December 16.	Frost ²⁵	West India Oil Co.	Champerico, Guatemala.
December 16.	Antiochia	Hamburg-American Line	Champerico, Guatemala.	December 17.	Antiochia	Hamburg-American Line	Iquique, Chile.

** Motor ship.

* Other than ships passing through the Canal.

(Continued on next page, column 2.)

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 303.

PORT OF BALBOA.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 20...	Dos Hermanos ²⁶	A. Valdez	Panama Bay, R. P.	December 20...	Dos Hermanos ²⁶	A. Valdez	Panama Bay, R. P.
December 20...	Mina ²⁶	Hans Elliot	Panama Bay, R. P.	December 21...	Mina ²⁶	Hans Elliot	Panama Bay, R. P.
December 20...	Real ²⁶	Hans Elliot	Panama Bay, R. P.	December 21...	Real ²⁶	Hans Elliot	Panama Bay, R. P.
December 20...	Sambu ²⁶	Hans Elliot	Panama Bay, R. P.	December 21...	Sambu ²⁶	Hans Elliot	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁶ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., January 1, 1930. No. 22.

Canal Traffic for Calendar Year 1929—Record Tolls Collection.

The total number of commercial vessels transiting the Canal during the calendar year ended December 31, 1929, aggregated 6,430, and the total tolls collection was \$27,592,715.84. Tolls collected during the calendar year 1929 exceeded the previous high mark for a year's tolls collection (fiscal year 1929 with \$27,127,376.91) by \$465,338.93. The number of commercial transits in the calendar year 1929, while exceeding the number of vessels passing through during the calendar year 1928, and the fiscal year 1929, fell short by 26 of the record of 6,456 established during the fiscal year 1928. In addition to the high record for tolls collected, new high figures for tons of cargo and ship tonnage will in all probability be established during the past year; the exact figures will not be known until later.

The daily average number of commercial transits during the year was 17.62, as compared with 17.31 for the calendar year 1928. The daily average tolls collection amounted to \$75,596.48, as compared with \$72,065.46 for the previous calendar year.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the calendar year 1929, with the daily averages of transits and tolls, with comparative totals for the calendar years 1928 and 1927, and the fiscal year ended June 30, 1929:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	603	\$2,502,815.12	19.45	\$80,735.97
February.....	522	2,211,961.20	18.64	78,998.62
March.....	536	2,343,865.55	17.29	75,608.57
April.....	540	2,281,087.27	18.00	76,036.24
May.....	524	2,296,546.57	16.90	74,082.15
June.....	503	2,127,805.97	16.76	70,926.87
July.....	527	2,259,582.37	17.00	72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
Totals, calendar year, 1929.....	6,430	27,592,715.84	17.62	75,596.48
Totals, calendar year, 1928.....	6,334	26,375,962.41	17.31	72,065.46
Totals, calendar year, 1927.....	6,085	26,231,022.94	16.67	71,865.82
Totals, fiscal year, 1929.....	6,413	27,127,376.91	17.57	74,321.58

Canal Traffic in December, 1929.

During the month of December, 1929, 522 commercial vessels and 9 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,309,030.88, and on the launches \$43.95, or a total tolls collection of \$2,309,074.83.

The daily average number of transits of commercial vessels for the month was 16.84, and the daily average tolls collection \$74,484.87. The average amount of tolls paid by each of the commercial transits was \$4,423.43, as compared with \$4,275.99 for the month of November, 1929,

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 28, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Corigo	19	18 35	22	6 05	22	14 18	22	15 15	German	Hamburg-American Line	227.0	34.0	14.0	Cristobal, C. Z.	Guayaquil, Ecuador	General	424	1,572	1,011
Manizales	20	16 05	22	6 10	22	13 06	22	14 15	German	North German Lloyd	216.0	32.9	13.0	Cristobal, C. Z.	Guayaquil, Ecuador	General	490	1,132	741
Point Bonita	22	6 20	22	6 35	22	14 13	22	15 15	American	Gulf-Pacific Line	324.0	46.2	20.0	New Orleans, La.	Tacoma, Wash.	General	2,910	3,984	2,617
Glenworth	22	7 45	22	8 05	22	15 31	22	16 40	British	Thomas Rice & Co.	450.0	55.0	25.0	Houston, Texas	Shanghai, China.	Phos., cotton	7,668	7,999	5,867
Chingale	22	5 45	22	8 45	22	16 22	22	17 30	British	Princo Line, Ltd.	435.0	51.0	24.8	New York, N. Y.	Manila, P. I.	General	6,513	9,313	6,672
Abeville	20-21	10 50	22	9 15	22	17 26	22	18 38	American	U. S. Navy	225.0	41.0	13.4	Cristobal, C. Z.	Bahoa, C. Z.	Ballast	7,289	5,948	4,245
Dalemar	22	4 20	22	10 50	22	18 00	22	19 20	British	Low & Partner Co.	399.0	52.0	25.0	Cardiff, England.	Antofagasta, Chile	General	7,100	5,693	4,280
Hesperie	22	10 35	22	12 05	22	19 25	22	20 48	Norwegian	Brugsraad Klosterud	300.0	54.0	25.0	Antwerp, Belgium	Yokohama, Japan	General	6,250	8,216	6,037
Silvermaple	22	12 45	22	13 30	22	19 54	22	21 18	British	Kerr Line	405.0	58.0	23.2	New York, N. Y.	Batavia, Java	General	6,425	5,876	4,327
Ullapool	22	13 25	22	14 25	22	21 46	22	23 43	British	Texas Trn. & Ter. Co.	435.0	53.0	24.0	Houston, Texas	Bahoa, C. Z.	Scrap iron	5,177	5,705	4,167
Galveston	21	10 45	23	6 05	23	13 07	23	15 30	American	U. S. Navy	292.0	44.0	18.3	Guantanamo, Cuba	Tacoma, Wash.	Ballast	4,530	10,657	7,617
Dogbet	22	20 40	23	6 20	23	13 27	23	15 30	American	Redwood Line	386.8	52.0	22.4	Freeport, Tex.	Wellington, N. Z.	General	1,611	5,173	3,651
Tainui	22	20 12	23	6 05	23	13 59	23	15 00	British	Shaw, Savill & Albion	477.8	61.0	39.0	London, England	Valparaiso, Chile	General	6,180	8,805	6,035
Dunstaffnage	22	21 05	23	7 25	23	15 27	23	16 30	British	Moore & McCormack	384.0	52.0	24.0	New York, N. Y.	Shanghai, China.	Ballast	9,018	5,929	5,104
Thurland	22	21 30	23	7 30	23	14 56	23	16 00	British	Barber Line	404.0	60.0	27.0	New York, N. Y.	Los Angeles, Calif.	General, case oil	7,035	7,611	5,450
Thalys	23	00 35	23	8 50	23	16 05	23	17 19	Danish	Baltic-Amer. Pet. Co.	469.0	63.0	17.6	Amsterdam, Holland	Seattle, Wash.	Steel, general	2,320	5,926	4,178
Betterton	23	6 55	23	8 55	23	16 28	23	17 40	American	Associated Oil Co.	431.0	59.2	19.6	New York, N. Y.	San Francisco, Cal.	General, coffee	6,290	4,617	3,412
Knoxville City	23	8 50	23	9 55	23	17 08	23	18 32	American	U. S. Steel Prod. Co.	425.0	56.0	25.0	Baltimore, Md.	Yawata, Japan	Cotton, scrap iron	8,500	11,819	8,366
Endor	23	14 15	23	10 50	23	17 55	24	1 30	American	Panama Mail S. S. Co.	380.6	48.0	21.8	New York, N. Y.	Champerico, Guat.	General	4,071	6,609	4,973
Epiluro	20	17 00	23	12 00	23	20 23	23	21 54	Yugoslav	Cement Marketing S. Co.	380.6	48.0	25.10	London, England	Yokohama, Japan	Cot., carbon blk.	2,754	10,173	7,354
Aden Maru	21	1 35	23	12 40	23	20 23	23	21 54	Japanese	Kokusan Kisen Kaisha	385.0	51.0	27.0	Jacksonville, Fla.	San Francisco, Cal.	General	8,635	6,913	4,866
Comite	23	16 10	23	16 35	24	10 23	24	13 23	British	Shaw, Savill & Albion	481.0	64.0	27.1	London, England	Danedin, N. Z.	General	1,881	7,972	5,687
Elisa Walker	23	18 00	24	6 06	24	13 23	24	15 20	American	Huasteca Petroleum Co.	429.0	59.0	21.0	Jacksonville, Fla.	Champerico, Guat.	General	6,025	7,972	5,687
Chilop	24	00 20	24	7 10	24	15 12	24	16 15	American	Chile S. S. Corp.	411.5	54.1	21.0	New York, N. Y.	Yokohama, Japan	Cot., carbon blk.	2,754	10,173	7,354
Havaii Maru	24	9 50	24	10 05	24	16 20	24	17 45	Japanese	Osaka Shosen Kaisha	475.0	61.0	29.0	Buenos Aires, Arg.	San Francisco, Cal.	General	8,108	6,567	4,909
Laercio	24	10 25	24	10 35	24	16 29	24	17 45	British	Texas Gulf Sulphur Co.	412.0	55.0	29.0	Galveston, Tex.	Seattle, Wash.	General	3,300	6,572	4,900
Chile	24	12 30	24	13 15	24	21 35	25	17 40	Dutch	W. H. Reuniek	195.6	31.0	18.0	Rotterdam, Holland	San Francisco, Cal.	General	1,850	2,597	1,587
Shogvik	24	12 10	24	14 40	24	22 25	24	23 48	Norwegian	L. Smid & Sons	251.0	46.0	18.0	Cardiff, England	Yawata, Japan	General	6,106	6,213	4,672
St. Quentyn	24	16 05	25	6 05	25	13 09	25	14 15	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.0	Boston, Mass.	Champerico, Guat.	General	8,108	6,567	4,909
Texmar	24	16 30	25	6 20	25	13 36	25	14 55	British	St. Quentin S. S. Co.	349.0	50.0	18.0	Quebec, Canada	San Francisco, Cal.	General	3,300	6,572	4,900
San Vicente	24	17 45	25	7 15	25	14 56	25	16 00	American	Calmor S. S. Co.	410.5	54.0	25.0	Baltimore, Md.	Seattle, Wash.	Steel, general	8,108	6,567	4,909
Fresno City	24	23 30	25	7 25	25	15 05	25	16 10	American	States S. S. Co.	410.5	54.0	25.0	Wellington, Del.	San Francisco, Cal.	General	3,300	6,572	4,900
Champerico	25	5 35	25	10 15	25	18 25	25	20 15	British	Reardon Smith Line	414.0	55.0	16.0	Sunderland, Eng.	Champerico, Guat.	General	1,850	2,597	1,587
San Francisco Maru	6	21 05	25	11 30	25	18 35	25	20 15	British	Pacific Steam Nav. Co.	200.1	41.8	19.7	Cristobal, C. Z.	Yawata, Japan	General	6,106	6,213	4,672
Maru	25	9 55	25	13 45	25	20 35	25	21 50	Japanese	Kokusan Kisen Kaisha	385.0	51.0	24.6	Sydney, C. B.	Yawata, Japan	General	6,106	6,213	4,672

* Lead concentrates.

* Dredge.

* Cruiser.

* Gumbout.

* Motor ship.

	25	17	25	25	17	40	26	9	29	26	12	45	British	Anglo-Saxon Pet. Co.	471.0	62.0	18.0	New Orleans, La.	Los Angeles, Calif.	Ballast.		9,412	6,386
Atholqueen	26	5,45	26	6,45	26	14,08	26	15,15	American					Nelson Line	380.0	53.2	17.5	Charleston, S. C.	Seattle, Wash.	General		2,700	5,653
Sacramento	26	20,00	26	7,00	26	13,24	26	14,35	American					Lucembach Line	448.0	60.2	24.0	Boston, Mass.	Seattle, Wash.	General		5,000	9,294
Kusan	26	2,50	26	8,40	26	14,53	26	15,50	American					Arrow Line	404.6	53.9	17.1	Boston, Mass.	Seattle, Wash.	General		2,742	6,779
Edwin	26	7,55	26	8,55	26	16,40	27	8,32	American					F. & W. Riton	410.0	54.0	17.6	New York, N. Y.	Seattle, Wash.	General		3,598	6,603
Cherry Branch	26	8,30	26	10,00	26	17,32	26	19,40	British					Texas S. S. Co.	406.8	51.9	18.0	Rio de Janeiro, Br.	Magallanes, Chile	General		1,662	5,403
Virginia	26	8,30	26	10,55	26	18,02	26	19,40	British					Grace Line	416.8	56.0	17.8	Los Angeles, Calif.	Los Angeles, Calif.	Ballast		6,784	4,913
Santa Barbara	26	8,15	26	11,55	26	18,32	27	20,20	American					Federal Steam Nav. Co.	460.0	64.0	23.9	New York, N. Y.	Talcahuano, Chile	General		2,783	10,087
Sonnet	26	9,15	26	12,50	26	20,05	27	22,30	British					U. S. Steel Prod. Co.	424.0	62.8	22.6	Liverpool, England	Port Pirie, Australia	General		5,059	10,550
Steel Trader	26	12,15	26	13,10	26	21,07	27	23,42	American					Pacific Steam Nav. Co.	303.0	43.0	25.0	Philadelphia, Pa.	Shanghai, China	General		7,969	7,611
Arana	25	19,45	26	14,10	26	22,00	26	23,05	British									New York, N. Y.	Callao, Peru	General		1,109	2,851
Chateau	26	2,10	27	6,10	27	12,51	27	13,45	American					U. S. Army	436.9	58.2	26.10	Brooklyn, N. Y.	Honolulu, T. H.	Army supplies		706	
S-17	27	6,15	27	7,17	27	13,13	29	19,53	American					U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
El Panquaco	27	6,20	27	7,17	27	13,31	29	19,53	Panamanian					Panamanian Gov't.	125.0	23.0		Colum, P.	Balboa, C. Z.	Ballast			288
Bethore	25	19,25	27	7,17	27	14,55	27	16,00	American					Ore S. S. Corp.	380.0	72.3	24.8	Norfolk, Va.	Griz Grande, Chile	Ballast		15,476	4,354
Port Douson	26	13,10	27	7,20	27	15,42	27	16,40	British					Com'lth & Dom. Line.	480.0	60.3	27.6	Liverpool, England	Dunedin, N. Z.	General		6,022	10,705
Magellan	26	14,20	27	8,40	27	16,13	27	17,15	British					Pacific Steam Nav. Co.	462.0	59.3	20.6	Griz Grande, Chile	Coral, Chile	General		2,301	8,317
K. R. Kingsbury	26	21,30	27	9,00	27	16,44	27	17,45	American					Standard Oil Co.	440.0	58.0	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,033	5,938
Cragness	27	2,05	27	9,30	27	17,17	27	18,20	British					Texas Oil Co.	410.0	52.0	24.0	Pr. Arthur, Texas	Shanghai, China	Cargo oil		7,000	7,022
Tamaina	27	7,45	27	10,15	27	18,36	27	19,55	American					Richfield Oil Co.	500.0	71.0	20.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		11,067	8,542
San Lauberto	27	11,35	27	12,05	27	19,50	27	21,12	British					Anglo-Mexican Pet. Co.	395.5	55.2	27.4	Cureaco, D. W. I.	Valparaiso, Chile	Fuel oil		8,300	6,741
Havel	27	4,55	27	13,40	27	20,45	27	21,45	German					North German Lloyd	474.0	61.0	21.10	Hamburg, Germany	Portland, Oreg.	General		3,951	9,305
Fermin	27	10,00	27	12,02					American					W. Martinez	670.0	78.4	29.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast		24	9
Carballo	28	6,00	28	6,20	28	13,18	28	23,42	British					Red Star Line				New York, N. Y.	Round the world	Passengers only		28,913	18,874
David	27	20,55	28	6,35	28	13,59	28	15,00	American					Tidewater Oil Co.	430.0	59.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,629	5,325
McKelvey	28	5,25	28	7,35	28	16,10	28	22,00	American					Dollar Line	502.0	62.0	28.0	New York, N. Y.	San Francisco, Calif.	General		3,444	12,018
Harrison	28	1,15	28	7,40	28	16,25	28	20,55	American					Statera S. S. Co.	376.0	52.0	18.0	Norfolk, Va.	Tacoma, Wash.	General		3,290	5,455
Pacific Cedar	28	6,12	28	8,25	28	17,16	28	18,25	American					Dixon S. S. Corp.	399.0	54.7	30.0	Cristobal, C. Z.	Buenaventura, Col.	General		4,300	6,138
Cauca	24	18,15	28	8,35	28	16,30	23	6,47	Columbian					National Navigation Co.	107.2	22.0	8.3	New York, N. Y.	Buenaventura, Col.	General		23	238
Parthenia	28	7,00	28	8,45	28	17,42	29	11,04	British					Dominion Brothers	416.0	52.0	19.0	Griz Grande, Chile	Vancouver, B. C.	General		1,093	5,831
Trinmountain	28	9,05	28	10,05	28	18,17	28	19,45	British					B. L. Shipping Co.	375.0	52.6	27.0	Antwerp, Belgium	Portland, Oreg.	Cargo oil		8,574	6,738
Innesmoor	28	10,35	28	11,00	28	19,00	28	23,11	British					Blue Diamond & Co.	375.0	52.6	25.0	Antwerp, Belgium	Los Angeles, Calif.	Cement clinkers		7,500	6,055
Lebore	27	12,05	28	12,25	28	20,35	28	21,30	American					Ore S. S. Corp.	349.0	72.0	35.0	Baltimore, Md.	Griz Grande, Chile	Ballast		14,325	4,635
Annam	28	8,35	28	13,28	28	21,00	28	22,00	Danish					East Asiatic S. S. Co.	410.0	55.0	36.10	Skellefnehamn, S'n	Vancouver, B. C.	Coke, general		8,587	7,067
Glennoor	28	14,10	28	14,35	28	22,04	28	23,11	British					W. Runciman & Co.	375.0	52.6	36.0	Tampa, Fla.	Yokohama, Japan	(?)		7,400	6,051
Radnor	28	14,54	28	15,35	28	22,40	28	23,42	American					Tampa Intercean Co.	434.3	57.7	33.3	Galveston, Tex.	Manila, P. I.	General, etc.		6,706	7,982
Oregonian	28	17,45	28	19,45	29	9,05	29	10,18	American					Amer-Hawaiian Line	404.6	54.0	30.0	Boston, Mass.	Portland, Oreg.	General		3,332	6,754

* Cotton and phosphates.

* Cotton and phosphates.
THROUGH THE CANAL—PACIFIC TO ATLANTIC.

* Launch.

* Submarine.

* Transport.

* Tanker.

King Lud 12...	21	14.45	22	6.26	22	14.05	22	17.40	British	Dodd, Thompson & Co.	400.7	54.6	23.3	Vancouver, B. C...	United Kingdom...	Wheat...	7,353	6,279	4,336
Bennekon...	22	2.30	22	6.41	22	15.35	22	21.30	Dutch	Royal Neth. S. S. Co...	449.7	58.2	25.0	Corral, Chile...	Hamburg, Germany	General	8,124	7,849	5,806
Port Hunter...	22	4.00	22	7.30	22	17.15	22	22.25	British	Com'lth & Dom. Line	481.2	62.3	25.0	Wellington, N. Z...	London, England...	General	6,847	10,825	7,968

12 Mo'or ship.

* Motor ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Marian Otis Chandler	22	8.43	22	9.54	22	17.40	22	17.40	American	Arrow Line	409.6	54.1	24.6	St. Helena, B. C.	New York, N. Y.	Lumber	7,340	6,653	4,870
Sir Karl	22	5.00	22	11.35	22	18.45	22	18.45	Norwegian	Anglo-Saxon Pet. Co.	450.5	59.1	26.4	Los Angeles, Calif.	Land's End, Eng. ¹⁴	Gasoline	10,612	8,085	5,725
Knutson	22	1.00	22	13.44	22	20.50	22	20.50	Norwegian	Anglo-Saxon Pet. Co.	441.1	59.2	26.4	Los Angeles, Calif.	Land's End, Eng. ¹⁴	Kerosene	12,592	8,085	5,725
Herjorn	22	4.30	22	6.09	22	13.00	22	13.00	American	Panama Mail S. S. Co.	370.2	51.6	22.8	San Francisco, Cal.	New York, N. Y.	General	3,476	5,776	4,081
Guatemala	22	22.30	23	6.56	23	14.20	23	14.00	Norwegian	Westfal-Jensen & Co.	440.0	60.2	30.0	Los Angeles, Calif.	Avonmouth, Eng.	Gasoline	12,692	8,085	5,725
Nordling	22	18.12	23	7.27	23	17.10	23	17.10	American	Chas. Nelson & Co.	334.0	40.2	23.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general	3,600	3,963	2,631
Flow City	22	2.00	23	7.53	23	16.03	23	22.45	Chile	Chilean Line	422.8	50.0	23.0	Talcahuano, Chile	New York, N. Y.	General	3,017	7,733	4,722
Teno	23	00.10	23	8.07	23	17.30	23	17.30	British	Pacific Steam Nav. Co.	215.7	33.0	13.0	Champerio, Chit.	Cristobal, C. Z.	General	12,233	9,743	7,140
Aesputia	23	00.30	23	8.28	23	17.45	23	17.45	American	Standard Transp. Co.	408.3	54.3	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	7,906	6,573	4,629
Dixie Arrow	23	2.50	23	9.05	23	19.05	23	19.05	German	North German Lloyd	335.0	49.8	22.6	Magallanes, Chile	Hamburg, Germany	General	6,182	5,209	4,035
Wiegand	23	9.30	23	10.22	23	19.00	23	19.00	British	F. & W. Rison	385.0	49.8	22.6	Corral, Chile	Liverpool, England	General	6,182	5,209	4,035
Oak Branch	23	12.50	24	6.14	24	13.55	24	13.55	Swedish	Anglo-Saxon Pet. Co.	417.6	55.1	26.6	Los Angeles, Calif.	Land's End, Eng. ¹⁴	Gasoline	8,329	6,362	4,244
Abadan	23	17.00	24	6.54	24	15.40	24	15.40	American	Standard Shipping Co.	425.0	57.3	26.4	Long Beach, Calif.	New York, N. Y.	Gasoline	11,307	8,757	6,282
Wheeler	24	4.42	24	7.26	24	16.50	24	16.50	American	Pennsylvania Ship. Co.	416.9	56.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,757	6,728	4,806
Baldhill	23	19.35	24	8.15	24	15.20	24	15.20	American	Luckenbach Line	436.6	46.2	26.8	Portland, Ore.	Philadelphia, Pa.	General	6,531	8,543	6,427
Edward	23	20.45	24	9.00	24	18.00	24	18.00	American	Swayne & Hoyt	324.0	57.2	21.0	Portland, Ore.	New Orleans, La.	General	3,343	3,984	2,617
Point Fernin	24	6.05	24	8.22	24	18.15	24	18.15	Colombian	National Navigation Co.	107.0	22.9	11.4	Buenaventura, Col.	Cristobal, C. Z.	(*)	254	238	183
Caura	23	23.15	24	9.30	24	18.30	24	20.45	German	North German Lloyd	377.8	51.0	24.0	Valparaiso, Chile	Hamburg, Germany	Nitrate, ore	6,106	4,800	3,399
Roland	24	3.00	24	10.04	24	19.20	24	19.20	American	Amer-Hawaiian Line	434.3	57.2	22.8	Portland, Ore.	Boston, Mass.	General	6,538	7,983	5,916
Arizona	24	8.00	24	10.40	24	20.00	24	20.00	American	Ore S. S. Corp.	449.1	57.2	22.8	Portland, Ore.	Baltimore, Md.	Iron ore	11,600	7,847	5,185
Dusan Sini	24	8.45	24	11.12	24	20.50	24	22.20	Yugoslav	Bahrizza & Co., Ltd	438.0	55.0	25.0	Cruz Grande, Chile	Acores	Nitrates	8,217	6,429	4,379
Hato	24	11.15	24	12.10	24	21.35	24	21.35	American	Cities Service Co.	435.0	55.0	25.0	Los Angeles, Calif.	New York, N. Y.	Diesel oil	11,000	7,434	5,145
Guayquil	24	23.50	25	6.41	25	14.30	25	14.30	American	Panama R. R. S. S. Line	231.0	43.6	18.0	Guayquil, Ecuador	New York, N. Y.	General	1,354	2,874	2,510
Fernia	25	10.05	25	6.54	25	14.18	25	14.18	Swedish	W. L. Gonyer	330.5	50.6	27.3	Cristobal, C. Z.	Guangzhou, Eng.	Lumber	5,879	4,952	3,532
Levant Arrow	25	7.30	25	8.14	25	16.00	25	16.00	American	Standard Transp. Co.	438.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Lumber, sugar	11,843	9,841	6,946
Sally Maersk	25	17.15	25	17.55	26	12.25	26	12.25	Danish	A. P. Moller	332.1	44.2	22.1	Port Lamon, P. I.	Providence, R. I.	General	4,730	3,518	2,510
Rangitiki	25	15.25	26	6.50	26	14.25	26	14.25	British	N. S. Shipping Co.	332.0	70.2	27.5	Wellington, N. Z.	London, England	General	7,036	18,279	13,004
Acton	26	22.20	26	6.58	26	17.55	26	22.30	British	Thos. & Jos. Harrison	410.0	52.2	27.0	Dunbart, England	Dunbart, England	Sugar	6,845	6,666	4,707
Hendonhall	26	7.10	26	7.42	26	19.10	26	23.05	British	W. Hartlepool S. S. Co.	399.6	53.0	27.0	Icoopol, Chile	New York, N. Y.	Nitrates	8,200	5,862	4,112
Leger	26	7.15	26	10.47	26	20.15	26	20.15	Norwegian	Anglo-Saxon Pet. Co.	456.0	61.0	25.6	Los Angeles, Calif.	Land's End, Eng. ¹⁴	Gasoline	9,271	8,175	5,482
City of Panama	25	9.25	26	11.02	26	18.50	26	18.50	American	Panama Mail S. S. Co.	296.1	45.9	15.0	San Francisco, Cal.	Cristobal, C. Z.	General	544	3,848	2,603
Calif.	26	11.30	26	12.38	26	20.35	26	20.35	German	Roland Line	216.5	32.9	15.2	Guayquil, Ecuador	Cristobal, C. Z.	General	970	1,105	678
Gulfpool	26	14.00	26	15.15	26	22.35	26	22.42	British	Sir R. Ropner & Co.	405.1	53.6	23.8	Vancouver, B. C.	Norfolk, Va.	Wheat	2,613	5,988	4,360
Virgilio	26	12.25	27	6.21	27	13.55	27	11.25	Italian	Nav. Gen. Italiana	502.7	61.8	24.0	Talcahuano, Chile	Genoa, Italy	General	2,596	12,941	9,329

* Kerosene distillate.

* Coffee, hides, and cylinders.

* For orders.

* Motor ship.

* Tanker.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	To—
December 22	Isa.	Columbus Line.	Tampa, Florida.	December 21	No. 9604 ¹⁸	Pan-American Airways.	Tela via wayports.
December 22	Ulua.	United Fruit Co.	Port Limon, C. R.	December 22	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
December 23	El Panquiao ¹⁷	Panamaian Government.	Colon, R. P.	December 22	Gaicia	Hamburg-American Line.	Port Limon, C. R.
December 23	Wanda ¹⁸	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 22	Marques de Comillas	Spanish Line.	Barcelona via wayports.
December 23	No. 9604 ¹⁸	Pan-American Airways.	Tela via wayports.	December 22	Ulua.	United Fruit Co.	New York via Habana.
December 23	Tolosa.	United Fruit Co.	New York via Habana.	December 22	Paraisina	Navy Libera Triestina.	Marseilles and wayports.
December 23	Reliance.	Hamburg-American Line.	New York via wayports.	December 23	Cratobol.	United Fruit Co.	New Orleans via wayports.
December 24	Oliver.	Anglo-Saxon Pet. Co.	Havre via wayports.	December 23	Novian.	Panama R. S. S. Line.	New York via Haiti.
December 25	Pellerin de Latouche.	Scudra Airplane Co.	Barranquilla via waypts.	December 23	Wanda.	Stand. Fruit & S. S. Co.	Port Limon, C. R.
December 25	Darien C-35 ¹⁸	United Fruit Co.	New York via wayports.	December 23	El Panquiao ¹⁷	Panamaian Government.	Colon, R. P.
December 26	Carinhia.	Cunard S. S. Line.	New Orleans, La.	December 24	No. 300-N ¹⁸	Pan-American Airways.	Guayaquil via wayports.
December 26	Irona.	United Fruit Co.	Kingson, Jamaica.	December 24	No. 9107 ¹⁸	Pan-American Airways.	Tela via wayports.
December 26	Magdalena.	Hamburg-American Line.	Hamburg via wayports.	December 24	Van Rensselaer	Pan-American Airways.	Port Limon, C. R.
December 26	Resolute.	Hamburg-American Line.	New York via wayports.	December 25	Reliance.	Hamburg-American Line.	New York via Kingdon.
December 26	No. 300-N ¹⁸	Pan-American Airways.	Curacao via wayports.	December 25	Tolosa.	United Fruit Co.	Port Limon, C. R.
December 26	No. 9688 ¹⁸	Pan-American Airways.	Tela via wayports.	December 25	Isa.	Columbus Line.	Port-of-Spain, Trinidad.
December 27	Zapaca.	United Fruit Co.	New Orleans via Kingdon.	December 26	Oliver.	Anglo-Saxon Pet. Co.	Curacao, D. W. I.
December 27	Amapala.	Stand. Fruit & S. S. Co.	New Orleans via waypts.	December 26	Magdalena.	Hamburg-American Line.	Port Limon, C. R.
December 27	Cundinamarca C-33 ¹⁸	Pan-American Airways.	Guayaquil via waypts.	December 26	Carinhia.	Cunard S. S. Line.	New York via wayports.
December 27	Mayari.	Scudra Airplane Co.	Barranquilla via waypts.	December 27	Pellerin de Latouche.	French Line.	Barranquilla via waypts.
December 27	Wanks.	United Fruit Co.	Port Limon, C. R.	December 27	Laila.	Gulf-Caribbean S. S. Line.	Havre via wayports.
December 28	Van Rensselaer.	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 27	Resolute.	United Fruit Co.	New Orleans via waypts.
December 28	Franconia.	Cunard S. S. Line.	Port Limon, C. R.	December 27	Coppenname.	Hamburg-American Line.	New York via wayports.
December 28	Kungsholm.	Swedish-American Line.	New York via wayports.	December 28	No. 9604 ¹⁸	United Fruit Co.	New Orleans, La.
			New York via wayports.			Pan-American Airways.	Tela via wayports.

* Tanker.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	To—
December 22	Isa.	Columbus Line.	Tampa, Florida.	December 21	No. 9604 ¹⁸	Pan-American Airways.	Tela via wayports.
December 22	Ulua.	United Fruit Co.	Port Limon, C. R.	December 22	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
December 23	El Panquiao ¹⁷	Panamaian Government.	Colon, R. P.	December 22	Gaicia	Hamburg-American Line.	Port Limon, C. R.
December 23	Wanda ¹⁸	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 22	Marques de Comillas	Spanish Line.	Barcelona via wayports.
December 23	No. 9604 ¹⁸	Pan-American Airways.	Tela via wayports.	December 22	Ulua.	United Fruit Co.	New York via Habana.
December 23	Tolosa.	United Fruit Co.	New York via Habana.	December 22	Paraisina	Navy Libera Triestina.	Marseilles and wayports.
December 23	Reliance.	Hamburg-American Line.	New York via wayports.	December 23	Cratobol.	United Fruit Co.	New Orleans via wayports.
December 24	Oliver.	Anglo-Saxon Pet. Co.	Havre via wayports.	December 23	Novian.	Panama R. S. S. Line.	New York via Haiti.
December 25	Pellerin de Latouche.	Scudra Airplane Co.	Barranquilla via waypts.	December 23	Wanda.	Stand. Fruit & S. S. Co.	Port Limon, C. R.
December 25	Darien C-35 ¹⁸	United Fruit Co.	New York via wayports.	December 23	El Panquiao ¹⁷	Panamaian Government.	Colon, R. P.
December 26	Carinhia.	Cunard S. S. Line.	New Orleans, La.	December 24	No. 300-N ¹⁸	Pan-American Airways.	Guayaquil via wayports.
December 26	Irona.	United Fruit Co.	Kingson, Jamaica.	December 24	No. 9107 ¹⁸	Pan-American Airways.	Tela via wayports.
December 26	Magdalena.	Hamburg-American Line.	Hamburg via wayports.	December 24	Van Rensselaer	Pan-American Airways.	Port Limon, C. R.
December 26	Resolute.	Hamburg-American Line.	New York via wayports.	December 25	Reliance.	Hamburg-American Line.	New York via Kingdon.
December 26	No. 300-N ¹⁸	Pan-American Airways.	Curacao via wayports.	December 25	Tolosa.	United Fruit Co.	Port Limon, C. R.
December 26	No. 9688 ¹⁸	Pan-American Airways.	Tela via wayports.	December 25	Isa.	Columbus Line.	Port-of-Spain, Trinidad.
December 27	Zapaca.	United Fruit Co.	New Orleans via Kingdon.	December 26	Oliver.	Anglo-Saxon Pet. Co.	Curacao, D. W. I.
December 27	Amapala.	Stand. Fruit & S. S. Co.	New Orleans via waypts.	December 26	Magdalena.	Hamburg-American Line.	Port Limon, C. R.
December 27	Cundinamarca C-33 ¹⁸	Pan-American Airways.	Guayaquil via waypts.	December 26	Carinhia.	Cunard S. S. Line.	New York via wayports.
December 27	Mayari.	Scudra Airplane Co.	Barranquilla via waypts.	December 27	Pellerin de Latouche.	French Line.	Barranquilla via waypts.
December 27	Wanks.	United Fruit Co.	Port Limon, C. R.	December 27	Laila.	Gulf-Caribbean S. S. Line.	Havre via wayports.
December 28	Van Rensselaer.	Stand. Fruit & S. S. Co.	San Blas, R. P.	December 27	Resolute.	United Fruit Co.	New Orleans via waypts.
December 28	Franconia.	Cunard S. S. Line.	Port Limon, C. R.	December 27	Coppenname.	Hamburg-American Line.	New York via wayports.
December 28	Kungsholm.	Swedish-American Line.	New York via wayports.	December 28	No. 9604 ¹⁸	United Fruit Co.	New Orleans, La.
			New York via wayports.			Pan-American Airways.	Tela via wayports.

* Transport.

* Other than ships passing through the Canal.

(Continued on page 312, column 2.)

Visits of Parties of Tourists.

During the month of December, 1929, nine large tourist vessels making special cruises called at the Canal Zone. Eight of the ships were making cruises through the West Indies and calling at points in South and Central America, namely the *Carinthia* and *Franconia* (2 visits) of the Cunard Line; the *Reliance* and *Resolute* of the Hamburg-American Line; the *Statendam* of the Holland-American Line; the *Kungsholm* of the Swedish-American Line; and the *Duchess of Bedford* of the Canadian Pacific Steamship Co. The *Belgenland* of the Red Star Line, transited the Canal from the Atlantic to the Pacific on her annual around-the-world cruise. These vessels brought 2,354 tourists to the Isthmus. As earlier estimates for them totaled 3,150 a falling off of about 25 per cent is indicated, which is attributed primarily to business conditions in the United States.

The scheduled tours for the season of 1929-30 include one university cruise around the world, 6 other around-the-world cruises, a cruise to South America, and 38 special cruises through the West Indies with calls at Cristobal but without transiting the Canal. The number of visitors to the Isthmus in these parties is now estimated at about 12,000 in addition to which the United Fruit Co. will bring 24 parties, averaging about 75 each, to the Canal Zone, and traffic on other lines may show seasonal increases.

United Fruit Company to Have New Steamship Service.

Beginning December 28, 1929, the United Fruit Company has started operating its combination freight and passenger steamers *Tela*, *Iriona*, and *Catilla*, in a direct New Orleans-Cristobal-Colombia service, with sailings from New Orleans every Saturday. Under this schedule vessels will arrive at Cristobal every Wednesday, four days after leaving New Orleans. This will also give Puerto Colombia a weekly service instead of fortnightly as at present, vessels arriving at that port on Friday, six days in transit from New Orleans. At Cartagena vessels will arrive alternate weeks on Monday, nine days in transit from New Orleans.

These vessels, which were built in Belfast in 1927, are 342 feet long, 48 feet beam, and of approximately 4,100 gross tons. They are registered under the Honduran flag.

Supplement No. 17—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., December 20, 1929.

Regulation 47.13, contained in Supplement No. 2 of May 12, 1926, of the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters" is hereby amended to read as follows:

Regulation 47.13. *Small Arms Ammunition, etc.*: Shipments of ammunition for small arms (in cartridge or shell fully assembled) and pyrotechnic supplies, not exceeding in the aggregate one (1) ton weight or measurement, may be landed at either the Cristobal or Balboa terminal docks upon observance of normal precautions to insure safe handling.

C. H. WOODWARD,
Acting Governor.

United Fruit Company Augments Central America-West Coast Service.

The steamer *Saramacca* of the United Fruit Company transited the Canal from the Atlantic to the Pacific on December 20, 1929, on her first voyage in the Company's service between the east coast of Central America and the west coast of Central America and the United States. The *Saramacca* is to be followed shortly by a sister ship, the *Suriname*, which has also been allotted to this service. With the introduction of these two steamers, the *Limon*, which has been on this run since the inauguration of the service in 1927, is to be withdrawn from the trade, leaving six vessels in the service offering a weekly sailing.

The *Saramacca* and *Suriname* are each 336 feet long, 42 feet beam, and of approximately 3,200 gross tons. They are equipped with refrigerator space for the carriage of bananas, and have accommodations for 40 passengers each. The vessels were formerly engaged in the New Orleans, Cristobal, Puerto Colombia, and Limon run.

It has also been announced that four new ports of call are to be made on southbound voyages along the Central American west coast: Champerico, Acajutla, San Jose de Guatemala, and La Libertad. Stops will be made at these ports every two weeks. Northbound, the ports are Puerto Armuelles, San Jose de Guatemala and San Francisco.

Correction.

In the issue of THE PANAMA CANAL RECORD of December 25, 1929, page 296, under "Electrical Division," it was erroneously stated that the gross generator output of the Gatun hydroelectric station for November, 1929, was 5,087 kilowatt hours. This should have been 5,087,900 kilowatt hours.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending December 21, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
La Placencia.....	Union Oil Co.....	December 14..	December 17..	11,500	26
Ginyo Maru.....	Nippon Yusen Kaisha.....	December 15..	December 15..	102	
Frost.....	Hans Eriksen.....	December 16..	December 16..	125	86
Antiochia.....	Hamburg-American Line.....	December 16..	December 17..	1	
Boskoop.....	Dutch Line.....	December 17..	December 17..	205	
Salvador.....	Pacific Steam Nav. Co.....	December 19..	December 19..	4	
Caldas.....	National Navigation Co.....	December 20..	December 20..		8
Santa Inez.....	Grace Line.....	December 20..	December 20..		1
California.....	Panama-Pacific Line.....	December 20..	December 20..		168
Canada.....	Johnson Line.....	December 22..	December 22..	535	
Guatemala.....	Panama Mail S. S. Co.....	December 22..	December 23..	135	
Pacific Pioneer.....	Furness, Withy & Co.....	December 6..	December 6..		215

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., January 8, 1930. No. 23.

Tanker Traffic Through the Panama Canal in December, 1929.

During the month of December, 1929, 100 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 541,219, on which tolls of \$471,900.59 were collected. Cargo amounted to 515,658 tons which included 6,609 tons of coconut oil, 8,574 tons of creosote, and 500,475 tons of mineral oils. In point of net tonnage, tanker traffic increased 27.5 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 42.9 per cent over the cargo tonnage of December, 1928.

Tankers comprised 19.2 per cent of the total commercial transits through the Canal during the month; made up 21.2 per cent of the total Panama Canal net tonnage; were the source of 20.4 per cent of the total tolls collected; and carried 20.4 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of December, 1929, segregated by direction of transits and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for December, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British.....	5	28,618	\$22,281.56	8,300
Danzig.....	1	5,929	4,268.88	
Dutch.....	1	4,395	3,164.40	
French.....	2	11,975	8,668.71	
Norwegian.....	5	23,679	17,048.88	
Swedish.....	1	3,335	2,401.20	
United States.....	35	185,921	136,394.81	13,927
Totals, December, 1929.....	50	263,852	194,228.44	22,227
Totals, November, 1929.....	50	287,030	211,216.53	19,537
Totals, October, 1929.....	57	317,788	234,524.45	25,093
Totals, December, 1928.....	44	229,747	171,163.47	15,700
<i>Pacific to Atlantic.</i>				
British.....	11	52,748	53,898.40	90,719
Danzig.....	1	6,127	6,585.00	11,100
Norwegian.....	4	23,297	24,498.75	43,077
Swedish.....	2	8,742	9,425.00	16,679
United States.....	32	186,453	183,265.00	331,856
Totals, December, 1929.....	50	277,367	277,672.15	493,431
Totals, November, 1929.....	52	278,572	283,466.37	490,815
Totals, October, 1929.....	60	332,356	338,648.49	610,165
Totals, December, 1928.....	37	194,903	198,667.64	345,004

¹ Includes 8,574 tons creosote.

² Includes 6,609 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during December, 1929, classified according to trade routes:

ATLANTIC TO PACIFIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	31	169,123	\$122,228.43	2,851
United States to South America	2	6,336	5,110.97	2,502
Canada to South America	1	7,096	5,109.12	.....
South America to United States	1	4,913	3,537.36	.....
West Indies to United States	3	15,139	10,900.08	.....
West Indies to South America	1	4,345	4,805.00	8,300
Europe to United States	9	47,115	35,492.28	8,574
Europe to South America	2	9,785	7,045.20	.....

* Creosote.

PACIFIC TO ATLANTIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	30	174,917	\$171,951.25	309,847
United States to West Indies	1	4,253	4,291.25	5,468
United States to Europe	12	59,489	62,455.00	109,698
South America to United States	2	12,235	12,021.25	23,234
South America to Canada	2	12,374	13,313.75	27,475
South America to West Indies	1	4,345	3,128.40	.....
South America to Europe	1	6,127	6,585.00	11,100
Philippine Islands to United States	1	3,627	3,926.25	6,609

* Coconut oil.

Of the tanker traffic passing through the Canal in December, 1929, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for December, 1928:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
December, 1929	41	225,048	\$163,604.04	8,574
November, 1929	42	245,284	177,967.21	2,335
October, 1929	40	227,317	165,551.16	1,040
December, 1928	38	201,765	151,016.43	15,700
<i>From Los Angeles.</i>				
December, 1929	39	218,565	217,711.25	388,571
November, 1929	41	221,317	221,858.27	381,328
October, 1929	41	226,240	227,992.50	409,611
December, 1928	26	136,116	137,683.75	243,385

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending December 28, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
City of San Francisco	Panama Mail S. S. Co. ....	.....	December 11 .....	.....	2,807
Manizales	North German Lloyd .....	.....	December 15 .....	.....	68
Wanka	Stand. Fruit & S. S. Co. ....	.....	December 15 .....	.....	2
Castilla	United Fruit Co. ....	.....	December 15 .....	.....	23
Rio Nazara	National Navigation Co. ....	.....	December 15 .....	.....	650
Pastores	United Fruit Co.	December 15	December 15	1	274
Saramacca	United Fruit Co.	December 15	December 15	14	186
Gottingen	North German Lloyd	December 15	December 15	31	191
Itauri	Hamburg-American Line	December 15	December 15	238	13
Nosa Queen	N. O. & S. A. S. S. Line	December 15	December 16	40	136
Cartago	United Fruit Co. ....	.....	December 16 .....	.....	50
Durazo	Hamburg-American Line .....	.....	December 16 .....	.....	316
Pasajeros	Gough Brothers	December 15	December 17	7	13
Santa Teresa	Grace Line	December 16	December 16	6	(²)
Ruhr	Hamburg-American Line	December 16	December 16	106	22
Boskoop	Royal Neth. S. S. Co.	December 16	December 17	180	111
Ulua	United Fruit Co.	December 16	December 18	690	52

* No cargo discharged.

* No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Oropesa.	Pacific Steam Nav. Co.	December 17.	December 17.	14	22
Baralt.	Royal Nether. S. S. Co.	December 17.	December 17.		37
Caldas.	National Navigation Co.	December 17.	December 20.	233	70
Pearl Marie.	R. Feuillebois	December 18.	December 18.	(¹)	29
Sixaola.	United Fruit Co.	December 18.	December 19.	387	448
Pacific President.	Furness, Withy & Co.	December 18.	December 19.	1	364
Marques de Comillas.	Spanish Line.	December 18.	December 22.	318	387
Cristobal.	Panama R. R. S. S. Line.	December 18.	December 23.	4,201	713
Cerigo.	Hamburg-American Line.	December 19.	December 22.	1,151	426
Nitokris.	Hamburg-American Line.	December 19.	December 19.	60	(²)
Theodore Roosevelt.	Fred Olsen & Co.	December 19.	December 19.	(¹)	54
Coppename.	United Fruit Co.	December 19.	December 21.	682	55
Santa Inez.	Grace Line.	December 19.	December 20.	(¹)	112
Oroma.	Pacific Steam Nav. Co.	December 19.	December 20.	57	28
Salvador.	Pacific Steam Nav. Co.	December 19.	December 19.	372	
Orazio.	Italian Line.	December 19.	December 21.	346	205
Granada.	Stand. Fruit & S. S. Co.	December 20.	December 21.	318	280
Manizales.	North German Lloyd	December 20.	December 22.	501	490
Limon.	United Fruit Co.	December 20.	December 21.	1,311	(²)
Saramacca.	United Fruit Co.	December 20.	December 21.	85	169
Grootendijk.	Holland-American Line.	December 20.	December 24.	(¹)	242
Parissima.	United Fruit Co.	December 21.	December 23.	263	10
Maravi.	United Fruit Co.	December 21.	December 21.	1	817
Inapaquina.	United Fruit Co.	December 21.	December 21.	12	(²)
Wanks.	Stand. Fruit & S. S. Co.	December 21.	December 21.	97	$\frac{1}{2}$
Castilla.	United Fruit Co.	December 21.	December 21.	38	757
Galeia.	Hamburg-American Line.	December 21.	December 22.	796	30
Novian.	Leyland S. S. Line.	December 21.	December 23.	584	(²)
Piako.	N. Z. Shipping Co.	December 21.	December 21.	21	(²)
Bennekom.	Royal Neth. S. S. Co.	December 22.	December 22.	120	64
Isa.	Columbus S. S. Line.	December 22.	December 24.	394	(²)
Ecuador.	Pacific Steam Nav. Co.	December 22.	December 23.	426	307
Ulua.	United Fruit Co.	December 22.	December 22.	47	171 $\frac{1}{2}$
Guatemala.	Panama Mail S. S. Co.	December 23.	December 24.	796	247
Tolca.	United Fruit Co.	December 23.	December 25.	556	73
Teno.	Chilean Line.	December 23.	December 23.	4	136
Wiegand.	North German Lloyd	December 23.	December 24.	154	190
Acoajutla.	Pacific Steam Nav. Co.	December 23.	December 23.	243	
Van Rensselaer.	Royal Neth. S. S. Co.	December 24.	December 25.	25	19
Cauca.	National Navigation Co.	December 24.	December 28.	287	23
Roland.	North German Lloyd	December 24.	December 24.	4	(²)
Guayaquil.	Panama R. R. S. S. Line.	December 25.	December 27.	450	689
Pellerin de LaTouche.	French Line.	December 25.	December 27.	351	330
Oliviger.	Anglo-Saxon Pet. Co.	December 25.	December 26.	4,593	(²)
Champerico.	Pacific Steam Nav. Co.	December 25.	December 25.		1,890
Arana.	Pacific Steam Nav. Co.	December 25.	December 26.	24	37
Magellan.	Pacific Steam Nav. Co.	December 25.	December 27.	5	13
Laila.	Gulf-Caribbean S. S. Co.	December 26.	December 27.	1,042	10
Cali.	North German Lloyd	December 26.	December 26.	990	
Magdalena.	Hamburg-American Line.	December 26.	December 26.	180	(²)
Santa Barbara.	Grace Line.	December 26.	December 26.	10	214
City of Panama.	Panama Mail S. S. Co.	December 26.	December 26.	544	
Nebraska.	Pacific Steam Nav. Co.	December 27.	December 28.	(¹)	76
Drechtijk.	Holland-American Line.	December 27.	December 27.	22	
Havel.	North German Lloyd	December 27.	December 27.	(²)	163
Amapala.	Stand. Fruit & S. S. Co.	December 27.	December 28.	230	163
Virgilio.	Italian Line.	December 27.	December 28.	27	868
Coppename.	United Fruit Co.	December 27.	December 27.	81	279
Zacapa.	United Fruit Co.	December 27.	December 27.	1,107	91
Suriname.	United Fruit Co.	December 28.	December 28.	546	48
San Mateo.	United Fruit Co.	December 28.	December 28.	949	
Santa Rita.	Grace Line.	December 28.	December 28.	165 $\frac{1}{2}$	88 $\frac{1}{2}$
Heredia.	United Fruit Co.	December 28.	December 28.	393	
Mayari.	United Fruit Co.	December 28.	December 28.	23	469
Van Rensselaer.	Royal Neth. S. S. Co.	December 28.	December 28.	(1 case)	455
Annam.	Danish East Asiatic Line.	December 28.	December 28.	194	
Wanks.	Stand. Fruit & S. S. Co.	December 28.	December 28.	75	4
Portland.	Hamburg-American Line.	December 28.	December 28.	5	
Magdalena.	Hamburg-American Line.	December 28.	December 28.	2	
Frankenwald.	Hamburg-American Line.	December 28.	December 28.	88	
Orbita.	Pacific Steam Nav. Co.	December 28.	December 28.	16	84

¹ No cargo discharged.² No cargo laded.

Sale of Tug Boat.

The Panama Canal offers for sale to the highest bidder the tug boat *La Boca*, a seagoing, single screw, steel hull, steam, oil-burning vessel; length 120 feet; beam 24 feet; depth 13 feet; draft 11 feet 4 inches; gross tonnage 192; displacement 462.8 tons. Sealed bids will be received in the offices

of the General Purchasing Officer, The Panama Canal, Washington, D. C., and the Chief Quartermaster, The Panama Canal, Balboa Heights, Canal Zone, not later than 10.30 o'clock a. m., January 27, 1930. Forms of proposal, Circular No. 2517, with full particulars, may be had upon application to the above-mentioned offices.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, January 4, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sirius	28	16.45	29	6.00	29	13.25	American	U. S. Navy	390.0	54.0	21.3	Boston, Mass.	Bremerton, Wash.	General	3,628 ¹	...	...
Drechttdijk	27	17.35	29	6.05	29	13.47	Dutch	Holland-American Line	485.0	62.0	21.6	Rotterdam, Holland	Vancouver, B. C.	General, bananas	2,722	10,793	7,619
Portland	28	3.30	29	7.15	29	15.13	German	Hamburg-Germany	462.2	61.0	21.6	Hamburg, Germany	Vancouver, B. C.	General, bananas	5,406	9,439	6,666
San Mateo	28	14.57	29	12.40	29	19.50	American	United Fruit Co.	315.2	44.0	18.3	Cristobal, C. Z.	San Francisco, Cal.	General	10	3,496	2,141
Cal.	26	20.35	29	13.55	29	21.14	German	Roland Line	216.5	32.0	15.0	Cristobal, C. Z.	Buenaventura, Col.	General	399	1,105	698
Karepo	29	12.40	29	15.25	29	22.55	British	Union S. S. Co.	284.0	46.3	19.3	Liverpool, England	Wellington, N. Z.	Coal	2,235	2,800	1,628
Kaikutu	29	16.01	29	16.01	29	16.01	American	H. Prescod	395.5	55.0	19.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	...	...	...
New Orleans	29	17.58	29	20.10	30	9.19	American	Roosevelt S. S. Co., S. B.	399.0	54.0	19.0	New York, N. Y.	Fremantle, Aust'lia	General	1,960	7,209	5,172
Frankenwald	28	12.30	29	6.00	30	13.34	German	Hamburg-American Line	399.0	54.0	25.2	Hamburg, Germany	Valparaiso, Chile	General	5,510	6,575	4,400
Inswich	30	7.40	30	7.55	30	16.35	American	Argonaut S. S. Co.	420.7	56.2	24.0	Baltimore, Md.	Portland, Oreg.	General, steel	6,647	6,616	4,614
Steel Exporter	30	10.45	30	10.55	30	17.26	American	Isthmian S. S. Lines	400.2	56.2	25.0	Baltimore, Md.	Vancouver, B. C.	General, steel	7,066	7,611	5,450
Illinois	29	12.50	30	11.48	30	18.42	French	French Line	400.0	51.6	15.2	Bayre, France	Corral, Chile	General	1,902	6,336	4,301
Leeds City	30	13.30	30	13.35	30	20.04	British	Canadian Transp. Co.	400.0	54.0	19.0	Corner Brook, N. F.	Seattle, Wash.	Newsprint	4,168	6,397	5,461
Skagerrak	30	13.30	30	14.00	30	21.30	Swedish	Com. Lin. & Dom. Line.	406.4	53.7	19.6	Philadelphia, Pa.	Fremantle, Aust'lia	General	5,409	5,892	4,704
Rocheater	30	14.30	31	6.00	31	14.25	American	U. S. Navy	380.0	64.0	21.8	Cristobal, C. Z.	Ballast	(9)	2,995	3,984	2,643
Point Gorda	30	18.05	31	6.05	31	14.54	American	Gulf-Pacific Line	324.0	56.7	19.6	Corpus Christi, Tex.	Seattle, Wash.	Ballast	2,100	5,068	3,138
Monique	30	17.00	31	6.30	31	15.40	French	Deamarais Fries	425.0	56.1	17.0	Blaye, France	Seattle, Wash.	General	7,053	5,051	3,451
Charles Nelson	30	17.10	31	7.15	31	16.24	American	Nelson Line	380.4	57.0	22.10	New York, N. Y.	Los Angeles, Calif.	Ballast	10,103	8,324	6,036
La Habra	30	20.10	31	7.30	31	16.37	Norwegian	Anglo-Saxon Pet. Co.	424.0	56.0	27.6	Rotterdam, Holland	Seattle, Wash.	Steel products	982	2,873	1,776
Ponona	31	3.25	31	8.30	31	17.18	American	Norton, Lilly & Co.	440.8	56.0	27.6	Mobile, Ala.	Guayaquil, Ecuador	General	7,000	6,581	4,784
Buenaventura	29	22.30	31	8.50	31	16.23	American	Panama R. R. S. S. Line	251.0	43.0	18.4	New York, N. Y.	Tacoma, Wash.	Sulphur	2,847	9,154	6,966
Herman F.	31	7.15	31	9.40	31	18.20	American	Tex. G. & F. Sulph. Co.	409.8	54.2	24.5	Galveston, Tex.	Tacoma, Wash.	General	2,847	9,154	6,966
Whitton	31	10.45	31	11.00	31	17.43	American	Amer.-Hawaiian Line	471.0	57.2	20.0	Boston, Mass.	Seattle, Wash.	General	4,334	8,552	6,236
K. I.	31	11.45	31	12.10	31	19.23	American	Luckenbach Line	446.0	56.0	22.6	Boston, Mass.	Kahului, T. H.	General, tinplate	3,331	2,823	1,740
Luckenbach	31	12.25	31	12.20	31	20.43	American	Isthmian S. S. Lines	251.0	43.6	22.2	Baltimore, Md.	Talehuano, Chile	General	2,350	5,748	3,955
Santa Veronica	31	12.30	31	12.30	31	20.49	British	Thos. Dunlop & Son	400.0	59.2	18.0	Norfolk, Va.	Los Angeles, Calif.	General	3,619	6,821	4,927
Queen Maud	31	12.10	31	12.50	31	21.45	American	Richfield Oil Co.	430.0	59.2	20.0	Newport News, Va.	Portland, Oreg.	Ballast	2,622	3,984	2,612
Hampden	31	14.20	31	14.35	31	21.23	American	Transmarine Lines	324.0	46.0	20.0	Newark, N. J.	General, steel	General	3,619	6,821	4,927
Roads	31	15.30	31	15.15	31	23.19	American	States S. S. Co.	409.0	54.0	19.0	Wilmington, Del.	Auckland, N. Z.	General	2,844	7,012	5,145
Swurduno	31	13.35	31	15.30	31	23.27	American	Hall Line, Ltd.	411.0	55.0	25.3	New York, N. Y.	Yokohama, Japan	Phos., cotton	7,029	6,262	4,488
San Felipe	31	15.20	31	15.30	31	23.27	American	Yamashita Kisen Kaisha	400.0	53.0	25.0	Galveston, Tex.	Los Angeles, Calif.	General	3,056	8,568	6,648
City of	31	14.35	31	19.10	1	9.10	British	Luckenbach Line	425.0	57.3	19.6	Houston, Texas	Vancouver, B. C.	General, bananas	2,357	9,163	7,056
Wellington	31	17.30	1	6.25	1	15.17	Japanese	Holland-American Line	471.0	60.0	19.2	London, England					
Tobaci Maru	31	17.30	1	6.25	1	15.17	Japanese										
Edgar F.	31	18.55	1	6.25	1	13.32	American										
Luckenbach	30	20.15	1	7.10	1	16.02	American										
Moerdijk	30	20.15	1	7.10	1	16.02	Dutch										

* Supply ship.

* Motor ship.

* Launch.

* Tanker.

* Cruiser.

	31	19	20	1	7	15	1	16	15	1	17	10	Norwegian.	Fern Line.	382	0	53	3	24	6	Tampa, Fla.	Shanghai, China.	General.	6,317	6,082	4,236
Skransstad	1	19.20	1	8.30	1	7.15	1	16.15	1	17.10	1	18.06	Japanese.	Kokusai Kisen Kaisha.	435	0	56	0	26	0	Yawata, Japan.	Yawata, Japan.	Ballast.	7,771	6,900	5,147
Yori Maru	1	31.45	1	8.30	1	8.30	1	16.58	1	18.06	1	18.06	American.	Tudewater T. Co.	435	0	56	0	19	0	Los Angeles, Calif.	Los Angeles, Calif.	Ballast.	7,441	5,077	4,907
Dwight	1	31.45	1	8.30	1	8.30	1	17.04	1	18.06	1	18.06	American.	Tankship Rhetora.	435	0	56	0	20	0	Los Angeles, Calif.	Los Angeles, Calif.	Ballast.	7,403	5,112	4,907
Aladdin	1	2.00	1	9.45	1	17.39	1	17.39	1	18.26	1	18.26	American.	Tankship Rhetora.	435	0	56	0	20	0	Los Angeles, Calif.	Los Angeles, Calif.	Ballast.	7,403	5,112	4,907
Calliope	1	5.35	1	10.15	1	17.50	1	17.50	1	18.26	1	18.26	American.	Tankship Rhetora.	435	0	56	0	20	0	Los Angeles, Calif.	Los Angeles, Calif.	Ballast.	7,403	5,112	4,907
Cities Service	1	11.50	1	12.00	1	12.00	1	19.55	1	20.26	1	20.26	American.	Atlantic Refining Co.	465	0	60	2	18	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	8,561	5,997	5,198
Empire	1	13.08	1	13.20	1	13.20	1	20.26	1	21.32	1	21.32	American.	Richfield Oil Co.	480	0	59	0	19	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	10,084	7,388	6,494
Larry Doherty	1	18.20	1	19.15	1	9.55	1	20.26	1	21.32	1	21.32	American.	Stand. Transp. Co.	480	0	62	7	18	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	10,084	7,388	6,494
China Arrow	1	6.55	1	6.55	1	6.55	1	20.26	1	21.32	1	21.32	American.	Royal Neth. S. S. Co.	480	0	62	7	18	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	10,084	7,388	6,494
Briele	1	6.55	1	6.55	1	6.55	1	20.26	1	21.32	1	21.32	American.	Royal Neth. S. S. Co.	480	0	62	7	18	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	10,084	7,388	6,494
S-16	1	6.55	1	6.55	1	6.55	1	20.26	1	21.32	1	21.32	American.	Royal Neth. S. S. Co.	480	0	62	7	18	0	New York, N. Y.	Los Angeles, Calif.	Ballast.	10,084	7,388	6,494
Spirala	1	15.30	1	6.20	1	6.20	1	16.55	1	19.51	1	19.51	British.	Anglo-Saxon Pet. Co.	412	0	53	0	19	0	Tyne, England.	Los Angeles, Calif.	Ballast.	6,126	4,352	4,352
Yonochichi	1	9.20	1	10.10	1	10.10	1	16.55	1	19.51	1	19.51	American.	Roosevelt S. S. Co.	412	0	53	0	19	0	Baltimore, Md.	Hongkong, China.	General.	5,603	6,996	5,042
West Prince	1	17.40	1	11.30	1	11.30	1	20.15	1	21.40	1	21.40	American.	Roosevelt S. S. Co.	412	0	53	0	19	0	Baltimore, Md.	Hongkong, China.	General.	5,603	6,996	5,042
Near Vivia	1	19.25	1	13.05	1	13.05	1	20.15	1	21.40	1	21.40	American.	Roosevelt S. S. Co.	412	0	53	0	19	0	Baltimore, Md.	Hongkong, China.	General.	5,603	6,996	5,042
Pacific	1	15.00	1	13.55	1	13.55	1	21.10	1	22.34	1	22.34	British.	Pacific Arg-Brazil Line.	410	0	54	2	20	4	New Orleans, La.	Talcahuano, Chile.	General.	3,405	6,754	4,967
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
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St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086	9,041	6,989
St. Michel	1	7.23	1	14.40	1	14.40	1	22.04	1	23.28	1	23.28	American.	Furness Pacific Line.	435	0	60	0	18	0	Glasgow, Scotland.	Vancouver, B. C.	General.	1,086		

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sunbeam ¹	29	19 00	30	7 07	30	15 25	30	15 25	American	Sun Oil Co.....	429.3	59.2	27.3	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	10,658	7,709	5,562
Abeville.....	30	6 20	30	8 13	30	16 30	30	16 30	American	U. S. Navy.....	225.0	41.0	13.0	Corinto, Nicaragua	Cristobal, C. Z.	Cruiser.			
S-17 ¹⁴	30	8 31	30	16 30	30		30		American	U. S. Navy.....	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
George.....	29	23 00	30	8 40	30	18 40	31	15 00	French	French Line.....	410.1	55.7	26.0	Vancouver, B. C.	Le Havre, France.	General.	7,613	6,830	4,932
San Domingo.....	30	3 20	30	9 27	30	18 12	30	18 12	American	Williams S. S. Corp.....	376.4	52.3	25.0	Seattle, Wash.	Baltimore, Md.	General.	6,410	5,455	3,702
Samuel Q.....	30	6 24	30	9 42	30	18 55	30	19 55	American	Tidewater Oil Co.....	424.4	58.2	25.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	9,213	7,333	5,183
Brown ¹	30	7 00	30	10 15	30	19 25	30	21 15	Italian	Italo Cilena.....	385.5	48.7	23.7	Talcahuano, Chile.	Marseilles, France	Sugar.	6,069	4,830	3,556
Antonietta.....	30	9 20	30	10 40	30	20 30	30	23 15	American	Associated Oil Co.....	419.5	56.5	26.0	San Francisco, Cal.	New York, N. Y.	Gasoline.	9,000	7,060	5,025
Solana ¹	30	11 45	30	12 51	30	20 43	30	20 43	British	Larrinaga & Co., Ltd.	385.0	53.0	24.2	Iquique, Chile.	Jacksonville, Fla.	Nitrates	7,500	5,274	3,664
Mignol de.....	30	13 20	30	14 04	30	21 47	30	21 47	American	Redwood Line, Inc.	328.8	46.2	17.0	Portland, Ore.	Mobile, Ala.	General.	1,664	5,732	4,131
Albron.....	30	17 25	30	18 04	31	12 05	31	14 05	American	Transmarine Lines.	324.0	46.2	22.6	Aberdeen, Wash.	Philadelphia, Pa.	Lumber.	3,628	3,984	2,628
Sirico.....	30	11 00	31	6 32	31	14 50	31	15 15	American	Panama-Pacific Line.....	586.4	80.3	30.0	San Francisco, Cal.	New York, N. Y.	General.	6,550	25,262	18,194
Pennsylvania.....	31	00 30	31	6 04	31	16 50	31	16 56	American	Ore S. S. Corp.....	550.3	72.2	33.8	Cruz Grande, Chile	New York, N. Y.	Iron ore.	21,500	15,551	4,297
Canarian.....	30	17 45	31	7 16	31	18 20	31	18 20	British	Can. Nat. Steamships.	400.0	52.4	18.0	Wellington, N. Z.	Halifax, Canada.	General.	1,287	6,228	4,491
Transporter.....	30	21 20	31	7 49	31	19 15	31	19 15	Norwegian.	Scand.-So. Pacific Co.	350.7	51.5	24.2	Portland, Ore.	United Kingdom	Wheat.	5,821	4,758	3,347
Nyhaug ¹⁵	31	6 00	31	7 24	31	18 40	30	18 40	Colombian.	National Navigation Co.	116.0	21.1	10.6	Buenaventura, Col.	Cristobal, C. Z.	(¹⁷)	242.3	211	124
Caldas ¹⁵	30	22 30	31	8 10	31	20 00	1	00 25	Norwegian.	Fred Olsen & Co.	435.9	56.2	28.0	Vancouver, B. C.	Oslo, Norway	General.	8,531	8,016	5,854
Knute Nelson ¹⁵	31	7 30	31	8 39	31	20 20	31	20 20	American	Amer-Hawaiian Line.	407.7	53.7	27.2	Portland, Ore.	Boston, Mass.	General.	7,332	7,150	5,024
Minnesota.....	31	10 40	31	11 41	31	21 15	1	6 00	British	Donaldson Line.	425.0	56.0	27.0	Vancouver, B. C.	London, England.	General.	7,828	7,827	5,429
Sulairia.....	14	20 45	31	13 33	31	22 00	1	5 34	French.	Messageries Maritimes.	447.2	52.6	22.0	Noumea, New Cal.	Dunkerque, France	(¹⁸)	3,883	7,487	5,162
Loujour.....	31	15 30	1	6 15	1	13 35	1	13 35	American	Luckenbach Line.	445.0	58.0	27.0	Portland, Ore.	Boston, Mass.	General.	7,317	8,699	6,363
Horace.....	31	18 10	1	6 32	1	14 30	1	14 30	British.	Sir W. R. Smith & Sons	400.4	54.2	24.2	New Westminster, B. C.	Manchester, Eng.	General.	6,279	6,947	5,358
Lucerna.....	31	18 15	1	7 20	1	15 35	1	15 35	American	Transmarine Lines.	324.0	46.2	24.0	Tacoma, Wash.	New York, N. Y.	Lumber.	3,825	3,984	2,628
Tacoma City.....	31	18 35	1	8 25	1	16 50	1	16 50	American	Penn. Shipping Co.	433.6	56.3	28.0	Los Angeles, Calif.	Fall River, Mass.	Kerosene dist.	10,410	7,426	5,073
Antietam.....	31	19 20	1	8 40	1	18 10	1	18 10	American	Standard Transp. Co.	435.0	56.0	27.6	Los Angeles, Calif.	New York, N. Y.	Gas oil.	9,925	7,602	5,337
Algonquin.....	1	3 30	1	9 15	1	17 15	1	18 50	German	North German Lloyd	450.0	58.2	25.4	Vancouver, B. C.	Antwerp, Belgium	General.	7,793	7,933	5,799
Justin.....	1	3 30	1	9 15	1	17 15	1	18 50	German	North German Lloyd	450.0	58.2	25.4	Vancouver, B. C.	Antwerp, Belgium	General.	7,793	7,933	5,799
Ana Luisa ¹⁶	31	14 11	31	14 11	31		31		Panamanian	G. Iribarren				Balboa, C. Z.	Gatun, C. Z.				
Caucasian.....	1	4 30	1	9 50	1	18 15	1	19 20	Belgium	Lloyd Royal Belge.	450.0	58.0	24.0	Vancouver, B. C.	Rotterdam, Holl'd	General.	7,575		
Tonking ¹⁵	1	8 10	1	10 30	1	19 45	1	21 40	Danish	East Asiatic Co.	410.0	55.6	28.6	Vancouver, B. C.	Copenhagen, Den.	General.	8,988	7,013	5,317
Beulah.....	1	9 00	1	10 30	1	19 45	1	21 40	Danish	Royal Neth. S. S. Co.	202.9	33.1	12.0	Guayaquil, Ecuador	Cristobal, C. Z.	General.	271		
Tuyama Maru.....	31	18 15	1	11 17	1	20 35	1	23 15	Japanese.	Nippon Yusen Kaisha.	445.0	58.4	20.9	Manila, P. I.	New York, N. Y.	(¹⁹)	7,064	7,956	6,917
Atlantic.....	1	10 50	1	12 10	1	20 30	1	20 03	American	Anchor S. S. Line.	410.5	53.0	24.0	Vancouver, B. C.	Baltimore, Md.	Lumber, general.	6,387	6,567	4,981
Thalia ¹⁵	1	12 16	1	13 16	1	21 01	1	21 01	Danish	Tankship Ruederal.	470.0	63.2	26.9	Talca, Peru.	Hamburg, Germany	Naphtia	11,000	9,018	5,929
Democracy.....	1	4 30	1	19 10	2	11 25	2	11 25	American	Charles Nelson & Co.	567.1	72.0	34.1	Portland, Ore.	New York, N. Y.	Lumber.	5,925	5,134	4,004
Svedland ¹⁴	1	18 15	2	6 36	2	15 20	2	16 25	Swedish.	Ore S. S. Corp.	371.1	72.2	34.1	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	22,224	15,425	4,421

¹⁹ Oil, tea, rice, etc.¹⁸ Copra, shells, and nickel.¹⁶ Commercial launch.¹⁵ Motor ship.¹⁴ Submarine.¹³ Tanker.

Ship.	Date.	ARRIVALS.										DEPARTURES.									
		Vessel.	Line.	From—	Date.	Vessel.	Line.	Date.	Vessel.	Line.	For—										
Salinas	1 20 35	2 7 02	2 18 47	2 19 26	American.	U. S. Navy.	U. S. Navy.	477.1	60 0 29.3	Los Angeles, Calif.	Norfolk, Va.	Fuel oil.	10,300								
Mallard	2 6 47	2 18 00	2 18 00	2 19 26	American.	U. S. Navy.	U. S. Navy.	187.0	85 6	Balboa, C. Z.	Cristobal, C. Z.	General	5,591	12,872	9,271						
Port Hobart	1 20 45	2 7 21	2 17 05	2 19 05	British.	Shaw, Savill & Albion.	Shaw, Savill & Albion.	500.3	63 3 25.8	Auckland, N. Z.	London, England	General	7,105	10,041	7,377						
Glenbeith	1 16 15	2 8 24	2 19 15	2 19 25	British.	Com. Th. & Dom. Line.	W. L. Duff & Co.	466.9	59 7 26.3	Hobart, Tasmania.	Liverpool, England	General	5,800	5,224	3,334						
Mary	1 16 15	2 8 41	2 19 25	2 19 25	British.	W. L. Duff & Co.	W. L. Duff & Co.	376.5	52 2 23.3	Portland, Oreg.	Portland, Oreg.	General	5,800	5,224	3,334						
Luckenbach	1 21 20	2 9 18	2 20 30	2 20 55	American.	Luckenbach Line.	Seas Shipping Co.	410.5	54 3 24.6	Los Angeles, Calif.	Fall River, Mass.	Kerosene.	6,866	6,114	4,125						
Greylock	1 22 00	2 9 58	2 20 55	2 20 55	American.	Seas Shipping Co.	Seas Shipping Co.	430.7	54 3 28.6	Seattle, Wash.	Philadelphia, Pa.	Lumber, ore.	8,450	8,450	5,698						
Florence	2 3 30	2 10 27	2 21 30	2 22 00	American.	Luckenbach Line.	Luckenbach Line.	401.8	52 3 23.0	Seattle, Wash.	New York, N. Y.	Lumber, general.	4,732	6,002	4,621						
Hadnot	2 6 45	2 11 40	2 22 00	2 22 00	American.	Glits Ser. Trans. Co.	Glits Ser. Trans. Co.	416.9	56 2 26.7	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,100	6,705	4,639						
Pacific	2 7 30	2 11 56	2 22 50	2 22 50	British.	Furness, Withy & Co.	Furness, Withy & Co.	420.0	58 0 25.4	Vancouver, B. C.	Glasgow, Scotland	General	7,084	7,892	5,858						
Durazo	2 11 00	2 12 26	2 23 25	2 23 25	German.	Hamburg-American Line	Hamburg-American Line	227.5	34 14 16.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	786	1,633	1,041						
Condor	2 10 30	2 12 33	2 23 25	2 23 25	Chilean.	Soc. Mart. Com.	Soc. Mart. Com.	336.4	45 3 24.0	Valparaiso, Chile.	New York, N. Y.	Nitrate.	4,709	4,421	3,063						
City of	2 13 10	2 14 44	3 9 30	3 22 00	British.	Vancouver S. S. Co.	Vancouver S. S. Co.	411.5	51 1 24.6	Portland, Oreg.	Antwerp, Belgium.	Lumber.	7,500	6,614	4,995						
Vancouver	2 14 15	3 6 04	3 14 00	3 14 00	American.	Standard Oil Co. of Cal.	Standard Oil Co. of Cal.	435.0	56 2 24.9	San Francisco, Cal.	Paulsboro, N. J.	Gasoline.	9,100	7,639	5,206						
R. J. Hanna	3 1 00	3 6 56	3 15 30	3 15 30	American.	Atlantic Refining Co.	Atlantic Refining Co.	364.9	51 0 24.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	6,190	5,174	3,528						
San Francisco	2 16 04	3 7 14	3 15 05	3 16 50	German.	Sudden & Christenson.	Sudden & Christenson.	432.3	58 1 25.0	Vancouver, B. C.	Hamburg, Germany	General	7,058	8,454	6,344						
Virginian	2 18 45	3 7 50	3 17 40	3 17 40	American.	Amer-Hawaiian Line.	Amer-Hawaiian Line.	491.5	58 2 24.0	Seattle, Wash.	Boston, Mass.	Lumber, general	5,171	10,491	7,601						
Albaroka	2 23 10	3 8 11	3 18 20	3 18 20	American.	McCormick Lumber Co.	McCormick Lumber Co.	409.6	54 1 26.2	Portland, Oreg.	Baltimore, Md.	Lumber, general	7,690	6,627	4,993						
Vendemiaire	3 8 00	3 9 57	3 19 40	4 7 30	French.	Comm. Nav. de Nav.	Comm. Nav. de Nav.	466.0	61 7 26.0	Los Angeles, Calif.	Land's End, Eng.	Gasoline	14,200	9,351	6,907						
Hegira	3 14 55	3 16 00	4 11 15	4 15 40	American.	Hegira S. S. Co.	Hegira S. S. Co.	440.0	56 0 29.6	Everett, Wash.	Baltimore, Md.	Lumber.	10,000	8,353	6,113						
Chiloli	3 17 00	3 18 02	4 11 58	4 11 58	American.	Chile S. S. Co.	Chile S. S. Co.	391.0	51 3 24.6	Los Angeles, Calif.	New York, N. Y.	Dark gas oil.	7,103	5,549	3,956						
Anglo	3 19 15	4 6 00	4 14 00	4 15 25	British.	Lawther, Latta & Co.	Lawther, Latta & Co.	426.0	58 0 24.0	Vancouver, B. C.	Falmouth, Eng. ²⁰	Wheat.	9,062	7,341	5,444						
Rhodopis	3 21 30	4 7 00	4 14 10	4 15 50	German.	Hamburg-American Line	Hamburg-American Line	435.5	53 2 26.7	Corral, Chile.	Hamburg, Germany	General.	7,621	7,525	5,138						
San Angelo	3 20 50	4 7 24	4 16 20	4 16 20	American.	States S. S. Co.	States S. S. Co.	409.5	54 2 24.4	Seattle, Wash.	Boston, Mass.	General.	6,997	6,510	4,827						
Golden Gate	4 00 20	4 8 10	4 18 00	4 18 00	American.	Scand. So-Pacific Co.	Scand. So-Pacific Co.	381.5	53 1 23.3	Corral, Chile.	Oslo, Norway	General.	6,727	5,616	3,879						
Island	4 3 45	4 8 36	4 16 50	4 18 00	Danish.	Danish-French Line.	Danish-French Line.	326.2	50 0 15.11	San Francisco, Cal.	Norovoskise, Russ.	Machinery	2,175	3,821	2,791						
Brangan	4 6 10	4 9 10	4 19 25	4 19 25	German.	Roland Line.	Roland Line.	449.4	57 5 15.3	Champerne, Guat.	New Orleans, La.	Ballast.	7,750	5,282							
Chan Graham	4 6 45	4 9 51	4 20 35	4 20 35	British.	Cayzar Irvine & Co.	Cayzar Irvine & Co.	426.0	54 1 25.0	Pagumene, N. Cal.	English Channel ²⁰	Ore, copra, gen.	7,020								
Tasuba Maru	4 7 10	4 16 57	5 11 52	5 13 50	Japanese.	Tasuma K. Kabushiki	Tasuma K. Kabushiki	432.5	55 6 25.6	Bangkok, Siam.	Habana, Cuba	Rice.	7,800								
Malchnee	4 16 00	4 17 53	5 11 58	5 13 08	American.	Malloy Transport Co.	Malloy Transport Co.	333.8	48 0 23.6	Aberdeen, Wash.	Providence, R. I.	Lumber.	4,880	4,176	2,897						

²⁰ For orders. ²¹ Lumber, paper, and pulp.

PORT OF CRISTOBAL.

ARRIVALS.

Date.	Vessel.	Line.
December 29.	Statendam	Holland-American Line.
December 29.	Tolosa	United Fruit Co.
December 30.	Duquesne of Bedford	Canadian Pacific S. S. Co.
December 30.	Calumet	United Fruit Co.
December 30.	N. 6, 9004	Far-American Airways.
December 30.	Pearl Marie	G. I. Bryan

²² Air mail carrier. ²³ Motor schooner.

DEPARTURES.

Date.	Vessel.	Line.	For—
December 28.	Cundinamarca-C3	Seacla Airplane Co.	Buenaventura via waypa.
December 28.	Aunetta I.	Hamburg-American Line.	Colon, R. I.
December 29.	Magdalena	Hamburg-American Line.	Hamburg via wayports.
December 29.	Tolosa	United Fruit Co.	New York via wayports.
December 29.	Statendam	Holland-American Line.	New York via Habana.
December 30.	Pearl Marie	G. I. Bryan.	Bluefields, Nicaragua.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 31.	Nitonian.	Leyland S. S. Line.	Liverpool via wayports.	December 30.	Heredia.	United Fruit Co.	New Orleans via wayports.
December 31.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.	December 31.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.
December 31.	Annetta I. ²⁵ .	A. Tagarapulos.	Colon, R. P.	December 31.	Duchess of Bedford.	Canadian-Pacific S. S. Co.	New York via wayports.
January 1.	Annelucena ²⁵ .	United Fruit Co.	Colon, R. P.	December 31.	No. 9688 ²⁶ .	Pan-American Airways.	Tela via wayports.
January 1.	Carare.	Elders & Fyfes Line.	Avonmouth via way'ts.	December 31.	No. 300-N ²⁶ .	Pan-American Airways.	Curacao via wayports.
January 1.	Ancon.	Panama R. R. S. S. Line.	New York via Kingstn.	December 31.	No. 9107 ²⁶ .	Pan-American Airways.	Guayaquil via wayports.
January 1.	Santa Marta.	United Fruit Co.	Barraquilla via way'ts.	January 1.	Irioua.	United Fruit Co.	Colon, R. P.
January 1.	Darien C-35 ²⁶ .	Seadta Airplane Co.	New Orleans, La.	January 1.	Annetta I. ²⁵ .	A. Tagarapulos.	Bocas, R. P.
January 1.	Castilla.	United Fruit Co.	New York via wayports.	January 1.	Calamares.	United Fruit Co.	Port Limon, C. R.
January 2.	Macabi.	United Fruit Co.	Curacao via wayports.	January 1.	Carare.	Elders & Fyfes Line.	Avonmouth via way'ts.
January 2.	No. 300-N ²⁶ .	Pan-American Airways.	Tela via wayports.	January 2.	Darien C-35 ²⁶ .	Seadta Airplane Co.	Barraquilla via wayports.
January 3.	No. 9688 ²⁶ .	Pan-American Airways.	Tela via wayports.	January 2.	No. 9685 ²⁶ .	Pan-American Airways.	Tela via wayports.
January 3.	Cuchidumarea C-33 ²⁶ .	Seadta Airplane Co.	Guayaquil via wayports.	January 2.	Santa Marta.	United Fruit Co.	New York via way'ts.
January 3.	Wanks.	Pan-American Airways.	San Blas, R. P.	January 2.	Macabi.	United Fruit Co.	Puerto Colombia.
January 4.	Atlantida.	Stand. Fruit & S. S. Co.	New Orleans, La.	January 2.	Castilla.	United Fruit Co.	Puerto Colombia.
January 4.	Irioua.	United Fruit Co.	Bocas, R. P.	January 2.	Nitonian.	Leyland S. S. Line.	Port Limon, C. R.
January 4.	No. 9685 ²⁶ .	Pan-American Airways.	Tela via wayports.	January 4.	Cuchidumarea C-33 ²⁶ .	Seadta Airplane Co.	Buenaventura via way'ts.
January 4.	Carago.	United Fruit Co.	New Orleans via Habana.	January 4.	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.
January 4.	Inapaquina ²⁶ .	United Fruit Co.	Colon, R. P.	January 4.	Annetta I. ²⁵ .	A. Tagarapulos.	Colon, R. P.
January 4.	Annetta I. ²⁵ .	A. Tagarapulos.	Colon, R. P.	January 4.	No. 9664 ²⁶ .	Pan-American Airways.	Tela via wayports.
				January 4.	Irioua.	United Fruit Co.	New Orleans via way'ts.
				January 4.	Atlantida.	Stand. Fruit & S. S. Co.	New Orleans via way'ts.
				January 4.	Wanks.	Stand. Fruit & S. S. Co.	San Blas, R. P.

PORT OF BALBOA.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 29.	Motor ship.	Air mail carrier.		December 30.	F. H. Hillman.	Standard Oil Co. of California.	Los Angeles, California.
December 30.	F. H. Hillman.	Standard Oil Co. of Cal.	Los Angeles, California.	January 2.	Orcamola ²⁷ .	Chiriqui Land Co.	Puerto Armañelles, R. P.
January 2.	Epoca ²⁷ .	Grace Line.	Buenaventura, Colombia.	January 4.	Sambu ²⁸ .	Hans Elliot.	Panama Bay, R. P.
January 3.	Sambu ²⁸ .	Chiriqui Land Co.	Puerto Armañelles, R. P.	January 4.	El Colon ²⁸ .	Hans Elliot.	Panama Bay, R. P.
January 3.	Doi Colon ²⁸ .	Panama Bay, R. P.	Panama Bay, R. P.	January 4.	Dos Hermanos ²⁸ .	A. Valdez.	Panama Bay, R. P.
January 3.	Dos Hermanos ²⁸ .	Panama Bay, R. P.	Panama Bay, R. P.	January 4.	A. B. de Obarrio ²⁸ .	Pacific Fruit Co.	Panama Bay, R. P.
January 3.	A. B. de Obarrio ²⁸ .	Pacific Fruit Co.	Panama Bay, R. P.				

* Other than ships passing through the Canal.

²⁷ Motor ship. ²⁸ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., January 15, 1930. No. 24.

New High Records for Year's Measurement Tonnage, Tolls, and Tons of Cargo Carried.

Supplementing article appearing in THE PANAMA CANAL RECORD of January 1, 1930, wherein it was stated that traffic through the Canal during the calendar year 1929 had broken all previous records for a year's commercial traffic with respect to tolls collected, and in all probability for cargo and ship tonnage, exact figures are now available and indicate that all previous high marks for these features were surpassed by substantial margins. As was stated in the issue of January 1, 1930, the number of commercial transits for the past calendar year (6,430), while exceeding the number of ships passing through during the calendar year 1928 and the fiscal year 1929, fell short by 26 of the record established during the fiscal year 1928.

The following tabulation shows the number of transits, tonnage, tolls collected, and tons of cargo carried during the past calendar year, as compared with the corresponding totals for the previous record years, and the amount of the increases or decreases.

	Calendar year 1929.	Previous high record.	Year.	Increase or decrease.
Number of transits	6,430	6,456	Fiscal year, 1928 . . .	-26
Tonnage:				
Panama Canal net	30,353,189	29,837,794	Fiscal year, 1929 . . .	+515,395
United States net	23,138,682	22,863,796	Fiscal year, 1928 . . .	+274,886
Registered gross	38,061,989	37,464,792	Fiscal year, 1929 . . .	+597,197
Registered net	23,241,639	22,900,317	Fiscal year, 1929 . . .	+341,322
Tolls	\$27,592,715.84	\$27,127,376.91	Fiscal year, 1929 . . .	+\$465,338.93
Tons of cargo	31,450,493	30,663,006	Fiscal year, 1929 . . .	+787,487

Fire on the Freighter "Saxonstar."

The steamer *Saxonstar* of the Blue Star Line, bound from Olympia to British ports with a refrigerated and general cargo, arrived at Balboa on the evening of January 13 with fire in the lower No. 3 hold, aft on the port side. The fire was discovered about midnight on January 9, as the result of the finding of the bodies of two members of the crew who had been overcome on the 'tween deck by gas. The cause is believed to have been spontaneous combustion in the coal in the forward port bunker. The bulkhead between the bunker and No. 3 hold, designed in the early days of ship refrigeration, consists of a $\frac{3}{8}$ -inch steel plate, about nine inches of charcoal, a layer of mineral paper, and planking to retain the paper and charcoal. Heat from the burning coal ignited this insulation.

The master of the ship having sent radio advice of the situation, all arrangements were made in advance for the prompt docking of the *Saxonstar* and procedure for extinguishing the fire. Canal chemists tested for gas and firemen, protected by gas masks, carried hose into the hold to extinguish the fire, after which portable electrically-driven blowers were installed to ventilate the affected spaces and allow removal of cargo. This work was still under way at time of going to press.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, January 11, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.	Completed transit.		Cleared for sea.	Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Orta	4	17	20	5	13	50	British	Pacific Steam Nav. Co.	455.0	58.0	24.3	Liverpool, England	Talcahuano, Chile.	General.	4,693	6,561
El Cervo	4	20	40	5	14	13	British	Anglo-Ecu. Oilfields	407.4	52.2	20.9	Philadelphia, Pa.	La Libertad, Ecua.	Ballast.	6,046	4,326
Imperial																
Prince	5	3	55	5	15	08	British	Prince Line, Ltd.	430.0	58.0	21.0	New York, N. Y.	Shanghai, China.	General.	3,485	8,594
Norhuor	5	4	03	5	15	35	British	Moor Line, Ltd.	375.0	53.0	25.0	Newport, England	San Francisco, Cal.	Ballast.	6,051	4,612
Tai Shu	5	2	15	5	16	33	Panamanian	Barber S. S. Line	480.0	60.0	45.0	New York, N. Y.	Iloilo, P. I.	General.	6,628	9,870
Pacific	5	9	10	5	17	23	American	Dimon S. S. Corp.	401.7	54.0	27.0	New York, N. Y.	Seattle, Wash.	General.	2,824	6,637
Amalgam	4	23	45	5	18	18	British	J. Langdon Rees, Ltd.	409.4	54.2	23.0	Tampico, Mexico	Sydney, Australia.	Asphalt.	6,302	6,263
M. P. Elliott	5	11	10	5	19	02	American	Standard Shipping Co.	425.0	57.2	23.0	New York, N. Y.	Talca, Peru	Ballast.	7,431	4,916
Tirazon	5	12	33	5	19	13	German	Hamburg-American Line	426.0	57.2	23.0	Cristobal, C. Z.	Guayaquil, Ecuador	General.	167	1,632
Delight	5	13	55	5	20	13	British	R. Chapman & Son	409.0	52.0	17.0	Algiers, Algeria	San Francisco, Cal.	Ballast.	5,182	5,697
Lady May	5	15	55	5	22	45	American	Redwood Line	379.9	53.0	23.6	Houston, Tex.	Seattle, Wash.	Gen. sulphur	5,697	4,103
Iowa	1	00	50	5	14	01	American	G. M. Downer	384.9	53.0	18.6	Cristobal, C. Z.	Catun, C. Z.	Ballast.	2,001	7,469
Santa Cruz	5	11	53	6	9	25	French	French Line	438.0	50.2	17.10	Havre, France	Vancouver, B. C.	Iron, general	1,187	5,434
Clio	5	17	20	6	12	56	American	Gracia Line	470.0	63.2	20.0	New York, N. Y.	Callao, Peru	General.	7,481	4,975
S. C. T. Dodd	5	18	45	6	14	02	Danzig	Warred Tankschiff Rhed.	425.0	57.2	19.6	Rotterdam, Holland	Los Angeles, Calif.	Ballast.	2,993	6,015
Jane	6	8	05	6	15	10	American	Standard Oil Co.	409.5	54.5	18.10	Baltimore, Md.	San Francisco, Cal.	General.	6,172	8,012
Christiansen	6	8	05	6	15	10	American	Sudden & Christenson	409.5	54.5	18.10	Baltimore, Md.	San Francisco, Cal.	General.	7,300	7,243
Maybasal	6	8	35	6	15	55	Japanese	Nippon Yusen Kaisha.	445.0	58.0	23.0	Boston, Mass.	Kobe, Japan.	General.	4,131	6,559
Leitbank	6	9	30	6	16	15	British	Andrew Weir & Co.	421.8	56.8	23.6	Norfolk, Va.	Yokohama, Japan.	General.	1,400	3,952
Lillian	6	13	35	6	22	13	American	Lockenbach Line	449.0	60.2	19.6	Boston, Mass.	Seattle, Wash.	General.	2,835	3,984
Lucenbach	6	21	55	6	23	14	American	Caaka Shosen Kaisha	407.3	50.10	18.0	Galveston, Tex.	Shanghai, China.	General.	9,234	12,841
Delaware Sun	6	4	45	7	14	16	American	San Oil Co.	430.5	66.0	21.6	Chester, Pa.	Los Angeles, Calif.	Ballast.	3,073	6,033
Washington	6	23	40	7	15	13	American	Texas S. S. Co.	425.8	57.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	2,835	3,984
Buffalo Bridge	7	6	10	7	17	18	American	Neslan Line	324.0	46.0	18.0	Baltimore, Md.	San Francisco, Cal.	General.	9,234	12,841
Point Ray	7	7	09	7	20	45	American	Seayre & Hoyt	324.0	46.0	18.0	Houston, Texas	Seattle, Wash.	Lumber, general.	2,835	3,984
Rotor	6	22	25	7	20	45	American	N. Z. Shipping Co.	523.4	61.4	30.6	Newport, England	Auckland, N. Z.	General.	9,234	12,841
Chile	6	23	30	7	21	37	British	East Asiatic S. S. Co.	423.0	55.0	24.0	Copenhagen, Den.	Vance aver, B. C.	General.	3,073	6,033
Yanhu	6	20	13	8	13	21	American	Panama Mail S. S. Co.	338.0	43.7	22.0	New York, N. Y.	San Francisco, Cal.	General.	2,326	4,395
Isabon	6	20	13	8	14	43	American	Hamburg-American Line	338.0	43.7	22.0	New York, N. Y.	Champerney, Guat.	General.	3,073	6,033
Chloro	7	17	50	8	15	48	American	Ore S. S. Corp.	549.6	72.0	22.2	Hamburg, Germany	Cruz Grande, Chile	Ballast.	14,538	9,348
Mano	7	22	03	8	16	43	American	Isthmian S. S. Lines	492.0	54.0	26.0	New York, N. Y.	Seattle, Wash.	General.	6,655	6,936
Steel Saffner	7	23	45	8	16	43	American	Isthmian S. S. Lines	425.0	56.0	26.0	New York, N. Y.	Batavia, Java	Steel, general	8,255	7,611
Newtun	7	23	53	8	17	35	American	Amer-Hawaiian Line	460.0	53.7	20.0	Philadelphia, Pa.	Seattle, Wash.	General.	3,017	6,829
Sea Tursh	8	03	45	8	17	22	American	Shepard S. S. Co.	410.0	54.0	17.0	Boston, Mass.	Seattle, Wash.	General.	1,908	6,925

* Launch.

* Motor ship.

* Tanker.

Ship	Type	Flag	Agent	Date	Time	Tide	Wind	Weather	Temp	Humid	Barom	Wind	Speed	Fuel	Water	Cargo	Passes	Remarks
Canadian Challenger	Tanker	British	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50	9 4 16	8 17 50
H. C. Flood	Tanker	Norwegian	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44	8 21 25	8 19 44
Pearl Marie	Tanker	Panama	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44
Pacific Sun	Tanker	American	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44	8 23 44
Santa Teresa	Tanker	American	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10
Sacramento	Tanker	American	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10	8 16 10
Maetla	Tanker	British	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10
Maetla	Tanker	British	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10	9 16 10
Colina	Tanker	Italian	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15
Dresler	Tanker	British	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15	9 16 15
Avet Johnson	Tanker	Swedish	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40
Yagren	Tanker	Swedish	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40
Pleaserville	Tanker	Norwegian	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40
Mano Branch	Tanker	British	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40	9 21 40
Messing	Tanker	French	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45
Mauzette	Tanker	German	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45	9 23 45
Chore	Tanker	American	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20
Prudent	Tanker	American	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20	10 18 20
Johnson	Tanker	American	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05	10 21 05
Nile	Tanker	British	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30
San Marcos	Tanker	American	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30
Asyranax	Tanker	British	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30
Papala	Tanker	Swedish	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30	10 17 30
Lobos	Tanker	British	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10	10 15 10
J-12	Tanker	American	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Esparza	Tanker	American	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Mizpah	Tanker	American	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Romulus	Tanker	American	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Rigel	Tanker	Norwegian	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Kenetician	Tanker	American	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00
Franklin	Tanker	Norwegian	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00	10 13 00

7 Phosphate, rock, and cotton.

8 Yacht.

9 For dry-docking.

10 Motor sealer.

11 Motor ship.

12 For orders.

13 For orders.

14 For orders.

15 For orders.

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96 For orders.

97 For orders.

98 For orders.

99 For orders.

100 For orders.

101 For orders.

102 For orders.

103 For orders.

104 For orders.

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106 For orders.

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108 For orders.

109 For orders.

110 For orders.

111 For orders.

112 For orders.

113 For orders.

114 For orders.

115 For orders.

116 For orders.

117 For orders.

118 For orders.

119 For orders.

120 For orders.

121 For orders.

122 For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.			Panama Canal tonnage.			
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.			
Lycia ¹⁰	5	15	00	5	16	57	6	11	55	6	12	50	British	Canadian Transp. Co.	300.5	44.2	22.3	Chemainus, B. C.	Belize, Br. Hond.	3,334	3,333	
El Salvador	5	11	50	6	6	21	6	13	35	7	18	30	American	Panama Mail S. S. Co.	360.2	51.6	23.6	San Francisco, Cal.	New York, N. Y.	2,233	5,710	
Arizona ¹⁰	5	11	00	6	6	30	6	14	45	6	14	45	American	Texas S. S. Co.	391.8	51.3	25.0	Los Angeles, Calif.	Baltimore, Md.	6,045	5,552	
Lion ¹⁰	5	22	30	6	7	10	6	16	00	6	16	00	Norwegian	Anglo-Saxon Pet. Co.	451.8	59.2	25.5	Los Angeles, Calif.	Land's End, Eng.	9,985	8,099	
Robert E. Hopkins ¹⁰	6	3	45	6	8	16	6	16	35	6	16	35	American	Tidewater Oil Co.	424.4	58.2	26.6	Los Angeles, Calif.	New York, N. Y.	9,148	7,333	
Canadian Miller	5	19	39	6	8	36	6	17	50	6	20	30	British	Can. Nat. Steamships	400.3	52.3	24.0	Vancouver, B. C.	St. Johns, N. B.	6,087	5,892	
Nosa King	5	20	20	6	9	15	6	19	45	7	00	07	American	N. O. & S. S. Co.	324.0	46.2	23.0	Antofagasta, Chile	New Orleans, La.	4,933	3,978	
Santa Tecla	6	7	25	6	9	19	6	19	45	7	1	15	American	N. O. & S. S. Co.	298.6	46.0	21.6	Liquique, Chile	Lake Charles, La.	3,556	2,882	
Essequibo	6	8	10	6	9	37	6	18	10	6	22	30	British	Pacific Steam Nav. Co.	430.3	57.8	23.8	Talcahuano, Chile	New York, N. Y.	2,548	9,158	
Deludik ¹⁰	6	13	15	6	14	02	6	21	12	7	11	10	Dutch	N. Pacific Coast Line	490.8	64.7	30.0	Vancouver, B. C.	Rotterdam, Holland	9,323	11,723	
St. Michel	2	22	04	7	6	33	7	13	50	7	13	50	American	U. S. Army	436.9	58.2	25.0	Balboa, C. Z.	New York, N. Y.	96		
Oiltrader ¹⁰	6	22	30	7	7	03	7	13	50	7	13	50	British	British Oil S. S. Co.	410.0	53.5	24.0	Los Angeles, Calif.	Land's End, Eng.	7,869		
Buena Vista	7	1	10	7	8	09	7	15	50	7	15	50	Norwegian	Caucasian Oil Co., Ltd	393.1	52.7	24.0	Los Angeles, Calif.	Land's End, Eng.	7,999	5,469	
Santa Cecilia	6	22	41	7	8	35	7	17	05	7	20	15	American	Grace Line	403.0	56.2	24.0	Callao, Peru	New York, N. Y.	3,314	6,672	
Harmonius	7	7	50	7	8	50	7	17	55	7	20	15	British	Houston Line	400.7	52.3	24.5	Liquique, Chile	Paracarla, Fla.	7,000		
Auska Maru ¹⁰	6	20	15	7	11	53	7	19	30	7	21	45	Japanese	Nippon Yusen Kaisha	440.4	57.8	22.9	Manila, P. I.	New York, N. Y.	4,063		
American	7	12	35	7	13	10	7	20	40	7	23	25	American	Amer.-Hawaiian Line	404.6	53.9	26.0	Portland, Oreg	Boston, Mass.	6,007	6,777	
Yaparta ¹⁰	7	4	00	7	13	46	7	21	30	7	21	30	American	United Fruit Co.	330.6	44.6	19.4	San Francisco, Cal.	Cristobal, C. Z.	1,060	3,683	
Lukenbach.	7	13	50	7	14	42	7	22	40	7	22	40	American	Lukenbach Line	446.0	56.1	30.0	Portland, Oreg	Boston, Mass.	8,091	8,505	
Manizales	7	15	00	7	16	10	8	00	05	8	00	05	German	Roland Line	216.5	32.9	14.3	Guayquil, Ecuador	Cristobal, C. Z.	872	1,132	
Paul Shoup ¹⁰	7	21	56	8	6	53	8	14	20	8	14	20	American	Associated Oil Co.	424.4	58.2	26.6	Los Angeles, Calif.	Norfolk, Va.	9,074	7,333	
Saint Andre	7	20	30	8	6	07	8	15	40	8	15	40	French	French Line	397.9	50.3	25.7	Talcahuano, Chile	Le Havre, France	6,061	5,859	
Peter Kerr	7	21	25	8	7	30	8	15	50	8	15	50	American	Quaker Line	415.0	55.7	27.0	Tacoma, Wash.	Philadelphia, Pa.	(+)	(+)	
Dorothy Cabill	7	22	05	8	7	52	8	17	00	8	17	00	American	Christensen S. S. Co.	410.0	54.2	24.0	Portland, Oreg	Baltimore, Md.	8,950	7,704	
Sacramento ¹⁰	8	4	30	8	8	13	8	17	25	8	17	25	American	U. S. Navy	224.0	40.0		Balboa, C. Z.	Cristobal, C. Z.	7,374	6,579	
India Arrow ¹⁰	8	4	30	8	8	43	8	18	10	8	18	10	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	12,325	10,084	
Tiger	8	7	30	8	9	16	8	18	35	9	00	20	American	Standard Transp. Co.	410.0	56.0	27.6	Los Angeles, Calif.	New York, N. Y.	8,600	8,201	
Antiochia	8	15	45	8	16	55	9	12	37	9	12	37	German	Hamburg-American Line	363.4	50.2	21.8	Liquique, Chile	Azores ¹²	5,030	4,219	
Hazel Branch	8	15	00	8	20	15	9	11	45	9	11	45	British	Nautilus S. S. Co.	399.3	51.2	23.6	San Antonio, Chile	Liverpool, England	6,012	5,203	
Scopas ¹⁰	8	15	00	9	6	21	9	14	15	9	14	15	Dutch	Anglo-Saxon Pet. Co.	411.9	53.2	25.6	Los Angeles, Calif.	Land's End, Eng.	7,652		
Ojaren ¹⁰	9	00	01	9	7	12	9	15	20	9	15	20	Swedish	Caucasian Oil Co.	389.7	54.9	24.0	Los Angeles, Calif.	Land's End, Eng.	7,112	5,633	
Circinus	9	00	15	9	8	26	9	17	15	9	17	15	American	Planet Lines	410.0	64.2	25.6	Everett, Wash.	New York, N. Y.	7,250	6,585	
Taranaki ¹⁰	9	8	00	9	13	47	9	20	30	9	20	30	British	Shaw, Savill & Albion	493.0	64.2	26.0	Melbourne, Aust'lia	London, England	7,543	11,706	
Am. O.	9	17	45	9	18	04	10	11	45	10	14	50	Belgium	Comp. Inter. de Comm.	400.5	52.1	29.0	Tocopilla, Chile	Azores ¹²	8,136	6,617	
Stillman ¹⁰	10	1	00	10	6	29	10	15	10	10	15	10	British	International Pet. Co.	565.7	75.6	33.0	Talara, Peru	New York, N. Y.	20,000	16,780	
Tanker.																						

¹⁰ Tanker.¹¹ Motor ship.¹² Light cruiser.¹³ For orders.¹⁴ Nitrates, sugar, and general.¹⁵ Lumber, copper, and wheat.

Connector ¹⁶ .	19	16	37	10	6	42	10	14	35	10	14	37	British	Can. Nat. Steamships.	270	0	38	2	11	0	Balboa, C. Z.	Kingston, Jamaica.	Ballast.	3,180
Christiansburg.	9	23	00	10	6	56	10	15	30	10	16	31	Danish.	Can. K. Hansen.	331	8	57	22	0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	4,960	
Lancaster.	9	19	30	10	7	20	10	16	30	10	16	31	American.	Argonaut S. S. Co.	434	3	47	26	6	Longview, Wash.	Port Newark, N. J.	Lumber.	8,404	
San Rafael.	10	5	30	10	7	47	10	19	00	10	19	00	American.	States S. S. Co.	410	0	64	23	6	Portland, Ore.	Philadelphia, Pa.	Lumber.	6,954	
Grova.	10	5	30	10	8	24	10	18	45	11	3	4	British.	Pacific Steam Nav. Co.	525	3	62	24	7	Talcahuano, Chile	London, England	General.	5,586	
Oranger ¹⁸ .	10	7	05	10	8	55	10	19	40	10	19	40	Norwegian.	Westfal, Larsen & Co.	324	0	59	27	0	Los Angeles, Calif.	Land's End, Eng. ¹²	Gasoline.	10,207	
Suberuco.	10	8	10	10	9	07	10	20	11	13	0	10	American.	Transmarine Lines.	458	0	46	23	3	Aberdeen, Wash.	Baltimore, Md.	Lumber.	3,855	
Willkeno.	10	8	45	10	9	55	10	21	30	10	22	25	American.	Amer-Hawaiian Line.	415	0	57	28	6	Seattle, Wash.	Baltimore, Md.	Lumber, general.	5,828	
Missouri ¹⁶ .	10	8	30	10	16	10	10	21	30	10	21	30	American.	Amer-Hawaiian Line.	443	1	59	28	5	Tacoma, Wash.	Boston, Mass.	Lumber, general.	8,303	
Holmport.	10	11	30	10	12	05	10	22	20	11	00	10	British.	J. & J. Denholm, Ltd.	423	5	56	0	25	Talca, Chile.	Azores ¹² .	Nitrates.	8,512	
Canadian.	10	13	00	10	13	36	10	22	40	10	23	35	British.	Can. Nat. Steamships.	400	3	52	4	18	Adelaide, Australia.	Halifax, Canada.	General.	1,692	
Leader.	10	17	30	10	18	25	11	11	23	11	13	05	American.	Rossvelt S.S. Co., S.B.	401	4	53	2	22	Adelaide, Australia.	Baltimore, Md.	Ore, general.	5,614	
Arcturios.	10	18	00	10	18	54	11	12	00	11	12	30	Greek.	S. Livanos.	400	5	52	0	25	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	8,400	
W. S. Rheem ¹ .	10	17	45	10	6	27	11	14	20	11	14	20	American.	Standard Oil Co. of Cal.	501	0	63	2	8	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	13,846	
Santa Isabel.	10	20	10	11	6	46	11	15	15	12	00	25	American.	Amer. & Cuban Line.	251	0	43	6	21	Kahului, T. H.	Philadelphia, Pa.	Raw sugar.	3,266	
Alvarado.	11	4	10	11	7	10	11	15	30	11	21	45	British.	Pacific Steam Nav. Co.	303	0	43	14	6	Buenaventura, Col.	New York, N. Y.	General.	897	
Cauca ²⁰ .	11	7	00	11	8	05	11	16	40	11	16	40	Colombian.	National Navigation Co.	107	4	22	9	10	Cañao, Peru.	Cristobal, C. Z.	Coffee.	145	
American Star.	11	14	30	11	15	21	11	23	10	11	23	10	American.	Charles Nelson & Co.	386	6	52	2	23	Seattle, Wash.	Bridgeport, Conn.	Lumber.	6,341	
Narenta.	11	16	30	11	17	28	11	23	10	11	23	10	British.	Royal Mail S. P. Co.	450	0	53	3	24	Vaneuver, B. C.	London, England.	General.	4,415	

* Tanker.

* For dry-docking only.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 5	Calameres.	United Fruit Co.	Port Limon, C. R.	January 5	Calameres.	United Fruit Co.	New York via Habana.
January 5	Canden.	United Fruit Co.	Curacao, D. W. I.	January 5	Ancón.	Panama R. S. S. Line.	New York via Haiti.
January 6	Pastores.	United Fruit Co.	New York via Habana.	January 5	No. 144-N ¹⁷ .	United Fruit Co.	New Orleans via waypts.
January 6	No. 9664 ¹⁷ .	Pan-American Airways.	Tela via waypts.	January 7	No. 9088 ¹⁷ .	Pan-American Airways.	Curacao via waypts.
January 7	Carmania ¹⁸ .	R. Penlebois	Colon, R. P.	January 7	Canden.	United Fruit Co.	Tela via waypts.
January 7	Castilla.	United Fruit Co.	Puerto Colombia.	January 7	Castilla.	United Fruit Co.	Curacao, D. W. I.
January 7	Macoris.	French Line.	St. Nazaire via waypts.	January 7	Carmania ¹⁸ .	R. Penlebois	Limon via Bocas.
January 8	Metapan.	United Fruit Co.	New York via Kingston.	January 7	Pastores.	United Fruit Co.	Bluefields and waypts.
January 8	Darien C-35 ¹⁷ .	Seadta Airplane Co.	Barranquilla via waypts.	January 8	Macoris.	French Line.	Port Limon, C. R.
January 9	Mayan.	United Fruit Co.	Tampa via waypts.	January 8	Darien C-35 ¹⁷ .	Seadta Airplane Co.	Havre via waypts.
January 9	Tela.	United Fruit Co.	New Orleans, La.	January 8	Macoris.	French Line.	Colon, R. P.
January 9	No. 144-N ¹⁷ .	Pan-American Airways.	Curacao via waypts.	January 9	Darien C-35 ¹⁷ .	Seadta Airplane Co.	Barraquero via waypts.
January 9	No. 9688 ¹⁷ .	Pan-American Airways.	Tela via waypts.	January 9	Mayan.	United Fruit Co.	Managua via waypts.
January 10	Amapala.	Hamburg-American Line.	New York via Kingston.	January 9	Mayan.	United Fruit Co.	New York via waypts.
January 10	No. 300-N ¹⁷ .	Stand. Fruit & S. S. Co.	New Orleans via Habana	January 10	Inapiquina ¹⁹ .	Gulf-Caribbean S. S. Line.	New Orleans via waypts.
January 10	Atlantico C-29 ¹⁷ .	Pan-American Airways.	Guayaquil via waypts.	January 10	Tela.	United Fruit Co.	Colon, R. P.
January 10	Inapiquina ¹⁹ .	Seadta Airplane Co.	Buenaventura via waypts.	January 11	Atlantico C-29 ¹⁷ .	Stand. Fruit Co.	Pio. Colon & Cartagena.
January 10	Carifia.	United Fruit Co.	Colon, R. P.	January 11	No. 9664 ¹⁷ .	Stand. Fruit Co.	Tela via waypts.
January 11	Wanka.	Stand. Fruit & S. S. Co.	Colon, R. P.	January 11	Reliance.	Pan-American Airways.	New York via waypts.
January 11	Carifia.	United Fruit Co.	Bocas, R. P.	January 11	Anapala.	Stand. Fruit & S. S. Co.	New Orleans via waypts.
January 11	Paissimino.	United Fruit Co.	New Orleans via Habana				

* Air mail carrier.

* Motor schooner.

* Motor boat.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.				
* ARRIVALS.			* DEPARTURES.	
Date.	Vessel.	Line.	From—	For—
January 11.....	Nitonian.....	Leyland S. S. Line.....	Port Limon, C. R.	New Orleans, La.
January 11.....	No. 9353 ²⁰	Pan-American Airways.....	Managua via waypoints.	San Blas, R. P.
* Air mail carrier.				
PORT OF BALBOA.				
January 5.....	Guardian ²¹	All America Cables.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	Almirante Grau ²²	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	Coronel Bolognesi ²²	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	Lima ²²	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	R-1 ²³	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	R-2 ²³	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	R-3 ²³	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 9.....	R-4 ²³	Peruvian Government.....	Callao, Peru.	Panama Bay, R. P.
January 10.....	Des Hermanos ²⁴	A. Valdez.....	Panama Bay, R. P.	Panama Bay, R. P.
January 10.....	Cricamola ²⁵	Chiriqui Land Co.....	Pto. Armuelles, R. P.	Panama Bay, R. P.
January 10.....	Real ²⁴	Hans Elliot.....	Panama Bay, R. P.	Panama Bay, R. P.
January 11.....	Sambu ²⁴	Hans Elliot.....	Panama Bay, R. P.	Panama Bay, R. P.

²¹ Cable ship.²² Cruiser.²³ Submarine.²⁴ Motor schooner.²⁵ Motor yacht.

* Other than ships passing through the Canal.

Pamphlet on "Lines to the Panama Canal."

A new and enlarged edition of the pamphlet describing the services of steamship lines through the Panama Canal and to its terminal ports, and passenger connections from the Panama Canal, with fares, revised as of October 1, 1929, has been issued and is being distributed to steamship agents on the Isthmus, steamship lines using the Canal, tourist agencies, and travel bureaus. Others interested may obtain copies by application to The Panama Canal, Balboa Heights, C. Z., or Washington, D. C.

The pamphlet is entitled "Lines to the Panama Canal" and shows the following information: Services through the Canal classified by principal trade routes; air services, passenger connections from the Panama Canal, with fares; list of steamship lines, etc., having agencies on the Isthmus with the names of their representatives; list of agents on the Isthmus for steamship lines, air lines, oil companies, and other marine interests, showing their locations and telephone numbers; consular and diplomatic representatives in the cities of Panama and Colon and the Canal Zone, with their telephone numbers; miscellaneous information concerning tolls charges, facilities for shipping, distances saved by the use of the Canal, etc.

Open Hours at Canal Zone Experiment Gardens.

The Director of the Canal Zone Experiment Gardens at Summit announces that, for the convenience of those who find it difficult to visit the gardens for the purchase of plants during the regular official hours, it has been arranged to keep the gardens open until 5 p. m. on every Wednesday, except holidays. The practice will continue as long as there appears a sufficient demand to justify the same. On other working days the gardens are open from 7 a. m. to 12 m. and from 1 to 4 p. m.

Traffic by Nationality for December, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of December, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for December, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	74	409,879	290,756	481,637	293,306	\$351,203.09	309,407
Chilean.....	2	5,972	4,591	9,185	5,056	5,738.75	4,743
Colombian.....	4	574	554	880	550	673.70	277
Costa Rican.....	1	331	333	474	326	397.20	600
Danish.....	1	5,256	4,207	6,636	4,236	5,258.75	8,587
Danzig.....	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch.....	6	25,229	17,868	29,827	17,900	20,974.42	11,673
French.....	5	25,741	22,373	34,332	21,873	22,797.46	6,287
German.....	17	68,420	45,176	75,829	45,689	55,859.17	48,480
Italian.....	3	20,257	14,528	25,202	15,317	18,160.00	6,038
Japanese.....	9	45,758	39,092	57,814	38,337	48,662.55	47,096
Norwegian.....	15	68,409	51,199	84,843	51,027	52,325.69	29,801
Panamanian.....	1	47	47	86	47	56.40	27
Swedish.....	4	17,388	13,957	32,405	17,042	14,393.07	12,158
United States.....	130	654,247	500,123	814,642	499,501	561,024.12	352,283
Yugoslav.....	1	3,412	2,600	4,297	2,791	3,500.00	6,290
Totals, December, 1929.....	274	1,356,879	1,012,797	1,666,837	1,018,344	1,165,293.25	843,747
Totals, December, 1928.....	315	1,463,621	1,108,243	1,797,394	1,102,512	1,261,608.18	867,504
Totals, December, 1927.....	301	1,356,467	1,049,619	1,710,285	1,046,591	1,159,285.15	676,601

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAOE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	65	325,789	252,237	412,358	252,533	\$313,633.95	408,889
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	3,013
Colombian.....	5	698	667	1,087	659	829.15	1,247
Danish.....	2	7,729	5,316	8,749	5,410	6,645.00	14,067
Danzig.....	1	6,127	5,268	9,839	5,007	6,585.00	11,100
Dutch.....	4	17,177	13,122	21,840	12,697	16,402.50	25,427
French.....	4	19,508	15,006	23,907	14,912	18,757.50	25,717
German.....	14	46,660	34,674	57,190	35,097	43,342.50	64,760
Greek.....	5	19,059	13,402	21,534	13,293	16,752.50	35,890
Italian.....	4	23,165	17,404	29,250	17,866	21,755.00	24,842
Japanese.....	1	5,849	4,459	7,038	4,342	5,573.75	5,386
Norwegian.....	16	74,118	58,472	92,662	57,315	72,732.70	119,257
Panamanian.....	1	47	47	86	47	35.25	.....
Spanish.....	1	4,209	3,658	5,853	3,613	4,572.50	8,250
Swedish.....	5	22,107	16,555	37,284	20,882	20,693.75	50,143
United States.....	117	606,275	466,255	759,926	466,020	582,181.58	866,783
Yugoslav.....	2	8,703	7,163	11,208	7,149	8,933.75	16,416
Totals, December, 1929....	243	1,191,892	917,138	1,507,121	920,818	1,143,737.63	1,681,187
Totals, December, 1928....	264	1,234,519	947,405	1,562,337	954,421	1,181,421.21	1,847,483
Totals, December, 1927....	288	1,260,261	994,257	1,604,265	989,978	1,239,174.60	1,897,227

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	139	735,668	542,993	893,995	545,839	\$664,837.04	718,296
Chilean.....	3	10,644	8,024	16,495	9,032	10,030.00	7,756
Colombian.....	9	1,272	1,221	1,967	1,209	1,502.85	1,524
Costa Rican.....	1	331	333	474	326	397.20	600
Danish.....	3	13,015	9,523	15,385	9,646	11,903.75	22,654
Danzig.....	2	12,056	10,461	18,584	10,033	10,853.88	11,100
Dutch.....	10	42,406	30,990	51,667	30,617	37,376.92	37,100
French.....	9	45,249	37,379	58,239	36,785	41,554.96	32,004
German.....	31	115,080	79,550	133,019	80,786	99,201.67	113,240
Greek.....	5	19,059	13,402	21,534	13,293	16,752.50	35,890
Italian.....	7	43,422	31,932	54,452	33,183	39,915.00	30,880
Japanese.....	10	51,607	43,551	64,852	42,679	54,236.30	52,482
Norwegian.....	31	142,527	109,671	177,505	108,342	125,058.39	149,058
Panamanian.....	2	94	94	172	94	91.65	27
Spanish.....	1	4,209	3,658	5,853	3,613	4,572.50	8,250
Swedish.....	9	29,495	30,512	69,692	37,924	35,086.82	62,301
United States.....	247	1,260,522	966,378	1,574,568	965,821	1,143,205.70	1,219,066
Yugoslav.....	3	12,115	9,963	15,505	9,940	12,453.75	22,706
Totals, December, 1929....	522	2,548,771	1,929,935	3,173,958	1,939,162	2,309,030.88	2,524,934
Totals, December, 1928....	579	2,698,140	2,055,648	3,359,731	2,056,933	2,443,029.39	2,714,987
Totals, December, 1927....	589	2,616,728	2,043,876	3,314,550	2,036,569	2,398,459.75	2,573,828

Transit of "Caucasier" in Around-the-World Service.

The steamship *Caucasier*, of the Lloyd Royal Belge, transited the Canal on January 1, 1930, on her initial voyage in the line's new around-the-world service. This service, which is the only regular eastbound around-the-world service operating through the Canal, was inaugurated last October with the sailing of the *Caucasier* from Antwerp. The service is to be operated on a monthly basis.

The *Caucasier*, which is 450 feet long, 58 feet beam, and of 5,852 gross tons, carried a cargo of wheat, lumber, and canned fruit, from Canada and the United States to the United Kingdom and continental ports.

An article announcing the beginning of this service appeared in THE PANAMA CANAL RECORD of October 2, 1929.

Commercial Traffic Through the Panama Canal in December, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of December, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for December, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	93	485,487	367,601	594,063	367,737	\$414,649.26	259,923
East coast of United States to west coast of South America:							
British	7	25,939	20,432	34,093	20,838	24,020.97	12,531
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,243
Norwegian	1	4,793	4,288	7,203	4,285	5,360.00	2,500
Swedish	1	4,421	3,743	15,339	4,377	3,183.12	
United States	16	66,228	53,928	94,537	53,875	53,231.11	19,057
Totals	26	106,086	85,857	158,482	87,351	90,127.70	36,331
Europe to west coast of South America:							
British	9	47,996	37,758	61,433	37,931	46,252.79	33,414
Chilean	1	1,267	1,125	1,875	1,080	1,406.25	2,500
Danzig	1	5,929	5,193	8,745	5,026	4,268.88	
Dutch	2	6,413	3,418	6,269	3,612	4,140.02	4,070
French	2	8,402	7,016	11,071	6,817	8,770.00	3,467
German	4	19,759	12,965	21,662	13,103	16,206.25	22,786
Italian	2	14,222	9,473	18,141	10,857	11,841.25	3,028
Norwegian	2	7,821	5,887	10,138	5,880	6,072.57	6,954
Yugoslav	1	3,412	2,800	4,297	2,791	3,500.00	6,290
Totals	24	115,231	85,635	143,631	87,097	102,458.01	82,509
East coast of United States to Far East:							
British	12	62,981	38,886	62,928	38,583	48,607.50	76,361
Japanese	7	33,732	28,828	42,528	28,208	35,832.55	38,176
Norwegian	1	4,530	2,508	4,268	2,498	3,135.00	6,350
United States	3	15,586	11,019	17,883	10,988	13,773.75	23,057
Totals	23	116,829	81,241	127,607	80,277	101,348.80	143,944
Europe to west coast of United States:							
British	5	26,534	17,800	28,854	17,702	20,163.55	22,033
Dutch	1	4,395	3,514	5,789	3,381	3,164.40	
French	2	11,975	11,070	16,128	10,721	8,668.71	
German	2	13,624	8,624	14,625	8,773	10,780.00	9,533
Norwegian	6	31,805	25,436	41,829	25,290	22,809.73	
Swedish	1	3,335	3,167	5,616	4,024	2,401.20	
United States	1	4,734	3,945	6,386	3,943	4,931.25	8,574
Totals	18	96,402	73,556	119,227	73,834	72,917.84	40,140
Europe to west coast of Canada:							
British	7	43,647	30,775	50,141	31,024	36,314.82	13,489
Danish	1	5,286	4,207	6,636	4,236	5,258.75	8,587
Dutch	2	13,679	10,642	16,989	10,604	13,302.50	7,565
German	4	24,825	16,445	27,081	16,610	19,945.42	11,549
Italian	1	6,035	5,055	7,061	4,460	6,318.75	3,010
Norwegian	2	10,183	6,238	10,125	6,326	7,797.50	10,859
Totals	17	103,655	73,362	118,033	73,260	88,937.74	55,059
Cristobal to west coast of South America:							
Colombian	4	574	554	880	550	673.70	277
Dutch	1	742	294	780	323	367.50	38
German	6	4,930	3,497	6,421	3,590	4,371.25	1,953
Totals	11	6,246	4,345	8,081	4,463	5,412.45	2,268

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British	7	43,602	29,715	48,000	29,547	\$37,143.75	32,044
Swedish	1	4,147	3,641	5,895	4,395	4,551.25	5,409
United States	2	10,499	7,615	12,175	7,561	9,518.75	5,033
Totals	10	58,248	40,791	66,070	41,503	51,213.75	42,486
Europe to Australasia:							
British	6	46,214	32,763	54,586	33,831	40,953.75	34,990
French	1	5,364	4,287	7,133	4,335	5,358.75	2,820
Totals	7	51,578	37,050	61,719	38,166	46,312.50	37,810
East coast of United States to Philippine Islands:							
British	2	12,761	8,751	14,511	8,768	10,938.75	11,237
United States	3	18,418	15,244	22,860	15,233	19,055.00	20,663
Totals	5	31,179	23,995	37,371	24,001	29,993.75	31,900
Cristobal to west coast of United States:							
United States	5	11,675	9,511	15,862	9,438	11,835.70	3,509
Around the world:							
British	2	24,909	16,937	33,504	19,160	21,171.25	6,180
Japanese	1	7,354	5,958	9,455	5,902	7,447.50	2,754
United States	2	18,429	12,589	21,020	12,589	15,736.25	6,287
Totals	5	50,692	35,484	63,979	37,651	44,355.00	15,221
West Indies to west coast of United States:							
Norwegian	1	3,612	3,201	5,356	3,171	2,600.64	.....
United States	2	11,527	9,411	14,871	9,240	8,299.44	.....
Totals	3	15,139	12,612	20,227	12,411	10,900.08	.....
East coast of Canada to Australasia:							
British	3	19,196	14,530	23,485	14,470	18,162.50	21,328
Cristobal to west coast of Central America:							
British	2	2,293	1,920	3,703	2,065	2,400.00	3,054
Costa Rican	1	331	333	474	326	397.20	600
Totals	3	2,624	2,253	4,177	2,391	2,797.20	3,654
Canadian intercoastal:							
British	2	8,235	6,619	11,244	6,931	8,273.75	7,100
East coast of Canada to west coast United States:							
British	2	8,305	5,763	8,286	5,094	7,097.80	7,118
East coast of South America to west coast Canada:							
Norwegian	1	4,354	2,432	4,003	2,483	3,040.00	1,257
United States	1	5,011	3,623	5,880	3,643	4,528.75	2,849
Totals	2	9,365	6,055	9,883	6,126	7,568.75	4,106
East coast of Central America to Australasia:							
British	2	9,218	5,485	8,950	5,543	6,856.25	12,623
Europe to west coast of Cen- tral America:							
German	1	5,282	3,645	6,040	3,613	4,556.25	2,659
Norwegian	1	1,311	1,709	1,921	1,094	1,511.25	1,881
Totals	2	6,593	4,854	7,961	4,707	6,067.50	4,540
Foreign vessels in ballast— United States inter- coastal:							
British	1	6,386	5,524	8,780	5,145	4,597.92	.....
East coast of United States to west coast of Canada:							
British	1	4,571	3,247	5,207	3,227	3,291.12	.....
East coast of United States to Hawaiian Islands:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	3,331
East coast of Canada to Far East:							
Japanese	1	4,672	4,306	5,831	4,227	5,382.50	6,166

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	Tonnage.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Canada to west coast of South America:							
British.....	1	7,096	5,973	11,404	5,691	\$5,109.12	.....
East coast of South America to west coast of United States:							
United States.....	1	4,913	4,095	6,458	4,012	3,537.36	.....
West Indies to west coast of South America:							
British.....	1	4,345	3,844	6,094	3,664	4,805.00	8,300
Europe to Hawaiian Islands:							
Swedish.....	1	5,485	3,406	5,558	4,246	4,257.50	6,749
Europe to Far East:							
British.....	1	1,230	1,071	1,743	1,095	1,338.75	405
Africa to Australasia:							
British.....	1	4,421	2,963	4,691	2,997	3,703.75	7,200
Cristobal to Balboa:							
Panamanian.....	1	47	47	86	47	56.40	27
Grand, totals, December, 1929	274	1,356,879	1,012,797	1,666,837	1,018,344	1,165,293.25	843,747
Grand totals, December, 1928.	315	1,463,621	1,108,243	1,797,394	1,102,512	1,261,603.18	867,504
Grand totals, December, 1927.	301	1,356,467	1,049,619	1,710,235	1,046,591	1,159,285.15	676,601

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	83	455,706	346,722	561,360	346,946	\$433,402.50	614,080
West coast of South America to east coast of United States:							
British.....	12	48,737	39,326	64,436	39,742	49,157.50	82,658
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	3,013
Greek.....	2	8,401	5,744	9,473	5,732	7,180.00	15,150
Norwegian.....	1	5,219	5,207	7,041	5,234	6,262.80	9,300
Swedish.....	1	4,496	3,743	15,337	4,385	4,678.75	21,800
United States.....	16	79,157	63,133	110,812	63,105	78,650.85	173,455
Totals.....	33	150,682	120,586	214,411	122,174	150,221.15	305,376
West coast of Canada to Europe:							
British.....	16	87,084	62,244	98,052	60,570	77,805.00	110,902
Danish.....	1	5,219	3,378	5,497	3,425	4,222.50	9,337
Dutch.....	1	5,860	5,184	8,365	5,168	6,480.00	8,344
French.....	2	10,121	7,629	12,126	7,464	9,536.25	15,243
German.....	2	14,085	9,354	15,783	9,664	11,692.50	16,086
Italian.....	2	10,280	9,249	12,885	8,095	11,561.25	16,177
Norwegian.....	6	28,162	20,732	33,605	20,940	25,915.00	43,390
United States.....	2	11,406	9,394	13,279	9,210	11,509.45	18,109
Totals.....	32	172,217	127,164	199,592	124,596	158,721.95	237,588
West coast of South America to Europe:							
British.....	11	60,170	47,402	75,871	47,692	59,158.05	76,591
Danzig.....	1	6,127	5,268	9,839	5,007	6,585.00	11,100
Dutch.....	2	10,575	7,644	12,693	7,206	9,555.00	16,777
French.....	1	4,225	3,020	4,892	3,002	3,775.00	6,591
German.....	6	27,645	21,823	35,006	21,843	27,278.75	43,928
Greek.....	3	10,653	7,658	12,059	7,561	9,572.50	20,740
Italian.....	2	12,385	8,155	16,365	9,751	10,193.75	8,665
Norwegian.....	2	7,584	6,419	8,601	5,357	7,912.40	12,418
Spanish.....	1	4,209	3,658	5,853	3,613	4,572.50	8,250
Yug. slav.....	2	8,703	7,163	11,208	7,149	8,953.75	16,416
Totals.....	31	152,781	118,210	192,389	118,211	147,556.70	221,476
West coast of United States to Europe:							
British.....	9	40,851	33,925	55,265	33,416	42,406.25	64,306
Norwegian.....	5	26,644	21,988	36,716	21,680	27,485.00	48,898
Swedish.....	4	17,611	12,812	21,947	16,497	16,015.00	28,343
Totals.....	18	85,106	68,725	113,928	71,593	85,906.25	141,547

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Cristobal:							
Colombian.....	5	698	667	1,087	659	\$829.15	1,247
Dutch.....	1	742	294	780	323	367.50	306
German.....	6	4,930	3,497	6,401	3,590	4,371.25	4,746
Totals.....	12	6,370	4,458	8,268	4,572	5,567.90	6,299
Australasia to Europe:							
British.....	5	46,084	34,137	57,166	35,573	42,671.25	32,042
French.....	1	5,162	4,357	6,889	4,446	5,446.25	3,883
Totals.....	6	51,246	38,494	64,055	40,019	48,117.50	35,925
West coast of United States to Cristobal:							
United States.....	5	11,598	9,717	15,917	9,561	12,093.20	3,849
Philippine Islands to east coast of United States:							
Danish.....	1	2,510	1,938	3,252	1,985	2,422.50	4,730
United States.....	3	15,991	12,801	20,384	12,813	16,001.25	16,557
Totals.....	4	18,501	14,739	23,636	14,798	18,423.75	21,287
West coast of Canada to east coast of United States:							
United States.....	3	13,804	10,118	16,162	10,060	12,647.50	21,327
Far East to east coast of United States:							
Japanese.....	1	5,849	4,459	7,038	4,342	5,573.75	5,386
United States.....	2	11,509	8,801	13,812	8,660	11,001.25	11,213
Totals.....	3	17,353	13,260	20,850	13,002	16,575.00	16,599
Australasia to east coast of United States:							
British.....	1	4,491	3,294	5,458	3,352	4,117.50	1,287
United States.....	2	5,458	3,955	6,452	3,971	4,900.38	5,548
Totals.....	3	9,949	7,249	11,910	7,323	9,017.88	6,835
Australasia to east coast of Canada:							
British.....	3	13,805	10,976	17,956	10,978	13,720.00	6,847
West coast of Central America to Cristobal:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	888
West coast of South America to east coast of Can- ada:							
British.....	2	12,374	10,651	20,336	10,835	13,313.75	27,475
Hawaiian Islands to east coast of United States:							
United States.....	1	1,646	1,614	1,748	1,624	1,975.20	2,675
West coast of United States to West Indies:							
British.....	1	4,253	3,433	5,878	3,409	4,291.25	5,468
Canadian intercoastal:							
British.....	1	567	524	1,015	587	655.00	425
West coast of Canada to east coast of South Amer- ica:							
Norwegian.....	1	5,132	2,912	4,885	3,005	3,640.00	5,021
West coast of Central America to Europe:							
Norwegian.....	1	1,377	1,214	1,814	1,099	1,517.50	230
West coast of South America to West Indies:							
British.....	1	4,345	3,757	6,094	3,664	3,128.40	.....
Balboa to Cristobal:							
Panamanian.....	1	47	47	86	47	35.25	.....
Grand totals, December, 1929.	248	1,191,892	917,138	1,507,121	920,818	1,143,737.63	1,631,187
Grand totals, December, 1928.	264	1,234,519	947,405	1,562,337	954,421	1,181,421.21	1,847,483
Grand totals, December, 1927.	288	1,260,261	994,257	1,604,265	989,978	1,239,174.60	1,897,227

United States Intercoastal Traffic by Commodities for December, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for December, 1929, and the totals for December, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	10	.....	10
Agricultural implements	2,985	85	3,070
Alfalfa .....	.....	271	271
Alfalfa meal .....	.....	783	783
Ammonia	123	.....	123
Asbestos	35	.....	35
Asphalt	173	.....	173
Automobiles	2,618	120	2,738
Automobile accessories	2,318	.....	2,318
Bamboo .....	.....	15	15
Bark:			
Cascara .....	.....	46	46
Other .....	.....	354	354
Barley .....	.....	220	220
Beans .....	.....	8,076	8,076
Borax	216	1,144	1,360
Bricks	217	15	232
Burlap	179	.....	179
Calcium carbide	96	.....	96
Camphor .....	.....	137	137
Canned goods:			
Fish	762	8,646	9,408
Fruit	642	24,903	25,545
Meat	38	3	41
Milk	100	1,289	1,389
Soup	2,737	.....	2,737
Vegetables	869	9,622	10,491
Miscellaneous	2,810	7,472	10,282
Carbon black	40	196	236
Celite filter .....	.....	611	611
Cement	711	12	723
Charcoal	239	50	289
Chemicals	2,574	1,163	3,737
China and fire clay	26	50	76
Cocoa .....	.....	21	21
Coconuts .....	.....	390	390
Coffee	700	122	822
Coke	1,618	.....	1,618
Cold storage:			
Eggs .....	.....	27	27
Lard	30	.....	30
Meat .....	.....	50	50
Other	158	6	164
Confectionery	936	45	981
Cork	586	.....	586
Cotton	398	2,515	2,913
Cyanide	25	.....	25
Drugs	949	122	1,071
Earthenware	146	.....	146
Eggs, dried .....	.....	129	129
Explosives	40	.....	40
Flour	171	5,427	5,598
Fruit:			
Dried	192	13,125	13,317
Fresh .....	.....	799	799
Fuller's earth	100	.....	100
Furniture	490	83	573
General	47,042	10,237	57,279
Glass and glassware	1,540	364	1,904
Glue	15	44	59
Graphite	30	.....	30
Hair .....	.....	141	141
Hardwoods	632	21	653
Hay .....	.....	173	173
Hemp .....	.....	783	783

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Honey.....		47	47
Hops.....		23	23
Infusorial earth.....		103	103
Ink.....	11		11
Jute.....	16	270	286
Linoleum.....	1,540	15	1,555
Lipitors.....	193		193
Lumber.....	1,717	142,416	144,133
Malt.....	31		31
Manufactured goods:			
Iron and steel.....	103,055	1,971	105,026
Machinery.....	4,433	946	5,384
Railroad material.....	3,025		3,025
Tiaplate.....	13,504		13,504
Textiles.....	3,127	362	3,489
Miscellaneous.....	5,995	3,332	9,327
Matches.....	59	24	83
Metals:			
Chrome.....	30		30
Copper.....	284	8,050	8,334
Iron.....	6,820		6,820
Lead.....	15	50	65
Scrap.....	430	761	1,191
Tin.....	53	200	253
Zinc.....		3,249	3,249
Other.....	28		28
Milk, powdered.....		544	544
Molasses.....	40		40
Musical instruments.....	10		10
Nuts.....		310	310
Oats.....	26		26
Oils:			
Cottonseed.....	188		188
Gas oil, fuel oil.....		66,525	66,525
Gasoline, benzine, naphtha.....	275	227,611	227,886
Kerosene.....		11,843	11,843
Linsced.....	31		31
Lubricating and greases.....	5,688	1,683	7,371
Olive.....	14		14
Vegetable.....	482	724	1,206
Wood.....	5	81	86
Other.....	32	2,440	2,472
Ores:			
Chrome.....	100		100
Copper.....		900	900
Magnesite.....		2,052	2,052
Manganese.....	200		200
Zinc.....		22	22
Other.....	67	194	261
Paint.....	611	14	625
Paper.....	4,925	5,297	10,222
Paper pulp.....	20	7,009	7,029
Peanuts.....	207	67	274
Peas.....		78	78
Phosphates.....	1,304		1,304
Porcelain.....	79	194	273
Rags.....	9	572	581
Rice.....	798		798
Rope.....	111	269	380
Rosin.....	597		597
Rubbers:			
Manufactured.....	1,162	52	1,214
Raw.....		25	25
Scrap.....		67	67
Salt.....	151		151
Sand.....	20		20
Seeds:			
Grass.....		51	51
Hemp.....		13	13
Other.....	11	347	358
Shells.....	543	17	560
Silk.....		4,503	4,503
Skins and hides.....		2,236	2,236
Slag.....	1,842		1,842
Slate.....	825		825
Soap.....	2,169	181	2,350
Soda.....	551		551
Soda ash.....	1,396		1,396
Soda, bicarbonate.....	140		140
Soda, caustic.....	337		337
Starch.....	117		117
Sugar.....	33	1,000	1,033
Sulphur.....	7,410	2	7,412
Syrup.....	133		133
Talc.....	18	220	238

	Atlantic to Pacific.	Pacific to Atlantic.	Totals.*
Tallow.....		535	535
Tar.....	44		44
Tea.....	24	23	47
Tobacco.....	1,984	167	2,151
Toys.....	18	44	62
Turpentine.....	68		68
Vegetables.....		148	148
Waste.....		34	34
Wax.....	159	12	171
Wheat.....		115	115
Wine.....		189	189
Wool.....		2,216	2,216
Zinc oxide.....	66		66
Totals, December, 1929.....	255,777	602,357	858,134
Totals, December, 1928.....	255,565	508,529	764,094
Totals, December, 1927.....	192,733	563,716	756,449

Supplement No. 18—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., December 21, 1929.

Regulation 12.1 of the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters" is hereby amended so as to include specific mention of the Quarantine Declaration (International Standard Form) and the Quarantine Information Sheet among the documents required from vessels arriving at the Canal; and to increase from one to two the number of copies of the crew list required in the case of ships which transit the Canal but do not take on or discharge passengers or cargo at Canal ports. As so amended, the regulation now reads as follows:

Regulation 12.1. Documents required: The documents listed below should be ready for immediate delivery to the boarding party:

	DOCUMENTS REQUIRED.	
	For ships which transit Canal but do not take on or discharge passengers or cargo at Canal ports.	For ships taking on or discharging passengers or cargo at Canal ports.
(a) Bill of Health (including original bill issued at port of clearance and supplementary bill from each port touched en route).....	1	1
(b) Passenger list (on Panama Canal forms).....	3	3
(c) Crew list.....	2	2
(d) Quarantine Declaration (International Standard Form).....	1	1
(e) Quarantine information sheet.....	1	1
(f) All other certificates of a sanitary nature.....	1 All	
(g) Clearance from last port.....	1	1
(h) Ship's information sheet.....	1	1
(i) Chinese descriptive list, passengers and crew.....	1	2
(j) Cargo declaration.....	1	2
(k) Manifest of local cargo.....		3
(l) Store list.....		1
(m) Panama Canal Tonnage Certificate, original.....	1	2
(n) Statement of fuel account (for vessels in ballast only).....	1	2
(o) National register plan of vessel.....	1	2
(p) Report of structural changes in use of spaces since last transit.....	1	2

* For examination only.

* Not required unless ship transits Canal.

Note: In case a vessel discharges passengers or cargo at both Canal ports, documents (b), (c), (i), (k), and (l) to the number indicated are required at each port.

C. H. WOODWARD,
Acting Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending January 4, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Tolosa	United Fruit Co.	December 29.	December 29.	52	348
Call	North German Lloyd.	December 29.	December 29.		399
Drechtijk	Holland-American Line.	December 29.	December 29.		336
San Mateo	United Fruit Co.	December 29.	December 29.		37
Portland	Hamburg-American Line.	December 29.	December 29.		603
Magdalena	Hamburg-American Line.	December 29.	December 29.		540
Illinois	French Line.	December 29.	December 30.	109	8
Buenaventura	Panama R. R. S. S. Line.	December 29.	December 31.	1,183	(³)
Moerdijk	Holland-American Line.	December 29.	January 1.	406	262
Heredia	United Fruit Co.	December 30.	December 30.		413
Pearl Marie	R. Feuillebois	December 30.	December 30.	(¹)	32
Santa Maria	Grace Line.	December 30.	December 30.	4	(²)
Calamares	United Fruit Co.	December 30.	January 1.	490	55
Irioua	United Fruit Co.	December 31.	December 31.		40
Georgie	French Line.	December 31.	December 31.	163	(²)
Knute Nelson	Fred Olsen & Co.	December 31.	December 31.	(¹)	238
Nitonian	Leyland S. S. Line.	December 31.	January 2.	623	(²)
Caldas	National Navigation Co.	December 31.	January 4.	242	59
Frankenwald	Hamburg-American Line.	January 1.	December 30.		950
Justin	North German Lloyd.	January 1.	January 1.	(¹)	2
Tsuyama Maru	Nippon Yusen Kaisha.	January 1.	January 1.	179	(²)
Ncsi Prince	N. O. & S. A. S. S. Line.	January 1.	January 2.	76	208
West Ivis	McCormick S. S. Co.	January 1.	January 2.	180	(²)
Santa Marta	United Fruit Co.	January 1.	January 2.	409	203
Brielle	Royal Neth. S. S. Co.	January 1.	January 2.	318	109
Cs'illa	United Fruit Co.	January 1.	January 2.	598	61
Tacoma City	W. R. Smith & Sons	January 1.	January 2.	165	(²)
Pacific Enterprise	Furness Withy & Co.	January 1.	January 2.	(¹)	199
Suriname	United Fruit Co.	January 1.	January 3.	16	105
Baralt	Royal Nether. S. S. Co.	January 1.	January 4.	271	54
Iowa	French Line.	January 1.		16	
Ancon	Panama R. R. S. S. Line.	January 1.		2,709	
Salvador	Pacific Steam Nav. Co.	January 1.	January 4.		1,008
Macabi	United Fruit Co.	January 2.	January 2.	32	(²)
Ionic	White Star Line.	January 2.	January 3.	19	(²)
Targis	North German Lloyd.	January 2.	January 3.	322	239
Durazzo	Hamburg-American Line.	January 2.	January 2.	869	
Ebro	Pacific Steam Nav. Co.	January 3.	January 3.	16	14
Orita	Pacific Steam Nav. Co.	January 4.	January 4.	57	
Atlantida	Stand. Fruit & S. S. Co.	January 4.	January 4.	259	372
Wanks	Stand. Fruit & S. S. Co.	January 4.	January 4.	82	1
Irioua	United Fruit Co.	January 4.	January 4.	74	324
Cartago	United Fruit Co.	January 4.	January 4.	234	

¹ No cargo discharged.² No cargo laded.³ One package.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending January 4, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ecuador	Panama Mail S. S. Co.	December 23.	December 23.	223	
Champerico	Pacific Steam Nav. Co.	December 25.	December 25.		3
Rakuyo Maru	Nippon Yusen Kaisha.	December 25.	December 25.	1	10
City of Panama	Panama Mail S. S. Co.	December 25.	December 26.	131	
Santa Barbara	Grace Line.	December 26.	December 26.	1	
Pleidon	Anglo-Saxon Pet. Co.	December 26.	December 27.	1,592	
Cauca	National Navigation Co.	December 28.	December 28.		1
Santa Rita	Grace Line.	December 28.	December 28.	4	
Santa Maria	Grace Line.	December 29.	December 30.		11
F. H. Hillman	Standard Oil Co.	December 29.	December 30.	15,400	
Tsuyama Maru	Nippon Yusen Kaisha.	December 31.	January 1.	194	
Democracy	Nelson Line.	January 1.	January 2.	166	
St. Mihiel	U. S. Army.	January 2.	January 7.	770	
Virginia	Panama-Pacific Line.	January 3.	January 3.		146
Argun Maru	Nippon Yusen Kaisha.	January 4.	January 4.	271	
Pat Doheny	Richfield Oil Co.	January 4.	January 4.	1,003	

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., January 22, 1930. No. 25.

Canal Traffic During First Fifteen Days of January.

During the first 15 days of January, 269 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,206,414.53, and on the launches \$10.50, or a total tolls collection of \$1,206,425.03.

The daily average of transits of commercial vessels was 17.93, and the average tolls collection \$80,427.64, as compared with an average of 17.60 transits and \$76,978.84 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,484.81, as compared with \$4,373.80 for the first 15 days of December.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 6½ months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 6½ months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.96
December.....	522	2,309,030.88	16.84	74,484.87
January (first 15 days).....	269	1,206,414.53	17.93	80,427.64
Totals, first 6½ months of fiscal year 1930.....	3,471	15,035,048.69	17.44	75,553.01
Totals, first 6½ months of fiscal year 1929.....	3,474	14,555,332.62	17.46	73,142.38
Totals, first 6½ months of fiscal year 1928.....	3,589	15,090,430.46	18.03	75,831.31

As compared with the first 6½ months of the fiscal year 1929, the corresponding period this year has had 3 fewer transits and \$479,716.07 more in tolls.

Peruvian Naval Vessels at Balboa.

Seven vessels of the Peruvian Navy—the cruisers *Almirante Grau*, *Coronel Bolognesi*, and *Lima*, and the submarines *R-1*, *R-2*, *R-3*, and *R-4*, arrived at Balboa on January 9, 1930, on their annual practice cruise, and left port on January 21 for Callao. The submarines entered dry-dock at Balboa shops on January 14 for routine inspection and repairs.

In addition to the regular crews the vessels have aboard a large number of midshipmen from the Peruvian naval academy.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 18, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Barn	11	7 12	12	6 05	12	13 25	Dutch	Royal Neth. S. S. Co.	400.0	58.0	25 10	Hamburg, Germany	Corral, Chile	General	5,535	7,819	6,101
Oregon	11	14 37	12	6 15	12	14 00	French	French Line	469.0	60.0	19.0	Dunkirk, France	Vancouver, B. C.	General	909		
Canamigo	11	14 23	12	7 10	12	14 13	American	Julius Fleischmann	199.0	32.0	16.0	New York, N. Y.	Callao, Peru	Ballast	1,042		467
Brookwood	11	21 00	12	7 25	12	15 03	British	Constantine Ship. Co.	408.2	56.0	14.0	Pernambuco, Braz	West coast	Ballast	6,200	4,627	
Hanley	12	5 25	12	7 25	12	15 00	American	Norton, Lilly & Co.	440.0	56.0	22.0	New York, N. Y.	Portland, Oreg	General	6,243	8,310	6,005
Olive K.	12	9 20	12	10 55	12	17 10	American	C. F. Kettinger	158.0	26.0	10.0	Habana, Cuba	Galapagos Island	Ballast	470	305	
Seale	12	6 03	12	11 00	12	18 16	German	North German Lloyd	473.0	61.0	19.0	Hamburg, Germany	Portland, Oreg	General	3,211	9,335	6,844
Commercial																	
Trader	12	13 30	12	14 10	12	22 51	American	Moore & McCormick	399.0	51.0	17.0	New York, N. Y.	Valparaiso, Chile	General	1,063	6,190	4,455
East Lynn	12	19 00	12	19 15	13	11 22	British	Sir W. R. Smith & Sons	400.0	54.0	15.6	Manchester, Eng	Vancouver, B. C.	Ballast	9,784	5,107	
Wichita	12	18 00	12	20 30	13	17 50	American	Rosevelt S. S. Co., S. B.	395.6	55.0	19.8	New York, N. Y.	Adelaide, Australia	General	1,854	7,209	5,172
Chattanooga	12	20 30	13	6 30	13	17 45	American	Norton, Lilly & Co.	424.0	56.0	24.8	New York, N. Y.	Vancouver, B. C.	Steel, general	6,833	7,611	5,450
Java Arrow	12	21 25	13	6 25	13	16 36	American	Standard Transp. Co.	468.3	56.0	22.0	Providence, R. I.	Los Angeles, Calif	Ballast	10,084	7,388	
Agawit	12	22 05	13	7 05	13	17 25	American	Richfield Oil Co.	429.3	59.2	22.0	New York, N. Y.	Los Angeles, Calif	Ballast	7,024	5,310	
Leda	13	2 50	13	7 35	13	17 58	Danish	Baltic-Amer. Pet. Co.	470.6	63.2	19.0	New York, N. Y.	Talara, Peru	Ballast	9,346	6,063	
Nelson																	
Traveler	13	6 15	13	8 20	13	18 40	American	Nelson Line	380.2	53.6	16 10	New York, N. Y.	Los Angeles, Calif	General	2,520	5,657	4,133
Fernlane	13	6 25	13	8 27	13	19 17	Norwegian	Pern Line	375.0	53.0	23 10	Galveston, Texas	Shanghai, China	General	6,998	8,264	4,681
Volunteer	13	10 50	13	11 05	13	20 16	American	Tampa Inter-ocean Co.	410.0	56.0	26.0	New Orleans, La	General, kerosene	6,693	8,214	6,183	
White Shadow	13	12 10	13	12 00	13	20 43	American	E. Hope Norton	77.0	22.0	9.0	New York, N. Y.	Balboa, C. Z.	Ballast	58		55
Willipzo	13	17 12	13	12 25	13	21 10	American	Williams S. S. Line	415.0	55.0	19.0	Baltimore, Md	Seattle, Wash	General	3,800	7,731	5,805
Mallard	13	17 12	13	12 25	13	21 10	American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
J-10	13		13	19 45	13	15 34	American	U. S. Army				Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Teddy	11	24	13	13 00	13	13 00	Norwegian	E. Tambs	39.0	14.0	7.6	Larvik, Norway	Round the world	Ballast			8
Gracia	13	6 10	13	12 30	14	9 30	British	Donaldson Brothers	415.6	54.3	20.0	Glasgow, Scotland	Vancouver, B. C.	General, bananas	977	6,809	4,842
La Plata Maru	13	16 30	14	6 20	14	16 20	Japanese	Osaka Shos'n Kaisha	430.0	56.0	20.5	Montevideo, Urug	Kobe, Japan	General	2,773	7,875	5,821
Cauca	11	16 40	14	6 35	14	16 14	Colombian	National Navigation Co.	107.0	22.0	8.3	Cristobal, C. Z.	Buenaventura, Col.	General	27	238	163
City of Winchester	13	20 10	14	6 20	14	17 20	British	Norton, Lilly & Co.	456.0	57.4	27.8	New York, N. Y.	Brisbane, Australia	General	3,848	8,796	6,600
S-10			14	7 20	14	18 00	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-20			14	7 20	14	18 06	American	U. S. Navy	219.3	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Lowan	14	4 30	14	7 25	14	18 40	American	Amur-Hawaiian Line	407.7	53.7	20.0	Boston, Mass	Seattle, Wash	General	2,640	7,079	5,028
Elsa	14	7 45	14	9 40	14	19 42	American	Harry Borthen & Co.	389.0	52.7	15.0	Cardiff, England	Los Angeles, Calif	Ballast		5,693	3,811
General M. H. Sherman	14	20 15	15	6 18	15	13 51	American	Arrow Line	402.6	53.0	17 10	Baltimore, Md	Seattle, Wash	General	2,655	6,575	4,912
Walter A.	14	21 47	15	6 25	15	14 15	American	Lukenbach Line	446.5	56.1	23.0	Boston, Mass	Seattle, Wash	General	3,972	8,785	6,567
Lukenbach																	
Tanker.																	

* For orders.

* Submarine.

* Launch.

* Mine sweeper.

* Yacht.

* Motor ship.

* Tanker.

	15	5	30	15	7	35	15	15	14	15	16	30	Japanese	Shuonmura Kisen Kaisha	409	6	54	0	23	8	Tampa, Fla.	Yokohama, Japan	7,185
Taian Maru	15	5	30	15	7	35	15	15	14	15	16	30	Japanese	Cia. Sud. Amer. de Vap	421	8	56	0	25	7	New York, N. Y.	Valparaiso, Chile	2,043
Teno	14	22	38	15	9	40	15	16	38	15	17	50	Chilean	U. S. Navy	231	0	21	10			Cristobal, C. Z.	Balboa, C. Z.	7,764
S-11	15	10	20	15	17	35	15	18	45	American	U. S. Navy	231	0	21	10		21	10			Cristobal, C. Z.	Balboa, C. Z.	7,764
S-12	15	10	20	15	17	35	15	18	45	American	U. S. Navy	231	0	21	10		21	10			Cristobal, C. Z.	Balboa, C. Z.	7,764
Odenwald	14	16	00	16	0	10	16	13	41	16	19	32	German	Hamburg-American Line	559	3	72	2	21	9	New York, N. Y.	Crus Grande, Chile	15,551
Stedore	14	16	55	16	6	15	16	14	28	16	15	40	American	Ore S. S. Corp	590	3	72	2	21	9	New York, N. Y.	Crus Grande, Chile	15,551
Julia	15	22	30	16	7	40	16	15	20	16	16	00	American	Lockenbach Line	436	0	57	0	24	0	Honolulu, Tex.	Seattle, Wash.	8,543
Lukenbach	13	20	50	16	8	15	16	16	16	17	15	Dutch	Anglo-Saxon Pet. Co.	440	2	59	0	19	6	Curacao, D. W. I.	San Francisco, Cal.	6,402	
Phobos	16	12	55	16	13	00	16	20	25	16	21	35	American	Richfield Oil Co.	416	9	56	2	19	5	Norfolk, Va.	Los Angeles, Calif.	7,935
Baldpate	16	2	35	16	13	25	16	21	10	16	22	30	British	Com'lth & Dom. Line	481	0	62	0	30	8	London, England	N. Plymouth, N. Z.	4,806
Port Brisbane	16	2	35	16	13	25	16	21	10	16	22	30	British	Com'lth & Dom. Line	481	0	62	0	30	8	London, England	N. Plymouth, N. Z.	4,806
London	16	2	35	16	13	25	16	21	10	16	22	30	British	Com'lth & Dom. Line	481	0	62	0	30	8	London, England	N. Plymouth, N. Z.	4,806
Importer	15	5	25	16	13	50	16	21	28	16	22	30	British	Furness, Withy & Co.	450	0	57	0	20	0	Glasgow, Scotland	Vancouver, B. C.	1,549
Old	15	9	25	16	13	50	16	21	28	16	22	30	British	Furness, Withy & Co.	450	0	57	0	20	0	Glasgow, Scotland	Vancouver, B. C.	1,549
Peninsular	15	9	25	16	13	50	16	21	28	16	22	30	British	Furness, Withy & Co.	450	0	57	0	20	0	Glasgow, Scotland	Vancouver, B. C.	1,549
Santa Rita	16	15	05	17	6	30	17	12	40	17	18	12	American	Pacific Steam Nav. Co.	370	0	42	0	21	0	New York, N. Y.	Guayaquil, Ecuador	581
Mamulus	16	17	33	17	6	15	17	14	06	17	18	10	British	Grace Line	370	0	52	0	21	0	New York, N. Y.	Valparaiso, Chile	2,037
Meiwa Maru	16	21	45	17	7	20	17	15	03	17	16	10	Japanese	Shaw, Savill & Albion	477	5	63	1	29	3	Antwerp, Belgium	Auckland, N. Z.	5,540
California	16	21	45	17	7	20	17	15	03	17	16	10	Japanese	Meiji Kaun K. Kaisha	445	0	58	2	27	3	Tampa, Fla.	Kobe, Japan	9,161
Standard	16	22	25	17	7	45	17	15	37	17	20	10	American	Standard Oil Co.	513	0	68	0	23	6	Pt. Arthur, Tex.	Los Angeles, Calif.	11,719
Pennsylvania	17	5	35	17	8	40	17	16	41	18	3	00	American	Panama-Pacific Line	586	4	80	3	26	0	New York, N. Y.	San Francisco, Cal.	2,472
Tamara	17	9	25	17	9	47	17	17	56	18	7	32	British	Shaw, Savill & Albion	500	0	63	0	25	0	London, England	Wellington, N. Z.	4,700
Silverpalm	17	7	55	17	10	25	17	18	50	17	20	10	British	Kerr Line	451	0	61	0	22	8	New York, N. Y.	Batavia, Java	9,383
Canadian	17	11	03	17	11	25	17	19	25	18	19	10	British	Can. Nat. Steamships	400	0	52	0	25	3	Halifax, N. S.	Brisbane, Australia	4,522
Britisher	17	11	03	17	11	25	17	19	25	18	19	10	British	Can. Nat. Steamships	400	0	52	0	25	3	Halifax, N. S.	Brisbane, Australia	4,522
J. B. August	17	6	25	17	12	04	17	20	00	17	21	24	Dutch	N. V. La Carona	377	0	50	0	18	8	Amsterdam, Holland	Los Angeles, Calif.	5,263
Kessler	17	14	55	17	15	05	17	21	40	17	22	50	American	Munson, McCor k Line	400	7	54	2	18	0	Baltimore, Md.	Tacoma, Wash.	2,467
Munawstie	17	15	00	17	15	10	17	22	32	17	23	56	American	Mallory Transp. Co.	333	0	48	0	22	0	Philadelphia, Pa.	Seattle, Wash.	4,250
Mallennak	17	15	00	17	15	10	17	22	32	17	23	56	American	Mallory Transp. Co.	333	0	48	0	22	0	Philadelphia, Pa.	Seattle, Wash.	4,250
Edward P.	17	15	00	17	15	10	17	22	32	17	23	56	American	Mallory Transp. Co.	333	0	48	0	22	0	Philadelphia, Pa.	Seattle, Wash.	4,250
Nones	17	8	15	17	8	15	17	8	15	17	8	15	American	U. S. Army	101	0	23	5			Cristobal, C. Z.	Balboa, C. Z.	2,063
General G. W.	17	8	15	17	8	15	17	8	15	17	8	15	American	U. S. Army	101	0	23	5			Cristobal, C. Z.	Balboa, C. Z.	2,063
Getty	17	17	22	17	18	40	17	9	46	18	11	07	American	U. S. Army	89	0	22	0			Cristobal, C. Z.	Balboa, C. Z.	5,673
Stensby	17	17	22	17	18	40	17	9	46	18	11	07	American	U. S. Army	89	0	22	0			Cristobal, C. Z.	Balboa, C. Z.	5,673
La Parla	14	15	40	16	6	10	18	14	18	15	15	45	American	United Fruit Co.	325	0	48	0	19	0	Cristobal, C. Z.	San Francisco, Cal.	1,923
Leutaro	17	11	58	18	6	10	18	15	58	18	20	34	British	Pacific Steam Nav. Co.	390	0	52	2	20	3	Glasgow, Scotland	Corral, Chile	4,666
Villager	17	13	45	18	7	20	18	16	45	18	17	50	Norwegian	Wafsl, Larsen & Co.	308	0	54	7	16	3	Rosario, Argentina	Vancouver, B. C.	6,739
Sagadahoc	17	17	45	18	7	20	18	16	45	18	17	50	Norwegian	Wafsl, Larsen & Co.	308	0	54	7	16	3	Rosario, Argentina	Vancouver, B. C.	6,739
West Lynn	17	20	45	18	8	15	18	17	38	18	18	52	American	Island S. S. Lines	420	5	54	2	27	7	Baltimore, Md.	Shanghai, China	8,850
Ferdale	18	4	30	18	9	35	18	18	31	19	15	00	British	Sir W. R. Smith & Sons	401	0	54	0	25	0	Pt. Arthur, Tex.	Seattle, Wash.	7,340
Cal	18	4	30	18	9	35	18	18	31	19	15	00	British	Sir W. R. Smith & Sons	401	0	54	0	25	0	Pt. Arthur, Tex.	Seattle, Wash.	7,340
Willmote	18	20	10	18	10	15	18	18	30	18	20	00	German	Reinold & Eger	352	7	53	4	21	4	Galveston, Tex.	Sulphur, general	7,900
New Jersey	18	10	28	18	11	00	18	19	25	18	20	24	American	Dixon S. S. Corp	390	0	54	0	20	6	Cristobal, C. Z.	Guayaquil, Ecuador	4,993
Credic Lindt	18	10	50	18	11	00	18	19	25	18	20	24	American	Dixon S. S. Corp	390	0	54	0	20	6	Cristobal, C. Z.	Guayaquil, Ecuador	4,993
Vigilia	18	11	55	18	11	55	18	20	26	18	22	30	Venezuelan	Gulf Oil Co.	325	0	55	0	10	5	Norfolk, Va.	Los Angeles, Calif.	3,905
Manhattan	18	11	55	18	11	55	18	20	26	18	22	30	Venezuelan	Gulf Oil Co.	325	0	55	0	10	5	Norfolk, Va.	Los Angeles, Calif.	3,905
Island	18	15	15	18	15	25	18	22	34	18	23	30	American	Redwood Line	387	0	52	0	22	6	Freeport, Tex.	Seattle, Wash.	6,431
Iterakis	18	18	05	18	20	10	19	9	30	19	10	50	Norwegian	Brusgaard Kios. & Co	390	0	54	1	24	6	Antwerp, Belgium	Seattle, Wash.	5,080

10 Phosphate and cotton.

11 Phosphate rock, cotton, etc.

12 Paper board and coal.

1. Tanker. 2. Tug. 3. For dry-docking. 4. Phosphate and cotton. 5. Phosphate rock, cotton, etc. 6. Paper board and coal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Chesapeake ^{1, 13}	11	19	45	12	6	16	12	12	55	British	Anglo-Amer. Oil Co.	469	9	63	9	27	4	Los Angeles, Calif	Gasoline	11,817	9,151	6,465																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Liberator	11	6	00	12	6	49	12	15	05	13	1	15	American	Tampa Intercean Co.	410	0	56	0	25	0	Manila, P. I.	General	8,125	8,204	6,219																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Kenosis ¹⁴	10	8	45	12	8	10	12	15	05	12	13	08	American	U. S. Army	390	0	54	2	23	0	San Francisco, Cal	Army supplies	2,037																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
San Manuel	12	6	30	12	7	16	12	16	45	14	21	08	British	Eagle Oil Transp. Co.	407	2	52	3	25	0	Los Angeles, Calif	Gasoline	7,208	6,183	4,343																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Bretagne ¹⁵	11	22	30	12	8	37	12	17	30	12	17	30	Danish	Isbrandtsen Moller Co.	326	2	50	1	21	0	San Francisco, Cal	Sugar	5,000	3,820	2,967																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Munars	12	09	30	12	9	37	12	18	05	12	18	05	American	Munson S. Line	370	0	53	1	25	0	Manila, P. I.	General	4,068	5,577	4,292																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Munars	12	10	15	12	11	24	12	19	08	15	2	10	German	Roland Line	449	2	58	1	22	0	Talcahuano, Chile	General	5,913	7,556	5,378																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
San Roberto ¹⁶	12	18	45	13	6	28	13	14	09	15	2	10	British	Anglo-Mexican Pet. Co.	407	0	52	1	24	9	Lizards, England	Gasoline	7,413	6,239	4,477																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Dean Emery ¹⁷	13	09	45	13	7	08	13	15	25	13	15	25	American	Pan-Amer. Pet. Co.	429	3	59	2	26	0	Los Angeles, Calif	General	9,400	7,709	5,477																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
R. D. Leonard ¹⁸	12	23	00	13	6	53	13	16	25	13	18	30	American	Atlantic Refining Co.	265	9	39	2	19	6	Los Angeles, Calif	Gasoline	2,587	1,936	1,304																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Talcahuano ¹⁹	13	4	20	13	7	16	13	16	50	13	20	45	British	Imperial Oil Co., Ltd.	250	0	43	8	22	2	Philadelphia, Pa.	Crude oil	3,150	2,631	1,567																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Rialto ²⁰	12	20	00	13	8	04	13	17	10	13	22	05	Italian	Nav. Libera-Triestina	436	6	55	4	27	0	Talara, Peru	General, wheat.	8,953	7,789	6,025																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Charles	13	4	00	13	8	39	13	17	40	13	22	05	American	Sudden & Christenson.	409	7	54	2	24	2	Vancouver, B. C.	Lumber	7,320	6,093	4,915																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Chastenson.	13	4	00	13	9	11	13	18	00	13	18	00	Japanese	Ocean Transport Co.	400	0	51	7	23	6	Boston, Mass	Rape, beans	5,166																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Yokmar	13	5	25	13	10	18	13	18	55	13	18	55	American	Calmar S. S. Corp.	409	8	54	2	26	5	New York, N. Y.	Lumber	7,200	6,757	4,919																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Herman	13	7	35	13	10	38	13	19	20	13	19	20	American	Oil Transport Co.	431	0	59	2	26	2	New York, N. Y.	Gasoline	10,208	7,862	5,049																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Nassa ²¹	13	7	45	13	11	11	13	20	45	14	6	30	British	Anglo-Saxon Pet. Co.	412	2	53	8	23	4	Land's End, Eng.	Gasoline	7,350	6,236	4,338																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Santa Elisa	13	10	55	13	12	13	13	20	05	13	23	45	American	Grace Line	360	3	51	7	24	4	New York, N. Y.	General	7,789	5,957	4,325																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Witram	13	11	20	13	12	05	13	21	35	13	22	55	German	North German Lloyd	449	0	58	2	24	5	Hamburg, Germany	General	7,873	7,820	5,661																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Sunail ²²	13	12	10	13	12	42	13	21	40	13	21	40	American	Sun Oil Co.	480	6	66	0	28	5	Los Angeles, Calif	Gasoline	13,636	9,619	6,456																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Dio	13	12	35	13	14	19	13	22	15	13	22	15	American	Redwood Line	386	8	52	2	19	6	San Diego, Calif.	(²³)	4,522	7,078	4,131																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Sunlesco	12	20	25	14	17	56	14	11	20	14	11	20	American	Transmarine Lines	324	0	46	2	23	6	Everett, Wash.	Lumber	3,722	3,984	2,612																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Belpair	13	14	10	13	19	52	14	12	00	14	12	00	Norwegian	Christen Smith-Oslo	414	0	67	1	29	0	Cruz Grande, Chile	Iron ore	9,800	7,542	5,027																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
California	13	13	05	14	6	13	14	13	50	14	13	50	American	Panama-Pacific Line	574	0	80	3	30	0	New York, N. Y.	General	6,300	24,506	17,565																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Nitro ²⁴	11	18	45	14	6	45	14	14	00	14	16	35	American	U. S. Navy	483	11	60	0	21	3	San Francisco, Cal	Navy supplies	355																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Celtic Star	13	18	50	14	7	20	14	15	05	14	15	05	British	Blue Star Line	390	7	52	2	23	6	New York, N. Y.	General	2,848	6,034	4,332																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
La Perla	13	14	30	14	8	23	14	15	40	14	15	40	American	United Fruit Co.	325	2	48	1	22	0	Newcastle, Eng.	General	1,048	4,033	2,261																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Panama ²⁶	13	14	30	14	8	26	14	15	35	14	15	35	Panamanian	Panama Gov't	125	6	23	5	14	6	San Francisco, Cal	Coffee, general	2,848	6,034	4,332																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
El Cervo ²⁷	13	17	05	14	8	42	14	17	10	14	17	10	British	C. T. Bowring & Co.	407	4	52	2	26	0	Cristobal, C. Z.	Crude oil	7,919	6,046	4,326																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Atlantic Sun ²⁸	13	21	40	14	9	09	14	17	10	14	17	10	American	Sun Oil Co.	429	3	59	2	26	0	La Libertad, Peru	Gasoline	9,231	7,568	5,283																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Harry	13	22	00	14	10	02	14	18	15	14	18	15	American	Lukenbach Line	448	9	60	2	30	0	Los Angeles, Calif	Lumber, general	10,070	9,382	6,853																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Lukenbach.	13	22	00	14	10	27	14	19	00	14	19	00	British	Lyle Shipping Co.	405	0	62	2	24	0	Portland, Ore	Wheat, lum., etc.	7,400	5,650	4,071																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Cape Ortel.	14	1	30	14	10	57	14	19	45	14	19	45	American	Texas Co.	435	0	56	0	26	0	Los Angeles, Calif	Gas oil	10,317	7,625	5,356																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Dungannon	14	3	00	14	11	26	14	20	30	14	20	30	American	Lukenbach Line	425	0	53	8	23	0	Baltimore, Md	General	2,957	7,217	5,295																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Lena	14	8	00	14	11	45	14	19	55	14	19	55	American	Amer-Hawaiian Line	401	6	58	9	28	0	Portland, Ore	General	7,172	6,756	4,775																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Lukenbach.	14	3	00	14	11	26	14	20	30	14	20	30	American	Lukenbach Line	425	0	53	8	23	0	Portland, Ore	General	2,957	7,217	5,295																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Montana	14	8	40	14	11	45	14	19	55	14	19	55	American	Amer-Hawaiian Line	401	6	58	9	28	0	Portland, Ore	General	7,172	6,756	4,775																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Tanker.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

¹³ Supply ship.¹⁴ Transport.¹⁵ Motor ship.¹⁶ Revenue cutter.¹⁷ For orders.¹⁸ Sugar, cotton, and general.

	9	14	25	14	12	14	14	21	35	15	10	10	Panamanian	Balboa Shipping Co.	310.0	47.0	12.0	Balboa, C. Z.	Cristobal, C. Z.	Ballast			
Macabi ¹⁹																							
Vancouver																							
Maru	14	10	15	14	12	43	14	22	20	14	23	55	Japanese	Kokusai Kisen Kaisha	335.0	51.0	25.0	Putupandan, P. I.	East coast of U. S.	Sugar	4,660	5,919	4,389
Bolivier	14	10	15	14	13	44	14	22	50	15	1	30	Belgian	Lloyd Royal Belge	400.2	52.3	24.3	Vancouver, B. C.	London, England	General	5,314		
Port Hardy	14	9	40	14	14	35	14	23	00	15	3	40	British	Com'lth & Dom. Line	481.2	62.3	27.3	Dunedin, N. Z.	London, England	General	6,444	11,136	8,109
Pacific	14	9	40	14	14	35	14	23	00	15	3	40	British	Com'lth & Dom. Line	481.2	62.3	27.3	Dunedin, N. Z.	London, England	General	6,444	11,136	8,109
Exporter	14	13	30	14	17	15	15	10	35	15	11	10	British	Furness, Withy & Co.	435.9	60.3	27.6	Vancouver, B. C.	London, England	General	8,704	9,633	6,998
Curaca	15	5	47	15	7	46	15	16	32	16	1	00	Panamanian	Grace Line	403.0	52.6	29.1	Iquique, Chile	Pensacola, Fla.	Nitrates	8,900	6,804	4,897
William A.	14	21	15	15	9	12	15	17	25	15	17	25	American	Isthmian S. S. Lines	395.0	55.1	27.0	Vancouver, B. C.	London, England	General	8,039		
McKenney	15	10	10	15	11	35	15	18	45				German	Hamburg-American Line	227.2	34.4	14.5	Guayaquil, Ecuador	Cristobal, C. Z.	Cacao, tagua	1,046	1,572	1,011
Frankington	15	17	00	15	17	50	16	11	30	16	12	55	British	W. L. Comyn & Co.	396.7	53.3	21.0	Los Angeles, Calif	Bremen, Germany	Grain, cot., lum.	6,120	5,540	3,748
Castle Town	15	17	45	15	18	51	16	11	55	16	11	55	American	Nelson S. S. Co.	321.7	50.3	20.0	Pt. Alberni, B. C.	New York, N. Y.	Lumber	3,660	3,872	2,568
W. H. Libby	16	1	00	16	6	04	16	14	15	16	14	15	American	Standard Shipping Co.	463.4	60.2	27.0	Los Angeles, Calif	New York, N. Y.	Gasoline	19,211		
Eric Maru	16	2	00	16	7	29	16	15	00	16	16	15	Japanese	Kokusai Kisen Kaisha	400.0	53.0	26.2	Antofagasta, Chile	Mobile, Ala.	Nitrates	7,901	5,977	4,305
Sun ²¹	16	8	05	16	9	09	16	18	10	16	18	10	American	Sun Oil Co.	480.6	66.0	29.0	Los Angeles, Calif	Chester, Pa.	Gasoline	13,712	9,621	6,476
Skoryak	16	3	20	16	10	43	16	18	45	17	22	55	Norwegian	W. A. Rennie & Co.	251.0	43.6	12.6	Punta Arenas, C. R.	London, England	General	600	2,143	1,311
Noire Dane	16	9	53	16	11	13	16	19	45	17	19	12	French	French Line	427.3	58.3	25.6	Vancouver, B. C.	Havre, France	General	9,433	8,043	5,454
de Fourviere	14	6	00	16	11	25	16	19	50	16	16	50	British	British Navy	300.0	29.6	12.1	Manzanillo, Mex.	Bermuda	General	1,038	1,062	698
Vancouver	14	6	00	16	11	25	16	19	50	16	16	50	British	British Navy	300.0	29.6	12.1	Manzanillo, Mex.	Bermuda	General	1,038	1,062	698
Qali	16	11	05	16	12	03	16	20	10	18	10	15	German	Roband Line	216.5	32.9	15.2	Guayaquil, Ecuador	Cristobal, C. Z.	Lumber	3,384	3,984	2,628
Port Armstrong	16	12	54	16	14	40	16	21	10	16	21	36	American	Nelson Line	324.0	46.2	24.3	Seattle, Wash	Baltimore, Md	Sugar	7,750	6,615	4,859
Fernigen ²¹	16	16	00	16	17	31	17	11	40	17	11	40	Norwegian	Fern Line	385.3	54.8	26.0	Manila, P. I.	East coast of U. S.				
General G. W.	16	16	00	16	17	31	17	11	40	17	11	40	Norwegian	Fern Line	385.3	54.8	26.0	Manila, P. I.	East coast of U. S.				
Getty ²¹	17	60	30	17	6	46	17	14	25	17	14	25	Danish	U. S. Army	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.	Gasoline	11,472	8,102	5,523
Jane Maersk ²¹	17	60	30	17	6	46	17	14	25	17	14	25	Danish	Anglo-Saxon Pet. Co.	456.8	59.7	26.0	Los Angeles, Calif	Curacao, D. W. I.				
Robin	17	8	40	17	9	35	17	18	40	17	18	40	American	Seas Shipping Co.	424.8	55.2	26.6	Everett, Wash	Baltimore, Md	Lumber	7,620	7,473	5,536
Goodfellow	17	9	25	17	10	16	17	19	00	17	19	00	American	Amer.-Hawaiian Line	415.0	60.0	28.6	Seattle, Wash	Boston, Mass	Lumber, general	7,337	7,380	5,339
Alaskan	17	10	00	17	11	39	17	20	00	17	20	00	American	U. S. Navy	461.6	60.0	28.6	Los Angeles, Calif	Guantanamo, Cuba	Fuel oil	11,319		
Supalo ²¹	17	10	00	17	11	39	17	20	00	17	20	00	American	U. S. Navy	461.6	60.0	28.6	Los Angeles, Calif	Guantanamo, Cuba	Fuel oil	11,319		
Nesa Chief	17	11	00	17	11	44	17	20	45	17	22	25	American	N. O. & S. A. S. Co.	299.4	52.5	21.6	Yaguac, Chile	New Orleans, La	Nitrates	3,279	3,977	2,010
Hardanger ²¹	17	13	45	17	14	22	17	22	22	18	2	10	Norwegian	Westfall, Larsen & Co.	375.2	45.2	24.6	Vancouver, B. C.	Faya, 17	Grain	6,229	5,256	4,375
Bethore	17	14	45	17	15	38	18	11	55	18	13	25	British	Turner Brightman & Co.	370.0	54.4	24.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	7,500		
Zitella	17	14	45	17	15	38	18	11	55	18	13	25	British	Turner Brightman & Co.	370.0	54.4	24.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	7,500		
Elisha Walker	18	1	28	18	5	56	18	15	25	18	15	25	American	Ore S. S. Corp	550.3	72.2	35.0	San Francisco, Calif	Baltimore, Md	Iron ore	21,457	14,325	4,635
Princes Rupert	18	2	30	18	6	54	18	15	35	18	15	35	American	Pan.-Amer. Pet. & Tr. Co.	430.0	59.2	27.6	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	11,300	7,739	5,544
City	16	19	50	18	7	11	18	16	40	18	16	40	British	Sir W. R. Smith & Sons	400.5	54.3	25.7	Honolulu, T. H.	London, England	General	8,000		
Haxby	17	23	45	18	7	51	18	15	18	16	19	16	British	Romper Shipping Co	421.0	54.2	24.5	Vancouver, B. C.	Hampton Rds. 17	Wheat	8,000		
Temple Bar	17	23	30	18	8	40	18	19	50	18	20	55	British	Temple S. S. Co	388.3	52.0	23.0	Portland, Ore	Falmouth, England	Wheat	7,170		
Captain E. P.	17	23	30	18	8	40	18	19	50	18	20	55	British	Temple S. S. Co	388.3	52.0	23.0	Portland, Ore	Falmouth, England	Wheat	7,170		
Nones ²²	18	8	47	18	8	47	18	17	45				American	U. S. Army	101.0	23.5		Balboa, C. Z.	Cristobal, C. Z.	Nitrates	4,000		
Stal	18	12	05	18	12	56	18	21	40	18	23	50	Danish	Moore & McCormick	301.9	44.2	21.0	Calea Buena, Chile	Charleston, S. C.	Frozen, general	4,000	7,340	5,453
Saxsonar	18	13	10	18	13	38	18	22	10	19	10	00	British	Blue Star Line	420.0	54.0	22.9	Olympia, Wash	Newcastle, Eng	General	996	2,597	1,587
Champerico	18	13	10	18	13	39	18	22	15				British	Pacific Steam Nav. Co.	291.1	41.7	17.0	Champerico, Guat	Cristobal, C. Z.	General	996	2,597	1,587
Indra	18	10	35	18	15	08	18	22	45	19	00	10	Norwegian	Knut Neutson	375.8	51.4	22.2	Corral, Chile	Copenhagen, Den.	General	5,503	5,456	3,797

¹⁹ Tanker.²⁰ Destroyer.²¹ Junior mine sweeper.²² Junior mine planter.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

Completion of Barraza Fill in Panama.

The work of the Dredging Division of The Panama Canal on the hydraulic fill at the Barraza improvement project in Panama City, started on April 9, 1929, and was completed last month. The material used was taken from the channel at the Pacific entrance of the Canal in the course of deepening the channel. Excavation was done by pipeline suction dredge *No. 86*, which discharged through a pipe approximately 11,000 feet long, using a relay pump.

The Barraza fill project, which constitutes a fill pumped in an area between land and a sea wall 4,000 feet long, is located in Panama City at a point between 13th Street and Gavilan Road, at the Canal Zone boundary. It provides 26 acres of sea frontage facing toward Fort Amador and the fortified islands. Over a million cubic yards of material were pumped into the fill, of which approximately 460,000 yards remained in place.

With the completion of the fill, work is now advancing in improving the area with roads and water and drainage systems, in preparation for the erection of buildings. One of the principal features of the new improvement is to be a boulevard along the 4,000 feet of sea front, connecting Balboa and Panama City and affording a new artery for highway traffic.

Calmar Line Increases Fleet.

It is reported that the Calmar Steamship Company, operating a fleet of freight vessels in the United States intercoastal service, has purchased the five vessels comprising the Planet Line fleet, the *Corvus*, *Clauseus*, *Centarus*, *Circinus*, and *Eurana*, which have been operated in the intercoastal service and Pacific coast-European service.

With the acquisition of these vessels, the Calmar Line can maintain a nine-day schedule both east and westbound, the vessels loading westbound at Baltimore and Philadelphia for the usual Pacific coast ports. Pacific coast ports served by the line are San Pedro, San Francisco, Columbia River, and Puget Sound. The eastern ports of discharge are New York, Baltimore, and Philadelphia.

Cargo Through Canal During December, 1929.

On pages 346 and 347 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in December, 1929. This cargo, segregated according to direction, as compared with December, 1928, and the differences, are shown in the following tabulation:

	December, 1929.	December, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	843,747	867,504	—23,757
Pacific to Atlantic.....	1,681,187	1,847,483	—166,296
Totals.....	2,524,934	2,714,987	—190,053

It will be noted from the above that the Atlantic to Pacific tonnage decreased 23,757 tons as compared with December, 1928, and that from the Pacific to the Atlantic 166,296 tons, making a total decrease

of cargo tonnage in both directions of 190,053 tons. This heavy decrease was accounted for by curtailment in shipments of several important commodities, as indicated under "Principal commodities."

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-three and three-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States and 27.6 per cent in Europe. Cargo tonnage originating in the United States was 30,182 tons, or 5.3 per cent, less than the tonnage from the United States in December, 1928, and the proportion of the total tonnage in December, 1928, was also slightly higher (64.9 per cent). Cargo from Europe showed a relative as well as an actual gain over December, 1928, with 233,234 tons in December, 1929, as compared with 194,511 tons in the corresponding month a year ago, a gain of 38,723 tons, or 19.9 per cent.

Destination.—Forty-one and six-tenths per cent of the Pacific-bound cargo was destined to the United States; 22.5 per cent to Asia; 15.3 per cent to South America; and 14.4 per cent to Australasia. Cargo to the United States and South America both increased relatively as well as in actual tonnage as compared with the amounts destined to these areas during December, 1928, the actual gains amounting to 3,385 tons, or 1 per cent, and 19,589 tons, or 17.8 per cent, respectively. Cargo to Asia and Australasia showed actual decreases as well as in proportion to the total cargo as compared with December, 1928. The actual decrease to Asia was 23,364 tons, or 10.9 per cent, and that to Australasia 6,373 tons, or 4.9 per cent.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 51.8 per cent came from the west coast of the United States; 33.4 per cent from South America; 9.3 per cent from Canada; 3.0 per cent from Australasia; and 2.2 per cent from Asia. Cargo from the United States increased 81,459 tons, or 10.3 per cent, and also increased substantially in its proportion to the total cargo. Cargo from Australasia also increased slightly as compared with December, 1928—3,456 tons, or 7.6 per cent. Cargo tonnage from South America, Canada, and Asia decreased in actual tonnage as well as in their proportions to the total tonnage in this direction under December of last year. The actual decreases of tonnage from these areas amounted to 81,065 tons, or 12.6 per cent; 151,534 tons, or 49.1 per cent; and 19,278 tons or 33.8 per cent, respectively.

Destination.—Segregated according to destination, 58.5 per cent of the cargo in this direction went to the United States and 37.6 per cent to Europe. Tonnage to the United States increased 117,224 tons, or 13.5 per cent, showing also an increase in its proportion of the total cargo. That to Europe decreased 263,242 tons, or 29.4 per cent, while the proportion which the cargo destined to this area formed of the total Atlantic-bound cargo dropped from 48.4 per cent to 37.6 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 88 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for December, 1929, or December, 1928, are listed in the following tabulation, showing differences:

Commodity.	December, 1929.	December, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	11,016	6,637	+4,379
Asphalt.....	14,990	8,101	+6,889
Automobiles.....	16,877	24,086	-7,209
Cement.....	46,658	39,861	+6,797
Coal and coke.....	21,229	5,150	+16,079
Cotton.....	36,679	58,179	-21,500
Manufactured goods:			
Iron and steel.....	169,253	193,831	-24,578
Machinery.....	19,364	15,778	+3,586
Railroad material.....	23,569	26,239	-2,670
Tinplate.....	27,792	17,666	+10,126
Textiles.....	8,160	14,156	-5,996
Miscellaneous.....	13,463	14,994	-1,531
Metals, various.....	48,264	24,347	+23,917
Oils, mineral.....	52,053	48,900	+3,153
Paper.....	19,713	24,347	-4,634
Patent fuel.....	11,354	11,485	-131
Phosphates.....	23,670	37,513	-13,843
Sulphur.....	19,945	29,655	-9,710
Sugar.....	631	36,708	-36,077
Tobacco.....	12,764	13,832	-1,068

The above 20 commodity groups comprise 70.8 per cent of the cargo moving from the Atlantic to the Pacific during December, 1929. It will be noted that 12 of these items showed decreases while 8 showed increases. The heaviest decreases were those of sugar, manufactures of iron and steel, and cotton, while shipments of various metals, and coal and coke, registered the largest increases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify almost 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of December, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	December, 1929.	December, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	19,820	8,008	+11,812
Beans.....	8,644	16,800	-8,156
Canned goods (fish, fruit, vegetables, etc.).....	76,169	87,760	-11,591
Cold storage (food products) ¹	23,608	24,855	-1,247
Cotton.....	5,683	14,357	-8,674
Flour.....	12,531	9,884	+2,647
Fruit, dried.....	22,026	35,655	-13,629
Fruit, fresh.....	16,701	22,483	-5,782
Lumber.....	232,449	244,862	-12,413
Metals, various.....	49,702	65,923	-16,221
Nitrates.....	174,574	315,699	-141,125
Oils, mineral.....	487,277	345,322	+141,955
Ores (principally iron).....	228,456	170,098	+58,358
Sugar.....	72,202	50,253	+21,949
Wheat.....	109,364	300,560	-191,196

¹ Does not include fresh fruit.

The above 15 commodity groups comprise over 91 per cent of the cargo moving from the Pacific to the Atlantic during December, 1929. Five of the items show increases and 10 decreases. The most important differences comprise an increase of 141,955 tons of mineral oils and 58,358 tons of ores; and decreases of 191,196 tons of wheat and 141,125 tons of nitrates.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, December, 1929.

(Figures represent tons of 2,240 pounds.)

FROM—	SOUTH AMERICA.				NORTH AMERICA.						ASIA.					AUSTRALASIA.				Grand totals.	Per cent of total cargo.			
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. ¹	Total, Asia.	Australia.	New Zealand.			Australasia. ¹	Total, Australasia.	
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports	15,025.2	2,276.1	424	9,707	2,611	31,043	199,533	105	1,840	223	7,557	209,258	45,809	16,628	12,021	17,240	91,698	21,769	11,832		33,601	365,600	43.4	
South Atlantic ports							2,735					2,735		9,245	641	815	1,552	12,253			14,988	1.8		
Gulf ports	1,963	867	284	628	156	3,898	53,509	3,500			465	57,474	56,791	2,767	4,406	19,059	83,023	6,635	2,000		8,635	153,030	18.1	
Totals, United States	16,988.3	1,431.1	1,078	10,335	2,767	34,941	255,777	7,005	1,840	223	8,022	209,467	111,845	20,036	17,242	37,851	186,974	28,404	13,832		42,236	333,618	63.3	
CRISTOBAL, C. Z. ²																								
East coast of Canada	1,295.1	526.1	446	1,022	658	5,950	4,853		7,099	27		11,979	1,920				1,920		4,713	3,650		17,929	2.1	
West Indies	8,300					8,300	151	36				187									8,363	24,501	2.9	
East coast of Central America																		6,315	6,308		12,623	12,623	1.5	
Totals, North America	21,586.4	6,093.3	1,541	11,357	3,425	49,191	267,899	10,741	8,939	250	8,022	285,851	113,765	20,036	17,242	37,851	188,894	34,719	24,853	3,650	63,222	397,158	70.8	
EUROPE:																								
British Isles	18,399	100	20	7,551	12,624	38,094	10,514	6,055		19		16,588									47,954	103,236	12.2	
Belgium	1,689		32	747	4,120	6,558	28,091	2,955	956			2,082	34,084	405							41,077	49,901	4.9	
Denmark							75	5		14		336												
France	4,815		48	197	15	5,075	336					22,498									2,820	8,231	1.0	
Germany	1,736	33	348	416	1,466	3,999	16,799	73	1,481	20	4,125	22,498									26,497	3.1		
Holland	1,100	34		424	1,558	6,754	579		7,333			3,086									8,891	1.0		
Italy	25			25	2,037	2,087	1,343	1,066	627			3,086									5,123	0.6		
Norway and Sweden					6,954	6,954	2,153	10	2,115			4,278									11,232	1.3		
Spain and Portugal	566				374	5						5									579	0.1		
Europe	1,295				13,289	14,584	11,512	297	1,881			13,690									28,274	3.4		
Totals, Europe	29,625	167	448	9,360	40,513	80,113	77,577	11,040	4,945	2,168	6,212	101,942		405			405				47,954	2,233,234	27.6	
East coast of South America																								
Africa	46				40	86	5,470	91	46	10		5,617	423	30			452				7,200	6,155	0.7	
Grand totals	56,211.4	882.3	602	20,717	43,978	129,390	350,946	21,872	13,930	2,428	14,234	403,410	114,187	20,471	17,242	37,851	189,751	34,719	24,853	3,650	6,470	121,196	843,747	100.0
Per cent of total cargo:																								
December, 1929	6.7	0.6	0.4	2.4	5.2	15.3	41.6	2.6	1.6	0.3	1.7	47.8	13.5	2.4	2.1	4.5	22.5	4.1	9.5	0.8	14.4	100.0	.....	
December, 1928	4.6	1.2	0.5	2.4	3.9	12.6	40.1	3.7	3.3	0.5	0.5	48.1	12.9	4.5	2.6	4.5	24.5	5.8	8.4	0.6	14.8	100.0	.....	
December, 1927	5.6	1.4	0.5	2.5	4.1	14.1	38.5	3.8	3.1	0.9	0.5	46.8	14.9	3.1	2.1	2.2	22.3	9.0	7.4	0.4	16.8	100.0	.....	

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

² Includes both local and transit cargo.³ General cargo not routed so as to allow segregation between definite ports.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, December, 1929.
(Figures represent tons of 2,240 pounds.)

From —	NORTH AMERICA.								EUROPE.												Grand totals.	Per cent of total cargo.
	UNITED STATES.																					
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Cen- tral America.	Cristobal, C. Z. ¹	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe, ¹	Total, Europe.			East coast of South America.	Africa.
SOUTH AMERICA:																						
Chile	227,720	30,775	12,260	270,755		514		13	271,282	10,916	6,880	142	1,101	2,820	800	1,018	5,599	1,030	111,191	141,497	6	412,785
Colombia	1,849			1,849				3,650	5,499											2		5,501
Ecuador	1,622			1,622				3,134	4,756				104	57		537		9	48	757		5,513
Peru	29,960			29,960	27,475			5	57,440	19,503	2,680	2,091	24,289	1,343	1,035		6,700	77	18,546	76,187	26	133,653
W. coast of S. America ¹	62			62				360	422					268					2,407	2,752		3,174
Totals, S. America	261,213	30,775	12,260	304,248	27,475	514		7,162	339,399	30,421	9,560	2,232	25,494	4,490	1,835	1,555	12,299	1,116	132,192	221,195	32	560,626
NORTH AMERICA:																						
West coast of Canada	25,228			25,228		425	2,605		29,208	62,896	2,736	757	4,790	7,137	3,988	395	1,166		44,001	127,806	160	157,174
West coast of Cen. Amer.	574,901			574,901		62		1,427	1,489	230							185			415		1,904
West coast of U. S.	2,675			2,675		10,473	628	3,463	616,921	125,282	3,838	2,746	12,117	18,225	7,552	936	2,442	449	75,737	249,324	5,070	871,315
Hawaii									2,798													2,798
Totals, N. America	602,956	6,642	21,797	631,395	425	13,078	628	4,890	650,416	188,408	6,574	3,503	16,847	25,362	11,540	1,331	3,793	449	119,738	377,545	2,230	1,033,191
ASIA:																						
China	3,105			3,105				313	4,467													400
Japan	4,114			4,114		720		15	5,016													10
Philippines	21,453			21,453		795			26,640													
Far East ¹																						1,200
Totals, Asia	28,672			28,672		1,515		328	36,153													1,610
AUSTRALASIA:																						
Australia	9,864			9,864		1,124		107	11,095													
New Zealand	2,557			2,557		3,624		83	6,264	27,028			3,883						1,337	28,365		34,629
Australasia ¹																				3,883		3,883
Totals, Australasia	12,421			12,421		4,748		190	17,359	27,028			3,883						1,337	32,248		49,607
Grand totals	905,262	37,417	395,982	374,322	648	15,107	628	12,570	1,043,327	245,657	16,134	5,736	46,224	29,852	13,375	2,886	16,092	1,565	253,267	630,988	6,872	1,681,187
Per cent of total cargo:																						
December, 1929	53.9	2.2	2.4	58.5	1.9	0.9	0.7	0.7	62.0	14.6	1.0	0.3	2.8	1.8	0.8	0.2	1.0	0.1	15.0	37.6	0.4	100.0
December, 1928	39.4	3.3	4.1	46.8	1.1	1.1	0.5	1.6	51.1	18.5	2.0	0.2	1.5	4.2	3.1	1.6	0.3	1.8	15.2	48.4	0.2	100.0
December, 1927	38.6	2.8	3.4	44.8	1.3	1.8	0.1	3.0	51.0	17.2	0.8	0.4	2.1	2.6	3.7	3.3	0.8	1.0	16.0	47.9	1.1	100.0

* Includes both local and transit cargo.

¹ General cargo not routed so as to allow segregation between definite ports.

New Ships for European-north Pacific Service of French Line.

The Compagnie Generale Transatlantique (French Line) has awarded contracts for the construction of six additional steamers to be entered in its European-north Pacific trade. They are to be named *San Pedro*, *San Diego*, *San Francisco*, *San Jose*, *San Mateo*, and *San Antonio*, and are expected to be ready to enter into service during the latter part of 1930.

These vessels are to follow the new passenger and freight ships of the line which are just entering the north Pacific trade, namely, *M. S. Oregon*, *M. S. Washington*, *S. S. Wyoming*, and *S. S. Wisconsin*. This makes in all a total of ten new vessels to be ready for the French Line service in the course of the coming year. The first of the latter group of ships, the *Oregon*, transited the Canal on January 12, 1930, on its first voyage.

At present the line is operating a fortnightly service, making calls at Hamburg, Antwerp, Havre, Bordeaux, Cristobal, Los Angeles, San Francisco, Portland, Seattle, and Vancouver.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., January, 22, 1930.

No. 663.

The following are quoted from Notice to Mariners, Washington, D. C., January 11th:

1. *Panama, Colon harbor approach, Coco Solo, range lights established.* On December 13, 1929, the following range lights were established at Coco Solo:

Front light, fixed green of 210 candlepower, 16 feet above the water, on a wooden skeleton structure, on the outer end of No. 1 finger pier. Approximate position: 9° 22' 25" N., 79° 53' 13" W.

Rear light, fixed green of 210 candlepower, 29 feet above the water, on a steel skeleton structure, 150 yards 56° 30' from the front light. Approximate position: 9° 22' 27" N., 79° 53' 09" W.

2. *Colombia, Cartagena harbor, buoys reported missing.* The master of the American motor ship *William Penn* reports under date of December 26, 1929, as follows concerning the buoyage in Cartagena harbor:

(a) The light buoy on the northern side of the entrance to Boca Chica was in place but unlighted.

(b) The light buoy off the western side of Brujas Island does not exist.

(c) The light buoy on the eastern side of Santa Cruz bank does not exist. Approximate position: 10° 20' N., 75° 31' W.

3. *Nicaragua, west coast, San Juan del Sur light reexhibited.* San Juan del Sur light, which was temporarily extinguished, is now in operation, a new lantern having been installed. Approximate position: 11° 15' 00" N., 85° 53' 43" W.

4. *Nicaragua, west coast, Corinto harbor, hydrographic information.* The landing stage on Cardon Island in approximately latitude 12° 27' 40" N., longitude 87° 12' 20" W., has been removed and is to be expunged from the chart.

A wharf has been built about 125 yards 124° 30' from Cardon Head light. The wharf is parallel to the shore with a least depth of 7 feet along the face. It is 20 feet long and 12 feet wide and is connected to the shore by an approach 33½ feet by 3½ feet. Approximate position on northwest corner: 12° 27' 52" N., 87° 12' 28" W.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending January 18, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Liberator.....	U. S. Shipping Board.....	January 11...	January 12...	439	.....
Benjamin Franklin...	Fred Olsen & Co.....	January 12...	January 14...	2,049	.....
La Perla.....	United Fruit Co.....	January 13...	January 14...	65	.....
Cauca.....	National Navigation Co.....	January 14...	January 14...	.....	5
Frost.....	Hans Ericson.....	January 16...	January 16...	378	.....
Prince Rupert City...	Reardon Smith Line.....	January 16...	January 18...	556	.....
Pennsylvania.....	Panama-Pacific Line.....	January 17...	January 17...	.....	175
Santa Rita.....	Grace Line.....	January 17...	January 17...	.....	54
Champerico.....	Pacific Steam Nav. Co.....	January 18...	January 18...	1	.....
S. A. Perkins.....	James Griffith & Sons.....	January 18...	.....	6,800	.....

Executive Order.

To Establish a Pardon Board in and for the Canal Zone.

By virtue of the authority vested in me by Section 7 of the Act of Congress approved August 24, 1912, known as "The Panama Canal Act," as amended by the Act of Congress of September 21, 1922, Section 1 of the Executive Order of March 5, 1924, is amended to read as follows:

"SECTION 1. The Governor of the Panama Canal is hereby empowered to grant pardons, paroles, and reprieves for offenses against the laws, orders, and regulations of the Canal Zone, and to commute sentences and remit fines and forfeitures: *Provided, however*, that no pardon, parole, reprieve, or commutation of sentence shall be granted by the Governor, and no fine or forfeiture shall be remitted, until an application therefor shall have been submitted to a pardon board of five members, to be designated by the Governor, and approved in writing by the majority thereof."

HERBERT HOOVER

THE WHITE HOUSE,
December 31, 1929.

[No. 5250]

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending January 18, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ancon	Panama R. R. S. S. Line.		January 5.		1,138
Iowa	French Line.		January 5.		2
Durazzo	Hamburg-American Line.		January 5.		207
Orita	Pacific Steam Nav. Co.		January 5.		80
Calamares	United Fruit Co.	January 5.	January 5.	(¹)	6
Argun Maru	Osaka Shosen Kaisha	January 5.	January 5.	200	(²)
Barneveld	Royal Nether. S. S. Co.	January 5.	January 6.	246	85
Pat Doherty	Richfield Oil Co.	January 5.	January 6.	415	(²)
Santa Cruz	Grace Line.	January 5.	January 6.	4	482
Camden	United Fruit Co.	January 5.	January 7.	9,228	(²)
Cartago	United Fruit Co.		January 6.		26
Essyquibo	Pacific Steam Nav. Co.	January 6.	January 6.	15	55
Delftdijk	Holland-American Line.	January 6.	January 7.	(¹)	63
El Salvador	Panama Mail S. S. Co.	January 6.	January 7.	1,095	97
Isorohn	Hamburg-American Line.	January 6.	January 8.	459	575
Pastors	United Fruit Co.	January 6.	January 8.	481	240½
Santa Cecilia	Gr. c. Line.	January 7.	January 7.	101	137
Carnania	R. Feuillieb-is	January 7.	January 7.	(¹)	25½
Asaka Maru	Nippon Yusen Kaisha	January 7.	January 7.	61	(²)
Chile	Danish East Asiatic Co.	January 7.	January 7.	69	(²)
Castilla	United Fruit Co.	January 7.	January 7.	(¹)	37
Macoris	French Line.	January 7.	January 8.	131	382
Venezuela	Panama Mail S. S. Co.	January 7.	January 8.	786	190
Macabi	United Fruit Co.	January 7.	January 9.	401	(²)
Manizales	North German Lloyd	January 7.	January 10.	859	(²)
Esparta	United Fruit Co.	January 7.	January 11.	1,227	119
Metapan	United Fruit Co.	January 8.	January 9.	490	117
Santa Teresa	Grace Line.	January 8.	January 9.	(¹)	593
Axel Johnson	Johnson Line.	January 8.	January 9.	144	12
Cellina	Nav. Libera Tristina	January 8.	January 9.	437	(²)
Saint Andre	French Line.	January 8.	January 9.	244	(²)
Acjutla	Pacific Steam Nav. Co.		January 9.		1,092
Mississippi	French Line.	January 9.	January 9.	58	154
Mayan	Gulf-Caribbean Line.	January 9.	January 9.	393	(²)
Tela	United Fruit Co.	January 9.	January 10.	636	616
Lobos	Pacific Steam Nav. Co.	January 10.	January 10.	108	60
Oroya	Pacific Steam Nav. Co.	January 10.	January 11.	8	63
Amapala	Stand. Fruit & S. S. Co.	January 10.	January 11.	81	366
Manacui	United Fruit Co.	January 10.		12	
Benjamin Franklin	Fred Olsen & Co.	January 10.	January 11.	234	219
Romulus	Asiatic Oil Co.	January 10.	January 11.	7,600	(²)
Alvarado	Pacific Steam Nav. Co.	January 11.	January 11.	291	7
Nitonian	Leyland S. S. Line	January 11.		2	
Cauca	National Navigation Co.	January 11.		183	
Oregon	French Line.	January 11.		117	
Baarn	Royal Neth. S. S. Co.	January 11.		518	
Wanks	Stand. Fruit & S. S. Co.	January 11.	January 11.	91	12
Castilla	United Fruit Co.	January 11.	January 11.	66	378
Parismina	United Fruit Co.	January 11.		244	
Pastores	United Fruit Co.	January 12.	January 12.	27	86
Manacui	United Fruit Co.		January 12.		1,064

* No cargo discharged.

* No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Nitonian	Leyland S. S. Line.		January 12		327
Oregon	French Line		January 12		20
Baarn	Royal Neth. S. S. Co.		January 12		362
Saale	North German Lloyd		January 12		160
Narenta	Pacific Steam Nav. Co.	January 12	January 12	(¹)	59
Murla	North German Lloyd	January 12	January 14	209	466
Magallanes	Spanish Line	January 12	January 16	386	279
Parismina	United Fruit Co.		January 13		246
Galicia	Hamburg-American Line	January 13	January 13	21	605
Santa Elisa	Grace Line	January 13	January 13	7	246
Gracia	Donaldson S. S. Line	January 13	January 13	(¹)	264
Phobos	Anglo-Saxon Pet. Co.	January 13	January 16	9,442	(²)
Cauca	National Navigation Co.		January 14		27
Teno	Chilean Line	January 14	January 15	(¹)	13
Odenwald	Hamburg-American Line	January 14	January 16	400	805
La Perla	United Fruit Co.	January 14	January 18	1,198	148
Tela	United Fruit Co.	January 15	January 15	122	27
Curaca	Grace Line	January 15	January 15	1	(²)
Simon Bolivar	Royal Neth. S. S. Co.	January 15	January 15	7	17
Ulua	United Fruit Co.	January 15	January 16	497	276
Sixaola	United Fruit Co.	January 15	January 16	392	60
Iriona	United Fruit Co.	January 15	January 16	768	251
Cristobal	Panama R. R. S. S. Line	January 15	January 15	5,191	
Cerigo	Hamburg-American Line	January 15	January 15	1,047	
Cid	Pacific Steam Nav. Co.	January 15	January 16	56	9
London Importer	Furness, Withy & Co.	January 15	January 16	(¹)	388
Notre Dame					
de Fourviere	French Line	January 16	January 17	114	182
Cali	North German Lloyd	January 16	January 18	1,047	276
Grunewald	Hamburg-American Line	January 16	January 17	132	21
Santa Rita	Grace Line	January 16	January 17	(¹)	600
Villager	Westfal, Larsen & Co.	January 17	January 17	150	(²)
Lautaro	Pacific Steam Nav. Co.	January 17	January 18	33	184
Atlantida	Stand. Fruit & S. S. Co.	January 17	January 18	297	434
Creole Lindo	West India Oil Co.	January 17	January 18	2,981	(²)
Guatemala	Panama Mail S. S. Co.	January 18	January 18	521	
Heredia	United Fruit Co.	January 18	January 18	229	
Simon Bolivar	Royal Neth. S. S. Co.	January 18	January 18	4	
Haimon	North German Lloyd	January 18	January 18	423	
Wanks	Stand. Fruit & S. S. Co.	January 18	January 18	75	
Tela	United Fruit Co.	January 18	January 18	41	259
Carmania	R. Feuillebois	January 18	January 18	(¹)	57
Maravi	United Fruit Co.	January 18	January 18	7	878
Champerico	Pacific Steam Nav. Co.	January 18	January 18	905	

¹ No cargo discharged.² No cargo laded.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement. \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement.72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton.50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton. 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Ancon.....	January 21...	January 26...	January 29...	February 2...	February 5...	February 10.
Cristobal.....	February 4...	February 9...	February 12...	February 16...	February 19...	February 24.
Ancon.....	February 18...	February 23...	February 26...	March 2...	March 5...	March 10.
Cristobal.....	March 4...	March 9...	March 12...	March 16...	March 19...	March 24.
Ancon.....	March 18...	March 23...	March 26...	March 30...	April 2...	April 7.
Cristobal.....	April 1...	April 6...	April 9...	April 13...	April 16...	April 21.
Ancon.....	April 15...	April 20...	April 23...	April 27...	April 30...	May 5.
Cristobal.....	April 29...	May 4...	May 7...	May 11...	May 14...	May 19.
Ancon.....	May 13...	May 18...	May 21...	May 25...	May 28...	June 2.
Cristobal.....	May 27...	June 1...	June 4...	June 8...	June 11...	June 16.
Ancon.....	June 10...	June 15...	June 18...	June 22...	June 25...	June 30.
Cristobal.....	June 24...	June 29...	July 2...	July 6...	July 9...	July 14.
Ancon.....	July 8...	July 13...	July 16...	July 20...	July 23...	July 28.
Cristobal.....	July 22...	July 27...	July 30...	August 3...	August 6...	August 11.
Ancon.....	August 5...	August 10...	August 13...	August 17...	August 20...	August 25.
Cristobal.....	August 19...	August 24...	August 27...	August 31...	September 3...	September 8.
Ancon.....	September 3...	September 8...	September 11...	September 15...	September 18...	September 23.
Cristobal.....	September 16...	September 21...	September 24...	September 28...	October 1...	October 6.
Ancon.....	September 30...	October 5...	October 8...	October 12...	October 15...	October 20.
Cristobal.....	October 15...	October 20...	October 23...	October 28...	October 31...	November 5.
Ancon.....	October 28...	November 2...	November 5...	November 9...	November 12...	November 17.
Cristobal.....	November 11...	November 16...	November 19...	November 23...	November 26...	December 1.
Ancon.....	November 25...	November 30...	December 3...	December 7...	December 10...	December 15.
Cristobal.....	December 9...	December 14...	December 17...	December 21...	December 24...	December 29.
Ancon.....	December 23...	December 28...	December 31...	January 4...	January 7...	January 12.

¹ Effective April 30, steamers sail daylight saving time.

² Due to discontinuance of the daylight saving time, departure after *S. S. Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

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Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will always save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., January 29, 1930. No. 26.

New High Record for Daily Tolls on Canal Traffic in One Direction.

A new high record for the amount of tolls collected from traffic through the Panama Canal in one direction in one day was established on January 28, 1930, when \$86,665 was collected from 14 ships transiting from the Pacific to the Atlantic. The list of vessels was headed by the steamer *Virginia* of the Panama-Pacific Line on which tolls amounting to \$15,210 were assessed. The average amount collected was \$6,190.35.

The previous high record for tolls collected on Canal traffic in one direction was established on December 8, 1928, when \$86,224.78 was collected from 22 ships transiting from the Atlantic to the Pacific.

The vessels on January 28, 1930, on which the \$86,665 was assessed are as follows:

Vessel.	Line.	Tolls.
Virginia.....	Panama-Pacific Line.....	\$15,210.00
Lewis Luckenbach.....	Luckenbach Line.....	8,535.00
Cambridge.....	Federal Steam Navigation Co.....	8,387.50
Calliope.....	Baltic-American Petroleum Import Co.....	6,508.75
Maimoa.....	Shaw, Savill & Albion.....	6,231.25
Laurelwood.....	John I. Jacobs & Co., Ltd.....	5,495.00
Monique.....	Cie. Auxiliaire de Navigation.....	5,471.25
Robin Hood.....	Seas Shipping Co.....	5,328.75
Pennsylvanian.....	American-Hawaiian Line.....	5,087.50
Pacific Pioneer.....	Furness, Withy & Co.....	5,082.50
Abraham Lincoln.....	Fred Olsen & Co.....	4,401.25
Balboa.....	Johnson Line.....	4,287.50
Constance Chandler.....	Arrow Line.....	4,275.00
Saramacca.....	United Fruit Co.....	2,363.75
Totals.....		\$86,665.00

CANAL WORK IN DECEMBER, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of December, 1929.

BALBOA HEIGHTS, C. Z., January 20, 1930.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of December, 1929. In it have been incorporated the summaries of the traffic through the Canal during the past calendar year.

TRAFFIC FOR CALENDAR YEAR 1929.

Commercial transits for the calendar year ended December 31, 1929, aggregated 6,430, as compared with 6,334 for the calendar year 1928, and 6,085 for the calendar year 1927. The daily average number of commercial transits for the past calendar year was 17.62.

In addition to the 6,430 commercial transits, 649 noncommercial vessels, principally United States Army and Navy ships, and 156 small nonseagoing launches transited the Canal, making the total number of transits for the calendar year, 7,235.

Tolls on the 6,430 commercial vessels transiting the Canal during the past calendar year aggregated \$27,592,715.84, or a daily average of \$75,596.48.

Commercial traffic for the past calendar year exceeds that of any previous calendar year since the opening of the Canal, and surpasses that of any previous calendar or fiscal year in tolls, tons of cargo carried, and measured ship tonnage. The 6,456 commercial transits during the fiscal year 1928 exceed by 26 the number of transits in the past calendar year and remain a high record for this feature.

The following tabulation gives a ready comparison of the number of vessels, Panama Canal net tonnage, tolls collected, and tons of cargo passing through the Canal during the calendar years 1928 and 1929, by months:

COMMERCIAL TRAFFIC THROUGH THE CANAL DURING THE CALENDAR YEARS
1928 AND 1929, BY MONTHS.¹

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	\$2,212,752.50	\$2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
June	481	503	2,227,865	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
July	509	527	2,318,395	2,468,280	2,291,955	2,598,162	2,109,083.19	2,259,582.37
August	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,895.94
December	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
Totals	6,334	6,430	23,943,437	30,353,189	29,401,581	31,450,493	26,375,962.41	27,592,715.84

¹ Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

COMMERCIAL TRAFFIC BY CALENDAR YEARS, 1914 TO 1929.

The following statement is a summary of the traffic through the Canal by calendar years since its opening:

Calendar year.	No. of ships.	Panama Canal net tonnage.	United States net tonnage.	Registered		Tolls.	Tons of cargo.
				Gross.	Net.		
1914 ¹	350	1,284,293	(3)	1,789,721	(3)	\$1,508,737.56	1,758,625
1915 ²	1,154	3,902,512	(3)	(3)	(3)	4,297,467.11	4,893,422
1916 ²	1,217	3,817,704	3,078,623	(3)	(3)	3,671,162.68	4,774,822
1917	1,960	6,217,054	5,116,001	(3)	(3)	6,107,696.63	7,443,610
1918	2,070	6,409,886	5,369,341	(3)	(3)	6,317,455.39	7,284,159
1919	2,130	6,932,984	5,828,118	7,719,306	4,919,189	6,973,095.30	7,463,151
1920	2,814	10,378,265	8,543,408	13,300,887	8,458,401	10,295,362.21	11,236,119
1921	2,783	11,435,811	9,303,687	14,451,830	9,225,519	11,261,098.80	10,707,005
1922	2,997	12,992,573	10,375,771	16,315,147	10,310,113	12,573,407.77	13,710,556
1923	5,037	24,737,437	19,079,628	31,058,095	19,931,570	22,966,838.18	25,160,545
1924	4,893	24,411,760	19,414,771	31,127,724	19,440,024	22,809,416.34	25,892,134
1925	4,774	22,958,158	18,141,695	29,368,840	18,228,704	21,380,759.70	23,701,277
1926	5,420	25,836,241	20,254,503	33,044,274	20,329,791	23,901,540.04	27,586,051
1927	6,085	28,610,984	22,360,998	36,381,124	22,353,512	26,231,022.94	29,102,538
1928	6,334	28,943,437	22,217,654	36,359,701	22,266,643	26,375,962.41	29,401,581
1929	6,430	30,353,189	23,138,682	38,061,989	23,241,639	27,592,715.84	31,450,493
Totals	56,448	249,222,288				234,263,738.90	261,566,088

¹ Canal opened to traffic August 15, 1914.

² Canal opened to traffic for approximately 8½ months only.

³ Indicates tonnage figures not available.

NUMBER OF VESSELS TRANSITING CANAL IN 1929.

The total number of vessels and craft of all kinds transiting the Canal during the calendar year 1929, by months, is shown in the following tabulation:

	Commercial.	Noncommercial.			Launches. ¹	Total.
		United States Army-Navy.	For repairs.	Panamanian Government.		
January	603	119	4	2	7	735
February	522	55	4	2	23	606
March	536	96	3	1	15	651
April	540	40	3	3	41	627
May	524	40	2	1	18	585
June	503	30	2	2	10	547
July	527	44	10	2	4	587
August	541	28	4	1	6	580
September	523	33		3	11	570
October	564	42	1	1	8	616
November	525	40	3	2	4	574
December	522	22	1	3	9	557
Total	6,430	589	37	23	156	7,235

¹ Miscellaneous small nonseagoing craft which, although paying tolls, are excluded from the statement of commercial traffic.

CANAL TRAFFIC FOR DECEMBER, 1929.

During the month of December, 1929, 522 commercial vessels and 9 small launches passed through the Canal. In addition to these, there were 22 transits of vessels belonging to or chartered by the United States Government, 3 transits of Panamanian Government vessels, and one transit of a vessel solely for repairs on which no tolls were charged, making a total of 557 transits for the month, or a daily average of 17.97.

Tolls on the commercial vessels amounted to \$2,309,030.88, and on the launches, \$43.95, a total of \$2,309,074.83, or a daily average on all traffic of \$74,486.28.

As compared with December, 1928, commercial traffic for the past month showed a decrease of 57 transits and \$133,998.51 in tolls.

The total number of craft of all kinds transiting the Canal during the month of December, 1929, as compared with the same month in 1928 and 1927, is shown in the following tabulation:

	December, 1929.	December, 1928.	December, 1927.
Commercial vessels.....	522	579	589
Launches (under 20 tons measurement).....	9	11	14
Noncommercial vessels:			
United States Government.....	22	45	28
Panamanian Government.....	3	2	
Colombian Government.....			1
For repairs.....	1		4
Totals.....	557	637	636

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North- bound.	South- bound.	Total.
Gatun.....	5	7	12
Pedro Miguel.....	40	26	66
Miraflores.....	37	23	60
Totals.....	82	56	138

The following is a summary of the commercial traffic for December, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly average for the calendar year 1929:

	December, 1929.	December, 1928.	December, 1927.	Average per month for calendar year 1929.
Number of vessels.....	522	579	589	536
Panama Canal net tonnage.....	2,548,771	2,698,140	2,616,728	2,529,432
United States net tonnage.....	1,929,935	2,055,648	2,043,876	1,928,223
Registered gross tonnage.....	3,173,958	3,359,731	3,314,550	3,171,832
Registered net tonnage.....	1,939,162	2,056,933	2,036,569	1,936,803
Tolls.....	\$2,309,030.88	\$2,443,029.39	\$2,398,459.75	\$2,299,392.99
Tons of cargo carried.....	2,524,934	2,714,987	2,573,828	2,620,874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	December, 1929.	December, 1928.	December, 1927.	
Number of transits.....	16.84	18.67	19.00	17.62
Panama Canal net tonnage.....	82,218	87,037	84,411	83,159
Tolls.....	\$74,484.87	\$78,807.39	\$77,369.67	\$75,596.48
Tons of cargo carried.....	81,449	87,580	83,027	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of December, 1929, as compared with December, 1928, and 1927, are shown in the following tabulation.

	Average per vessel.		
	December, 1929.	December, 1928.	December, 1927.
Panama Canal net tonnage.....	4,883	4,660	4,443
United States net tonnage.....	3,697	3,550	3,470
Registered gross tonnage.....	6,080	5,803	5,610
Registered net tonnage.....	3,715	3,553	3,457
Tolls.....	\$4,423.43	\$4,219.39	\$4,072.09
Tons of cargo (including vessels in ballast).....	4,837	4,689	4,370
Tons of cargo (laden vessels only).....	5,562	5,740	5,465

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.934 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.722 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of December, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
British.....	\$664,837.04	\$716,134.00	\$51,296.96	
Chilean.....	10,030.00	10,644.00	614.00	
Colombian.....	1,502.85	1,272.00		\$230.85
Costa Rican.....	397.20	331.00		66.20
Danish.....	11,903.75	13,015.00	1,111.25	
Danzig.....	10,853.88	9,684.40		1,169.48
Dutch.....	37,376.92	40,521.60	3,144.68	
French.....	41,554.96	40,459.00		1,095.96
German.....	99,201.67	110,513.60	11,311.93	
Greek.....	16,752.50	19,059.00	2,306.50	
Italian.....	39,915.00	43,422.00	3,507.00	
Japanese.....	54,236.30	51,607.00		2,629.30
Norwegian.....	125,058.39	126,817.80	1,759.41	
Panamanian.....	91.65	75.20		16.45
Spanish.....	4,572.50	4,209.00		363.50
Swedish.....	35,086.82	36,392.60	1,305.78	
United States.....	1,143,205.70	1,176,102.80	32,897.10	
Yugoslav.....	12,453.75	12,115.00		338.75
Totals.....	2,309,030.88	2,412,375.00	109,254.61	5,910.49
Net increase for all traffic.....			103,344.12	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$28,568.04
United States foreign trade.....	4,984.96
United States—Canal Zone trade.....	* 655.90
Net increase.....	32,897.10

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in December, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British.....	.85	1.27	1.05
Chilean.....	.79	.64	.73
Colombian.....	.48	1.79	1.20
Costa Rican.....	1.81	.....	1.81
Danish.....	1.62	1.82	1.74
Danzig.....	.....	1.81	1.81
Dutch.....	.57	1.48	.93
French.....	.46	1.32	.95
German.....	.85	1.39	1.09
Greek.....	.....	1.88	1.88
Italian.....	.30	1.07	.71
Japanese.....	1.03	.92	1.02
Norwegian.....	1.02	1.60	1.44
Panamanian.....	.57	.....	.57
Spanish.....	.....	1.96	1.96
Swedish.....	1.26	2.26	1.96
United States.....	.79	1.43	1.16
Yugoslav.....	1.85	1.88	1.87
Averages, December, 1929.....	.84	1.42	1.14
Averages, December, 1928.....	.87	1.50	1.23
Averages, December, 1927.....	.81	1.55	1.24

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of December is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	4	12,393	\$13,131.25	49	273,022	\$274,543.75
Ballast.....	46	251,459	181,097.19	1	4,345	3,128.40
General cargo ships:						
Laden.....	205	989,143	892,842.10	196	914,349	865,937.35
Ballast.....	17	84,694	61,582.69	1	47	35.25
Noncargo-carrying ships:						
Dredge.....	1	316	227.52	.....	.....	.....
Passenger.....	1	18,874	16,412.50	.....	.....	.....
Yacht.....	.....	.....	.....	1	129	92.88
Totals.....	274	1,356,879	1,165,293.25	248	1,191,892	1,143,737.63
Method of propulsion:						
Steam.....	211	1,021,351	900,533.85	196	949,356	919,940.70
Motor.....	63	335,528	264,759.40	51	240,890	221,821.73
Sail.....	.....	.....	.....	1	1,646	1,975.20
Totals.....	274	1,356,879	1,165,293.25	248	1,191,892	1,143,737.63

Of the 407 steam-driven vessels, 279 were oil burning, 119 coal burning, and 9 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of December, 1929. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cargo ships.....	2	26,305	\$7,881.25	1	23,434	\$4,292.50
Cruisers.....	2	12,100	6,050.00	1	8,900	4,450.00
Gunboats.....	2	3,006	1,503.00	2	3,006	1,503.00
Mine sweepers.....	1	950	475.00	.....	.....	.....
Submarines.....	1	854	427.00	1	854	427.00

* Indicates displacement tonnage.

† Indicates United States net tonnage.

Class and nationality.	Atlantic to Pacific			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Army vessels:						
Mine planters.....	1	1,208	\$604.00	2	2,416	\$1,208.00
Transports.....	3	11,724	14,655.00	2	7,816	9,770.00
Tugs.....	1	137	102.75			
Totals, U. S. Government.....	13		31,698.00	9		21,650.50
Panamanian Government vessels:						
Transports.....	2	202	145.44	1	101	72.72
Vessels for repairs:						
Cargo ships.....	1	1,064	798.00			
Grand totals.....	16		32,641.44	10		21,723.22

¹ Indicates displacement tonnage.² Indicates Panama Canal net tonnage.³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of December, 1929, carried cargo as follows: Atlantic to Pacific, 12,677 tons; Pacific to Atlantic, 2,814 tons; total, 15,491 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of December, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic.

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	8	51	\$40.95
Pacific to Atlantic.....	1	4	3.00
Totals.....	9	55	43.95

STATEMENT OF TERMINAL OPERATIONS.

* Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of December, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	125,958	43,317	169,275
Local cargo shipped..... tons..	8,372	1,101	9,473
Transit cargo arriving..... tons..	2,544,421	2,581,926	5,126,347
Transit cargo clearing..... tons..	2,523,923	2,562,076	5,085,999
Cargo received for transshipment..... tons..	29,227	885	30,112
Cargo transhipped..... tons..	26,424	781	27,205
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	101	37	138
Number of withdrawals.....	559	209	768
Tons received.....	1,245	935	2,180
Tons withdrawn.....	2,083	190	2,273
Packages received.....	6,432	16,295	22,727
Packages withdrawn.....	4,469	1,939	6,408
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	61	3	64
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	22,308	50	22,358
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	109	24	133
U. S. Army, including vessels..... tons..	52	11	63
Individuals and companies..... tons..	140		140
Transferred to Navy..... tons..	85		85
Total sales and issues..... tons..	22,694	85	22,779

	Cristobal.	Balboa.	Total.
Coal on hand, December 1, 1929..... tons..	34,436		34,436
Coal on hand, January 1, 1930..... tons..	59,513		59,513
Coal received during month..... tons..	47,771		47,771
Coal received from Navy..... tons..		85	85
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls..	5,566.06	18,710.13	24,276.19
Panama Railroad Company..... bbls..	604.95		604.95
U. S. Army and Navy..... bbls..	718.90	81.26	800.16
Individuals and companies..... bbls..		169.31	169.31
Total sales and issues..... bbls..	6,889.91	18,960.70	25,850.61
Fuel oil received during December..... bbls..		61,144.50	61,144.50
Fuel oil on hand January 1, 1930..... bbls..	56,425.97	92,121.93	148,547.90
Diesel oil sold during December..... bbls..	192.53	2,158.18	2,350.71
Diesel oil on hand January 1, 1930..... bbls..	15,287.48	30,693.78	45,981.26
Miscellaneous transfers..... bbls..	749.38	624.56	1,373.94
Gasoline and kerosene pumped for The Panama Canal..... bbls..	2,814.62	4,261.62	7,076.24
Gasoline pumped for individuals and companies..... bbls..	748.77	20,071.64	20,820.41
Oil pumped for individuals and companies..... bbls..	659,614.36	463,233.54	1,122,847.90
Oil pumped for U. S. Navy..... bbls..	1,988.00	5,741.00	7,729.00
Total fuel oil, gasoline, and kerosene handled..... bbls..	672,997.57	576,195.74	1,249,193.31
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	21	7	28
Measured for Panama Canal net tonnage.....	6	1	7
Remeasured for Panama Canal net tonnage.....	17	5	22
Panama Canal net tonnage corrected.....	3	5	8
U. S. equivalent tonnage corrected.....	11	10	21
Services of harbor equipment:			
Tugs, total operating hours.....	499	334 ³ / ₄	833 ³ / ₄
Launches, total operating hours.....	1,424	1,651 ¹ / ₂	3,075 ¹ / ₂
Revenue from tug service, pilotage, etc.:			
Tug revenue.....	\$15,785.00	\$10,925.00	\$26,710.00
Pilotage.....	20,729.00	7,696.00	28,425.00
Seamen.....	12,944.00	11,496.00	24,440.00
Launch service.....	2,011.00	2,937.00	4,948.00
Wharfage.....	17,593.58	5,842.59	23,436.17
Ships measured.....	170.00		170.00
Miscellaneous.....	1,870.68	636.50	2,507.18
Ships repaired at Panama Canal shops:			
Commercial.....	62	5	67
U. S. Army and Navy.....	6	4	10
Panama Canal equipment.....	3	11	14
Totals.....	71	20	91
Vessels dry-docked:			
Commercial.....	9	2	11
Panama Canal equipment.....	1	3	4
Totals.....	10	5	15
Clearances issued.....	312	283	595
Bills of health issued.....	329	284	613

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal..	631	3,727,579	2,267,517	561	3,315,633	2,039,423
Vessels entering port but not transiting Canal.	84	485,263	285,384	7	47,844	30,132
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	122	764,944	457,774	106	657,441	394,057
<i>Ships clearing.</i>						
All vessels, including those transiting Canal..	631	3,704,607	2,249,802	556	3,303,989	2,030,249
Vessels clearing port but not transiting Canal.	85	486,563	286,185	7	47,844	30,132
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	122	772,139	461,539	106	658,051	394,602

* Includes 30 airplanes of 147 gross tons.

* Includes 33 airplanes of 161 gross tons.

* Includes 8 airplanes, weight 16 tons.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,364	1,014	2,378	129	559	688
From Pacific ports	188	96	284	348	307	655
Total disembarking	1,552	1,110	2,662	477	866	1,343
Embarking:						
For Atlantic ports	1,125	993	2,118	118	184	302
For Pacific ports	213	124	337	218	149	367
Total embarking	1,338	1,117	2,455	336	333	669
Remaining on board:						
From Atlantic to Pacific ports	1,984	3,166	5,150	2,068	2,731	4,799
From Pacific to Atlantic ports	864	864	1,728	934	776	1,710
From Atlantic to Atlantic ports	2,940	171	3,111			
From Pacific to Pacific ports				16	532	548
Total remaining on board	5,788	4,201	9,989	3,018	4,039	7,057
Total arriving	7,340	5,311	12,651	3,495	4,905	8,400
Total departing	7,126	5,318	12,444	3,354	4,372	7,726

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	274	63	23.0
Pacific to Atlantic	248	55	22.2
Totals	522	118	22.6

In addition to the aforesaid, 87 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 208 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of December:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	\$2,135.85	\$13,396.34	\$28,577.02	\$141.45	\$7,706.81	\$51,954.47
Government vessels	174.38	735.47	10,847.17	13.33	601.38	12,371.73
P. R. R. vessels		163.24	1,336.07	728.02	141.30	2,368.63
Total sales, December, 1929..	2,310.23	14,292.05	40,760.26	882.80	8,449.49	66,694.83
Total sales, December, 1928..	4,059.92	17,666.78	57,682.04	1,125.14	9,116.95	89,650.83
Total sales, December, 1927..	2,418.19	12,368.62	33,935.66	977.92	6,337.90	56,038.29
Sales at Balboa to:						
Commercial vessels	1,016.48	9,617.35	17,621.44	411.20	4,245.31	32,911.78
Government vessels	170.10	1,358.36	8,373.63	406.81	391.69	10,700.59
P. R. R. vessels				98.05		98.05
Total sales, December, 1929..	1,186.58	10,975.71	25,995.07	916.06	4,637.00	43,710.42
Total sales, December, 1928..	3,097.76	10,834.52	40,119.66	737.13	3,766.52	58,555.59
Total sales, December, 1927..	2,128.87	12,592.94	28,884.47	1,028.67	3,644.56	48,279.51

The aggregate sales to Government vessels during the month was \$23,072.32; to Panama Railroad vessels, \$2,466.68; and to other commercial vessels, \$84,866.25; making the total sales to all vessels, \$110,405.25.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of December, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. †					
	North.	South.	Total.	North.	South.	Total.	Dec. 1929.	Dec. 1928.	Dec. 1927.
Gatun.....	237	257	494	7	8	15	509	568	563
Pedro Miguel.....	239	267	506	11	21	32	538	601	597
Miraflores.....	239	265	504	11	18	29	533	590	592
Number of vessels put through locks.									
Gatun.....	248	275	523	22	31	53	576	672	652
Pedro Miguel.....	248	275	523	56	44	100	623	715	677
Miraflores.....	248	275	523	53	42	95	618	721	678

* Includes miscellaneous tolls-paying craft under 20 tons measurement.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	25	28	28
Panama Canal equipment.....	12	66	60
Launches under 20 tons.....	12	2	3
Panamanian Government vessels.....	3	3	3
Vessels for repairs.....	1	1	1

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in December, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,930,930,000	1,718,880,000	1,553,860,000
Leakage.....	30,000,000	9,000,000	20,000,000
Maintenance.....	29,370,000	59,510,000	14,630,000
Totals, December, 1929.....	1,990,300,000	1,787,390,000	1,588,490,000
Totals, November, 1929.....	2,210,660,000	1,732,170,000	1,648,410,000
Totals, December, 1928.....	2,291,000,000	2,072,370,000	1,880,030,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of December, 1929, are shown in comparative form in the following tabulation:

	December.		December—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	2,167	3,884	17,300	1,265	3,734
Maximum momentary discharge for the month.....	9,455	16,510	154,000	970	.....
Gatun Lake watershed, total yield.....	4,588	10,959	10,959	3,005	7,229
Gatun Lake watershed, net yield.....	3,866	10,370	10,370	2,158	6,596
Draft on Gatun Lake for lockages and power.....	2,844	3,054	2,984	2,101	2,360

* December 26, 1909.

* 1914 not included.

The discharge of the Chagres River at Alhajuela was 42 per cent below the 28-year average, or 2,167 c. f. s., compared with an average of 3,734 c. f. s. The maximum momentary discharge for the month was 9,455 c. f. s. at elevation 96.90 feet on the 2d and 3d. The minimum discharge was 1,194 c. f. s. at elevation 92.43 feet on the 31st. The maximum monthly discharge of record for December is 17,300 c. f. s. in 1909, and the minimum 1,265 c. f. s. in 1905. The maximum momentary discharge on record for December is 154,000 c. f. s. at elevation 121.00 feet on December 26, 1909.

The total yield of the Gatun Lake watershed for December, 1929, was 37 per cent below the 16-year December average, or 4,588 c. f. s. compared with an average of 7,229 c. f. s. Maximum and minimum total yields of record for December are 10,959 c. f. s. in 1928 and 3,005 c. f. s. in 1918. The lake varied in elevation from 87.09 feet on the 10th to 86.62 feet on the 31st, and ended at elevation 86.69 feet.

Miraflores Lake varied between elevation 54.36 feet on the 24th to 51.40 feet on the 18th, averaged 53.81 feet, and ended at elevation 54.01 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 15th and 17th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,308,300 kilowatt hours, and the computed water consumption was 3,937,317,710 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 42,900 kilowatt hours, and the fuel oil consumption was 84.49 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 36 vessels during the month. There were 351 work orders issued during the month, as compared with 418 issued during the previous month.

MECHANICAL DIVISION.

During the month of December, 1929, miscellaneous repairs were made on 71 vessels at Cristobal and 20 at Balboa. Ten vessels were dry-docked at Cristobal and 5 at Balboa. The annual overhaul of the United States Navy's submarine *S-13* was carried forward during the month. Work was carried forward on repairs to several pieces of Panama Canal equipment.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. In connection with the improvement of Avenue "A" in Panama City, 240 square yards of amiesite were placed, 155 feet of vitrified pipe were installed, and 2,000 square yards of final grading were completed. On the portion of Avenue "A" lying within the Canal Zone, 550 square yards of amiesite were placed and 67 feet of concrete curb constructed.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 757,687,750 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during December with an average movement of 0.4 feet toward the Canal between stations 1770-00 and 1797-00 W. At West Lirio slide there was a slight surface movement during the month, but the amount entering the new prism was small. The general movement of South Cucaracha slide continued during the month. There was no interference with shipping on account of slides during December.

The total excavation during December, 1929, was 426,890 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Gaillard Cut—			
Project No. 2.....	8,450	58,100	66,550
East Lirio slide.....	750	2,950	3,700
East Culebra slide.....	1,550	14,200	15,750
West Culebra slide.....	4,900	19,500	24,400
Pacific entrance—			
Project No. 1.....	54,950	48,150	103,100
Maintenance.....	16,450	3,650	20,100
Plant excavation:			
Albrook Field.....	190,900		190,900
Dredging sand at Chame.....	2,390		2,390
Totals.....	280,340	146,550	426,890

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and eighty-two trips were made, and 94 Panama Canal, 32 U. S. Army, and 4,039 other vehicles, a total of 4,165, were ferried across the Canal.

MADDEN DAM PROJECT.

On December 1, 1929, the work previously handled for Madden Dam by the Municipal Engineering Division was taken over by this division. Sketches and computations were made for spillway, rock fill dam, and straight gravity dam. Existing electric plants, substations and transmission line were inspected and preliminary study was given to the transmission line to be built from Alhajuela and the receiving station to be located at Summit. Data were worked up for flood frequency determination, and natural flood storage for spillway design.

During the month of December, 116 acres of the 3,316 acres contained in the ridges were mapped. A total acreage of 2,641, or 79.64 per cent of the total ridge area, has been mapped to date.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children occupying Panama Canal quarters on December 31, 1929, was 22,163, composed of 7,817 Americans, 2,866 of whom were men, 2,319 women, and 2,632 children; 244 Europeans, 94 of whom were men, 38 women, and 112 children; and 14,102 West Indians, 4,128 of whom were men, 2,621 women, and 7,353 children. The total number of persons in quarters on December 31, 1928, was 20,935.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of December 18, 1929, with a comparison of the working force for the previous month and for December, 1928:

	As of December 18, 1929.			Total employees.	
	Gold.	Silver.	Total.	November, 1929.	December, 1928.
Operation and Maintenance:					
Office.....	54	106	160	160	95
Electrical.....	153	191	344	324	330
Municipal Engineering.....	80	722	802	862	1,233
Lock Operation.....	239	696	935	953	999
Dredging.....	193	1,069	1,262	1,275	1,079
Madden Project.....	56	664	720	648	.....
Mechanical.....	510	920	1,430	1,443	1,339
Marine.....	209	576	785	835	957
Fortifications.....	26	255	281	288	300
Totals.....	1,520	5,199	6,719	6,788	6,332
Supply Department:					
Quartermaster.....	216	2,221	2,437	2,562	1,961
Commissary.....	234	1,362	1,596	1,561	1,489
Cattle Industry—Plantations.....	3	114	117	123	150
Hotel Tivoli.....	10	110	120	112	110
Hotel Washington.....	9	101	110	110	111
Transportation.....	75	251	326	316	268
Totals.....	547	4,159	4,706	4,784	4,089
Accounting Department.....	202	7	209	210	204
Health Department.....	292	866	1,158	1,151	1,075
Executive Department.....	530	322	852	857	813
Totals.....	1,024	1,195	2,219	2,218	2,092
Panama Railroad Company:					
Superintendent.....	49	283	332	337	353
Transportation.....	57	116	173	189	181
Receiving and Forwarding Agency.....	95	1,174	1,269	1,332	1,775
Coaling Stations.....	43	204	247	265	293
Totals.....	244	1,777	2,021	2,123	2,602
Grand totals, December, 1929.....	3,335	12,330	15,665	.....	.....
Grand totals, November, 1929.....	3,328	12,585	.....	15,913	.....
Grand totals, December, 1928.....	3,141	11,974	.....	.....	15,115

Additions to the gold force on the Isthmus in December were as follows: Employed in the United States, 12; reemployed in the United States, 2; employed on the Isthmus, 22; reemployed on the Isthmus, 16; total 52. Separations from the gold force totaled 38, as follows: Resigned, 23; discharged, 11; retired, 2; died, 2. At the end of the month there were on file 400 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 176 deaths occurred during the month of December, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.98 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 27; pneumonia (broncho and lobar), 25; diarrhea and enteritis, 17; organic diseases of the heart, 15; and nephritis (acute and chronic), 13. There were 9 deaths from syphilis, 9 from cancer, and 6 from apoplexy. There were 19 deaths among nonresidents; these were not included in the above statistics.

There were 441 live births, and 18 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 41.68. Deaths among children under 1 year of age numbered 43, giving an infant mortality rate based on the number of live births reported, of 97.51.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during December, 1929, was 144, of whom 34 were employees (9 white and 25 colored), 11 were families of employees (2 white and 9 colored), 24 were Canal Zone agriculturists, 36 were other civilian nonemployees, and 39 were Army and Navy personnel.

There were no deaths from malaria among residents.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$489,347.09, of which \$440,194.57 was for the Department of Operation and Maintenance and \$49,152.52 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$52,846.32.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of November, 1929, as compared with November, 1928, with the figures for the first five months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of December at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

PANAMA CANAL OPERATIONS FOR NOVEMBER, 1929, COMPARED WITH NOVEMBER, 1928.

	November, 1929.	November, 1928.	To end of November.	
			This year.	Last year.
Tolls.....	\$2,244,647.00	\$2,225,957.88	\$11,519,476.03	\$10,918,322.87
Other receipts.....	352,894.23	326,229.90	1,769,401.59	1,589,098.65
Total transit revenues.....	2,597,541.23	2,552,187.78	13,288,877.62	12,507,421.52
Total transit expenses.....	1,094,667.84	1,037,992.72	5,506,805.33	5,238,609.85
Net transit revenues.....	1,502,873.39	1,514,195.06	7,782,072.29	7,268,811.67
Three per cent capital charge.....	616,247.58	615,967.41	3,098,594.61	3,079,090.26
Transit surplus.....	886,625.81	898,227.65	4,683,477.68	4,189,721.41
Business revenues.....	1,579,451.83	1,443,894.85	7,897,246.09	6,511,602.74
Business expenses.....	1,513,097.54	1,372,195.88	7,488,209.54	6,180,198.67
Net business revenues.....	66,354.29	71,698.97	409,036.55	331,404.07
Three per cent capital charge.....	62,445.51	61,003.64	323,390.21	316,649.44
Business surplus.....	3,908.78	10,695.33	85,646.34	14,754.63
Combined revenues.....	4,176,993.06	3,996,082.63	21,186,123.71	19,019,024.26
Combined expenses.....	2,607,765.38	2,410,188.60	12,995,014.87	11,418,808.52
Net revenues.....	1,569,227.68	1,585,894.03	8,191,108.84	7,600,215.74
Three per cent capital charge.....	678,693.09	676,971.05	3,421,984.82	3,395,739.70
Combined surplus.....	890,534.59	908,922.98	4,769,124.02	4,204,476.04

Respectfully,

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending January 25, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cristobal.....	Panama R. R. S. S. Line.....	January 19.....	January 19.....		1,066
Cerigo.....	Hamburg-American Line.....	January 19.....	January 19.....		255
Guatemala.....	Panama Mail S. S. Co.....	January 19.....	January 19.....		50
Simon Bolivar.....	Royal Neth. S. S. Co.....	January 19.....	January 19.....		651
Haimon.....	North German Lloyd.....	January 19.....	January 19.....		117
City of Panama.....	Panama Mail S. S. Co.....	January 19.....	January 19.....		2,251
Ulua.....	United Fruit Co.....	January 19.....	January 19.....		7
Adolf von Baeyer.....	Hamburg-American Line.....	January 19.....	January 20.....	304	257
Carl Legien.....	Hamburg-American Line.....	January 19.....	January 20.....	254½	6
Irona.....	United Fruit Co.....	January 19.....	January 20.....	11	43
Aconcagua.....	Chilean Line.....	January 20.....	January 20.....	15	7
Amsterdam.....	Royal Nether. S. S. Co.....	January 20.....	January 20.....	120	35
Dinteldijk.....	Holland-American Line.....	January 20.....	January 21.....	27	497
Aachen.....	North German Lloyd.....	January 20.....	January 21.....	197	69
Wanks.....	Stand. Fruit & S. S. Co.....	January 21.....	January 21.....		9
Orinoco.....	Hamburg-American Line.....	January 21.....	January 21.....	88	16
Los Angeles.....	Hamburg-American Line.....	January 21.....	January 23.....	12	459
San Jose.....	United Fruit Co.....	January 21.....	January 24.....	414	149
Buenaventura.....	Panama R. R. S. S. Line.....	January 21.....	January 24.....	100	448
Glamorganshire.....	Royal Mail S. S. Co.....	January 22.....	January 22.....	305	(²)
Chancellor.....	Leyland Line.....	January 22.....	January 22.....	388	(²)
Nevisian.....	Leyland Line.....	January 22.....	January 23.....	664	31
Baralt.....	Royal Nether S. S. Co.....	January 22.....	January 25.....	298	76
Castilla.....	United Fruit Co.....	January 22.....	January 23.....	432	30
Zacapa.....	United Fruit Co.....	January 22.....	January 23.....	616	41
Tolosa.....	United Fruit Co.....	January 22.....	January 23.....	464	89
Flandre.....	French Line.....	January 22.....	January 24.....	211	334
Santa Maria.....	Grace Line.....	January 23.....	January 23.....	(¹)	60
Heluan.....	Hamburg-American Line.....	January 23.....	January 23.....	20	284
Cauca.....	National Navigation Co.....	January 23.....	January 25.....	313	53
Nitheroy.....	Royal Mail S. S. Co.....	January 23.....	January 24.....	(¹)	136
Pensylvanie.....	French Line.....	January 23.....	January 24.....	352	(²)
Manizales.....	North German Lloyd.....	January 23.....	January 24.....	(¹)	284
Colombia.....	Panama Mail S. S. Co.....	January 23.....	January 24.....	1,451	465
Corinto.....	Panama Mail S. S. Co.....	January 24.....	January 24.....	472	
Gatun.....	Stand. Fruit & S. S. Co.....	January 24.....	January 25.....	95	369
Mayari.....	United Fruit Co.....	January 24.....	January 24.....	19½	549
Orazio.....	Italian Line.....	January 24.....	January 25.....	22	714
Oreoma.....	Pacific Steam Nav. Co.....	January 24.....	January 25.....	29	(²)
Irona.....	United Fruit Co.....	January 25.....	January 25.....	24	237
Lochkatrine.....	Royal Mail S. P. Co.....	January 25.....	January 25.....	70	
Nevisian.....	Leyland Line.....	January 25.....	January 25.....	(¹)	224
Almelo.....	Royal Nether. S. S. Co.....	January 25.....	January 25.....	159	
Wanks.....	Stand. Fruit & S. S. Co.....	January 25.....	January 25.....	65	
Orinoco.....	Hamburg-American Line.....	January 25.....	January 25.....	14½	
Guayaquil.....	Panama R. R. S. S. Line.....	January 25.....	January 25.....	1,524	
Cartago.....	United Fruit Co.....	January 25.....	January 25.....	203	
Santa Inez.....	Grace Line.....	January 25.....	January 25.....	151	125
Mineola.....	N. O. S. A. & S. S. Co.....	January 25.....	January 25.....	57	110
Carmania.....	R. Feuillebois.....	January 25.....	January 25.....	(¹)	40½

¹ No cargo discharged.² No cargo laded.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, January 25, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Water draft.			Nature.	Tons.	Gross.	Net.
Guatemala.....	18	4 45	19	6 05	19	13 56	19	23 20	American.....	Panama Mail S. S. Co.	360 2	51 6	21 8	New York, N. Y.	San Francisco, Cal.	General.....	1,023	5,776	4,081
Haiton.....	18	7 35	19	6 14	19	14 58	19	16 05	German.....	North German Lloyd.	402 0	54 1	23 1	Hamburg, Germany	San Antonio, Chile.	General.....	3,817	6,667	4,888
Otaki.....	18	17 10	19	7 10	19	15 19	19	16 40	British.....	N. Z. Shipping Co.	449 5	53 0	25 10	Liverpool, England	Auckland, N. Z.	General.....	3,386	8,268	5,432
California ²	18	20 25	19	7 25	19	15 36	19	17 10	American.....	Amer. Hawaiian Line.	435 0	59 8	18 0	New York, N. Y.	Portland, Oreg.	General.....	2,532	8,567	6,020
Chr. Knudsen ²	18	21 55	19	8 40	19	16 31	19	19 53	Norwegian.....	A. S. Borgestad.	381 2	54 0	23 6	Antwerp, Belgium	Los Angeles, Calif.	Cement clinkers	7,913	6,083	4,561
Willfaro.....	18	23 25	19	9 00	19	17 39	19	18 43	American.....	Williams S. S. Line.	386 8	52 2	17 0	Baltimore, Md.	Tacoma, Wash.	General coal.....	2,146	5,684	4,070
Cerigo.....	15	18 45	19	9 35	19	17 52	19	19 03	German.....	Hamburg-American Line	227 0	56 5	23 8	Cristobal, C. Z.	Guaymas, Mexico	General.....	250	1,572	1,011
Solana.....	15	18 45	19	9 35	19	17 52	19	19 03	German.....	Tidewater Oil Co.	419 5	54 5	23 0	Cristobal, C. Z.	San Francisco, Cal.	Oil.....	1,140	7,060	5,025
Talisman ²	19	3 15	19	10 15	19	18 38	19	20 50	Norwegian.....	Conn. & Dom. Line.	400 6	54 2	17 3	New York, N. Y.	Adelaide, Australia.	General.....	3,138	6,558	4,580
City of Panama.....	26	13 50	19	12 10	19	19 30	19	20 36	American.....	Panama Mail S. S. Co.	296 1	46 0	19 3	Cristobal, C. Z.	San Francisco, Cal.	General.....	2,253	8,848	2,603
Fjord.....	14	13 40	19	14 00	19	21 02	20	3 40	Norwegian.....	Anglo-Mexican Pet. Co.	275 0	40 0	20 6	Tampico, Mexico	Valparaiso, Chile.	Oil, asphalt.....	2,500	2,492	1,676
Cumden ³	12	16 20	20	6 10	20	14 32	20	15 55	American.....	U. S. Navy	388 0	48 0	24 6	U. S. port.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Rushnell ³	19	20 10	20	6 25	20	13 19	21	7 00	American.....	U. S. Navy	300 0	45 8	17 3	New York, N. Y.	Cruz Grande, Chile	Ballast.....	15,551	4,297	.....
Marore.....	19	20 10	20	6 15	20	15 21	20	16 30	American.....	Ore S. S. Corp.	550 3	72 2	22 3	New York, N. Y.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-1 ⁴.....	.....	.....	20	7 15	20	15 55	20	16 50	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-18 ⁴.....	.....	.....	20	7 15	20	15 55	20	16 50	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-19 ⁴.....	.....	.....	20	7 15	20	15 55	20	16 50	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-21 ⁴.....	.....	.....	20	7 15	20	15 55	20	16 50	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Santa Eulalia.....	19	21 40	20	7 35	20	16 03	20	18 13	American.....	Isthmian S. S. Lines	251 0	43 0	24 8	Baltimore, Md.	Kahului, T. H.	General.....	3,255	2,823	1,730
S-3 ⁴.....	.....	.....	20	7 35	20	16 53	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-4 ⁴.....	.....	.....	20	7 35	20	17 26	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-7 ⁴.....	.....	.....	20	7 35	20	17 26	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-22 ⁴.....	.....	.....	20	8 15	20	17 26	.....	.....	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Bagaduce ⁵.....	.....	.....	20	8 15	20	17 26	.....	.....	American.....	U. S. Navy	149 3	30 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
West Malwah.....	19	22 45	20	8 40	20	18 24	20	19 25	American.....	McCormick S. S. Co.	410 5	54 0	18 11	Buenos Aires, Arg.	Vancouver, B. C.	Ballast.....	3,367	6,588	5,049
S-3 ⁴.....	.....	.....	20	8 45	20	18 50	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-48 ⁴.....	.....	.....	20	9 00	20	18 50	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-9 ⁴.....	.....	.....	20	10 10	20	19 54	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Robin Gray.....	20	9 45	20	10 45	20	19 54	20	21 04	American.....	Isthmian S. S. Lines	424 8	55 2	21 6	Baltimore, Md.	Seattle, Wash.	Steel general.....	5,921	7,472	5,542
S-23 ⁴.....	.....	.....	20	13 15	20	20 22	.....	.....	American.....	U. S. Navy	219 0	20 8	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Stonepool.....	20	12 30	20	14 00	20	21 04	20	22 04	British.....	Pool Shipping Co.	405 0	53 5	14 0	Baltimore, Md.	Vancouver, B. C.	Ballast.....	5,803	4,212	.....
Maredek.....	20	13 40	20	14 35	20	21 50	20	23 00	American.....	Nelson Line	324 0	46 2	18 0	Baltimore, Md.	Seattle, Wash.	Pipe general.....	1,776	8,984	2,628
Qual ⁶	20	15 20	20	17 22	20	25 23	20	16 10	American.....	U. S. Navy	180 0	35 6	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Swan ⁶	20	15 20	20	17 22	20	25 23	20	16 30	American.....	U. S. Navy	180 0	35 6	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-14 ⁴.....	.....	.....	21	6 05	21	14 12	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
S-15 ⁴.....	.....	.....	21	6 05	21	14 12	.....	.....	American.....	U. S. Navy	231 0	21 0	.....	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	.....	.....	.....
Dinteldijk ²	20	6 25	21	6 15	21	13 15	21	17 00	Dutch.....	Holland-American Line.	435 0	62 0	24 0	Rotterdam, Holland	Vancouver, B. C.	General, bananas	4,529 ⁷	10,786	7,551
Storaas ¹	20	19 20	21	7 25	21	15 12	21	19 40	Norwegian.....	Anglo-Saxon Pet. Co.	441 0	59 2	18 0	Gothenburg, Swed.	Los Angeles, Calif.	Ballast.....	.....	8,053	5,636

⁸ Corn, coffee, and cocoa.

⁷ Towing raft.

⁶ Mine sweeper.

⁵ Tug.

⁴ Submarine.

³ Submarine tender.

² Motor ship.

¹ Tanker.

Sweland	21	11.40	21	11.55	21	19.13	22	00.10	Swedish	Ore S. S. Corp	551.0	72.0	23.0	Cruz Grande, Chile	Ballast	15.425	4.421
Toba Maru	21	14.00	21	14.15	21	21.47	21	22.30	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Osaka, Japan	General	6,280	8,058
Ogata	21	11.03	21	15.00	21	22.15	22	12.15	American	U. S. Navy	375.0	52.0	17.0	Naval stores	General	6,280	8,058
Javanese	20	3.20	21	18.40	22	9.19	22	12.30	British	Furness, Withy & Co.	441.0	60.0	24.3	Manila, P. I.	General	3,505	9,240
Prince	21	13.40	21	13.40	21	21.50	21	22.50	American	U. S. Navy	130.0	35.6		Ballast	General	3,505	9,240
Lark	21	6.03	21	6.03	21	14.12	22	14.55	British	Brit. Phosphate Comm	405.0	52.0	25.5	Ballast	General	6,921	6,172
Launch	21	19.15	22	6.20	22	13.18	22	14.55	British	Brit. Phosphate Comm	405.0	52.0	25.5	Phosphate	General	6,921	6,172
Minette	22	1.05	22	6.30	22	13.46	22	16.05	American	Amer-Hawaiian Line	471.0	59.0	17.5	Seattle, Wash.	General	2,094	6,638
Nebaskan	22	1.20	22	7.35	22	14.53	22	16.05	American	Grace Line	417.0	54.0	17.0	Ballast	General	7,176	5,219
Tobama	22	10.45	22	11.10	22	18.35	23	3.15	British	Federal Steam Nav. Co	530.0	63.0	27.6	Dunedin, N. Z.	General	6,795	13,263
Northumber-	22	6.45	22	14.07	22	20.57	22	21.55	British	Federal Steam Nav. Co	530.0	63.0	27.6	Vancouver, B. C.	General	2,358	9,229
land	22	6.45	22	14.07	22	20.57	22	21.55	British	Federal Steam Nav. Co	530.0	63.0	27.6	General	General	2,358	9,229
Glamorganshire	22	14.40	22	15.00	22	22.45	23	9.47	French	Cie. Aux. de Navigation	445.0	56.0	17.0	Los Angeles, Calif.	General	7,083	5,950
Melpomene	22	14.40	22	15.00	22	22.45	23	9.47	French	Cie. Aux. de Navigation	445.0	56.0	17.0	Talara, Peru	Ballast	9,302	6,127
Penelope	22	14.25	22	18.40	23	9.16	23	15.45	Danzig	Wanted Tanker	470.0	63.0	19.6	Steel bars, rags	General	3,525	6,824
Texas	22	14.25	22	18.40	23	9.16	23	15.45	Danzig	Wanted Tanker	470.0	63.0	19.6	Steel bars, rags	General	3,525	6,824
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	
St. Michel	23	6.15	23	6.15	23	14.48	23	18.10	French	French Line	499.0	52.0	22.6	Army supplies	General	334	

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Lebore.	19	4.30	19	5.57	19	15.25	19	15.25	American	Ore S. S. Corp.	549.6	72.2	34.5	Cruz Grande, Chile	New York, N. Y.	Iron ore.	20,000	14,325
K. R. Kingsbury.	18	15.15	19	6.43	19	16.10	19	16.10	American	Standard Oil Co. of Cal.	440.0	58.2	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,300	9,033
Carl Legien.	19	11.00	19	13.19	19	20.45	20	12.15	German	Hamburg-American Line	409.8	53.8	23.0	San Antonio, Chile	Hamburg, Germany	General.	8,802	7,145
Adolf Von Baecker.	19	12.45	19	14.05	19	23.08	21	00.10	German	Hamburg-American Line	409.8	53.8	22.0	Valparaiso, Chile	Hamburg, Germany	Metal, sugar.	6,570	7,173
Amsterdam.	19	23.30	20	6.25	20	14.30	20	23.03	Dutch	Royal Neth. S. S. Co.	473.0	65.6	28.0	Corral, Chile	Hamburg, Germany	General.	10,824	11,638
Schwaben.	20	1.20	20	7.04	20	15.05	20	16.45	German	North German Lloyd	491.5	63.8	27.0	Vancouver, B. C.	Bremen, Germany	General.	10,124	10,002
Aconagua.	20	4.00	20	7.26	20	15.42	20	20.50	Chilean	Chilean S. S. Co.	422.8	56.2	28.0	Valparaiso, Chile	New York, N. Y.	General.	3,662	7,761
San Gabriel.	20	4.50	20	8.08	20	17.55	20	17.55	American	States S. S. Co.	386.8	52.3	24.9	Tacoma, Wash.	Baltimore, Md.	Lumber, general.	6,250	6,719
Virginia.	20	6.55	20	8.21	20	18.30	20	18.30	American	Texas Co.	416.8	56.1	25.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	8,048	6,748
Aachen.	20	13.20	20	14.09	20	21.50	21	15.32	German	North German Lloyd	431.2	56.4	26.0	Valparaiso, Chile	Hamburg, Germany	General.	8,097	7,196
Republie.	20	16.50	20	17.38	21	11.25	21	11.25	American	Petroleum Nav. Co.	331.8	57.3	26.0	Los Angeles, Calif.	New York, N. Y.	Kerosene.	6,234	5,551
San Jose.	20	16.20	21	6.15	21	13.25	21	13.25	American	United Fruit Co.	390.0	44.6	17.0	San Francisco, Cal.	Cristobal, C. Z.	(17)	365	3,675
Robert.	21	6.00	21	8.02	21	15.15	21	15.15	American	Lukenbaech Line	445.0	58.0	25.8	Portland, Ore.	Boston, Mass.	Lumber, general.	8,533	8,695
Huguenot.	21	5.25	21	8.40	21	19.45	21	19.45	British	Relfield Oil Co.	434.8	56.2	26.6	Los Angeles, Calif.	Bayonne, N. J.	Gasoline.	10,746	7,394
Beachpark.	21	8.25	21	9.17	21	18.40	21	19.45	American	J. Denholm, Ltd.	400.0	52.3	25.6	Caleta Colosa, Chile	Charleston, S. C.	Nitrates.	7,640	5,712
Buenaventura.	21	8.15	21	9.38	21	17.00	21	17.00	American	Panama R. R. S. S. Line	251.0	43.0	14.7	Guayaquil, Ecuador	New York, N. Y.	General.	333	2,873
Copenan.	18	23.00	21	11.15	21	19.30	22	12.08	British	Harrison, Hallist, Dixon	259.9	37.4	10.0	Hight seas	Wausau, England	Ballast.	1,850	1,230
Gregalia.	21	11.00	21	11.38	21	21.00	22	2.45	British	Donaldson S. S. Line.	425.0	56.0	26.5	Vancouver, B. C.	Glasgow, Scotland	General.	7,395	7,827
Belgium Gulf.	21	8.05	21	13.15	21	23.05	21	25.05	Belgian	Anglo-Saxon Oil Co.	449.4	61.3	28.0	San Francisco, Cal.	Land's End, S.	Gasoline.	9,452	8,767
Georgian.	21	12.50	21	14.32	21	21.55	21	21.55	American	Amor-Hawian Line	434.3	57.7	23.6	Portland, Ore.	Boston, Mass.	General.	5,791	7,953
San Anselmo.	21	17.30	22	5.57	22	13.50	22	11.25	American	Pac-Atlantic S. S. Corp.	410.5	54.2	25.6	Los Angeles, Calif.	Wilmington, Del.	General.	7,100	6,753
David McElvey.	22	7.45	22	9.15	22	16.40	22	16.40	American	Tide-water Oil Co.	430.0	59.2	25.0	Olympia, Wash.	New York, N. Y.	Gasoline.	8,968	7,629
Massar.	22	7.45	22	10.36	22	18.15	22	16.40	American	Calmar S. S. Corp.	385.0	51.2	27.3	Guayaquil, Ecuador	Baltimore, Md.	Copper, lumber.	7,593	6,242
Barak.	22	9.15	22	10.36	22	18.15	22	16.40	Dutch	Royal Neth. S. S. Co.	202.9	33.0	13.0	Arriba, D. W. I.	Cristobal, C. Z.	(19)	300	1,183
San Lamberto.	22	16.00	22	16.11	22	23.00	22	23.00	British	Anglo-Mexican Pet. Co.	395.3	55.2	22.0	Cabo Blanco, Peru	Arriba, D. W. I.	Ballast.	12,560	9,198
Storslad.	22	16.00	22	17.24	23	11.18	23	11.10	Norwegian.	Standard Shipping Co.	470.0	62.2	27.0	Corral, Chile	Halifax, N. S.	Crude oil.	7,457	9,061
Pensylvania.	22	16.25	22	18.55	23	12.45	23	12.45	French	French Line	400.0	72.2	33.6	Cruz Grande, Chile	Bayre, France	(20)	21,800	13,560
Amerikland.	22	21.00	23	5.45	23	15.24	23	15.45	American	Panama Mail S. S. Co.	380.0	48.7	23.6	San Francisco, Cal.	Baltimore, Md.	Iron ore.	3,322	6,015
Colombia.	22	11.30	23	6.38	23	14.15	23	13.45	Colombian.	National Navigation Co.	107.4	22.9	11.3	San Francisco, Cal.	New York, N. Y.	Coffee, general.	280	238
Calea.	22	16.10	23	7.05	23	18.15	25	6.40	Japanese	Toyoi Kisen Kaisha	400.0	53.0	21.8	Vancouver, B. C.	Cristobal, C. Z.	Ballast.	6,991	6,187
Woyo Maru.	22	16.30	23	8.10	23	18.50	23	21.10	Japanese	E. I. DuPont Co.	400.0	52.2	23.0	Victoria, B. C.	Boston, Mass.	Lumber.	7,500	8,065
Invela.	22	17.30	23	8.29	23	19.20	23	22.10	British	Romwell S. S. Co., S. B.	402.6	53.2	23.0	Liquique, Chile.	Mobile, Ala.	Nitrates.	3,800	6,570
Oakpark.	22	21.35	23	9.12	23	20.20	23	22.15	American	N. Pacific Coast Line	450.2	58.3	27.3	Caracas, Australia.	New York, N. Y.	Walnut logs.	7,467	8,874
Nicherry.	22	21.35	23	9.50	23	21.20	24	22.45	British	Pacific Coast Line	450.2	58.3	27.3	Vancouver, B. C.	Rotterdam, Holland.	General.	7,467	8,874
Manizales.	10	14.11	23	9.27	23	18.00	24	9.45	German	North German Lloyd	216.6	32.9	13.1	Balboa, C. Z.	Cristobal, C. Z.	Ballast.	18	6,558

¹⁸ Lumber and empty drums.¹⁷ General, coffee, and gasoline.¹⁹ Fruit, wheat, and lumber.²⁰ Sulfur, copper, and tagua.²¹ Dry-docking only.²² Motorship.²³ Tanker.²⁴ Cacao, coffee, and hides.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	To—
January 19	June	Royal Neth. S. S. Co.	Manacabo	January 19	Simon Bolivar	Royal Neth. S. S. Co.	Amsterdam via waypts.
January 19	Irona	United Fruit Co.	Puerto Colombia	January 19	June	Royal Neth. S. S. Co.	Port Limon, C. R.
January 19	Ulua	United Fruit Co.	Port Limon, C. R.	January 19	Ulua	United Fruit Co.	New York via Habana.
January 20	Wauna	Stand. Fruit & S. S. Co.	Puerto Cabezas	January 19	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
January 20	No. 9664 ²⁵	Pan-American Airways	Tela via wayports.	January 19	Maravi	United Fruit Co.	New York via Kingston.
January 20	Inapaquiba ²⁶	Colon, R. P.	Colon, R. P.	January 19	Kungsholm	Swedish-American Line	New York via waypts.
January 20	Annetta I. ²⁶	Colon, R. P.	Colon, R. P.	January 20	Heredia	United Fruit Co.	New Orleans via waypts.
January 20	Anacuena ²⁶	Colon, R. P.	Colon, R. P.	January 20	Irona	United Fruit Co.	Port Limon via Bocas.
January 21	Orinoco	Hamburg-American Line	Hamburg via wayports.	January 20	Wauna	Stand. Fruit & S. S. Co.	High seas.
January 21	Chancellor	T. & J. Harrison	Liverpool via wayports.	January 20	Inapaquiba ²⁶	United Fruit Co.	Colon, R. P.
January 22	Tolosa	United Fruit Co.	New York via wayports.	January 21	Anacuena ²⁶	United Fruit Co.	Colon, R. P.
January 22	Darien C-35 ²⁵	United Fruit Co.	New York via Kingston.	January 21	Orinoco	Hamburg-American Line	Port Limon, C. R.
January 22	Zacapa	Scadta Airplane Co.	Barranquilla via waypts.	January 21	Wanka	Stand. Fruit & S. S. Co.	San Blas, R. P.
January 22	Darien C-35 ²⁵	United Fruit Co.	Colon, R. P.	January 21	No. 9685 ²⁵	Pan-American Airways	Tela via wayports.
January 22	Nevisian	Freight S. S. Line	Liverpool via wayports.	January 21	No. 144-N ²⁵	Pan-American Airways	Curacao via wayports.
January 22	Flandre	French Line	Haarlem via wayports.	January 21	No. 300-N ²⁵	Pan-American Airways	Guayaquil via wayports.
January 22	Castilla	United Fruit Co.	New Orleans via waypts.	January 22	Annetta I. ²⁶	A. Tagarapulos	Colon, R. P.
January 23	No. 9685 ²⁵	Pan-American Airways	Tela via wayports.	January 22	Inapaquiba ²⁶	United Fruit Co.	Colon, R. P.

* Tanker.

** Submarine tender.

** Cruiser.

** Wheat, lead, zinc, and fishmeal.

** Lumber, magnesite ore, paper pulp.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	To—
January 19	June	Royal Neth. S. S. Co.	Manacabo	January 19	Simon Bolivar	Royal Neth. S. S. Co.	Amsterdam via waypts.
January 19	Irona	United Fruit Co.	Puerto Colombia	January 19	June	Royal Neth. S. S. Co.	Port Limon, C. R.
January 19	Ulua	United Fruit Co.	Port Limon, C. R.	January 19	Ulua	United Fruit Co.	New York via Habana.
January 20	Wauna	Stand. Fruit & S. S. Co.	Puerto Cabezas	January 19	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
January 20	No. 9664 ²⁵	Pan-American Airways	Tela via wayports.	January 19	Maravi	United Fruit Co.	New York via Kingston.
January 20	Inapaquiba ²⁶	Colon, R. P.	Colon, R. P.	January 19	Kungsholm	Swedish-American Line	New York via waypts.
January 20	Annetta I. ²⁶	Colon, R. P.	Colon, R. P.	January 20	Heredia	United Fruit Co.	New Orleans via waypts.
January 20	Anacuena ²⁶	Colon, R. P.	Colon, R. P.	January 20	Irona	United Fruit Co.	Port Limon via Bocas.
January 21	Orinoco	Hamburg-American Line	Hamburg via wayports.	January 20	Wauna	Stand. Fruit & S. S. Co.	High seas.
January 21	Chancellor	T. & J. Harrison	Liverpool via wayports.	January 20	Inapaquiba ²⁶	United Fruit Co.	Colon, R. P.
January 22	Tolosa	United Fruit Co.	New York via wayports.	January 21	Anacuena ²⁶	United Fruit Co.	Colon, R. P.
January 22	Darien C-35 ²⁵	United Fruit Co.	New York via Kingston.	January 21	Orinoco	Hamburg-American Line	Port Limon, C. R.
January 22	Zacapa	Scadta Airplane Co.	Barranquilla via waypts.	January 21	Wanka	Stand. Fruit & S. S. Co.	San Blas, R. P.
January 22	Darien C-35 ²⁵	United Fruit Co.	Colon, R. P.	January 21	No. 9685 ²⁵	Pan-American Airways	Tela via wayports.
January 22	Nevisian	Freight S. S. Line	Liverpool via wayports.	January 21	No. 144-N ²⁵	Pan-American Airways	Curacao via wayports.
January 22	Flandre	French Line	Haarlem via wayports.	January 21	No. 300-N ²⁵	Pan-American Airways	Guayaquil via wayports.
January 22	Castilla	United Fruit Co.	New Orleans via waypts.	January 22	Annetta I. ²⁶	A. Tagarapulos	Colon, R. P.
January 23	No. 9685 ²⁵	Pan-American Airways	Tela via wayports.	January 22	Inapaquiba ²⁶	United Fruit Co.	Colon, R. P.

* Other than ships passing through the Canal.

** Air mail carrier.

** Motor boat.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 23	No. 144-N ²⁷	Pan-American Airways	Curacao via wayports.	January 22	Chancellor	T. & J. Harrison	Galveston, Texas.
January 23	Anachucuna ²⁶	United Fruit Co.	Colon, R. P.	January 23	No. 9670 ²⁵	Pan-American Airways	Tela via wayports.
January 24	Gatun	Stand. Fruit & S. Co.	New Orleans via Habana.	January 23	Zacapa	United Fruit Co.	New York via wayports.
January 24	Wauka	Stand. Fruit & S. Co.	Puerto Cabezas.	January 23	Nevisian	Leyland Line	Port Limon, C. R.
January 24	Cundinamarca-C-33 ²⁷	United Fruit Co.	Buenaventura via wayports.	January 23	Tolca	United Fruit Co.	Port Limon, C. R.
January 24	Mayari	United Fruit Co.	New York via wayports.	January 23	Castilla	United Fruit Co.	Pto. Colombia & waypts.
January 24	No. 300-N ²⁷	Pan-American Airways	Guayaquil via wayports.	January 23	Anachucuna ²⁸	United Fruit Co.	Colon, R. P.
January 25	Wauka	Stand. Fruit & S. Co.	San Blas, R. P.	January 23	Darien C-33 ²⁷	Stand. Fruit & S. Co.	Baranquilla via wayports.
January 25	Irona	United Fruit Co.	Bocas, R. P.	January 24	Wauka	French Line	Harve via wayports.
January 25	Anachucuna ²⁸	R. Feil-boys	Colon, R. P.	January 24	Gatun	Stand. Fruit & S. Co.	La Ceiba.
January 25	Anachucuna ²⁸	United Fruit Co.	Colon, R. P.	January 25	Cundinamarca-C-33 ²⁷	Stand. Fruit & S. Co.	New Orleans via wayports.
January 25	Orinoco	A. Tagarapulos	Colon, R. P.	January 25	Mayari	United Fruit Co.	Buenaventura via wayports.
January 25	Nevisian	Leyland Line	Port Limon, C. R.	January 25	Anachucuna ²⁸	United Fruit Co.	New York via wayports.
January 25	Cortego	United Fruit Co.	Port Limon, C. R.	January 25	Anachucuna ²⁸	United Fruit Co.	Colon, R. P.
January 25	Imona	Royal Neth. S. S. Co.	New Orleans via Habana.	January 25	Irona	A. Tagarapulos	Colon, R. P.
January 25	No. 9670 ²⁷	Pan-American Airways	Port Limon, C. R.	January 25	Carmania ²⁹	United Fruit Co.	New Orleans, La.
January 25	Copeman	General Navigation Co.	Tela via wayports.	January 25	Nevisian	R. Feil-boys	Bluefields, Nicaragua.
			High seas for repairs.	January 25		Leyland Line	Liverpool via wayports.

²⁷ Air mail carrier. ²⁸ Motor boat. ²⁹ Motor schooner.

PORT OF BALBOA.*

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 22	Dos Hermanos ³⁰	A. Valdez	Panama Bay, R. P.	January 21	Almirante Grau ³²	Peruvian Government	Callao, Peru.
January 22	Real ³¹	Hans Elliot	Panama Bay, R. P.	January 21	Coronel Bolongesi ³²	Peruvian Government	Callao, Peru.
January 22	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.	January 21	Lima ³²	Peruvian Government	Callao, Peru.
January 22	Calusa ³¹	National Navigation Co.	Buenaventura, Colombia.	January 21	R-1 ³³	Peruvian Government	Callao, Peru.
January 23	Cricanda ³¹	Chiriqui Land Co.	Panama Bay, R. P.	January 21	R-2 ³³	Peruvian Government	Callao, Peru.
January 24	Andagoya	Colombian Government	Buenaventura, Colombia.	January 21	R-3 ³³	Peruvian Government	Callao, Peru.
				January 21	R-4 ³³	Peruvian Government	Callao, Peru.
				January 21	Dos Hermanos ³⁰	A. Valdez	Panama Bay, R. P.
				January 22	Real ³⁰	Hans Elliot	Panama Bay, R. P.
				January 22	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.

³⁰ Motor schooner. ³¹ Motor ship. ³² Cruiser. ³³ Submarine. * Other than ships passing through the Canal.

Panama Canal Traffic During Calendar Year 1929, Segregated by Nationality of Vessels.

Vessels of 24 nationalities made up the commercial traffic through the Panama Canal during the calendar year 1929. Forty-four and five-tenths per cent of the total commercial transits were vessels of the United States, 25.9 per cent were British, and the remaining were distributed among 22 nationalities. In the order of number of transits, the 10 leading nationalities were United States, British, German, Norwegian, Japanese, Dutch, Swedish, French, Colombian, Danish.

The following tabulation shows the total commercial traffic through the Canal during the calendar year 1929, segregated according to nationality of vessels, together with corresponding totals for the calendar years 1928, 1927, and 1926. A similar table for the calendar year 1928 was published in THE PANAMA CANAL RECORD of January 30, 1929:

Nationality.	No. of ships.	Tonnage.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered.			
				Gross.	Net.		
Argentine...	^a 1					\$1,268.00	
Belgian.....	17	89,946	74,975	119,700	69,991	85,048.23	102,038
British.....	^a 1,667	8,551,957	6,417,940	10,546,949	6,469,247	7,694,711.96	8,262,855
Chilean.....	³ 36	142,347	107,802	213,356	118,471	148,600.95	104,290
Colombian....	104	30,956	27,994	47,733	28,740	33,774.51	29,901
Costa Rican	2	662	666	971	581	646.95	600
Danish.....	94	378,253	284,793	451,760	285,196	344,190.14	496,451
Danzig.....	30	183,166	156,903	266,085	150,749	165,616.51	182,308
Dutch.....	144	688,063	481,572	806,091	479,205	593,408.45	689,038
Finnish.....	4	10,604	8,844	11,560	8,433	10,008.00	14,700
French.....	^a 113	533,004	422,719	674,105	412,333	522,823.36	538,491
German.....	^a 402	1,437,294	1,016,710	1,685,505	1,011,394	1,255,859.41	1,532,149
Greek.....	45	176,930	125,260	198,977	122,534	149,932.55	251,144
Italian.....	83	499,794	375,047	640,315	383,898	457,310.45	331,757
Japanese....	^a 150	733,679	620,356	928,767	610,564	779,801.22	910,719
Mexican.....	⁷ 2	2,159	1,569	2,876	1,892	2,574.75	1,140
Norwegian...	392	1,569,923	1,173,847	1,928,387	1,165,365	1,362,977.39	1,784,651
Nicaraguan.	1	140	151	270	237	113.25	
Panamanian	57	96,759	68,187	118,348	73,218	78,691.54	88,894
Peruvian....	22	50,790	30,852	73,743	39,192	38,174.88	36,713
Spanish.....	^a 10	35,476	29,154	48,394	29,586	36,543.22	38,256
Swedish....	140	614,405	452,738	1,091,369	547,994	516,671.40	864,502
United States....	2,861	14,304,446	11,090,268	17,936,452	11,063,186	13,107,488.87	14,844,369
Yugoslav....	53	222,436	170,335	270,276	169,583	206,479.85	345,527
Totals, 1929	6,430	30,353,189	23,138,682	38,061,989	23,241,639	27,592,715.84	31,450,493
Totals, 1928	6,334	28,943,437	22,217,654	36,359,701	22,268,506	26,375,962.41	29,401,581
Totals, 1927	6,035	28,610,984	22,360,998	36,381,124	22,353,512	26,231,022.94	29,102,538
Totals, 1926	5,420	25,836,241	20,254,503	33,044,274	20,329,791	23,901,540.04	27,586,051

¹ Naval vessel of 2,536 displacement tons.

³ Includes naval vessel of 29,784 displacement tons.

⁵ Includes naval vessel of 6,053 displacement tons.

⁷ Includes naval vessel of 1,227 displacement tons.

² Includes 5 naval vessels with a total displacement of 25,345 tons.

⁴ Includes 2 naval vessels with a total displacement of 24,945 tons.

⁶ Includes 4 naval vessels with a total displacement of 40,520 tons.

⁸ Includes naval vessel of 3,383 displacement tons.

RELATION SHOWN BY PERCENTAGE.

The proportions of the traffic by vessels of various nationalities are indicated in the following tabulation in which percentages of the total traffic are shown instead of the actual figures, for the calendar years 1929 and 1928. In this table percentages are shown only for those nationalities having 75 or more transits during either 1929 or 1928:

Nationality.	No. of vessels.		Panama Canal net tonnage.		Tolls.		Tons of cargo.	
	1929.	1928.	1929.	1928.	1929.	1928.	1929.	1928.
United States.....	44.5	41.8	47.1	44.6	47.5	45.0	47.2	46.1
British.....	25.9	28.7	28.2	30.9	27.9	30.6	26.2	27.8
German.....	6.2	6.0	4.7	4.4	4.5	4.2	4.9	4.6
Norwegian.....	6.1	4.9	5.1	4.1	4.9	4.0	5.7	4.6
Japanese.....	2.3	2.8	2.5	3.1	2.8	3.5	2.9	3.6
Dutch.....	2.2	2.3	2.2	2.2	2.1	2.1	2.2	2.2
Swedish.....	2.2	1.9	2.0	1.9	1.9	1.7	2.7	2.7
French.....	1.7	1.9	1.7	1.9	1.9	2.1	1.7	1.9
Colombian.....	1.6	1.6	0.1	0.1	0.1	0.2	0.1	0.1
Danish.....	1.4	1.2	1.2	1.2	1.2	1.2	1.6	1.4
Italian.....	1.3	1.4	1.6	1.7	1.6	1.7	1.0	1.3
Panamanian.....	.9	1.3	.3	.3	.3	.2	.3	.2
All other.....	3.7	4.2	3.3	3.6	3.3	3.5	3.5	3.5
Totals.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

During the calendar year 1929 over 91 per cent of the total commercial transits of the Canal were vessels of 8 nationalities, and these vessels carried 93.5 per cent of the total cargo in transit through the Canal. Of these 8 nationalities all showed increases in the number of transits with the exception of Great Britain, Japan, and France. The United States, with 2,681 in 1929, increased 213 over the previous year. Norway, with the second best gain, had an increase of 85. The number of vessels of British registry, 1,667 in 1929, decreased 149 as compared with 1928, but the cargo tonnage in British vessels increased 114,772 tons. Cargo carried in vessels of the United States registry gained 1,286,031 tons over 1928.

The figures are given in the following tabulation:

Nationality.	Total transits.		Tons of cargo.		Increase.	
	1929.	1928.	1929.	1928.	Transits.	Cargo.
United States.....	2,681	2,648	14,844,369	13,558,338	213	1,286,031
British.....	1,667	1,816	8,262,855	8,148,083	* 149	114,772
German.....	402	377	1,532,149	1,363,110	25	169,039
Norwegian.....	392	307	1,784,651	1,341,844	85	442,807
Japanese.....	150	180	910,719	1,046,930	* 30	136,211
Dutch.....	144	143	689,038	650,235	1	33,803
Swedish.....	140	124	864,502	797,717	16	66,785
French.....	113	119	538,491	552,583	* 6	14,092

* Indicates decrease.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., February 5, 1930. No. 27.

Traffic Through the Panama Canal in January, 1930.

During the month of January, 1930, 531 commercial vessels and 4 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,360,211.24, and on the launches \$11.25, or a total tolls collection of \$2,360,222.49.

The daily average number of commercial transits for the month was 17.13, and the average tolls collection was \$76,135.84, as compared with an average of 16.84 transits and \$74,484.87 in tolls for the previous month, and an average of 19.45 transits and \$80,735.97 in tolls for January, 1929, which established a high record for traffic in one month. The average amount of tolls paid by each of the commercial transits was \$4,444.84, as compared with \$4,423.43 for the month of December, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 7 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 7 months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
Totals, first 7 months of fiscal year, 1930.....	3,733	16,188,845.40	17.36	75,296.95
Totals, first 7 months of fiscal year, 1929.....	3,788	15,866,110.35	17.62	73,795.86
Totals, first 7 months of fiscal year, 1928.....	3,847	16,144,585.09	17.89	75,091.32

In comparison with the first 7 months of the fiscal year 1929, the corresponding period this year has had 55 fewer commercial transits and \$322,735.05 more tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 1, 1930.

No. 666.

Gulf of Panama, San Miguel Bay, R. P., characteristics of light. The commanding officer of the U. S. S. *Sacramento*, reports that Patenito Island light (No. 3117—1929 light list) on January 14, 1930, was showing flashing white every 12 seconds, thus: Flash 1 second, eclipse 11 seconds. Approximate position: Latitude 8° 16' 15" N., longitude 78° 17' 45" W.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 1, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Lochkatrine ² .	25	9.00	26	6.00	26	13.10	26	16.00	British	Royal Mail S. P. Co.	485.4	62.3	19.6	Rotterdam, Holl'd	Portland, Ore.	General	1,917	10,802	7,595
Arizona ¹ .	25	17.20	26	6.10	26	14.18	26	15.30	American	Texas Oil Co.	391.8	51.3	19.9	Baltimore, Md.	Los Angeles, Calif.	Ballast	5,552	3,757	3,757
Antiaman ¹ .	25	17.48	26	7.20	26	15.13	26	16.20	American	Shell East. Pet. Prod.	435.0	56.0	20.0	Fall River, Mass.	Los Angeles, Calif.	Ballast	7,426	5,073	5,073
Panama ¹ .	25	5.55	26	7.30	26	15.44	26	16.51	American	Amer.-Hawian Line.	497.7	53.0	20.0	New York, N. Y.	Portland, Ore.	General	3,063	7,098	5,065
Oregonian ¹ .	26	6.28	26	8.27	26	16.20	26	20.05	British	Blue Star Line.	426.0	54.0	18.0	So. Shields, Eng.	Vancouver, B. C.	Ballast	7,506	5,261	5,261
Pat Doherty ¹ .	26	6.28	26	8.45	26	17.23	26	18.30	American	Richfield Oil Co.	430.2	59.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,978	5,839	5,839
Greystoke ¹ .	26	9.30	26	10.15	26	18.00	26	19.05	British	Lancashire S. S. Co.	428.0	56.0	25.0	New York, N. Y.	Hongkong, China.	General	6,534	7,506	5,179
Almelo ¹ .	25	17.15	26	12.40	26	19.53	26	21.15	Dutch	Royal Neth. S. S. Co.	447.4	62.0	23.8	Hamburg, Germany	Corral, Chile	General	5,848	9,655	6,849
J-12 ³ .	26	6.30	26	14.15	26	17.15	26	18.15	American	U. S. Army.	156.0	32.0	22.6	Cristobal, C. Z.	Balboa, C. Z.	Ballast	7,333	5,182	5,182
General Wm. M. Graham ⁴ .	27	00.40	27	6.05	27	14.18	27	15.30	American	U. S. Army.	424.4	58.2	22.6	Philadelphia, Pa.	Balboa, C. Z.	Ballast	5,362	7,470	5,529
Paul Shoup ¹ .	27	3.15	27	6.45	27	15.02	27	16.00	American	Union Oil Co.	424.8	55.2	22.0	Baltimore, Md.	Vancouver, B. C.	Steel, general	7,226	4,413	4,413
Robin Adair ¹ .	27	9.45	27	7.30	27	15.37	27	19.40	British	Imperial Oil Co.	429.0	59.0	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,925	5,840	5,840
Troullete ¹ .	27	3.35	27	7.12	27	16.32	27	17.20	American	Huasteca Pet. Co.	225.0	51.0	19.2	New York, N. Y.	Los Angeles, Calif.	Ballast	6,360	6,517	4,723
I. C. White ¹ .	27	3.35	27	8.40	27	16.38	27	17.34	American	U. S. Navy.	400.0	56.0	22.6	Cristobal, C. Z.	Balboa, C. Z.	General, steel	496	2,874	1,944
Asheville ¹ .	27	4.00	27	9.45	27	17.34	27	18.30	American	Argonaut S. S. Co.	292.0	44.0	18.2	Baltimore, Md.	Balboa, C. Z.	Ballast	3,027	7,604	5,139
Pacific ¹ .	25	14.25	27	10.55	27	17.34	27	18.30	American	U. S. Navy.	425.0	57.2	22.6	Cristobal, C. Z.	Guayaquil, Ecuador	General	7,530	4,989	4,989
Galveston ¹ .	25	19.35	27	10.45	27	18.30	27	19.40	American	Panama R. R. S. S. Line	380.0	53.2	17.11	New York, N. Y.	San Francisco, Cal.	Ballast	7,808	5,139	5,139
Guayquil ¹ .	27	8.53	27	11.45	27	19.30	27	20.37	American	Paine & Clooney	425.0	57.2	22.6	Wilmington, Del.	Seattle, Wash.	General, steel	11,224	7,885	7,885
Gargyle ¹ .	27	11.00	27	12.10	27	19.55	27	21.00	American	Nelson Line	449.0	57.0	19.2	Baltimore, Md.	Cruz Grande, Chile	Ballast	6,706	4,639	4,639
Sutherland ¹ .	27	11.29	27	15.58	27	23.08	28	00.10	American	Ore S. S. Corp.	500.0	68.0	18.0	Baltimore, Md.	Los Angeles, Calif.	Ballast	2,742	6,904	4,852
Fetore ¹ .	27	11.29	27	15.58	27	23.08	28	00.10	American	Standard Oil Co.	416.9	56.2	20.0	Wilmington, Del.	Seattle, Wash.	General	7,908	7,611	5,450
W. S. Rheem ¹ .	28	1.00	28	6.25	28	13.35	28	14.50	American	Liberdy Oil Co.	409.5	54.2	19.0	Baltimore, Md.	Shanghai, China.	General	6,114	4,125	4,125
Hadnot ¹ .	28	3.10	28	6.30	28	14.30	28	18.15	American	Arrow Line	424.2	56.0	26.0	New Orleans, La.	Los Angeles, Calif.	Ballast	7,502	5,042	5,042
Barbara Cates ¹ .	28	5.20	28	7.35	28	16.22	28	23.05	American	Norton, Lilly & Co.	424.2	56.0	26.0	New Orleans, La.	Los Angeles, Calif.	Ballast	7,615	4,976	4,976
Besmer City ¹ .	28	7.35	28	7.50	28	16.22	28	23.05	American	Norton, Lilly & Co.	424.2	56.0	26.0	New Orleans, La.	Los Angeles, Calif.	Ballast	1,315	2,597	1,587
Mary ¹ .	28	8.00	28	8.35	28	18.00	28	19.50	American	Shell East. Pet. Prod.	410.0	54.0	19.0	Fall River, Mass.	Los Angeles, Calif.	Ballast	2,819	7,933	5,916
Lukenbach ¹ .	28	8.55	28	9.10	28	18.38	28	20.06	American	Vacuum Oil Co.	425.0	57.4	20.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	7,100	6,100	4,240
Birkenhead ¹ .	28	8.55	28	9.10	28	18.38	28	20.06	American	Vacuum Oil Co.	425.0	57.4	20.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	3,966	11,487	8,762
Lubrafal ¹ .	28	8.35	28	9.57	28	19.13	28	20.28	Belgian	Soc. Anom. de Ind. Com.	440.8	57.4	20.0	Houston, Texas	Los Angeles, Calif.	Ballast	7,615	4,976	4,976
Champerico ¹ .	18	23.55	28	10.50	28	21.21	28	21.55	British	Pacific Steam Nav. Co.	290.0	41.7	19.4	Cristobal, C. Z.	Champerico, Guat.	General	2,597	1,587	1,587
Arizonan ¹ .	18	23.55	28	10.50	28	21.21	28	21.55	British	Pacific Steam Nav. Co.	290.0	41.7	19.4	Cristobal, C. Z.	Champerico, Guat.	General	2,597	1,587	1,587
Durazo ¹ .	27	21.50	28	14.35	28	22.56	29	00.01	German	Amer.-Hawian Line	434.3	57.7	19.4	Boston, Mass.	Seattle, Wash.	General	1,633	1,041	1,041
Sangstad ¹ .	27	21.50	28	14.35	28	22.56	29	00.01	German	Hamburg-American Line	227.5	34.0	15.3	Cristobal, C. Z.	Buenaventura, Col.	Ballast	7,100	6,100	4,240
Andrea F. ¹ .	28	18.25	29	6.28	29	13.49	29	14.55	Norwegian	Fern Line.	382.0	53.3	24.3	New Orleans, La.	Yokohama, Japan	Ballast	3,966	11,487	8,762
Lukenbach ¹ .	28	20.10	29	6.35	29	14.29	29	15.25	American	Lukenbach Line.	496.0	68.0	21.0	Boston, Mass.	Tacoma, Wash.	General	7,100	6,100	4,240

* Mine planter.

5 Gunboat.

6 Cruiser.

7 Cotton and phosphate.

8 General.

9 Ballast.

10 General.

11 General.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Tons.			Nature.	Tons.	Gross.	Net.
Monique ¹	27	20.40	28	6.39	28	14.55	28	22.34	French					(15)	9,357	7,106	5,088
Cambridge	27	22.05	28	7.21	28	15.05	28	15.05	British					Frozen, general.	6,654	12,485	8,894
Saramacca	27	17.10	28	7.44	28	16.05			American					General.	936	3,968	2,308
Abraham	27	22.05	28	8.07	28	17.15	29	12.25	Norwegian.					General.	7,020	8,005	5,953
Lincoln ¹⁴	28	00.30	28	8.51	28	18.20	28	19.25	American					General.	7,331	7,473	5,533
Robin Hood	28	00.30	28	9.02	28	18.45	28	18.45	American					General.	6,466	7,107	5,041
Pennsylvania	28	6.15	28	9.28	28	19.55	28	23.05	British					Frozen, general.	6,500	11,053	7,895
Mamoa	28	8.15	28	10.26	28	20.50	29	5.50	Swedish					General.	7,416	7,480	5,533
Balboa ¹⁴	28	8.15	28	10.26	28	20.50	29	5.50	Swedish					General.	7,416	7,480	5,533
Constanza	27	19.00	28	11.38	28	21.00	28	21.00	American					Lumber.	8,100	6,621	4,891
Chandler	28	11.45	28	12.47	28	21.35	28	21.35	British					General.	7,750	9,630	6,943
Pioneer ¹⁴	28	12.25	28	13.01	28	22.00	28	22.00	British					Benzine.	9,567	7,655	5,129
Laurelwood ¹⁴	28	12.45	28	13.55	28	22.50	28	22.50	Danzig					Naphtha.	11,495	9,001	5,927
Callopo ¹⁴	28	12.45	28	13.55	28	22.50	28	22.50	Danzig					General.	11,170	11,487	8,762
Lewis	28	22.00	29	6.14	29	14.05	29	14.05	American					Gasoline.	11,259	10,084	7,388
China Arrow ¹	29	4.30	29	6.44	29	14.50	29	14.50	Norwegian.					Benzine.	7,538	5,786	3,627
Lincoln ¹⁴	29	9.50	29	10.45	29	18.55	29	18.55	British					Nitrates	7,880	5,997	4,307
Ashburnton	29	11.00	29	15.00	29	22.10	30	00.20	Japanese					General.	7,325	7,989	5,856
Takaoka Maru	29	11.05	30	6.24	30	12.40	31	10.40	American					General, coffee.	2,000	5,926	4,178
Equador	29	11.05	30	6.50	30	14.35	30	14.35	American					Gasoline.	9,390	7,481	4,975
S. C. T. Dodd	30	3.00	30	7.54	30	16.45	30	16.45	British					General.	1,336	5,913	4,195
Canadian	30	4.06	30	8.30	30	15.30	31	15.15	British					Frozen, general.	8,070	12,963	9,291
Commander	30	6.40	30	12.58	30	20.03			American					Gunboat.		7,139	4,641
Norfolk	30	6.40	30	12.58	30	20.03			British					Ballast.	9,482	7,441	5,077
Ashville	30	12.01	30	14.17	30	23.05	30	23.05	American					Lumber, general.	5,734	5,680	4,080
Laguna ¹⁴	30	12.01	30	14.17	30	23.05	30	23.05	American					Lumber.	4,564	4,607	3,271
Dwight	30	12.01	30	14.17	30	23.05	30	23.05	American					Gasoline.	10,381	7,494	5,198
Walter D.	30	12.01	30	14.17	30	23.05	30	23.05	American					Gasoline.	10,000	8,561	5,997
Munson	30	12.01	30	14.17	30	23.05	30	23.05	American					General.	5,281	9,027	6,589
Larry Doherty	30	12.01	30	14.17	30	23.05	30	23.05	American					Lumber, general.	7,494	7,611	5,450
Cities Service	30	12.01	30	14.17	30	23.05	30	23.05	American					General.	5,281	9,027	6,589
Empire ¹	30	12.01	30	14.17	30	23.05	30	23.05	American					Lumber, general.	7,494	7,611	5,450
Paul	30	12.01	30	14.17	30	23.05	30	23.05	American					General.	5,281	9,027	6,589
Luckenbach	30	12.01	30	14.17	30	23.05	30	23.05	American					Lumber, general.	7,494	7,611	5,450
Tuscaloosa City	30	12.01	30	14.17	30	23.05	30	23.05	American					General.	5,281	9,027	6,589

¹⁵ For orders.¹⁶ Wheat, fruit, and general.¹⁷ Wheat, fruit, and pulp.¹⁸ Gasoline and kerosene.¹⁹ Motor ship.²⁰ Tanker.

Atlantic City.	31	00.45	31	8.49	31	17.35	1	12.00	British.	Sir W. R. Smith & Sons.	411.7	54.5	28.6	Seattle, Wash.	Manchester, Eng.	General.	8,400	6,555	4,659
Columbian.	31	5.25	31	9.29	31	17.55	31	17.55	American.	Amer.-Hawaiian Line.	404.6	53.9	28.0	Seattle, Wash.	Boston, Mass.	Lumber, general.	6,784	6,760	4,650
Witell.	31	6.00	31	9.49	31	19.10	1	17.37	German.	North German Lloyd.	449.6	58.2	25.2	Vancouver, B. C.	Hamburg, Germany.	General.	6,816	7,816	5,755
Araua.	31	8.00	31	10.07	31	19.30	1	13.55	British.	Pacific Steam Nav. Co.	303.4	43.0	14.0	Callao, Peru.	New York, N. Y.	(23)	799	2,851	1,776
Onondaga.	31	8.45	31	10.16	31	19.45	1	10.45	American.	Ford Motor Co.	251.0	43.6	21.0	Portland, Ore.	Wilmington, Del.	(24)	3,035	2,656	1,621
King Edgar.	31	7.40	31	12.11	31	20.00	31	20.55	British.	Dodd, Thomson & Co.	400.6	54.8	17.0	San Francisco, Cal.	Norovosieck, Russ.	General.	3,110	6,474	4,685
Cape of Good Hope.	31	9.10	31	13.07	31	20.45	31	20.45	British.	Lyle Shipping Co.	405.0	52.2		New Calcuttania.	New York, N. Y.	Chrome ore.	7,600	5,851	4,315
Mizpah.	30	12.20	1	6.03	1	12.45	3	2.40	American.	E. F. MacDonald.	185.0	27.0	10.6	Galapagos Is., Peru	Miami, Fla.				
Marja.	31	23.30	1	6.55	1	15.10	1	16.10	Yugoslav.	Yugoslav Lloyd.	399.6	53.9	27.0	Mcillores, Chile.	Azores.	Nitrates.	8,467	5,808	4,163
San Clemente.	1	2.20	1	7.45	1	15.55	1	15.55	American.	Status S. S. Co.	410.0	54.4	24.2	Seattle, Wash.	Philadelphia, Pa.	(25)	6,777	6,476	4,682
General Wm.																			
S. 10.										U. S. Army.	160.2	32.0		Bahoa, C. Z.	Cristobal, C. Z.				
S. 12.										U. S. Navy.	231.0	20.0		Bahoa, C. Z.	Cristobal, C. Z.				
S. 11.										U. S. Navy.	231.0	20.0		Bahoa, C. Z.	Cristobal, C. Z.				
S. 13.										U. S. Navy.	231.0	20.0		Bahoa, C. Z.	Cristobal, C. Z.				
S. 20.										U. S. Navy.	231.0	20.0		Bahoa, C. Z.	Cristobal, C. Z.				
S. 25.										U. S. Navy.	231.0	20.0		Bahoa, C. Z.	Cristobal, C. Z.				
Morgan Lewis.										U. S. Army.				Pedro Miguel, C. Z.	Cristobal, C. Z.				
S. B. No. 2.										U. S. Navy.				Bahoa, C. Z.	Cristobal, C. Z.				

* Tanker.

19 Mine plauter.

20 Submarine.

21 Launch.

22 Yacht.

23 Coffee, coconuts, and wood.

24 Lumber and automobile parts.

25 Lumber and M. T. drums.

26 Motor schooner.

27 Air mail carrier.

28 Cruiser.

29 Motor boat.

30 Other than ships passing through the Canal.

31 All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

* Other than ships passing through the Canal.

* Motor boat.

* Air mail carrier.

* Cruiser.

* Motor schooner.

* Lumber and M. T. drums.

* Mine plauter.

* Submarine.

* Launch.

* Yacht.

* Coffee, coconuts, and wood.

* Lumber and automobile parts.

* Nitrates.

* Chrome ore.

* General.

* Lumber, general.

* Europe via waypoints.

* Hamburg via waypoints.

* New York via waypoints.

* Port Limon, C. R.

* New Orleans via waypoints.

* New York via waypoints.

* Tula via waypoints.

* Willomstad via waypoints.

* Swansea, England.

* Port Limon, C. R.

* Colon, R. P.

* Bristol via waypoints.

* Beccas, R. P.

* Port Limon, C. R.

* Barranquilla, Colombia.

* Tula via waypoints.

* New York via waypoints.

* Puerto Colombia.

* San Blas, R. P.

* Europe via waypoints.

* Hamburg via waypoints.

* New York via waypoints.

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* San Blas, R. P.

* Europe via waypoints.

* Hamburg via waypoints.

* New York via waypoints.

* Port Limon, C. R.

* New Orleans via waypoints.

* New York via waypoints.

* Tula via waypoints.

* Willomstad via waypoints.

* Swansea, England.

* Port Limon, C. R.

* Colon, R. P.

* Bristol via waypoints.

* Beccas, R. P.

* Port Limon, C. R.

* Barranquilla, Colombia.

* Tula via waypoints.

* New York via waypoints.

* Puerto Colombia.

* San Blas, R. P.

* Europe via waypoints.

* Hamburg via waypoints.

* New York via waypoints.

* Port Limon, C. R.

* New Orleans via waypoints.

* New York via waypoints.

* Tula via waypoints.

* Willomstad via waypoints.

* Swansea, England.

* Port Limon, C. R.

* Colon, R. P.

* Bristol via waypoints.

* Beccas, R. P.

* Port Limon, C. R.

* Barranquilla, Colombia.

* Tula via waypoints.

* New York via waypoints.

* Puerto Colombia.

* San Blas, R. P.

* Europe via waypoints.

* Hamburg via waypoints.

* New York via waypoints.

* Port Limon, C. R.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 30....	Tela.....	United Fruit Co.	New Orleans, La.	January 30.....	Calmares.....	United Fruit Co.	Port Limon, C. R.
January 30....	Calgarie.....	White Star Line.	New York via waypoints.	January 30.....	Fanna.....	Royal Neth. S. S. Co.	Port Limon, C. R.
January 30....	No. 144-N ³⁰	Pan-American Airways	Curacao via waypoints.	January 30.....	Cordoba C-40 ³⁰	Seadta Airplane Co.	Barranquilla via waypoints.
January 30....	No. 9085 ³⁰	Pan-American Airways	Tela via waypoints.	January 31.....	Caledonia.....	Anchor Line.	New York via waypoints.
January 31....	Mercian.....	Leyland Line.	Liverpool via waypoints.	January 31.....	White Star Line.	White Star Line.	New York via waypoints.
January 31....	Atlantida.....	Stand. Fruit & S. S. Co.	New Orleans via Habana.	January 31.....	Mercian.....	Leyland Line.	Port Limon, C. R.
January 31....	No. 300-N ³⁰	Pan-American Airways	Guayaquil via waypoints.	February 1.....	No. 9670 ³⁰	Pan-American Airways	Tela via waypoints.
January 31....	Cundinamarca C-33 ³⁰	Seadta Airplane Co.	Buenaventura via waypoints.	February 1.....	Atlantida.....	Stand. Fruit & S. S. Co.	New Orleans via waypoints.
February 1.....	Inapaquina ³¹	United Fruit Co.	Colon, R. P.	February 1.....	Castilla.....	United Fruit Co.	New Orleans, La.
February 1.....	Wanks.....	United Fruit Co.	San Blas, R. P.	February 1.....	Cundinamarca C-33 ³⁰	Seadta Airplane Co.	Buenaventura via waypoints.
February 1.....	Cynssen.....	United Fruit Co.	Boacas, R. P.	February 1.....	Inapaquina ³¹	United Fruit Co.	Colon, R. P.
February 1.....	No. 9664 ³⁰	Royal Neth. S. S. Co.	Port Limon, C. R.				
February 1.....	Laila.....	Pan-American Airways	Tela via waypoints.				
February 1.....		Gulf-Caribbean Line.	New Orleans, La.				
³⁰ Air mail carrier. ³¹ Motor boat.				PORT OF BALBOA.			
January 29.....	Real ³²	Hans Elliot.	Panama Bay, R. P.	January 28.....	Real ³²	Hans Elliot.	Panama Bay, R. P.
January 29.....	El Sona ³²	Nacional Nav. Co.	Panama Bay, R. P.	January 29.....	El Sona ³²	Nacional Nav. Co.	Panama Bay, R. P.
January 30.....	Herrera ³²	Nacional Nav. Co.	Panama Bay, R. P.	January 30.....	Herrera ³²	Nacional Nav. Co.	Panama Bay, R. P.
January 31.....	Dos Hermanos ³²	A. Valdez.	Panama Bay, R. P.	January 31.....	Dos Hermanos ³²	A. Valdez.	Panama Bay, R. P.
January 31.....	Sambu ³²	Hans Elliot.	Panama Bay, R. P.	February 1.....	Sambu ³²	Hans Elliot.	Panama Bay, R. P.
January 31.....	Libertador ³²	Hans Elliot.	Panama Bay, R. P.	February 1.....	Libertador ³²	Hans Elliot.	Panama Bay, R. P.
January 31.....	El Colon ³²	A. B. de Obarrio.	Panama Bay, R. P.	February 1.....	El Colon ³²	A. B. de Obarrio.	Panama Bay, R. P.

* Other than ships passing through the Canal.

³² Motor schooner.

Units of United States Navy Coming to Canal.

Eight battleships of the United States Scouting Fleet—the *Wyoming*, *New York*, *Oklahoma*, *Nevada*, *Texas*, *Arkansas*, *Florida*, and *Utah*—in command of Vice Admiral W. C. Cole, commanding the United States Scouting Fleet, are due to arrive at Cristobal on February 6, 1930, and after about a week's visit will depart for Guantanamo Bay, Cuba.

The Canal will be transited by units of the Battle Fleet during the early part of next month when that fleet arrives at Balboa from San Diego. The Battle Fleet, which is in command of Admiral L. M. Nulton, will consist of about 32 vessels, including the aircraft carriers *Lexington*, *Saratoga*, and *Langley*, and the battleships *Maryland*, *California*, *West Virginia*, *Mississippi*, *Tennessee*, and *New Mexico*, destroyers, submarines and auxiliary craft.

The Battle Fleet will be joined in Cristobal by the light cruisers *Trenton*, *Memphis*, *Richmond*, and *Marblehead*, of the Scouting Fleet, and will sail for Guantanamo Bay, Cuba, on March 10, to participate in winter maneuvers, engaging en route with the Scouting Fleet, in Fleet Problem X.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending February 1, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Tolosa.....	United Fruit Co.....	January 26..	January 26..	3	15
Lochkatrine.....	Royal Mail S. S. Co.....	January 26..	January 26..		14
Almelo.....	Royal Neth. S. S. Co.....	January 26..	January 26..		61
Wanks.....	Stand. Fruit & S. S. Co.....	January 26..	January 26..		23
Orinoco.....	Hamburg-American Line.....	January 26..	January 26..		971
Cartago.....	United Fruit Co.....	January 26..	January 26..		68
Junco.....	Royal Neth. S. S. Co.....	January 26..	January 26..		332
Guayaquil.....	Panama R. R. S. S. Line.....	January 26..	January 26..		30
Salvador.....	Pacific Steam Nav. Co.....	January 27..	January 27..	537	
Santa Barbara.....	Grace Line.....	January 27..	January 27..	31	(²)
Hanover.....	American-Gulf Orient Line.....	January 27..	January 27..	141	(²)
Durazzo.....	Hamburg-American Line.....	January 27..	January 28..	884	(¹)
Champerico.....	Pacific Steam Nav. Co.....	January 28..	January 28..		1,319
Crynssen.....	Royal Neth. S. S. Co.....	January 28..	January 28..	1	(²)
Balboa.....	Johnson Line.....	January 28..	January 28..	(¹)	136
Castilla.....	United Fruit Co.....	January 28..	January 29..	371	55
Abraham Lincoln.....	Fred Olsen & Co.....	January 28..	January 29..	(¹)	939
Moveria.....	Donaldson Line.....	January 28..	January 29..	(¹)	431
Saramacca.....	United Fruit Co.....	January 28..	February 1..	1,120	84
Camden.....	United Fruit Co.....	January 29..	January 29..	3,511	(²)
Santa Marta.....	United Fruit Co.....	January 29..	January 30..	402	44
Calamares.....	United Fruit Co.....	January 29..	January 30..	435	239
Ancon.....	Panama R. R. S. S. Line.....	January 29..	January 29..	4,562	
Takaoka Maru.....	Nippon Yusen Kaisha.....	January 29..	January 30..	105	(²)
Tela.....	United Fruit Co.....	January 30..	January 30..	896	21
Ecuador.....	Panama Mail S. S. Co.....	January 30..	January 31..	1,289	130
Honduras.....	French Line.....	January 30..	January 31..	360	146
Spreewald.....	Hamburg-American Line.....	January 30..	January 31..	172	
Mercian.....	Leyland Line.....	January 31..	January 31..	558	(²)
Esequeibo.....	Pacific Steam Nav. Co.....	January 31..	January 31..	21	22
Witell.....	North German Lloyd.....	January 31..	February 1..	(¹)	320
Atlantida.....	Stand. Fruit & S. S. Co.....	January 31..	February 1..	320	356
Arana.....	Pacific Steam Nav. Co.....	January 31..	February 1..	367	72
Atlantic City.....	Sir W. R. Smith & Co.....	January 31..	February 1..	433	(²)
Santa Tecla.....	Grace Line.....	February 1..	February 1..	28	431
Santa Cecelia.....	Grace Line.....	February 1..	February 1..	1	
El Salvador.....	Panama Mail S. S. Co.....	February 1..	February 1..	527	
Castilla.....	United Fruit Co.....	February 1..	February 1..	3	465
Wanks.....	Stand. Fruit & S. S. Co.....	February 1..	February 1..	70	
Laila.....	Gulf-Caribbean S. S. Line.....	February 1..	February 1..	928	
Crynssen.....	Royal Neth. S. S. Co.....	February 1..	February 1..	(¹)	698

¹ No cargo discharged.

² No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending February 1, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Copeman.....	Harrison, Hallet, Dixon.....	January 18.....	January 21.....	60.....	
Guatemala.....	Panama Mail S. S. Co.....	January 19.....	January 19.....	90.....	7
San Jose.....	United Fruit Co.....	January 20.....	January 21.....	48.....	
Ginyo Maru.....	Nippon Yusen Kaisha.....	January 22.....	January 22.....	11.....	43
Colombia.....	Panama Mail S. S. Co.....	January 22.....	January 23.....	96.....	
St. Mihil.....	U. S. Army.....	January 23.....	January 24.....	3.....	9
Santa Maria.....	Grace Line.....	January 23.....	January 23.....		9
San Jose.....	United Fruit Co.....	January 24.....	January 25.....		75
Buenos Aires.....	Johnson Line.....	January 25.....	January 26.....	818.....	
Hanover.....	U. S. Shipping Board.....	January 26.....	January 27.....	415.....	
Saramacca.....	United Fruit Co.....	January 27.....	January 28.....	103.....	27
Champerico.....	Pacific Steam Nav. Co.....	January 28.....	January 28.....		2
Ecuador.....	Panama Mail S. S. Co.....	January 29.....	January 30.....	101.....	
Takaoka Maru.....	Nippon Yusen Kaisha.....	January 29.....	January 29.....	146.....	
California.....	Panama-Pacific Line.....	January 31.....	January 31.....		160

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Cristobal.....	February 4.....	February 9.....	February 12.....	February 16.....	February 19.....	February 24.....
Ancon.....	February 18.....	February 23.....	February 26.....	March 2.....	March 5.....	March 10.....
Cristobal.....	March 4.....	March 9.....	March 12.....	March 16.....	March 19.....	March 24.....
Ancon.....	March 18.....	March 23.....	March 26.....	March 30.....	April 2.....	April 7.....
Cristobal.....	April 1.....	April 6.....	April 9.....	April 13.....	April 16.....	April 21.....
Ancon.....	April 15.....	April 20.....	April 23.....	April 27.....	April 30.....	May 5.....
Cristobal.....	April 29.....	May 4.....	May 7.....	May 11.....	May 14.....	May 19.....
Ancon.....	May 13.....	May 18.....	May 21.....	May 25.....	May 28.....	June 2.....
Cristobal.....	May 27.....	June 1.....	June 4.....	June 8.....	June 11.....	June 16.....
Ancon.....	June 10.....	June 15.....	June 18.....	June 22.....	June 25.....	June 30.....
Cristobal.....	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.....
Ancon.....	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.....
Cristobal.....	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.....
Ancon.....	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.....
Cristobal.....	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.....
Ancon.....	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.....
Cristobal.....	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.....
Ancon.....	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.....
Cristobal.....	October 15.....	October 20.....	October 23.....	October 28.....	October 31.....	November 5.....
Ancon.....	October 28.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.....
Cristobal.....	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.....
Ancon.....	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.....
Cristobal.....	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.....
Ancon.....	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.....

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., February 12, 1930. No. 28.

Tanker Traffic Through the Panama Canal in January, 1930.

During the month of January, 1930, 112 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 585,974, on which tolls of \$526,956.47 were collected. Cargo amounted to 595,279, which included 6,532 tons of coconut oil and 588,747 tons of mineral oils. In point of net tonnage, tanker traffic increased 12.6 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 14.1 per cent over the cargo tonnage of January, 1929.

Tanker traffic comprised 21.1 per cent of the total commercial transits through the Canal during the month; made up 22.5 per cent of the total Panama Canal net tonnage; were the source of 22.3 per cent of the total tolls collected; and carried 22.8 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of January, 1930, segregated by direction of transits and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months, and for January, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Belgian.....	1	4,976	\$3,582.72	.....
British.....	8	32,774	25,644.62	12,211
Danzig.....	4	24,427	17,587.44	.....
Dutch.....	1	5,065	3,646.80	.....
French.....	1	5,050	3,636.00	.....
Norwegian.....	4	19,225	13,842.00	.....
Swedish.....	1	6,295	4,532.40	.....
United States.....	30	165,480	120,917.64	1,140
Totals, January, 1930.....	50	263,292	193,389.62	13,351
Totals, December, 1929.....	50	263,852	194,228.44	22,227
Totals, November, 1929.....	50	287,030	211,216.63	19,537
Totals, January, 1929.....	46	241,780	177,508.56	.....
<i>Pacific to Atlantic.</i>				
Belgian.....	1	5,410	6,186.25	9,452
British.....	10	48,670	50,225.90	82,294
Danish.....	1	5,623	5,837.50	11,472
Danzig.....	2	11,856	13,000.00	22,495
Dutch.....	1	4,395	4,692.50	7,652
French.....	1	6,907	8,288.40	14,200
Norwegian.....	7	36,473	39,003.75	68,247
Swedish.....	1	3,335	3,958.75	7,112
United States.....	38	200,013	202,373.80	359,004
Totals, January, 1930.....	62	322,682	333,566.85	581,928
Totals, December, 1929.....	50	277,367	277,672.15	493,431
Totals, November, 1929.....	52	278,572	283,466.37	490,815
Totals, January, 1929.....	53	278,631	291,033.60	521,554

* Includes 6,532 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during January, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	30	166,010	\$121,229.10	1,140
United States to South America.....	3	15,335	11,041.20	.....
Canada to South America.....	1	1,570	1,130.40	.....
South America to United States.....	1	5,065	3,646.80	.....
South America to Canada.....	1	5,278	5,847.50	12,211
West Indies to United States.....	1	3,913	2,887.50	.....
Europe to United States.....	11	56,668	40,800.96	.....
Europe to South America.....	2	9,453	6,806.16	.....

PACIFIC TO ATLANTIC.

Trade route.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	36	191,096	\$192,749.75	341,343
United States to West Indies.....	1	5,623	5,837.50	11,472
United States to Europe.....	18	89,902	96,690.90	167,951
South America to United States.....	2	14,211	15,542.50	27,920
South America to Canada.....	2	7,857	8,663.75	15,710
South America to West Indies.....	1	4,345	3,128.40	.....
South America to Europe.....	1	5,929	6,491.25	11,000
Philippine Islands to United States.....	1	3,719	4,462.80	* 6,532

* Coconut oil.

Of the tanker traffic passing through the Canal in January, 1930, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for January, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles:</i>				
January, 1930.....	42	226,591	\$164,917.56	1,140
December, 1929.....	41	225,048	163,604.04	8,574
November, 1929.....	42	245,284	177,967.21	2,335
January, 1929.....	32	174,269	125,631.30	.....
<i>From Los Angeles:</i>				
January, 1930.....	54	282,283	290,921.90	513,416
December, 1929.....	39	218,565	217,711.25	388,571
November, 1929.....	41	221,317	221,858.27	381,328
January, 1929.....	40	206,611	215,099.85	391,511

Traffic by Nationality for January, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of January, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for January, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	1	4,976	4,568	7,138	3,988	\$3,582.72	.....
British.....	* 59	305,060	224,908	371,740	226,508	* 266,896.61	182,497
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	2,043
Colombian.....	3	440	441	673	441	532.45	140
Danish.....	2	9,194	7,609	10,866	7,612	9,511.25	11,156
Danzig.....	4	24,427	21,017	35,555	20,085	17,587.44	.....
Dutch.....	9	42,511	29,974	50,214	29,629	34,136.80	22,957
French.....	6	31,717	25,204	40,917	25,102	29,696.00	12,382
German.....	12	41,044	27,412	46,478	27,853	34,265.00	32,956
Greek.....	1	4,482	3,346	5,600	3,333	4,182.50	6,345

* Includes naval vessel of 6,000 displacement tons.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Italian.....	1	6,054	5,031	7,061	4,460	\$6,288.75	2,920
Japanese.....	10	52,717	44,260	66,044	43,745	54,951.95	67,269
Norwegian.....	20	87,441	60,059	98,969	60,130	65,872.25	82,668
Panamanian.....	2	6,992	3,988	6,646	4,057	4,972.50	6,628
Swedish.....	7	36,068	26,161	62,381	32,357	27,810.14	22,378
United States.....	119	621,814	479,678	778,102	479,440	536,378.51	281,233
Totals, January, 1930....	257	1,279,609	967,089	1,595,694	972,716	1,100,956.12	733,572
Totals, January, 1929....	303	1,385,682	1,062,520	1,748,639	1,069,766	1,179,256.79	759,820
Totals, January, 1928....	285	1,287,487	998,787	1,616,531	998,084	1,109,055.44	641,708

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	4	19,819	17,399	25,717	15,555	\$21,748.75	30,477
British.....	66	325,279	245,304	398,502	244,237	303,404.55	406,545
Chilean.....	2	7,768	6,066	10,889	6,233	7,582.50	8,371
Colombian.....	2	326	328	466	332	391.20	425
Danish.....	6	22,047	17,740	26,198	16,136	22,112.80	36,595
Danzig.....	2	11,856	10,400	17,489	10,052	13,000.00	22,495
Dutch.....	6	27,869	18,590	31,793	18,460	23,237.50	35,681
French.....	5	25,977	22,761	34,249	22,445	28,240.45	46,259
German.....	19	81,173	55,312	91,015	55,300	67,499.97	91,218
Greek.....	1	4,292	2,720	4,349	2,686	3,400.00	8,400
Italian.....	2	15,398	10,279	18,767	11,277	12,848.75	11,099
Japanese.....	10	48,949	40,572	61,979	40,065	50,339.30	62,780
Norwegian.....	16	74,906	57,377	94,297	57,034	71,721.25	123,893
Panamanian.....	1	4,897	4,014	6,386	4,064	5,017.50	8,900
Swedish.....	4	17,785	14,083	41,846	17,011	17,603.75	58,572
United States.....	127	628,978	486,260	781,330	484,197	606,083.10	916,850
Yugoslav.....	1	4,700	4,019	5,965	3,772	5,023.75	9,500
Totals, January, 1930....	274	1,322,019	1,013,224	1,651,237	1,008,859	1,259,255.12	1,878,060
Totals, January, 1929....	300	1,385,598	1,055,292	1,722,295	1,052,355	1,323,558.33	2,099,015
Totals, January, 1928....	255	1,135,283	886,265	1,447,737	886,454	1,103,697.06	1,730,353

* Includes naval vessel of 1,124 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	5	24,795	21,967	32,855	19,543	\$25,331.47	30,477
British.....	125	630,339	470,212	770,242	470,745	570,301.16	589,042
Chilean.....	3	12,440	9,499	18,199	10,209	11,873.75	10,414
Colombian.....	5	766	769	1,139	773	923.65	565
Danish.....	8	31,241	25,349	37,064	23,748	31,624.05	47,751
Danzig.....	6	36,283	31,417	53,044	30,137	30,587.44	22,495
Dutch.....	15	70,380	48,564	82,007	48,089	57,374.30	58,638
French.....	11	57,694	47,965	75,166	47,547	57,936.45	58,641
German.....	31	122,217	82,724	137,493	83,153	101,764.97	124,174
Greek.....	2	8,774	6,066	9,949	6,019	7,582.50	14,745
Italian.....	3	21,452	15,310	25,828	15,737	19,137.50	14,019
Japanese.....	20	101,666	84,832	128,023	83,810	105,291.25	130,049
Norwegian.....	36	162,347	117,436	193,266	117,164	137,593.50	206,561
Panamanian.....	3	11,889	8,002	13,032	8,124	9,990.00	15,528
Swedish.....	11	53,853	40,244	104,227	49,368	45,413.89	80,950
United States.....	246	1,250,792	965,938	1,559,432	963,637	1,142,461.61	1,198,083
Yugoslav.....	1	4,700	4,019	5,965	3,772	5,023.75	9,500
Totals, January, 1930....	531	2,601,628	1,980,313	3,246,931	1,981,575	2,360,211.24	2,611,632
Totals, January, 1929....	603	2,771,280	2,117,812	3,470,934	2,122,121	2,502,815.12	2,858,835
Totals, January, 1928....	540	2,422,770	1,885,052	3,064,268	1,884,538	2,212,752.50	2,372,061

* Includes 2 naval vessels having a total displacement tonnage of 7,124 tons.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 8, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Santa Cecilia.	1	9 45	2	6 08	2	13 08	American.	Graco Line.	408.0	55.0	23.10	New York, N. Y.	Callao, Peru.	Coal, general.	3,784	4,905
Valada.	1	15 05	2	6 40	2	20 43	British.	Cunard Line.	400.0	57.0	27.7	Antwerp, Belgium.	Dunedin, N. Z.	General.	8,432	6,425
Gustaf E.	1	21 20	2	7 25	2	15 16	Swedish.	Caucasian Oil Co.	418.0	55.0	17.0	Shellharbor, Eng.	Los Angeles, Calif.	Ballast.	6,384	4,407
Reuter.	1	1 38	2	7 55	2	16 30	American.	Sun Oil Co.	429.3	59.2	19.0	Tampa, Fla.	Los Angeles, Calif.	Ballast.	7,568	5,283
Atlantic Sun.	2	3 15	2	8 25	2	16 00	British.	Anglo-Mexican Pet. Co.	400.0	52.0	26.9	Aruba, D. W. I.	Iquique, Chile.	Fuel oil.	7,682	5,892
San Zotic.	2	3 15	2	8 25	2	16 00	British.	Nippon Yusen Kaisha.	445.0	58.0	26.8	Kobe, Japan.	San Francisco, Cal.	Scrap iron, oil.	7,734	5,849
Lisbon Maru.	2	5 55	2	8 45	2	17 50	Japanese.	Panama Mail S. S. Co.	360.2	51.6	24.0	New York, N. Y.	San Francisco, Cal.	General, steel.	1,936	5,710
El Salvador.	1	14 05	2	10 08	2	16 55	American.	Munson, McCormack.	409.8	54.2	23.0	Wilmington, Del.	Los Angeles, Calif.	General.	2,981	4,909
Forbes.	1	23 30	2	10 35	2	17 40	American.	Kerr S. S. Co.	425.0	58.0	22.0	New York, N. Y.	Java.	General.	5,000	8,831
Hauptmann.	2	11 30	2	11 55	2	18 36	British.	Hamburg-American Line	399.0	54.0	20.1	Hamburg, Germany	Valparaiso, Chile.	General.	3,751	5,861
Silverash.	30	00 40	2	14 15	2	21 28	German.	U. S. Army.	101.0	32.5		Cristobal, C. Z.	Balboa, C. Z.	Ballast.		4,997
Spreewald.																
Edward P.																
Nones.																
General Wm.																
M. Graham.	2	8 00	2	15 20	2	15 20	American.	U. S. Army.	156.0	32.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.		
British Prince.	2	16 15	2	16 25	3	9 11	American.	Norfolk & N. A. S. S. Co.	450.0	58.0	23.0	New York, N. Y.	Yokohama, Japan.	General.	5,174	8,662
Memphis City.	2	22 15	3	6 30	3	13 13	American.	Ishuan S. S. Lines.	425.0	56.2	21.0	Baltimore, Md.	Tacoma, Wash.	Steel, general.	6,886	5,450
Sun.	3	1 00	3	6 40	3	13 48	American.	Sun Oil Co.	480.6	66.0	21.6	Chester, Pa.	Los Angeles, Calif.	Ballast.	7,611	5,476
Flow City.	3	9 30	3	7 25	3	16 01	American.	Nelson Line.	324.0	46.0	19.0	Baltimore, Md.	Tacoma, Wash.	Coal, general.	2,200	3,983
Cape Cornwall.	3	7 25	3	7 45	3	17 05	British.	H. L. E. Meyer.	405.0	53.0	24.0	Antwerp, Belgium	San Francisco, Cal.	Silver sand, coke	6,094	5,741
Dryden.	3	7 35	3	9 00	3	15 42	American.	Tampa Intercean Co.	434.0	57.0	24.0	Tampa, Florida.	Manila, P. I.	General.	7,580	7,983
Donau.	3	7 35	3	9 00	3	15 42	American.	Norwegian Lloyd.	524.0	61.0	25.1	Hamburg, Germany	Portland, Oreg.	General.	3,921	11,007
Corpeau.	2	18 00	3	11 00	3	18 13	German.	Chile S. S. Co.	250.5	44.0	20.0	Jacksonville, Fla.	Chancal, Chile	Scrap iron.	2,516	8,280
Defiance.	2	17 35	3	11 05	3	19 23	American.	Rosevelt S. S. Co., S. B.	440.0	56.0	26.7	New York, N. Y.	Manila, P. I.	Case oil, general.	7,042	8,313
Remuera.	3	13 45	3	14 00	3	21 50	American.	N. Z. Shipping Co.	485.0	62.3	23.0	London, Eng. and	Auckland, N. Z.	General.	8,787	11,911
El Cervo.	3	14 20	3	14 30	3	21 55	British.	Ang-Ecuador Oilfield Co.	407.4	52.2	20.0	Philadelphia, Pa.	La Libertad, Ecua.	Ballast.	6,046	4,326
Sally Maersk.	3	19 05	3	19 20	4	9 52	Danish.	Islandren Moller Co.	332.1	44.2	20.0	New York, N. Y.	Manila, P. I.	General.	3,735	5,518
San Simon.	4	2 30	4	6 40	4	14 25	American.	Quaker Line.	410.5	54.3	17.6	Newport News, Va.	Seattle, Wash.	General.	3,108	6,573
Canadotte.	4	7 45	4	8 20	4	16 12	British.	Imperial Oil Co.	510.9	68.2	22.0	Baltimore, Md.	Talara, Peru.	Ballast.	11,556	6,772
Marian Otis.	4	7 50	4	8 25	4	17 05	American.	Arrow Line.	409.0	54.1	17.0	Baltimore, Md.	Seattle, Wash.	General.	2,028	6,653
Chandler.	24	18 40	4	10 10	4	17 53	American.	Panama Mail S. S. Co.	261.1	40.0	15.9	Cristobal, C. Z.	San Francisco, Cal.	General.	1,550	2,352
Corinto.	4	10 50	4	11 05	4	18 24	American.	Redwood Line.	386.8	52.0	23.0	Fresno, Tex.	Tacoma, Wash.	General.	6,006	3,732
Aborn.	3	22 10	4	11 50	4	20 46	British.	Shaw, Savill & Albion.	478.0	63.2	26.7	Glasgow, Scotland.	Oamaru, N. Z.	General.	5,321	11,070
Baranga.	3	22 10	4	11 50	4	20 46	British.	Calmar S. S. Line.	410.5	54.0	24.11	Baltimore, Md.	Seattle, Wash.	Steel, general.	7,727	6,604
Flomar.	4	10 18	4	12 20	4	21 30	American.	Texas S. S. Co.	416.8	56.0	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast.		
Aryan.	4	7 25	4	6 20	4	14 22	American.	U. S. Navy.	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.		
Sofia.																

* Mine planter.

*Tug.

* Motorship.

* Tanker.

Dixie Arrow ¹	4	16.10	4	19.40	5	9.45	5	11.01	American	Standard Oil Co.	468.0	62.0	28.0	Beaumont, Texas	Shanghai, China	Kerosene	11,734	9,744	7,140
Colombo	4	8.10	5	6.00	5	13.00	5	14.05	Italian	Nav. Gen. Italiana	518.0	64.0	27.0	Genoa, Italy	Valparaiso, Chile	General	2,650	12,533	7,516
Durazo	4	12.33	5	6.15	5	14.15	5	15.30	American	Humb.-American Line	226.9	34.5	21.0	Cristobal, C. Z.	Bahoa, C. Z.	Ballast	1,633	1,041	
Point Fernin	5	3.20	5	6.30	5	14.10	5	15.30	American	Gulf-Pacific Line	324.0	46.2	21.0	Houston, Texas	San Francisco, Cal.	General	3,687	3,984	2,617
Mandalay	4	16.00	5	7.20	5	15.47	5	16.20	British	Con'th & Dom. Line	425.0	54.0	24.5	Middlesboro, Eng.	Fremantle, Aust. I.	General	4,411	6,126	4,495
Port Victor	4	17.00	5	7.20	5	15.47	5	17.30	British	Con'th & Dom. Line	470.0	58.0	29.6	London, England	N. Plymouth, N. Z.	General	7,956	9,336	6,682
Marie Maersk ²	4	20.10	5	8.27	5	16.08	5	19.18	Danish	Anglo-Saxon Pet. Co.	466.8	61.6	18.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast	6,645	6,654	6,054
K. R. Kingsbury ¹	5	5.10	5	8.45	5	16.36	5	20.43	American	Standard Oil Co.	440.0	58.2	22.0	New York, N. Y.	San Francisco, Cal.	Ballast	9,033	5,838	
Karrina	5	7.45	5	10.05	5	17.10	5	18.00	American	Lockenbach Line	446.0	46.0	21.6	Beaumont, Texas	Seattle, Wash.	General	4,334	8,508	6,179
Lukenbach	5	8.15	5	10.15	5	18.13	5	18.46	British	Leeds Shipping Co.	400.0	54.0	24.0	Beaumont, Texas	Yawate, Japan	General	7,860	6,961	5,365
Bradyne	5	1.05	5	11.00	5	18.25	6	00.02	Norwegian	Scand.-So. Pacific Line	381.0	53.5	24.0	Oslo, Norway	Corral, Chile	General	6,800		
Nyhorn	5	2.45	5	11.05	5	19.20	6	00.00	American	Shepard-S. S. Co.	233.4	43.8	20.0	New York, N. Y.	San Francisco, Cal.	General	1,794		
Lake Galewood	5	8.25	5	11.40	5	19.30	6	20.43	Panama	Grace Line	403.0	52.0	14.0	Mobile, Ala.	Tacopilla, Chile	Ballast	6,804	4,897	
Pacific Ranger	5	6.50	5	12.35	5	20.04	6	21.15	British	Turness, Withy & Co.	435.0	60.0	20.8	Manchester, Eng.	Yonover, B. C.	General bananas	1,233	9,725	6,942
Parrakoda ²	5	10.35	5	14.00	5	20.44	5	21.36	Swedish	Transatlantic S. S. Co.	435.0	57.0	17.8	Göteborg, Swed.	Sydney, Australia	Lumber, general	1,688	8,279	6,190
Kashu Maru	5	10.40	5	15.05	5	22.58	6	00.17	Japanese	F. K. Kabushiki Kaisha	400.0	53.0	25.0	Boea Grande, Fla.	Kobe, Japan	Plugs, cotton	7,108	5,882	4,281
Q-2	5	18.25	6	6.05	6	13.47	6	15.00	American	U. S. Army	360.0	51.0	24.3	Cristobal, C. Z.	Gatun, C. Z.	Ballast	2,314	5,957	4,325
Santa Elisa	5	3.40	6	6.17	6	13.56	6	17.05	British	Pacific Steam Nav. Co.	303.0	43.0	15.7	New York, N. Y.	Valparaiso, Chile	General	572	2,826	1,770
Almagro	5	15.40	6	6.30	6	14.45	6	17.50	British	Can. Nat. Steamships	430.0	55.0	26.0	Halifax, N. S.	Aelaide, Australia	General	4,500	7,080	5,518
Condor	5	19.00	6	7.15	6	15.22	6	16.35	Chilean	R. W. James & Co.	356.0	45.3	20.6	New York, N. Y.	Valparaiso, Chile	General	1,018	4,421	3,063
Svalder ²	6	9.55	6	10.15	6	16.48	6	19.45	Norwegian	Waages Tankrederi	408.0	55.0	20.0	Göteborg, Swed.	Los Angeles, Calif.	Ballast	6,466	4,356	
La Paz ²	5	22.10	6	10.30	6	17.54	6	23.47	British	Pacific Steam Nav. Co.	406.0	54.0	17.2	Hull, England	Magallanes, Chile	General	2,225	7,216	4,912
Nesa Chief	6	6.25	6	11.05	6	18.48	6	19.45	American	N. O. & S. A. S. S. Line	300.0	45.0	19.5	New Orleans, La.	Talcahuano, Chile	General	880	3,256	2,010
Annularia	6	8.50	6	12.30	6	20.00	6	21.20	British	Anglo-Saxon Pet. Co.	412.0	53.0	22.0	Southampton, Eng.	Los Angeles, Calif.	Ballast	6,290	4,369	
Foodasia	5	23.00	6	19.10	7	9.36	8	14.55	German	Hamburg-American Line	337.0	48.0	17.1	Hamburg, Germany	Champerico, Guat.	General	2,115	4,316	3,142
Cauca ²	2	14.10	7	5.55	7	13.31	7	20.00	Colombian	International Navigation Co.	107.0	22.0	9.8	Cristobal, C. Z.	Buenaventura, Col.	General	71	238	163
Talarite	6	15.45	7	6.10	7	13.37	7	15.35	British	Imperial Oil Co.	250.0	43.0	23.0	Halifax, N. S.	Talara, Peru	Ballast	2,631	1,570	
Canadian Explorer	6	19.25	7	6.15	7	15.27	7	16.40	British	Can. Nat. Steamships	400.0	52.0	23.0	Halifax, N. S.	Timaru, N. Z.	General	4,500	5,853	4,100
Wilson	7	4.35	7	7.28	7	14.31	7	23.10	American	Dollar Line	516.5	72.2	28.6	New York, N. Y.	Los Angeles, Calif.	General	4,489	15,286	10,533
Corrueta	30	17.10	7	7.45	7	16.30	7	17.50	Chilean	Chilean Government	120.0	32.0	12.0	Greenock, England	Valparaiso, Chile	Ballast	386	93	
Cabrates ³	5	20.15	7	8.00	7	16.43	7	18.00	Dutch	Royal Neth. S. S. Co.	404.6	58.2	24.9	Baltimore, Md.	Corral, Chile	General	4,091	7,834	6,018
Bodegraven	6	22.50	7	8.28	7	18.10	7	19.15	American	Argonaut Line	400.9	54.0	26.6	Baltimore, Md.	Portland, Oreg.	Steel, general	6,826	6,745	4,562
Santa Cecilia	7	5.40	7	9.40	7	18.44	7	20.00	American	Standard Transp. Co.	435.0	56.0	27.6	Beaumont, Texas	Los Angeles, Calif.	Batching oil	9,252	7,165	4,926
Ame ²	5	15.20	7	9.55	7	19.05	7	20.00	Norwegian	McCall, Fontenae	440.9	58.4	18.5	Aracuco, D. W. I.	Talara, Peru	Ballast	7,708	5,460	
Fontenae ²	7	8.40	7	11.10	8	20.18	8	21.00	German	Atlantic Tank Ruederl	412.7	53.0	18.0	Cruceco, D. W. I.	Los Angeles, Calif.	Ballast	6,585	4,435	
Henri	7	10.05	7	12.20	8	21.20	8	22.29	French	Desmarais Freres	400.0	51.0	16.0	Cherbourg, France	Los Angeles, Calif.	Ballast	5,930	4,178	
Desmarais ¹	7	16.50	8	6.10	8	14.06	8	15.15	British	Pacific Steam Nav. Co.	530.0	66.0	24.9	Liverpool, England	Talcahuano, Chile	General	4,876	14,937	10,630
Oropesa	8	6.00	8	7.35	8	14.50	9	1.06	British	Raymond Whitcomb	601.0	73.0	27.0	New York, N. Y.	Talcahuano, Chile	Passengers only	21,672	15,705	
Samaria	7	7.45	8	7.40	8	16.55	8	18.15	French	French Line	398.0	50.0	18.4	Havre, France	Talcahuano, Chile	General	2,060	5,857	4,166
Saint Louis	7	7.45	8	7.40	8	16.55	8	18.15	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Bahoa, C. Z.	Ballast	6,829	6,829	
S-15 ⁶	7	20.55	8	8.00	8	16.53	8	18.00	Norwegian	Barber S. S. Line	461.9	60.0	27.8	New York, N. Y.	Dairen, China	Flour, general	5,982	9,894	6,454
Tai Ping ²	8	3.50	8	8.25	8	17.23	8	18.21	Norwegian	U. S. Steel Products Co.	424.2	56.2	25.0	Philadelphia, Pa.	Manila, P. I.	General	7,713	7,611	
Steel Scientist	8	3.50	8	8.40					American										

* Submarine.

* Launch.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.	Completed transit.		Cleared for sea.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	To ns.	Gross.	Net.
Cal.	6	11.10	8	9.45	8	19.01	German	Roland Line.	216.5	32.9	12.10	Cristobal, C. Z.	Buenaventura, Col.	General	503	1,105	698
Virginian	8	8.50	8	10.20	8	19.07	Amer.	Amer-Hawain Line.	491.5	58.0	22.0	Boston, Mass.	Portland, Ore.	General	3,400	10,491	7,601
San Mateo.	7	18.40	8	10.55	8	19.07	American	United Fruit Co.	315.2	44.2	20.1	Port Limon, C. R.	San Francisco, Cal.	General	172	3,496	2,141
Eendijk	6	9.40	8	13.00	8	20.05	Dutch	Holland-American Line.	470.0	58.2	20.8	Antwerp, Belgium	Portland, Ore.	General, bananas	1,473	8,514	6,066

THROUGH THE CANAL—PACIFIC TO ATLANTIC.																	
Cauca 7.	1	20.45	2	6.17	2	14.10	Colombian.	National Navigation Co.	107.2	22.9	11.5	Buenaventura, Col.	Cristobal, C. Z.	General	243	238	163
Penelope 7.	1	18.00	2	6.17	2	15.15	Danzig	W. Tansschiff Rhederei	470.1	63.2	29.0	Talara, Peru	Hamburg, Germany	Gasoline	11,200	9,302	6,127
Delaware Sun 7.	1	18.05	2	7.07	2	15.40	American	Sun Oil Co.	480.5	65.0	28.0	Los Angeles, Calif.	Chester, Pa.	Gasoline	12,605	9,402	6,586
Buyo Maru.	2	18.30	2	19.13	3	11.50	Japanese	Kokusai Kisen Kaisha.	400.0	53.0	26.0	Takao, Chilo.	Charleston, S. C.	Nitrates	8,112	5,731	4,248
Sofoa 8.	3	8.25	3	8.25	3	17.50	American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.				
Steel Mariner.	3	8.25	3	9.10	3	18.30	American	U. S. Steel Products Co.	424.2	56.2	24.0	Everett, Wash.	Portsmouth, R. I.	Lumber	6,919	7,611	5,450
Euro.	3	9.00	3	10.10	3	17.55	British	Pacific Steam Nav. Co.	450.3	57.3	23.1	Talcahuano, Chile	New York, N. Y.	General	2,500	9,291	6,301
Boskoop.	3	11.20	3	12.47	3	20.55	Dutch	Royal Neth. S. S. Co.	400.6	58.3	28.9	Corral, Chile	Rotterdam, Holl'd	(s)	7,430	7,817	6,097
Helen Whittier.	3	14.45	3	16.42	4	11.55	American	Christenson S. S. Co.	409.6	54.2	24.4	Portland, Ore.	Baltimore, Md.	Lumber, piling	7,500	6,667	4,949
Durazzo.	3	15.45	3	17.38	4	12.33	German	Hamburg-American Line	227.5	34.4	14.6	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides	890	1,533	1,041
Steelore.	4	3.00	4	6.08	4	15.50	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	Sparrows Pt., Md.	Iron ore	22,146	15,551	4,297
Tai Yang 7.	3	17.40	4	6.50	4	17.06	Norwegian	Barber-Willhelmsen Line	461.4	60.6	22.6	Manila, P. I.	New York, N. Y.	General	3,420	10,009	7,075
Washington 7.	3	19.15	4	6.57	4	17.30	American	Texas S. S. Co.	425.8	57.0	25.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,769	7,484	5,216
Clio 7.	3	21.00	4	8.16	4	20.00	Danzig	Tansschiff Rhederei	470.0	63.2	27.0	Los Angeles, Calif.	Hamburg, Germany	Naptha	11,355	9,248	6,310
Kinderdijk.	3	17.00	4	8.32	4	18.30	Dutch	Holland-American Line	469.6	53.4	23.0	Vancouver, B. C.	Antwerp, Belgium	General	7,750	8,515	6,060
San Mateo.	3	15.00	4	9.22	4	19.45	American	United Fruit Co.	315.2	44.2	21.6	San Francisco, Cal.	Cristobal, C. Z.	General	1,506	3,395	2,141
Stamstad 7.	3	00.05	4	9.35	4	19.35	Norwegian	Fern Line.	376.5	53.8	25.0	Victoria, B. C.	Boston, Mass.	Lumber	6,200	9,236	4,663
Santa Cruz.	3	3.40	4	10.05	4	18.55	American	Grace Line.	384.9	50.2	18.6	Callao, Peru	New York, N. Y.	General	2,689	5,534	3,878
Archer.	3	13.00	4	10.40	4	21.35	American	Roosevelt S. S. Co., S. B.	440.0	56.2	25.0	Sugay, P. I.	Philadelphia, Pa.	(s)	8,471	8,315	6,100
Dakota.	4	2.51	4	10.50	4	21.10	American	Amer-Hawain Line.	407.7	53.7	25.0	Portland, Ore.	Boston, Mass.	General	7,336	7,156	5,094
J. L. Luckenbach.	4	13.10	4	13.51	4	22.10	American	Luckenbach Line.	448.9	60.2	31.0	Portland, Ore.	Boston, Mass.	General	10,000	9,294	6,861
Caroline	4	13.30	4	14.25	5	16.10	Danish	Anglo-Saxon Pet. Co.	456.8	59.2	26.9	Los Angeles, Calif.	Curacao, D. W. L.	Gasoline	10,736	8,102	5,695
Marsk 7.	4	23.50	5	6.22	5	17.35	American	Iskham S. S. Lines	395.5	55.0	27.5	Vancouver, B. C.	Avonmouth, Eng.	(s)	7,774	7,322	5,237
Chickasaw City	5	1.42	5	6.54	5	14.55	British	Royal Mail S. S. Co.	485.6	62.3	28.6	Vancouver, B. C.	Rotterdam, Holl'd	General	8,225	10,903	7,606
Nile.	5	3.30	5	7.31	5	18.30	British	Messrs Glen & Co.	423.5	56.0	25.0	Iquique, Chile	Pensacola, Fla.	Nitrates	8,724		
Albionstar.	5	5.00	5	8.06	5	19.20	British	The Star Line.	450.0	58.5	26.0	Vancouver, B. C.	Newcastle, England	General	5,210	8,617	5,551
Point Arena.	5	10.00	5	11.00	6	20.00	American	Swayne & Hoyt.	324.0	46.2	21.0	San Francisco, Cal.	New Orleans, La.	General	2,731	3,984	2,612
Cal.	5	15.15	5	17.27	6	11.10	German	Roland Line.	216.5	32.9	15.3	Guayaquil, Ecuador	Cristobal, C. Z.	General	10	1,104	698
Pacific Sun 7.	5	19.20	6	6.10	6	14.35	American	Sun Oil Co.	480.6	66.0	28.0	Los Angeles, Calif.	Chester, Pa.	(s)	13,500	9,609	6,506

** Canned goods, lumber, sugar, copra, and general.

* Molasses, wine, and bran.

* Tug.

* Motor ship.

** Gasoline and onrite

H. M. Flagler ¹¹	5	23.00	6	6	47	6	15	40	6	15	40	American	Standard Shipping Co.	431.8	69.0	27.0	Talara, Peru	New York, N. Y.	Crude oil	11,500	8,450	6,080
Real ¹¹	6	7.00	6	7.00	6	17.05	6	17.05	6	17.05	6	17.05	Hans Elliot	62.0	18.0	27.0	Balboa, C. Z.	Cristobal, C. Z.	Lumber	6,330	4,581	3,326
El Lago	6	1.00	6	7.43	6	17.05	6	17.05	6	17.05	6	17.05	C. T. Boring & Co.	385.2	51.0	24.6	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	4,304	6,533	4,772
Hague Maru	6	5.00	6	7.51	6	17.35	6	17.35	6	17.35	6	17.35	Oaka Shosen Kaisha	407.2	50.8	20.0	Hongkong, China	New York, N. Y.	Wood, oil, gen.	4,814	9,936	6,561
Orda	6	5.20	6	7.51	6	17.35	6	17.35	6	17.35	6	17.35	Pacific Steam Nav. Co.	485.4	58.2	24.0	Tacapano, Chile	Liverpool, England	Nitrates	6,900	5,173	3,651
Dunstaffnage	6	4.00	6	8.40	6	18.05	6	18.05	6	18.05	6	18.05	Moore & McCormack	384.0	52.9	23.6	Toconipala, Chile	Pensacola, Fla.	Iron ore	8,800	5,948	4,245
Dalemoor	6	6.00	6	9.25	6	19.15	6	19.15	6	19.15	6	19.15	W. Rindeman & Co.	399.9	52.9	23.6	San Francisco, Chile	Baltimore, Md.	Lumber, copper	4,475	3,984	2,628
Tashuao	6	7.30	6	9.55	6	19.15	6	19.15	6	19.15	6	19.15	Charles Nelson & Co.	324.0	62.4	24.8	Cruz Grande, Chile	Providence, R. I.	Frozen, general	7,208	10,746	7,338
Port Campbell	6	8.00	6	10.17	6	20.15	6	20.15	6	20.15	6	20.15	Com'lth & Dom. Line.	480.8	62.4	24.8	Wellington, N. Z.	London, England	Distillate fuel	12,170	10,084	7,388
Java Arrow ¹¹	6	9.00	6	10.51	6	20.40	6	20.40	6	20.40	6	20.40	Standard Transp. Co.	468.3	62.4	24.8	Los Angeles, Calif.	New York, N. Y.	Diesel oil	8,900	7,116	4,433
Invergordon ¹¹	6	10.15	6	11.25	6	21.25	6	21.25	6	21.25	6	21.25	A. War & Co.	412.9	55.5	28.0	Liquique, Chile	United Kingdom	Nitrates	8,793	6,571	4,607
Schwarzwald	7	3.35	7	6.50	7	14.30	7	14.30	7	14.30	7	14.30	Hamburg-Amerikanische	399.4	54.2	25.8	Champerico, Guat.	Hamburg, Germany	(*)	1,014	1,273	705
Aceitula	7	4.05	7	7.20	7	15.00	7	15.00	7	15.00	7	15.00	Pacific Steam Nav. Co.	215.7	36.1	17.0	Galapagos Island	Cristobal, C. Z.	(*)	1,014	1,273	705
Olve K. ¹¹	3	15.05	7	7.35	7	15.40	7	15.40	7	15.40	7	15.40	Chas. F. Kittering	157.9	26.1	10.0	Seattle, Wash.	Miami, Fla.	General	7,437	6,779	4,921
Kansan	7	6.35	7	8.27	7	16.15	7	16.15	7	16.15	7	16.15	Amer.-Hawaiian Line.	404.6	53.9	26.0	Port Pirie, Aust'lia	Philadelphia, Pa.	Zinc, ore, wool	5,888	6,526	4,238
Bencruchan	2	12.30	7	9.24	7	17.37	7	17.37	7	17.37	7	17.37	Ben Line, Ltd.	429.0	53.9	26.0	Spafford, Wash.	W. Hartlepool, Eng.	Grain, timber	9,544	7,546	5,021
Buhamne ¹¹	7	11.00	7	11.56	7	20.05	7	20.05	7	20.05	7	20.05	W. L. Gwynn & Co.	414.4	61.2	26.6	Vancouver, B. C.	Hull, England	Frozen, general	5,333	11,443	8,469
Ruahine	7	7.25	7	12.33	7	20.20	7	20.20	7	20.20	7	20.20	N. Z. Shipping Co.	480.6	61.2	26.6	Napier, N. Z.	London, England	Nitrates	7,540	5,748	3,955
Maun.	7	13.35	7	14.21	7	22.05	7	22.05	7	22.05	7	22.05	Thomas Dunlop & Sons	490.2	52.3	25.6	Quique, Chile	Charleston, S. C.	Frozen, general	6,152	11,110	7,894
Mahin.	7	13.55	7	14.36	7	22.55	7	22.55	7	22.55	7	22.55	Shaw, Savill & Albion	477.6	51.3	23.4	Wangaihi, N. Z.	London, England	Lumber	7,500	6,558	4,753
Wind Rush	7	14.20	7	15.26	8	9.05	8	9.05	8	9.05	8	9.05	Shepard S. S. Co.	410.0	54.2	24.0	Aberdeen, Wash.	Boston, Mass.				
Panquico ¹⁵	7	8.637	8	14.40	8	14.40	8	14.40	8	14.40	8	14.40	Panamaian Gov't.	125.6	23.5		Balboa, C. Z.	Cristobal, C. Z.				
General G. W. Getty ¹⁶	8	7.31	8	14.55									U. S. Army	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.				
Captain Edw. P. Nones ¹¹	8	7.31	8	14.55									U. S. Army	101.0	23.5		Balboa, C. Z.	Cristobal, C. Z.				
General Wm. M. Graham ¹⁶	8	7.37	8	14.55									U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.				
Macaros	7	21.55	8	10.44	8	18.35	8	18.35	8	18.35	8	18.35	Shaw, Savill & Albion	500.4	62.3	26.0	Auckland, N. Z.	London, England	Frozen, general	5,000	13,599	9,233
Apple Branch	8	10.10	8	11.06	8	20.48	8	20.48	8	20.48	8	20.48	F. & W. Rison	376.0	51.7	24.6	Coronel, Chile	Liverpool, England	General	7,751	5,112	3,511
Henry S. Grove	8	12.15	8	13.02	8	21.05	8	21.05	8	21.05	8	21.05	Argonaut S. S. Co.	494.6	53.9	27.9	Honolulu, T. H.	East coast, U. S. A.	Sugar	8,098	6,755	4,688
Cambrai	7	17.35	8	13.41	8	21.55	8	21.55	8	21.55	8	21.55	U. S. Army	448.0	58.0	25.0	San Francisco, Cal.	Brooklyn, N. Y.	General	143	153	100
Marce	8	8.00	8	18.26	9	14.20	9	14.20	9	14.20	9	14.20	Ore S. S. Corp.	550.3	72.2	36.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,500	15,551	4,297

¹¹ Tanker.¹² Motor schooner.¹³ Yacht.¹⁴ Revenue cutter.¹⁵ Mine planter.¹⁶ Copper, nitrates, metals, cotton, wool, and oil cake.¹⁷ Coffee, hides, skins, etc.¹⁸ Other than ships passing through the Canal.¹⁹ Air mail carrier.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 2	Vulcania	Consulship Line	New York via waypoints.	February 2	Laila	Gulf-Caribbean Line	New Orleans via waypoints.
February 2	Calamares	United Fruit Co	Port Limon, C. R.	February 2	Cryssen	Royal Neth. S. S. Co	Amsterdam via waypoints.
February 2	Tela	United Fruit Co	Puerto Colombia.	February 2	Calamares	United Fruit Co	New York via Habana.
February 3	Lacania	Cunard Line	Liverpool via waypoints.	February 2	Ancón	Panama R. R. S. S. Line	New York via Haiti.
February 3	Perou	French Line	St. Nazaire via waypoints.	February 3	Vulcania	Consulship Line	New York via waypoints.
February 3	Panama	United Fruit Co	New Orleans via waypoints.	February 3	Tela	United Fruit Co	Bocas via Port Limon.
February 3	No. 9588 ¹⁹	Pan-American Airways	Tela via waypoints.	February 3	Lacania	Cunard Line	Southampton via waypoints.

¹⁸ Other than ships passing through the Canal.¹⁹ Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 4	Anachucina ²⁰	United Fruit Co.	Colon, R. P.	February 4	Anachucina ²⁰	United Fruit Co.	Colon, R. P.
February 4	Annetta I. ²⁰	A. Tagarapulos	Colon, R. P.	February 4	Annetta I. ²⁰	A. Tagarapulos	Colon, R. P.
February 4	Alcantara	Royal Mail S. P. Co.	Southampton via waypts	February 4	Panama	Pan-American Airways	Tela via wayports.
February 4	Volendam	Holland-American Line	New York via wayports.	February 4	Wank	United Fruit Co.	Pto. Orleans & wayports.
February 5	Republie	United States Lines	Philadelphia via wayports.	February 4	Wank	Stand. Fruit & S. S. Co.	San Blas, R. P.
February 5	Pastores	United Fruit Co.	New York via Habana.	February 5	Perou	French Line	Havre via wayports.
February 5	Metapan	United Fruit Co.	New York via Kingston.	February 5	Volendam	Holland-American Line	New York via wayports.
February 5	Reliance	Hamburg-American Line	New Orleans, La.	February 5	No. 934-M ²¹	Pan-American Airways	Guayaquil via wayports.
February 5	Nellie Moulton ²²	United Fruit Co.	Colon, R. P.	February 4	No. 144-M ²¹	Pan-American Airways	Curacao via wayports.
February 5	Cordoba C-40 ²¹	Scudra Airplane Co	Barraquilla via wayports.	February 4	No. 142-M ²¹	Pan-American Airways	Curacao via wayports.
February 5	Hermes	Royal Neth. S. S. Co.	Tela via wayports.	February 5	Alcantara	Brue Surgeon	Colon, R. P.
February 6	Esquepe Fuego ²²	P. Martinis & A. Connelly	Maracaibo, Venezuela.	February 5	Republie	Royal Mail S. P. Co.	Southampton via waypts.
February 6	Wyoming ²³	U. S. Navy	Bluefields, Nicaragua.	February 5	Irons	United States Lines	Philadelphia via Habana.
February 6	Texas ²³	U. S. Navy	Guantanamo, Cuba.	February 6	Metapan	United Fruit Co.	Pto. Colombia & waypts.
February 6	Oklahoma ²³	U. S. Navy	Guantanamo, Cuba.	February 6	Hermes	Royal Neth. S. S. Co.	New York via wayports.
February 6	New York ²³	U. S. Navy	Guantanamo, Cuba.	February 6	Pastores	United Fruit Co.	Puerto Barrios.
February 6	Arkansas ²³	U. S. Navy	Guantanamo, Cuba.	February 6	Reliance	Hamburg-American Line	Port Limon, C. R.
February 6	Nevada ²³	U. S. Navy	Guantanamo, Cuba.	February 6	Cordoba C-40 ²¹	Scudra Airplane Co.	New York via wayports.
February 6	Utah ²³	U. S. Navy	Guantanamo, Cuba.	February 7	Amapala	Stand. Fruit & S. S. Co.	Barraquilla via wayports.
February 6	Florida ²³	U. S. Navy	Guantanamo, Cuba.	February 7	Wauita	Scudra Airplane Co.	New Orleans via waypts.
February 7	Amapala	U. S. Navy	Guantanamo, Cuba.	February 8	Atlantico C-29 ²¹	Stand. Fruit & S. S. Co.	Buenaventura via waypts.
February 7	Edward L. Doheny	Stand. Fruit & S. S. Co.	New Orleans via Habana.	February 8	Merican	Legland Line	San Blas, R. P.
February 7	No. 142-M ²¹	Scudra Airplane Co.	Buenaventura via waypts	February 8	Manauqui	Legland Line	Liverpool via wayports.
February 7	No. 142-M ²¹	Pan-American Airways	Aruba, D. W. I.	February 8	Tela	United Fruit Co.	New York via Kingston.
February 7	No. 945-M ²¹	Pan-American Airways	Maracay via wayports.	February 8	Fauna	Royal Neth. S. S. Co.	New Orleans, La.
February 8	Kingsholm	Pan-American Airways	Guayaquil via wayports.	February 8	Anachucina ²⁰	United Fruit Co.	Colon, R. P.
February 8	Tela	Swedish-American Line	Guayaquil via wayports.	February 8	Annetta I. ²⁰	United Fruit Co.	Colon, R. P.
February 8	Fauna	United Fruit Co.	New York via Kingston.	February 8	A. Tagarapulos	A. Tagarapulos	Colon, R. P.
February 8	Manauqui	Royal Neth. S. S. Co.	Bocas, R. P.				
February 8	Wank	United Fruit Co.	Port Limon, C. R.				
February 8	Wauita	Stand. Fruit & S. S. Co.	New York via wayports.				
February 8	Merican	Stand. Fruit & S. S. Co.	San Blas, R. P.				
February 8	Grunewald	Legland Line	Caba.				
February 8	Heredia	Hamburg-American Line	Port Limon, C. R.				
February 8	Gladiator	United Fruit Co.	Tampico via wayports.				
February 8	Anachucina ²⁰	T. & J. Harrison	New Orleans via Habana.				
February 8	Inapaquina ²⁰	United Fruit Co.	Liverpool via wayports.				
February 8	Annetta I. ²⁰	United Fruit Co.	Colon, R. P.				
February 8	A. Tagarapulos	United Fruit Co.	Colon, R. P.				

²⁰ Motor boat.²¹ Air mail carrier.²² Motor schooner.²³ Battleship.

*Other than ships passing through the Canal.

(Continued on page 392, column 2.)

United States Intercoastal Traffic by Commodities for January, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for January, 1930, and the totals for January, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Aeroplanes.....		86	86
Agricultural implements.....	1,701	140	1,841
Alfalfa.....		97	97
Alfalfa meal.....		768	768
Asbestos.....	67		67
Asphalt.....	103	84	187
Automobiles.....	3,477	75	3,552
Automobile accessories.....	338		338
Barley.....	151		151
Beans.....	61	7,640	7,701
Bones and bonemeal.....		79	79
Borax.....	40	1,544	1,584
Bricks.....	343	40	383
Burlap.....	107	6	113
Calcium carbide.....	94		94
Camphor.....		50	50
Canned:			
Fish.....	266	13,401	13,667
Fruit.....	1,266	30,654	31,920
Meat.....	67		67
Milk.....	25	320	345
Soup.....	2,275		2,275
Vegetables.....	1,102	6,085	7,187
Miscellaneous.....	1,539	2,638	4,227
Carbon black.....	14		14
Celite filtercel.....		936	936
Cement.....	999		999
Charcoal.....	39		39
Chemicals.....	1,343	165	1,508
China and fire clay.....	70		70
Coal.....	2,584		2,584
Cocoa.....	37		37
Coconuts.....		130	130
Coffee.....	84		84
Coke.....	1,225		1,225
Cold storage:			
Cheese.....	25		25
Fish.....		50	50
Lard.....	206		206
Other.....	240	100	340
Confectionery.....	420		420
Copra.....	22	590	612
Cork.....	140		140
Cotton.....	153	4,166	4,319
Cyanide.....	54		54
Drugs.....	1,000		1,000
Dyes.....	12		12
Earthenware.....	287	11	298
Eggs, dried.....		12	12
Explosives.....	22		22
Fertilizer.....	667	30	697
Flour.....	221	5,229	5,450
Fruit:			
Dried.....	28	7,694	7,722
Fresh.....		432	432
Fuller's earth.....	500		500
Furniture.....	601	384	985
General.....	27,923	10,168	38,091
Glass and glassware.....	1,879	105	1,984
Glue.....		33	33
Graphite.....	50		50
Hair.....	40	83	123
Hardwoods.....	238	220	458
Hay.....		290	290
Hemp.....	135	533	668

	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Honey.....		10	10
Hops.....		299	299
Infusorial earth.....		53	53
Ink.....	27		27
Jute.....	40		40
Lard substitute.....	945		945
Lime.....	78		78
Linoleum.....	912	160	1,072
Liquors.....	72		72
Lumber.....	2,581	184,530	187,111
Malt.....	30		30
Manufactured goods:			
Iron and steel.....	71,260	7,872	79,132
Machinery.....	3,396	929	4,325
Railroad material.....	4,637		4,637
Tinplate.....	11,039		11,039
Textiles.....	2,964	490	3,454
Miscellaneous.....	5,535	4,168	9,703
Marble.....	81	25	106
Matches.....	36		36
Metals:			
Antimony.....		87	87
Copper.....	50	6,455	6,505
Gold and silver.....	14		14
Iron.....	3,758		3,758
Lead.....	54		54
Scrap.....	331	572	903
Tin.....		40	40
Zinc.....		2,924	2,924
Milk, powdered.....		1,162	1,162
Molasses.....	211		211
Musical instruments.....	54		54
Nuts.....	22	448	470
Oats.....	20	5	25
Oils:			
Cottonseed.....	174		174
Gas oil, fuel oil.....		35,945	35,945
Gasoline, benzine, naphtha.....	46	278,438	278,484
Kerosene.....		36,127	36,127
Linseed.....		39	39
Lubricating and greases.....	3,941	50	3,991
Vegetable.....	197	65	262
Wood.....	85		85
Other.....		18	18
Ores:			
Copper.....		800	800
Magnesite.....		958	958
Manganese.....	450		450
Other.....	25	53	78
Paint.....	441	53	494
Paper.....	7,844	7,812	15,656
Paper pulp.....	13	10,467	10,480
Peanuts.....	347		347
Peas.....	18		18
Phosphates.....	1,685		1,685
Plaster.....		7	7
Porcelain.....	213	372	585
Potash.....	5		5
Rags.....		108	108
Rice.....	488		488
Rope.....	510	97	607
Rosin.....	627		627
Rubber:			
Manufactured.....	1,346	23	1,369
Scrap.....		10	10
Salt.....	50		50
Seeds:			
Grass.....		70	70
Other.....		381	381
Shells.....	1,188	44	1,232
Silk.....		5,532	5,532
Skins and hides.....	20	2,514	2,534
Slate.....	553		553
Soap.....	1,945	216	2,161
Soda.....	704		704
Soda ash.....	1,727		1,727
Soda, bicarbonate.....	126		126
Soda, caustic.....	191		191
Starch.....	128		128
Sugar.....	161	5,016	5,777
Sulphur.....	5,045		5,045
Syrup.....	118	7	125
Talc.....		192	192
Tallow.....		367	367
Tar.....	3		3

	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Tea.....		108	108
Tobacco.....	3,404	53	3,457
Toys.....	6	35	41
Turpentine.....	132		132
Vegetables.....	60	218	278
Waste.....		89	89
Wax.....	15	18	33
Wheat.....	60	553	613
Wine.....		246	246
Wool.....	71	790	861
Zinc oxide.....	39		39
Totals, January, 1930.....	196,628	693,838	890,466
Totals, January, 1929.....	257,198	644,018	901,216
Totals, January, 1928.....	193,346	540,540	733,886

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending February 8, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
El Salvador.....	Panama Mail S. S. Co.....	February 2...	February 3...	77	
Santa Cecilia.....	Grace Line.....	February 2...	February 2...		77
San Mateo.....	United Fruit Co.....	February 3...	February 4...	84	
Archer.....	U. S. Shipping Board.....	February 3...	February 4...	469	
Corinto.....	Panama Mail S. S. Co.....	February 4...	February 4...		9
Santa Elisa.....	Grace Line.....	February 6...	February 6...		3
La Paz.....	Pacific Steam Nav. Co.....	February 6...	February 6...		50
Cauca.....	National Navigation Co.....	February 7...	February 7...		16
Feodosia.....	Hamburg-American Line.....	February 7...	February 8...	531	
Swiftarrow.....	Boat Owning and Operating Co.....	February 8...	February 8...	12,000	
St. Jean.....	French Line.....	February 8...	February 8...	88	

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective February 11, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.24
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.15
Metal, yellow.....	Lb.	.26
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Btl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.23
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in casks, Gulftriton No. 2250.....	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.13
Oil, marine engine.....	Gal.	.53
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.11
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will always save time by applying to the nearest American Consul.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 388.

PORT OF BALBOA.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 2	Santa Tecla	N. O. & S. A. S. S. Line.	High seas.	February 4	Chiriqui	Chiriqui Land Co.	Panama Bay, R. P.
February 3	City of Canberra	Ellerman & Bucknall	Panama Bay, R. P.	February 4	Real	N. O. & S. A. S. S. Line.	Panama Bay, R. P.
February 3	Chiriqui	Chiriqui Land Co.	Panama Bay, R. P.	February 7	Santa Tecla	Ellerman & Bucknall	Tacubano, Chile.
February 4	Real	Hans Elliot	Panama Bay, R. P.	February 7	Herrera	National Navigation Co.	Sydney, Australia.
February 4	Frost	West India Oil Co.	Panama Bay, R. P.	February 7	Roma	A. Valdez	Panama Bay, R. P.
February 7	Herrera	National Navigation Co.	Panama Bay, R. P.	February 8	Des Hermanos	A. Valdez	Panama Bay, R. P.
February 8	Roma	A. Valdez	Panama Bay, R. P.	February 8	El Colon	Hans Elliot	Panama Bay, R. P.
February 8	Des Hermanos	A. Valdez	Panama Bay, R. P.	February 8	Sambu	Hans Elliot	Panama Bay, R. P.
February 8	El Colon	Hans Elliot	Panama Bay, R. P.				
February 8	Sambu	Hans Elliot	Panama Bay, R. P.				

* Other than ships passing through the Canal.

²⁴ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., February 19, 1930. No. 29.

Canal Traffic During First Fifteen Days of February.

During the first 15 days of February, 272 commercial vessels and 1 small launch transited the Canal. Tolls on the commercial vessels aggregated \$1,158,032.62, and on the launch, \$3.75, or a total tolls collection of \$1,158,036.37.

The daily average of transits of commercial vessels was 18.13, and the average tolls collection \$77,202.17, as compared with an average of 17.93 transits and \$80,427.64 for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,257.47, as compared with \$4,484.81 for the first 15 days of January.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 7½ months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 7½ months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February (first 15 days).....	272	1,158,032.62	18.13	77,202.17
Totals, first 7½ months of fiscal year, 1930.....	4,005	17,346,878.02	17.41	75,421.21
Totals, first 7½ months of fiscal year, 1929.....	4,073	17,088,356.32	17.71	74,297.20
Totals, first 7½ months of fiscal year, 1928.....	4,154	17,416,407.36	18.06	75,723.51

As compared with the first 7½ months of the fiscal year 1929, the corresponding period this year has had 68 fewer transits and \$258,521.70 more in tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 17, 1930.

No. 671.

COCO SOLO ENTRANCE, LIMON BAY, CANAL ZONE.

On February 14, 1930, the outer red spar buoy, marking the channel leading into the Naval Operating Base at Coco Solo, was permanently discontinued.

Instead a channel beacon has been established. This beacon consists of a cluster of three piles, surmounted by two vertical lights, 3 feet apart, red, fixed, electric, candlepower 60 each. Focal plane of the lower light, 9 feet; visibility, 9 miles. Located in 23 feet of water.

Position: Latitude 9° 22' 15" N., longitude 79° 53' 22" W.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 15, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Minnesota	8	22 25	9	6 55	9	13 39	9	15 00	American	Amer-Hawaiian Line.	407.7	53.7	21.0	Boston, Mass.	Seattle, Wash.	General	2,821	7,150	5,024
Buzo Sobenes	5	20 50	9	7 30	9	15 45	9	16 55	Chilean	Chilean Government	126.6	27.1	12.0	Valparaiso, Chile	Valparaiso, Chile	Ballast	386	386	93
Admiral Simpson	9	8 15	9	9 00	9	15 43			Chilean	Chilean Government	272.4	26.3	4.5	Plymouth, Eng.	Valparaiso, Chile	Ballast			
Captain O'Brien	9	8 15	9	9 05	9	16 42			Chilean	Chilean Government	272.4	26.3	4.5	Plymouth, Eng.	Valparaiso, Chile	Ballast			
Captain Thompson	9	8 15	9	9 05	9	16 46			Chilean	Chilean Government	272.4	26.3	4.5	Plymouth, Eng.	Valparaiso, Chile	Ballast			
Arkansas	8	23 58	9	10 10	9	17 45		9 19 05	French	French Line	448.0	53.2	20.4	Havre, France	Vancouver, B. C.	Iron, steel, gen.	3,202	7,678	5,563
City of Lille	9	8 55	9	10 45	9	17 54		9 18 59	British	Ellerman & Bucknall	447.0	57.11	28.0	Baltimore, Md.	Shanghai, China	General	8,280	8,555	6,167
West Grama	9	9 43	9	12 50	9	20 05		9 21 48	American	So. African Dispatch	410.0	54.0	22.0	Norfolk, Va.	Sta. Rosalia, Mex.	Coal	6,610	6,483	4,565
Lebare	8	15 20	9	14 10	9	21 18		9 22 16	American	Ore S. S. Corp.	549.0	72.0	23.0	New York, N. Y.	Cruz Grande, Chile	Ballast	14,325	4,635	
General G. W. Getty			9	7 50	9	15 46			American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		46	23
Real			9	9 00	9	17 46			Panamanian	H. Elliott	62.0	17.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast	3,729	6,585	4,631
Wido	9	6 35	10	6 10	10	13 18		10 15 45	American	North German Lloyd	393.0	54.3	21.5	Hamburg, Germany	Valparaiso, Chile	General	7,412	8,312	6,097
Heffron	9	20 40	10	6 15	10	14 18		10 15 45	American	Norton, Lilly & Co.	440.0	56.0	24.6	New York, N. Y.	Vancouver, B. C.	Steel, general			
Cities Service									American	Tidewater Oil Co.	431.0	59.6	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,862	5,049
S-11			10	7 30	10	15 29			American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-13			10	7 30	10	15 29			American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Sir Karl									Norwegian	Ando-Saxon Pet. Co.	450.5	59.2	19.0	Falmouth, England	Los Angeles, Calif.	Ballast	8,045	5,592	
Knudsen	10	1 15	10	8 20	10	16 01		10 17 10	American	Texas S. S. Co.	416.8	56.1	20.6	Mobile, Ala.	Los Angeles, Calif.	Ballast	6,915	5,032	
Illinois	10	4 05	10	8 35	10	16 29		10 19 40	American	Kokusai Kisen Kaisha	381.0	51.0	27.0	Norfolk, Va.	Yawata, Japan	Scrap steel, etc.	7,865	6,213	4,670
Keifuku Maru	10	9 40	10	9 55	10	17 20		10 19 40	Japanese	Kokusai Kisen Kaisha	381.0	51.0	27.0	Norfolk, Va.	Yawata, Japan	Sulphur, rosin	5,501	6,423	4,744
Victoria	10	9 50	10	10 30	10	18 21		10 19 40	Danish	Canadian Transp. Co.	383.0	54.0	21.0	Pensacola, Fla.	Vancouver, B. C.	Slagging, gen.	2,142	5,434	4,064
Democracy	10	5 05	10	11 25	10	19 15		10 23 22	American	Nelson Line	227.0	52.0	17.8	Charleston, S. C.	Los Angeles, Calif.	General	320	1,033	1,041
Durazzo	9	15 00	10	13 15	10	20 21		10 21 40	German	Horn-Argentine Line	227.0	52.0	17.8	Charleston, S. C.	Los Angeles, Calif.	General	15,560	4,496	
Amerikaland	10	13 37	10	14 15	10	21 37		11 3 35	Swedish	Ore S. S. Corp.	560.0	73.0	22.0	Baltimore, Md.	Guayaquil, Ecuador	Ballast	583	1,270	735
Salvador	27	17 20	11	6 00	11	13 27		11 14 30	British	Pacific Steam Nav. Co.	215.0	52.5	14.0	Cristobal, C. Z.	Champerio, Gust	General	3,290	6,624	5,040
West Camargo	10	13 25	11	5 55	11	13 27		11 15 35	American	Pac-Arg-Brazil Line.	409.0	54.0	19.8	Rosario, Argentine	San Francisco, Cal.	General	8,780	6,581	4,795
Portuaria	10	17 45	11	7 12	11	15 16		11 16 30	American	Calmar S. S. Line.	409.8	54.2	25.3	Batimore, Md.	Bellingham, Wash.	Steel products	7,394	5,069	
Hugonot	10	1 30	11	7 40	11	16 12		11 17 20	American	Richfield Oil Co.	434.0	56.0	18.0	New York, N. Y.	Long Beach, Calif.	Case oil, gen.	9,406	8,378	6,525
Eden Allen	11	1 30	11	8 20	11	17 11		11 18 05	American	Tampa Inter-ocean Co.	439.0	60.0	26.0	New Orleans, La.	Cebu, P. I.	Ballast			
S-10			11	8 35	11	17 26			American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	4,843	6,624	4,757
Pacific Spruce	11	11 50	11	12 10	11	21 57		12 00 55	American	Dumon S. S. Corp.	409.0	54.0	21.0	New York, N. Y.	Seattle, Wash.	General	1,681	6,777	4,761
American	11	12 10	11	13 35	11	20 15		11 23 12	American	Amer-Hawaiian Line.	404.6	53.9	17.0	Boston, Mass.	San Francisco, Cal.	General			

Motor schooner.

Motor ship.

Submarine.

Tug.

Tanker.

Laurits		Norwegian		Fred Olson & Co.		Oslo, Norway		Vancouver, B. C.		(*)	
10	23	20	11	13	55	11	20	59	490	5	2,783
11	14	00	11	14	30	11	22	16	415	0	2,430
11	14	00	11	15	20	11	22	50	470	4	1,033
11	23	25	12	6	05	12	13	15	388	0	853
11	11	23	12	6	10	12	14	19	227	34	6,384
11	4	18	12	6	10	12	15	09	450	0	1,455
12	04	12	7	30	12	15	17	12	381	5	1,572
12	4	35	12	7	30	12	17	13	384	8	8,805
12	6	35	12	8	45	12	18	04	465	6	6,276
12	6	55	12	11	10	12	18	54	301	9	9,521
12	12	00	12	12	15	12	19	50	422	5	5,551
12	12	00	12	12	15	12	19	50	410	2	7,764
12	12	00	12	13	05	12	21	12	450	0	8,201
12	12	00	12	13	05	12	21	12	450	0	4,400
12	12	00	12	13	05	12	21	12	410	5	4,373
12	13	40	12	13	50	12	21	48	390	0	3,597
12	14	05	12	14	30	12	22	55	375	0	6,605
12	6	25	12	14	52	12	22	18	485	0	7,772
12	17	15	13	6	15	13	22	13	435	6	5,551
12	21	35	13	6	15	13	22	13	435	6	5,141
12	23	30	13	7	45	13	14	06	431	0	7,875
12	23	30	13	7	45	13	14	06	431	0	5,821
13	6	55	13	8	45	13	15	37	407	6	7,863
13	2	35	13	9	45	13	15	37	407	6	9,699
9	19	55	13	10	12	13	16	55	216	0	6,510
13	10	15	13	10	15	13	17	29	231	0	27
13	10	15	13	10	15	13	17	29	231	0	6,205
13	16	25	13	12	40	13	19	34	303	0	3,014
13	16	25	13	12	40	13	19	34	303	0	2,596
13	17	35	14	6	05	14	12	56	270	0	6,235
13	16	20	14	6	15	14	13	55	240	0	1,477
13	6	05	14	7	30	14	14	42	586	0	6,325
13	17	20	14	8	20	14	16	04	450	0	3,163
14	1	20	14	9	35	14	17	09	391	9	5,393
14	13	20	14	13	30	14	20	30	251	0	3,017
14	13	50	14	14	00	14	21	19	425	0	6,498
14	10	55	15	6	15	15	13	34	550	0	15,476
14	15	35	15	7	10	15	14	15	416	56	4,354

Paper, cement, and general.

Mine sweeper.

Launch.

⁶ For dry-doc

: Tank

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Durazzo ¹⁰	5	14.15	9	6.24	9	15.00	10	13.15	German	Hamburg-American Line	227.0	34.0	...	Balboa, C. Z.	Cristobal, C. Z.	Ballast.	2,430	2,692	1,808
Lake Gorin	9	00.30	9	6.36	9	14.55	9	14.55	American	Ford Motor Co.	350.4	43.6	21.0	Aberdeen, Wash.	Philadelphia, Pa.	(*) Lumber, copper	6,604	6,327	4,433
Oakmar	8	18.20	9	7.05	9	16.25	9	16.25	American	Calmar S. S. Corp.	284.4	51.2	26.5	Seattle, Wash.	Baltimore, Md.	Nitrates	8,126	7,004	4,549
Impero	8	19.55	9	7.26	9	17.55	9	19.20	Italian	Italo Cilena	442.1	52.7	27.0	Valparaiso, Chile	Mobile, Ala.	Nitrates	7,299	5,849	4,101
Saint Jean	8	18.35	9	7.50	9	18.30	11	10.10	French	French Line	415.0	50.4	26.0	Talcahuano, Chile	Le Havre, France	Nitrates, copper	8,737	7,303	6,790
Havel ¹¹	6	50.9	9	8.28	9	18.50	10	1.10	German	Deutsche German Lloyd	474.1	61.1	27.3	Los Angeles, Calif.	Hamburg, Germany	General	7,671	5,603	3,811
Elsa ¹¹	9	7.20	9	9.16	9	19.05	9	23.35	Norwegian	North German Lloyd	389.0	52.7	24.6	Los Angeles, Calif.	Land's End ¹³	Gasoline	7,559	6,609	4,973
Manizales	9	7.40	9	9.32	9	19.55	9	20.20	German	Chile S. S. Co.	411.5	54.1	23.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	7,655	7,730	5,233
Chileop	8	18.45	9	10.32	9	20.20	9	20.20	American	Quaker Line	395.5	55.0	26.2	Tacoma, Wash.	Wilmington, Del.	Nitrates, copper	16,700	11,710	8,619
San Pedro	9	14.20	9	15.00	9	22.30	9	22.30	American	Standard Oil Co. of Cal.	513.3	68.2	29.6	Los Angeles, Calif.	London, England	Gasoline	7,300	6,055	4,615
California	9	21.45	10	6.17	10	14.30	10	15.30	American	W. Runciman & Co.	375.0	52.6	25.9	Portland, Oreg.	Cork, Ireland	Wheat	4,235	3,983	2,629
Innesmoor	9	21.45	10	7.10	10	15.06	10	15.25	British	Charles Nelson & Co.	375.0	52.6	25.9	Seattle, Wash.	Baltimore, Md.	Lumber, general	4,000	...	...
Sawied	10	1.00	10	7.23	10	16.20	10	16.20	American	U. S. Navy	435.7	56.0	24.6	Los Angeles, Calif.	Cristobal, C. Z.	(*) General	9,862	7,784	6,035
Cuyana ¹¹	9	15.00	10	8.04	10	18.30	10	23.05	Italian	Nav. Libera-Triestina	436.5	55.4	27.0	Vancouver, B. C.	Trieste, Italy	General	7,304	6,536	4,421
Fella ¹¹	10	14.45	10	8.47	10	18.30	10	23.05	British	W. L. Comyn & Co.	415.2	53.3	25.6	Portland, Oreg.	Bremen, Germany	Iron ore	22,146	15,425	4,421
Silkworth	10	14.45	10	15.42	11	13.20	11	13.20	Swedish	Ore S. S. Corp.	562.0	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Cocoa, cafe	3,544	5,726	4,086
Svealand ¹¹	10	1.15	10	16.01	11	8.45	11	14.35	American	Grace Line	360.2	51.6	23.6	Guayaquil, Ecuador	New York, N. Y.	General	756	1,572	1,011
Santa Teresa	10	17.30	10	18.41	11	8.45	11	14.35	German	Hamburg-American Line	227.2	34.4	12.8	Chancay, C. Z.	Cristobal, C. Z.	General	8,353	25,262	18,194
Cerigo	10	15.30	10	18.26	11	11.25	12	6.08	American	Panama-Pacific Line	586.6	80.3	30.0	San Francisco, Cal.	New York, N. Y.	General	1,402	3,667	2,329
Pennsylvania	10	10.25	11	6.08	11	13.45	11	14.25	American	United Fruit Co.	336.7	41.9	20.3	San Francisco, Cal.	Cristobal, C. Z.	General	147	...	...
Suriname	10	16.20	11	6.42	11	14.00	...	...	American	U. S. Army	448.0	56.0	26.0	Honolulu, T. H.	Brooklyn, N. Y.	Army supplies	7,700	6,219	4,611
Chateau	10	21.30	11	7.02	11	15.30	12	10.35	American	Juichi Iwakawa	385.0	51.0	27.3	Hilo, P. I.	Boston, Mass.	Sugar	7,250	6,051	4,612
Thierry ¹²	10	21.30	11	7.20	11	18.20	11	18.20	Japanese	W. Runciman & Co.	375.0	52.6	25.0	Portland, Oreg.	Cobh, Ireland	Wheat	8,750	...	...
Belgium Maru	10	21.55	11	8.08	11	18.55	11	18.55	British	Haldin & Phillips	400.0	53.0	25.3	Cruz Grande, Chile	Baltimore, Md.	General	6,525	5,413	3,965
Northmoor ¹²	11	2.25	11	8.46	11	19.40	11	21.15	British	Scand. So.-Pacific Line	368.5	53.7	23.0	Antofagasta, Chile	Land's End ¹³	General	9,275	...	...
Nollington	11	2.25	11	9.22	11	20.10	11	20.10	Norwegian	Lloyd Royal Belge	471.1	60.5	25.6	Vancouver, B. C.	Antwerp, Belgium	General	7,300	6,583	4,808
Carler	11	5.00	11	9.45	11	21.25	11	23.30	Belgian	Digon S. S. Corp.	410.5	54.3	25.6	Seattle, Wash.	Baltimore, Md.	Lumber	7,000	7,160	5,408
Pacific Pine	11	6.50	11	10.21	11	21.15	11	21.15	American	Sir W. R. Smith & Sons	415.6	53.9	26.0	Portland, Oreg.	Boston, Mass.	General	7,605	8,552	6,236
Fresno City	11	12.05	11	13.32	11	21.55	11	21.55	British	Amer.-Hawaiian Line	404.6	50.1	28.6	San Francisco, Cal.	Boston, Mass.	Sugar	7,499	6,112	4,284
Oregonian	11	13.05	11	14.01	11	22.33	11	22.33	American	Luckenbach Line	446.0	50.1	28.6	Seattle, Wash.	East coast of U. S.	Gas oil	10,400	7,645	5,582
K	11	16.20	11	17.19	12	11.10	12	11.10	American	Standard Transp. Co.	429.3	59.2	26.6	Hilo, P. I.	New York, N. Y.	Nitrates	5,320	4,182	3,047
Lukenbach	11	20.55	12	6.29	12	14.05	12	14.05	Norwegian	F. & W. R. Tison	300.2	46.0	23.0	Antofagasta, Chile	Azores ¹⁴	General	...	...	...
Fennell ¹¹	11	23.50	12	7.22	12	18.15	12	18.15	British	...	...	...	...	...	...	...	...	...	...
Akmar ¹¹	12	8.15	12	9.10	12	19.15	13	1.10	...	...	...	...	...	...	...	...	...	...	...
Laurel Branch	12	8.15	12	9.10	12	19.15	13	1.10	...	...	...	...	...	...	...	...	...	...	...

¹ Tanker.¹⁰ For dry-docking.¹¹ Motor ship.¹² Copper, nitrates, cotton, onions, melons, wool, and beans.¹³ For orders.¹⁴ Lumber and automobile parts.¹⁵ Fuel oil and gasoline.

Min.	12	8.30	12	9.32	12	20.25	12	22.30	British.	Hahn S. S. Co.	400.4	53.1	24.1	Vancouver, B. C.	United Kingdom.	Wheat.	7.435	6.156	4.480
El Cierro	12	8.40	12	9.51	12	20.10	13	3.15	British.	C. T. Bowring & Co.	407.4	52.2	25.0	La Libertad, Vera.	Philadelphia, Pa.	Crude oil.	7,868	6,046	4,326
City of San Francisco	12	9.44	12	10.52	12	18.45			American.	Panama Mail S. S. Co.	296.1	45.9	19.7	San Francisco, Cal.	Cristobal, C. Z.	(²¹)	1,500	3,848	2,606
Tregoln	12	8.30	12	11.47	12	21.20			British.	Andrew Weir & Co.	400.0	52.4	22.0	Surva, Fiji Islands.	United Kingdom.	Copra.	4,457	5,776	4,051
Tokoku Maru.	12	11.45	12	12.19	12	22.10	13	1.20	Japanese.	Kokusai Kisen Kaisha.	385.0	51.0	25.6	Manila, P. I.	New York, N. Y.	Sugar, hemp.	7,225	5,919	4,400
Canadian	12	13.30	12	14.22	12	21.55	13	14.45	British.	Can. Nat. Steamships.	400.0	52.4	23.0	Vancouver, B. C.	St. Johns, N. B.	Lumber, general.	5,861	5,983	4,114
Prospector.	12	13.40	12	14.38	12	22.15	13	17.35	British.	Com'lth & Dom. Line.	480.4	60.3	23.0	Tamatu, N. Z.	London, England.	Frozen products.	5,375	10,785	8,141
Port Darwin.	12	13.40	12	14.38	12	22.15	13	17.35	British.	Com'lth & Dom. Line.	480.4	60.3	23.0	Tamatu, N. Z.	London, England.	Frozen products.	5,375	10,785	8,141
Pacific	12	11.35	12	15.00	12	22.45	13	22.45	British.	Furness, Withy & Co.	450.4	60.8	27.3	Vancouver, B. C.	Glasgow, Scotland.	General.	8,410	10,086	7,226
President	12	11.35	12	15.00	12	22.45	13	22.45	British.	Furness, Withy & Co.	450.4	60.8	27.3	Vancouver, B. C.	Glasgow, Scotland.	General.	8,410	10,086	7,226
Noaa Prince.	12	13.53	12	16.30	13	11.30	13	13.50	American.	N. O. & S. A. S. S. Co.	324.0	46.2	23.0	Talcahuano, Chile.	New Orleans, La.	Nitrates, garle.	4,830	3,983	2,592
Canadotte	12	19.03	12	6.13	13	14.50	13	14.50	British.	Imperial Oil Ltd.	510.9	69.2	30.0	Talara, Peru.	New York, N. Y.	Crude oil.	15,600	11,556	6,012
New Jersey	13	5.00	13	6.36	13	16.05	13	16.05	American.	Texas S. S. Co.	418.8	56.1	26.6	Los Angeles, Calif.	Houston, Tex.	Gasoline.	7,596	6,925	5,074
Willboro.	12	20.00	13	7.15	13	16.30	13	16.30	American.	Williams S. S. Line.	414.7	55.7	27.0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	9,043	7,717	5,763
Canadian	12	22.25	13	7.41	13	17.40	13	19.00	British.	Can. Nat. Steamships.	400.4	52.3	18.6	Auckland, N. Z.	Halifax, N. S.	General.	2,025	5,954	4,139
Conqueror.	12	22.25	13	7.41	13	17.40	13	19.00	British.	Can. Nat. Steamships.	400.4	52.3	18.6	Auckland, N. Z.	Halifax, N. S.	General.	2,025	5,954	4,139
George M.	12	23.10	13	8.24	13	18.25	13	19.20	Greek.	Livinos Bros.	380.8	52.0	22.0	Salaverry, Peru.	Liverpool, England.	Sugar.	7,022	5,243	3,755
Venezuela.	13	5.20	13	13.25	13	20.45	15	10.15	American.	Panama Mail S. S. Co.	380.0	48.7	23.0	Manila, P. I.	New York, N. Y.	General.	1,678	6,053	4,353
Victorious.	13	7.15	13	14.26	13	22.15	14	14.55	American.	Tampa Intercoast Co.	440.0	56.0	26.6	Manila, P. I.	New Orleans, La.	(²⁴)	8,029	8,328	6,036
Chetopa.	13	13.05	13	15.07	13	22.55	15	22.45	American.	Charles Nelson & Co.	324.0	46.2	24.0	Seattle, Wash.	Baltimore, Md.	General.	3,925	3,984	2,628
Barlet.	13	14.03	13	15.48	13	23.22	16	6.00	Dutch.	Royal Neth. S. S. Co.	202.9	33.1	12.0	Guayaquil, Ecuador.	Cristobal, C. Z.	General.	370	1,183	742
Virgilia.	13	15.05	14	6.08	14	13.50	14	13.50	British.	Gow, Harrison & Co.	410.3	54.5	23.6	Los Angeles, Calif.	Dunkirk, France.	Gasoline.	7,181	6,089	4,380
Eleanor	13	21.05	14	6.45	14	14.40	14	14.40	American.	Arrow Line.	410.5	54.3	24.7	N. Westminster, B. C.	Providence, R. I.	Lumber.	7,267	5,572	4,788
Christenson.	13	21.05	14	6.45	14	14.40	14	14.40	American.	Arrow Line.	410.5	54.3	24.7	N. Westminster, B. C.	Providence, R. I.	Lumber.	7,267	5,572	4,788
Edgar F.	13	21.10	14	7.01	14	15.25	14	15.25	American.	Luckenbach Line.	425.0	57.3	25.0	Portland, Oreg.	Mobile, Ala.	General.	4,198	8,568	6,048
Luckenbach.	13	21.10	14	7.01	14	15.25	14	15.25	American.	Luckenbach Line.	425.0	57.3	25.0	Portland, Oreg.	Mobile, Ala.	General.	4,198	8,568	6,048
Dallington Court	14	3.30	14	8.11	14	18.00	15	10.30	German.	Hamburg-American Line	338.7	46.4	16.0	Vancouver, B. C.	London, England.	Lumber, grain.	9,579	6,213	4,382
Isertohn.	14	3.30	14	8.11	14	18.00	15	10.30	German.	Hamburg-American Line	338.7	46.4	16.0	Vancouver, B. C.	London, England.	Lumber, grain.	9,579	6,213	4,382
Texan.	14	5.57	14	8.34	14	18.10	14	18.10	American.	Amer-Hawaiian Line	471.0	57.2	29.0	Champerico, Guat.	Hamburg, Germany	General.	9,380	9,154	6,966
Cid.	14	8.50	14	9.51	14	18.20	15	13.45	British.	Pacific Steam Nav. Co.	264.8	44.1	18.0	Seattle, Wash.	Boston, Mass.	Lumber.	9,380	9,154	6,966
Santore.	14	9.55	14	11.16	14	20.10	14	20.10	American.	Ore S. S. Corp.	449.1	57.2	29.6	Crux Grande, Chile	New York, N. Y.	(²⁵)	1,011	2,746	1,628
Doehet.	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
Pearl Marie	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
Bagdudoe	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2	19.0	Portland, Oreg.	Baltimore, Md.	Iron ore	12,008	7,805	5,139
S-10	14	16.55	14	17.40	15	11.20	15	11.20	American.	Redwood Line, Inc.	386.8	52.2							

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 9...	Pastores.	United Fruit Co.	Port Limon, C. R.	February 9...	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
February 9...	No. 9685 ²⁶ .	Pan-American Airways	Barbados via waypoints.	February 9...	Pastores.	United Fruit Co.	New York via Habana.
February 10...	No. 9688 ²⁶ .	Pan-American Airways	Managua via waypoints.	February 9...	Gruewald	Hamburg-American Line.	Cartagena, Colombia.
February 10...	Stuyvesant	Royal Neth. S. S. Co.	Amsterdam via waypoints	February 9...	Kungsholm.	Swedish-American Line.	New York via waypoints.
February 10...	Buenos Aires	Spanish Line.	Barcelona via waypoints.	February 10...	Escupe Fuego ²⁸	P. Martinez & A. Connelly	Bluefields, Nicaragua.
February 11...	Duchess of Athol.	Canadian-Pacific S. S. Co.	Glasgow via waypoints.	February 10...	Heredia	United Fruit Co.	New Orleans and waypoints.
February 11...	Statendam	Holland-American Line.	New York via waypoints.	February 10...	Gladiator	T. & J. Harrison.	New Orleans, La.
February 12...	Carare.	Elders & Fyffes Line.	Avonmouth via waypoints.	February 10...	Stuyvesant	Royal Neth S. S. Co.	Port Limon, C. R.
February 12...	Irona.	United Fruit Co.	Hamburg via Bocas.	February 11...	No. 144-M ²⁶	Pan-American Airways	Willemstad via waypoints.
February 12...	Cristobal	Panama R. R. S. S. Line.	Hamburg via waypoints.	February 11...	No. 9644 ²⁶	Pan-American Airways	Tela via waypoints.
February 12...	Anacuena ²⁷	United Fruit Co.	New York via Haiti.	February 11...	No. 945-M ²⁶	Pan-American Airways	Guayaquil via waypoints.
February 12...	Ulua.	United Fruit Co.	New York via waypoints.	February 12...	Carare	Elders & Fyffes Line.	Colon, R. P.
February 12...	Wauita	Stand. Fruit & S. S. Co.	San Blas, R. P.	February 12...	Wauita	Stand. Fruit & S. S. Co.	Avonmouth via waypoints.
February 12...	Swiftwind	United Fruit Co.	New York via Kingston.	February 12...	Irona	United Fruit Co.	La Ceiba
February 12...	Darten C-35 ²⁶	Seadta Airplane Co.	Curacao, D. W. I.	February 12...	Statendam	Holland-American Line.	Bocas, R. P.
February 12...	Casilla	United Fruit Co.	Barraquilla via waypoints.	February 12...	Duchess of Athol.	Canadian-Pacific S. S. Co.	New York via waypoints.
February 13...	No. 9664 ²⁶	Pan-American Airways	Curacao via waypoints.	February 12...	Rugia	Hamburg-American Line.	La Guayra, Venezuela.
February 13...	Arandora Star	Blue Star Line	Tela via waypoints.	February 13...	Casilla	Spanish Line.	Port Limon, C. R.
February 13...	Atlantida	Stand. Fruit & S. S. Co.	London via waypoints.	February 13...	Swiftwind	United Fruit Co.	Barcelona via waypoints.
February 14...	CundinamarcaC-33 ²⁶	Seadta Airplane Co.	New Orleans via Habana	February 13...	Sixola	Shell Oil Co.	Puerto Colombia.
February 14...	P-10 ²⁶	United States Government.	Buenaventura, Colombia.	February 13...	Ulua.	United Fruit Co.	Curacao, D. W. I.
February 14...	No. 945-M ²⁶	Pan-American Airways	Managua, Nicaragua.	February 13...	Darten C-35 ²⁶	Seadta Airplane Co.	New York via waypoints.
February 14...	Mayan	Gulf-Caribbean S. S. Line.	Guayaquil via waypoints.	February 13...	Texas	U. S. Navy	Port Limon, C. R.
February 15...	Irona.	United Fruit Co.	Tampa via waypoints.	February 13...	Nevada.	U. S. Navy	Barranquilla via waypoints.
February 15...	Stuyvesant	Royal Neth S. S. Co.	Bocas, R. P.	February 13...	Oklahoma ²⁷	U. S. Navy	Guantanamo, Cuba.
February 15...	Macabi	United Fruit Co.	Port Limon, C. R.	February 13...	Wyoming ²⁷	U. S. Navy	Guantanamo, Cuba.
February 15...	Wanks	Stand. Fruit & S. S. Co.	New York via waypoints.	February 13...	Arkansas ²⁷	U. S. Navy	Guantanamo, Cuba.
February 15...	Cartago.	United Fruit Co.	San Blas, R. P.	February 13...	Utah ²⁷	U. S. Navy	Guantanamo, Cuba.
February 15...	Arandora Star	R. Feuillebois	New Orleans via Habana	February 13...	Florida ²⁷	U. S. Navy	Guantanamo, Cuba.
February 15...	Arandora Star	U. S. Navy	Colon, R. P.	February 15...	Atlantida.	Stand. Fruit & S. S. Co.	New Orleans via waypoints.
February 15...	Anacuena ²⁷	A. Tagarapulos	Colon, R. P.	February 15...	CundinamarcaC-33 ²⁶	Seadta Airplane Co.	Buenaventura via waypoints.
February 15...	Inapaquina ²⁷	United Fruit Co.	Colon, R. P.	February 15...	Annetta I. ²⁷	A. Tagarapulos	Colon, R. P.
February 15...		United Fruit Co.	Colon, R. P.	February 15...	Anacuena ²⁷	United Fruit Co.	Colon, R. P.
February 15...				February 15...	Inapaquina ²⁷	United Fruit Co.	Colon, R. P.
February 15...				February 15...	R. Feuillebois.	R. Feuillebois.	Bluefields via San Andres.
February 15...				February 15...	Arandora Star.	Blue Star Line	Southampton via waypoints.
February 15...				February 15...	No. 9685 ²⁶	Pan-American Airways	Tela via waypoints.
February 15...				February 15...	Irona.	United Fruit Co.	New Orleans, La.

²⁶ Air mail carrier. ²⁷ Motor boat. ²⁸ Motor schooner. *Other than ships passing through the Canal.

(Continued on page 408, column 2.)

Commercial Traffic Through the Panama Canal in January, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of January, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for January, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes, and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States.....	80	447,858	342,297	553,042	342,361	\$382,557.77	188,148
East coast of United States to west coast of South America:							
British.....	7	30,757	240,077	41,211	25,251	26,027.74	7,968
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	2,043
Danzig.....	1	6,063	5,196	8,932	5,002	4,365.36	.....
Greek.....	1	4,482	3,346	5,600	3,333	4,182.50	6,345
Norwegian.....	1	5,219	5,207	7,041	5,234	3,905.25	.....
Swedish.....	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States.....	17	68,583	55,632	94,977	55,808	53,789.54	12,946
Totals.....	30	128,673	104,377	195,747	107,366	102,991.88	29,302
East coast of United States to Far East:							
British.....	6	31,056	20,766	34,756	20,857	25,957.50	33,748
Danish.....	1	3,531	2,421	3,953	2,394	3,026.25	5,673
Japanese.....	9	46,896	40,090	58,777	39,358	49,739.45	64,496
Norwegian.....	4	17,270	9,664	16,735	9,723	12,080.00	26,334
Swedish.....	1	5,213	4,170	6,865	4,972	5,212.50	8,875
United States.....	5	26,583	18,307	29,656	18,291	22,883.75	38,009
Totals.....	26	130,349	95,418	150,742	95,565	118,899.45	177,130
Europe to west coast of Canada:							
British.....	9	54,636	39,335	63,590	39,440	46,194.63	8,713
Danish.....	1	5,663	5,188	6,913	5,218	6,485.00	5,483
Dutch.....	2	14,607	10,323	16,709	10,309	12,903.75	7,085
French.....	3	17,371	12,856	21,290	13,172	16,070.00	6,435
German.....	1	6,344	3,826	6,780	4,057	4,782.50	7,107
Italian.....	1	6,054	5,031	7,061	4,460	6,288.75	2,920
Norwegian.....	1	6,140	5,261	8,518	5,341	6,576.25	7,398
Swedish.....	2	10,521	6,187	10,602	7,985	7,733.75	9,833
Totals.....	20	121,336	88,007	141,463	89,982	107,034.63	54,974
Europe to west coast of South America:							
British.....	6	27,191	22,471	36,139	22,702	26,893.47	20,259
Dutch.....	3	17,748	11,393	19,402	11,440	14,241.25	15,741
Danzig.....	1	6,127	5,268	8,939	5,007	4,411.44	.....
French.....	2	9,296	7,992	12,616	7,941	9,990.00	5,947
German.....	4	20,593	14,189	23,252	14,328	17,736.25	18,747
Norwegian.....	2	5,226	3,461	5,793	3,472	4,326.25	8,434
Totals.....	18	86,181	64,774	106,121	64,890	77,598.66	69,128
Europe to west coast of United States:							
British.....	3	13,861	11,376	18,765	11,162	9,979.92	.....
Danzig.....	2	12,237	10,553	17,684	10,076	8,810.64	.....
Dutch.....	1	3,625	3,130	5,131	2,999	2,610.00	.....
French.....	1	5,050	4,356	7,011	3,989	3,636.00	.....
German.....	1	6,844	4,449	7,262	4,433	5,561.25	3,211
Norwegian.....	7	33,063	24,740	40,716	24,440	24,327.00	21,613
Swedish.....	1	6,295	5,189	8,945	6,592	4,532.40	.....
Totals.....	16	80,975	63,791	105,514	63,691	59,457.21	24,824

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal to west coast of South America:							
Colombian.....	3	440	441	673	441	\$532.45	140
Dutch.....	2	1,466	588	1,560	646	735.00	131
German.....	5	4,532	2,777	5,500	2,890	3,471.25	981
United States.....	1	55	67	98	67	50.25	.....
Totals.....	11	6,493	3,873	7,831	4,044	4,788.95	1,252
East coast of United States to Australasia:							
British.....	3	18,831	14,038	22,393	14,078	17,547.50	11,831
Norwegian.....	3	13,712	7,889	13,470	7,907	9,861.25	15,731
United States.....	2	10,501	7,866	12,417	7,705	9,832.50	5,107
Totals.....	8	43,044	29,793	48,280	29,690	37,241.25	32,669
Europe to Australasia:							
British.....	6	57,779	41,314	69,159	42,799	51,642.50	48,306
Swedish.....	1	5,122	3,129	5,293	4,046	3,911.25	3,670
Totals.....	7	62,901	44,443	74,452	46,845	55,553.75	51,976
East coast of United States to Philippine Islands:							
British.....	2	12,182	6,730	12,036	6,747	8,412.50	7,625
Panamanian.....	1	6,967	3,963	6,604	4,057	4,953.75	6,628
United States.....	1	6,183	5,780	7,717	5,791	7,225.00	6,693
Totals.....	4	25,332	16,473	26,357	16,595	20,591.25	20,946
Cristobal to west coast of United States:							
United States.....	4	9,596	7,744	12,727	7,714	9,626.95	2,689
Foreign vessels in ballast— United States inter- coastal:							
Belgian.....	1	4,976	4,568	7,138	3,988	3,582.72	.....
British.....	2	9,025	6,428	11,507	6,235	6,498.00	.....
Totals.....	3	14,001	10,996	18,645	10,223	10,080.72	.....
Around the world:							
United States.....	3	31,351	25,108	41,654	25,075	31,385.00	8,734
East coast of South America to west coast of United States:							
British.....	1	4,627	3,139	5,082	3,088	3,331.44	.....
Dutch.....	1	5,065	4,540	7,412	4,235	3,646.80	.....
United States.....	1	4,967	3,670	5,785	3,664	4,587.50	3,405
Totals.....	3	14,659	11,349	18,279	10,987	11,565.74	3,405
East coast of South America to west coast of Canada:							
British.....	1	5,278	4,678	8,932	5,144	5,847.50	12,211
Norwegian.....	1	5,135	2,909	4,963	3,045	3,636.25	658
United States.....	1	5,049	3,545	5,603	3,547	4,431.25	3,367
Totals.....	3	15,462	11,132	19,498	11,736	13,915.00	16,236
Cristobal to west coast of Central America:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	3,410
East coast of United States to Hawaiian Islands:							
United States.....	2	7,090	5,505	8,870	5,391	6,881.25	12,135
East coast of Canada to Aus- traliasia:							
British.....	2	8,541	6,567	10,809	6,575	8,208.75	6,693
West Indies to west coast of South America:							
British.....	1	.....	.....	.....	.....	*3,000.00	.....
United States.....	1	305	307	451	307	230.25	.....
Totals.....	2	305	307	451	307	3,230.25	.....
East coast of Central America to Australasia:							
British.....	2	9,499	7,574	9,660	5,783	9,235.15	12,803

* Naval vessel of 6,000 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Canadian intercoastal:							
British.....	1	4,159	3,301	5,497	3,384	\$4,126.25	2,014
East coast of United States to west coast of Canada:							
British.....	1	4,212	2,996	4,803	2,976	3,032.64	.....
Africa to west coast of United States:							
British.....	1	4,126	3,173	5,225	3,190	2,970.72	.....
West Indies to west coast of United States:							
United States.....	1	3,913	3,850	5,105	3,749	2,887.50	.....
Europe to west coast of Central America:							
German.....	1	2,731	2,171	3,704	2,145	2,713.75	2,910
East coast of Canada to west coast of South Amer- ica:							
British.....	1	1,570	1,457	2,631	1,394	1,130.40	.....
East coast of Central America to west coast of South America:							
Belgian.....	1	1,676	928	1,733	968	1,160.00	2,500
East coast of South America to Far East:							
Japanese.....	1	5,821	4,170	7,267	4,387	5,212.50	773
Africa to Australasia:							
British.....	1	4,702	2,920	4,714	2,988	3,650.00	6,921
Cristobal to Balboa:							
Panamanian.....	1	25	25	42	.....	18.75	.....
Grand totals, January, 1930...	257	1,279,609	967,089	1,595,694	972,716	1,100,956.12	733,572
Grand totals, January, 1929...	303	1,385,682	1,062,520	1,748,639	1,069,766	1,179,256.79	759,820
Grand totals, January, 1928...	285	1,287,487	998,787	1,616,531	998,084	1,109,055.44	641,708

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	95	497,666	380,898	613,062	379,869	\$474,654.75	710,029
West coast of Canada to Europe:							
Belgian.....	2	9,617	8,308	10,805	6,782	10,385.00	12,889
British.....	17	87,507	63,009	99,349	61,418	78,620.25	121,870
Danish.....	1	5,317	4,219	6,645	4,244	5,273.75	8,988
Dutch.....	1	8,266	6,197	10,220	6,385	7,746.25	9,523
French.....	1	5,454	4,124	6,903	4,154	5,155.00	8,583
German.....	6	37,136	24,221	40,124	24,603	30,276.25	46,759
Italian.....	1	6,025	5,056	7,098	4,498	6,320.00	8,953
Norwegian.....	3	14,314	9,108	14,427	9,222	11,385.00	20,449
Swedish.....	1	5,533	3,430	5,554	4,225	4,287.50	7,416
United States.....	1	5,099	3,724	5,856	3,654	4,655.00	8,039
Totals.....	34	184,268	131,396	206,981	129,185	164,104.00	253,469
West coast of South America to east coast of United States:							
British.....	10	44,219	35,612	60,436	36,594	44,515.00	69,734
Chilean.....	2	7,768	6,066	10,889	6,233	7,582.50	8,371
Danish.....	2	5,349	5,056	5,512	3,323	6,257.80	8,960
German.....	1	4,744	3,442	5,590	3,480	3,415.68	.....
Greek.....	1	4,292	2,720	4,349	2,686	3,400.00	8,400
Japanese.....	1	4,305	3,421	5,467	3,409	4,276.25	7,661
Norwegian.....	1	5,027	4,288	7,203	4,285	5,360.00	9,800
Panamanian.....	1	4,897	4,014	6,386	4,067	5,017.50	8,900
Swedish.....	2	8,917	7,486	30,676	8,762	9,357.50	44,044
United States.....	13	54,104	43,463	71,770	43,469	54,183.05	105,895
Totals.....	34	143,622	115,568	208,278	116,308	143,365.28	271,765
West coast of United States to Europe:							
Belgian.....	1	5,410	4,949	8,401	4,601	6,186.25	9,452
British.....	14	65,547	49,596	79,791	48,539	61,995.00	101,346
Danish.....	1	2,791	1,875	3,173	1,928	2,343.75	2,175
Danzig.....	1	5,927	5,207	8,744	5,026	6,508.75	11,495

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of United States to Europe—Continued:							
Dutch.....	1	4,395	3,754	5,789	3,381	\$4,692.50	7,652
French.....	2	11,975	11,070	16,128	10,721	13,759.65	23,558
Japanese.....	1	4,574	4,203	5,834	4,094	5,253.75	6,829
Norwegian.....	6	30,186	25,729	42,526	25,497	32,161.25	55,687
Swedish.....	1	3,335	3,167	5,616	4,024	3,958.75	7,112
United States.....	1	5,198	4,129	6,805	4,167	5,161.25	11,129
Totals.....	29	139,338	113,679	182,807	111,978	142,020.90	236,435
West coast of South America to Europe:							
Belgian.....	1	4,792	4,142	6,511	4,172	5,177.50	8,136
British.....	6	35,093	28,945	47,340	29,346	34,555.80	33,926
Danzig.....	1	5,929	5,193	8,745	5,026	6,491.25	11,000
Dutch.....	2	13,724	8,051	14,224	8,048	10,063.75	17,935
French.....	2	8,548	7,567	11,218	7,570	9,325.80	14,118
German.....	6	29,479	21,227	33,801	20,714	26,533.75	39,896
Italian.....	1	9,373	5,223	11,669	6,779	6,528.75	2,146
Norwegian.....	2	7,676	6,001	9,895	6,051	7,501.25	12,230
Yugoslav.....	1	4,700	4,019	5,965	3,772	5,023.75	9,500
Totals.....	22	119,314	90,368	149,368	91,478	111,201.60	148,887
West coast of South America to Cristobal:							
Colombian.....	2	326	328	466	332	\$91.20	425
Dutch.....	2	1,484	588	1,560	646	735.00	571
German.....	5	4,532	2,777	5,460	2,890	3,471.25	4,563
Totals.....	9	6,342	3,693	7,486	3,868	4,597.45	5,559
Philippine Islands to east coast of United States:							
Danish.....	1	2,967	1,920	3,177	1,931	2,400.00	5,000
Japanese.....	4	21,326	17,787	27,358	17,404	22,054.30	23,649
Norwegian.....	1	4,859	2,619	4,444	2,669	3,273.75	7,750
United States.....	3	15,849	13,900	18,723	13,004	17,246.55	22,829
Totals.....	9	45,001	36,226	53,702	35,008	44,974.60	59,228
Australasia to Europe:							
British.....	8	64,429	45,632	73,732	45,690	57,040.00	54,927
West coast of Canada to east coast United States:							
Japanese.....	1	4,541	3,395	5,671	3,468	4,243.75	6,591
United States.....	6	28,507	21,552	34,834	21,476	26,940.00	42,364
Totals.....	7	33,048	24,947	40,505	24,944	31,183.75	48,855
West coast of United States to Cristobal:							
United States.....	5	10,850	9,451	15,478	9,442	11,813.75	3,885
West coast of South America to east coast of Canada:							
British.....	1	1,570	1,457	2,631	1,394	1,821.25	3,150
Norwegian.....	1	6,287	5,474	8,998	5,217	6,842.50	12,560
Totals.....	2	7,857	6,931	11,629	6,611	8,663.75	15,710
Far East to east coast of United States:							
Japanese.....	2	9,244	8,130	11,865	8,082	9,966.25	10,250
Australasia to east coast of Canada:							
British.....	2	8,309	6,632	10,985	6,689	8,290.00	3,028
West coast of Central America to Cristobal:							
British.....	2	2,322	1,930	3,661	2,061	2,412.50	1,533
West coast of United States to east coast of South America:							
Norwegian.....	1	5,246	2,949	4,883	2,999	3,686.25	4,817
West coast of United States to West Indies:							
Danish.....	1	5,623	4,670	7,691	4,710	5,837.50	11,472
Hawaiian Islands to east coast of United States:							
United States.....	1	1,740	1,542	2,647	1,542	1,927.50	3,266

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Australasia to east coast of United States:							
British.....	1	4,315	3,102	4,963	3,158	\$3,877.50	7,600
United States.....	2	9,965	7,601	12,155	7,574	9,501.25	9,414
Totals.....	3	14,280	10,703	17,118	10,732	13,378.75	17,014
Canadian intercoastal:							
British.....	1	4,186	3,322	5,439	3,336	4,152.50	6,087
West coast of Canada to West Indies:							
British.....	1	2,207	1,239	2,338	1,249	1,548.75	3,344
West coast of Central America to east coast of United States:							
German.....	1	5,282	3,645	6,040	3,613	3,803.04	.....
West coast of Central America to West Indies:							
British.....	1	.....	.....	.....	.....	* 562.00	.....
West coast of Central America to Europe:							
Belgian.....	1	1,311	1,209	1,921	1,094	1,511.25	600
West coast of South America to West Indies:							
British.....	1	4,345	3,757	6,094	3,668	3,128.40	.....
Far East to West Indies:							
Japanese.....	1	4,959	3,636	5,784	3,608	4,545.00	7,800
Balboa to Europe:							
British.....	1	1,230	1,071	1,743	1,095	885.60	.....
Grand totals, January, 1930...	274	1,322,019	1,013,224	1,651,237	1,008,859	1,259,255.12	1,878,060
Grand totals, January, 1929...	300	1,385,598	1,055,292	1,722,295	1,052,355	1,323,558.33	2,099,015
Grand totals, January, 1928...	255	1,135,283	886,265	1,447,737	886,454	1,103,697.06	1,730,353

* Naval vessel of 1,124 displacement tons.

New Reardon Smith Motor Ship Transits Canal.

The new motor ship *Fresno City*, owned and operated by the Reardon Smith Line, transited the Canal on February 11, 1930, on the homeward voyage of her initial run between the United Kingdom and the west coast of North America. The vessel, which is the newest of the group of freighters building for this service by the Reardon Smith Line, is 415 feet long, 55 feet beam, and of 4,954 gross tons. She carried 7,000 tons of cargo on her homeward passage, consisting principally of wheat, barley, canned goods, wood pulp, and dried fruits.

Cargo Through Canal During January, 1930.

On pages 406 and 407 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in January, 1930. This cargo, segregated according to direction, as compared with January, 1929, and the differences, are shown in the following tabulation:

	January, 1930.	January, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	733,572	759,820	-26,248
Pacific to Atlantic.....	1,878,060	2,099,015	-220,955
Totals.....	2,611,632	2,858,835	-247,203

It will be noted from the above that the Atlantic to Pacific tonnage decreased 26,248 tons as compared with January, 1929, and that from the Pacific to Atlantic 220,955 tons, making a total decrease of cargo tonnage in both directions of 247,203 tons. This heavy decrease was

accounted for by curtailment in shipments of several important commodities, as indicated under "Principal commodities."

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-three and eight-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 26.9 per cent in Europe. Tonnage originating in the United States decreased 49,677 tons, or 9.6 per cent, as compared with the cargo tonnage from the United States in January, 1929, and the proportion of the total cargo was also lower in January, 1930. Cargo from Europe showed a proportionate as well as a small actual increase over January, 1929—197,076 tons in January, 1930, as compared with 183,986 tons in the corresponding month a year ago, a gain of 13,090 tons, or 7.1 per cent.

Destination.—Thirty-six and two-tenths per cent of the Pacific-bound cargo was destined to the United States; 27.2 per cent to Asia; 15.1 per cent to Australasia; and 13.9 per cent to South America. Tonnage to the United States showed a heavy decrease in its proportion to the total cargo tonnage as compared with January, 1929, and an actual decrease in tonnage of 68,931, or 20.6 per cent. The amounts destined to Asia, Australasia, and South America all increased in their relation to the total cargo as compared with the corresponding month a year ago, and showed actual gains of 34,150 tons, or 20.6 per cent; 10,524 tons, or 10.4 per cent; and 11,381 tons, or 12.6 per cent.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 56.9 per cent came from the United States, 23.5 per cent from South America, 10.9 per cent from Canada, 4.1 per cent from Asia, and 4.0 per cent from Australasia. Cargo from the United States increased 95,546 tons, or 9.8 per cent, over January, 1929, and also increased substantially in its proportion to the total cargo. Cargo destined to the other aforementioned areas decreased in tonnage as follows: To South America, 155,008 tons, or 25.9 per cent; to Canada, 142,226 tons, or 41.0 per cent; to Asia, 12,445 tons, or 14.0 per cent; and to Australasia, 3,560 tons, or 4.5 per cent. Tonnage from South America and Canada also registered decreases in their respective proportions to the total cargo as compared with January, 1929, while that to Asia and Australasia were approximately the same. Lessened nitrate shipments from South America and wheat shipment from Canada contributed principally to the heavy decreases from these areas.

Destination.—Segregated according to destination, 59 per cent of the cargo in this direction went to the United States, and 36.7 per cent to Europe. Tonnage to the United States increased 96,175 tons, or 9.5 per cent, showing also a heavy increase in its proportion to the total cargo tonnage. That to Europe decreased 302,576 tons, or 30.5 per cent, while the proportion which the cargo destined to this area formed of the total Atlantic-bound cargo dropped from 47.3 per cent to 36.7 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 90 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 10 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for January, 1930, or January, 1929, are listed in the following tabulation, showing differences:

Commodity.	January, 1930.	January, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	15,966	7,994	+7,972
Asphalt.....	17,485	7,537	+9,948
Automobiles.....	12,049	14,414	-2,365
Cement.....	36,608	32,425	+4,183
Coal and coke.....	10,774	11,797	-1,023
Cotton.....	31,902	32,431	-529
Manufactured goods:			
Iron and steel.....	158,083	196,308	-38,225
Machinery.....	12,793	16,064	-3,271
Railroad material.....	10,530	14,575	-4,045
Tinplate.....	22,361	31,929	-9,568
Textiles.....	10,809	7,743	+3,066
Miscellaneous.....	10,303	21,665	-11,362
Metals, various.....	27,933	17,007	+10,926
Oils, mineral.....	47,620	44,819	+2,801
Paper.....	24,145	15,891	+8,254
Phosphates.....	68,621	11,166	+57,455
Slag.....	2,470	17,245	-14,775
Sulphur.....	16,501	18,786	-2,285
Tobacco.....	11,530	5,231	+6,299

The above 19 commodity groups comprise 74.7 per cent of the cargo moving from the Atlantic to the Pacific during January, 1930. As will be noted, 9 of the items showed increases while 10 registered decreases. The heaviest decrease was in the shipment of manufactures of iron and steel, principally in the United States intercoastal trade. Phosphates showed the heaviest increase, the majority of the gain being in shipments from the United States to the Far East.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify about 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of January, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	January, 1930.	January, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Beans.....	16,630	34,076	-17,446
Canned goods (fish, fruit, vegetables, etc.).....	80,014	105,824	-25,810
Coffee.....	13,623	14,567	-944
Cold storage (food products) *.....	32,691	38,459	-5,768
Cotton.....	13,415	12,864	+551
Flour.....	8,659	11,492	-2,833
Fruit, dried.....	14,907	31,353	-16,446
Fruit, fresh.....	17,123	24,241	-7,118
Lumber.....	296,059	229,743	+66,316
Metals, various.....	49,106	56,890	-7,784
Nitrates.....	174,410	358,660	-184,190
Oils, mineral.....	596,696	509,841	+86,855
Ores.....	175,440	120,594	+54,846
Paper pulp.....	13,302	3,967	+9,335
Sugar.....	48,302	46,200	+2,102
Wheat.....	141,834	330,500	-188,666
Wool.....	16,092	22,289	-6,197

* Does not include fresh fruit.

The above 17 commodity groups comprise 91 per cent of the cargo moving from the Pacific to the Atlantic during January, 1930. Six of the items show increases and 11 decreases. Of the latter, shipments of wheat and nitrates fell off 188,666 tons, and 184,190 tons, respectively, as compared with January, 1929. Shipments of mineral oils, lumber, and ores registered the largest increases.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, January, 1930.

(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.					SOUTH AMERICA.					AUSTRALASIA.					ASIA.					Grand totals.	Per cent of total cargo.		
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. *	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. †	Total, South America.	Australia.	New Zealand.	Australasia. †	Total, Australasia.	Philippine Islands.	China.	Japan.	Far East. ‡			Total, Asia.	
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports.....	161,094	210	1,066	16,10	155,172	541	13,246	757	583	3,567	6,261	24,414	16,690	3,386	.....	20,076	7,144	21,566	38,218	14,402	81,330	298,361	40.7	
South Atlantic ports.....	3,691	.....	.....	.....	3,691	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	85	1,300	4,074	25	5,709	9,400	1.3	
Gulf ports.....	31,843	76	.....	.....	31,919	1,843	338	127	582	.....	24	2,974	10,943	1,650	.....	12,503	1,249	3,893	81,918	25,350	112,440	159,926	21.8	
Totals, United States.....	196,628	286	1,066	16,10	155,208	151	15,080	1,155	710	4,149	6,285	27,388	27,633	5,036	.....	32,669	8,478	26,759	124,240	40,002	199,479	467,687	63.8	
Canada—																								
East coast of Canada.....	2,014	.....	.....	.....	2,014	.....	.....	.....	.....	.....	.....	.....	2,093	4,600	.....	6,693	.....	.....	.....	.....	.....	8,707	1.2	
East coast of Central America.....	3,016	.....	6,780	.....	9,796	2,171	846	496	1,056	1,986	.....	2,500	12,803	.....	12,803	.....	.....	.....	.....	.....	.....	15,303	2.1	
Cristobal, C. Z. *	176	20	.....	.....	196	10	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	16,351	2.2	
West Indies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	206	.....	
Totals, North America.....	199,820	2,320	7,846	16,10	155,220	157	19,770	2,001	1,206	5,205	8,271	36,453	42,529	9,636	.....	52,165	8,478	26,759	124,240	40,002	199,479	508,254	69.3	
EUROPE:																								
British Isles.....	3,941	5,417	.....	31	9,389	1,492	20	133	1,836	6,414	9,895	.....	.....	40,216	.....	40,216	.....	.....	.....	.....	.....	59,500	8.1	
Belgium.....	30,574	2,005	1,500	171	34,250	9,032	752	127	2,243	406	12,560	.....	.....	8,090	.....	8,090	.....	.....	.....	12	.....	54,912	7.5	
Denmark.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	
France.....	4,728	1,632	130	.....	6,490	1,041	.....	93	155	200	1,489	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,979	1.1	
Germany.....	3,452	148	.....	276	3,876	1,420	16	5	1,647	159	3,247	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,123	1.0	
Holland.....	2,839	868	.....	88	3,795	2,891	40	386	852	1,506	5,675	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,470	1.3	
Italy.....	1,601	1,020	705	.....	3,326	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,326	0.5	
Norway and Sweden.....	7,370	213	1,452	2,565	11,600	4,249	.....	.....	306	1,576	6,131	.....	.....	3,670	.....	3,670	.....	.....	.....	.....	.....	21,401	2.9	
Spain and Portugal.....	15	.....	45	.....	60	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	180	.....	
Europe †.....	3,981	825	2,356	.....	7,162	7,998	1,333	223	2,076	14,392	20,022	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33,184	4.5	
Totals, Europe.....	58,501	12,129	6,188	3,131	79,949	28,243	2,161	997	9,115	24,653	65,139	.....	.....	51,976	.....	51,976	.....	.....	.....	12	.....	12,197,076	26.9	
South America:																								
East coast of South America.....	6,581	14,211			20,792			68										30	431			461	21,321	2.9
Africa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,921	0.9	
Grand totals.....	264,902	28,660	14,034	3,147	10,155	320,898	48,013	4,230	2,173	14,320	32,924	101,660	42,529	98,533	.....	111,062	8,478	26,780	124,671	40,014	199,952	733,572	100.0	
Per cent of total cargo:																								
January 1930.....	36.2	3.9	1.9	0.4	1.4	43.8	6.5	0.6	0.3	2.0	4.5	13.9	5.8	9.3	.....	15.1	1.1	3.6	17.0	5.5	27.2	100.0	.....	
January 1929.....	43.9	2.9	4.0	0.2	2.1	53.1	3.1	1.5	0.3	2.0	5.0	11.9	5.2	8.0	.....	13.2	0.9	4.9	12.0	4.0	21.8	100.0	.....	
January 1928.....	39.6	1.8	3.4	0.2	1.3	46.3	2.4	1.6	0.3	1.9	7.9	14.1	7.1	8.1	1.5	16.7	1.8	5.9	13.0	2.2	22.9	100.0	.....	

† General cargo not routed so as to allow segregation between definite ports. * Includes both local and transit cargo.

* General cargo not routed so as to allow segregation between definite ports.

* Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, January, 1930.
(Figures represent tons of 2,240 pounds.)

From—	North America.										Europe.												Grand totals.	Per cent of total cargo.
	United States.					East coast of Cen- tral America.					Europe.					East coast of South America.		Egypt.						
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Cen- tral America.	Cristobal, C. Z.	West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.		Russia.	Spain and Portugal.	Europe. ¹	Total, Europe.		
North America:																								
West coast of U. S.	647,924	17,925	27,989	693,838	1,883	388	3,423	17,352	715,001	156,033	4,295	228	14,733	36,503	5,940	2,667	1,417	5,285	987	120,538	348,026	4,768	1,068,395	56.9
W. coast of Canada	55,457	.....	951	56,408	1,883	.....	.....	3,747	62,038	52,914	7,051	184	352	4,956	1,883	8,007	166	.....	61,660	139,766	2,159	203,963	10.9	
W. coast Cen. Am.	.....	.....	.....	195	.....	.....	5,070	170	5,435	600	.....	.....	.....	371	64	120	897	.....	781	2,833	.....	8,268	0.4	
Hawaiian Islands	3,266	.....	854	4,120	.....	.....	.....	.....	4,120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,120	0.2	
Totals, N. Am.	706,842	17,925	29,794	754,561	1,883	388	8,493	21,269	786,594	209,547	11,346	412	15,085	41,830	7,087	6,587	9,480	5,285	987	182,079	491,225	6,927	1,284,746	68.4
South America:																								
Chile.....	170,973	11,640	44,198	226,811	.....	.....	179	5,261	232,251	13,733	6,886	3	8,390	1,825	70	703	330	.....	525	82,959	115,424	.....	347,675	18.5
Colombia.....	1,296	.....	.....	1,296	.....	.....	3,879	.....	5,175	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,175	0.3
Ecuador.....	982	.....	.....	982	15,710	.....	2,419	.....	19,111	71	4	.....	55	52	41	841	4	.....	101	1,109	.....	20,280	1.1	
Peru.....	36,843	.....	.....	36,843	.....	.....	10	.....	36,853	11,938	1,842	1,027	2,017	12,724	.....	.....	.....	.....	318	29,866	.....	66,719	3.5	
W. coast S. Amer. ²	723	.....	.....	723	.....	.....	815	.....	1,538	167	.....	.....	.....	.....	.....	.....	.....	.....	367	534	.....	2,072	0.1	
Totals, S. Am.	210,817	11,640	44,198	266,655	15,710	.....	7,302	5,261	294,928	25,909	8,732	1,030	10,462	14,601	111	1,544	334	.....	525	83,745	146,993	.....	441,921	23.5
AUSTRALASIA:																								
Australia.....	11,466	.....	.....	11,466	976	.....	.....	.....	12,442	.....	.....	.....	.....	.....	33	.....	.....	.....	.....	.....	.....	.....	12,442	0.7
New Zealand.....	.....	.....	.....	.....	.....	.....	19	.....	3,811	44,025	.....	.....	.....	.....	65	.....	.....	.....	.....	38	44,096	.....	47,907	2.5
Australasia ¹	7,600	.....	.....	7,600	.....	.....	.....	.....	7,600	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,940	7,020	.....	14,620	0.8
Totals, Australasia.	19,066	.....	.....	19,066	4,768	.....	19	.....	23,853	44,040	.....	.....	.....	.....	98	.....	.....	.....	.....	6,978	51,116	.....	74,969	4.0
ASIA:																								
Philippine Islands.	31,366	.....	11,966	43,332	.....	.....	.....	.....	43,332	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43,332	2.3
China.....	4,691	.....	92	4,693	.....	.....	860	.....	5,553	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,553	0.3
Japan.....	13,371	.....	648	14,019	.....	.....	139	487	14,645	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,645	0.8
Far East ²	5,031	.....	.....	5,031	.....	.....	63	7,800	12,894	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,894	0.7
Totals, Asia.	54,369	.....	12,706	67,075	.....	.....	1,062	8,287	76,424	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76,424	3.1
Grand totals	991,094	29,565	86,698	1,107,357	22,361	388	16,876	34,817	1,181,799	279,496	30,078	1,442	25,547	56,529	7,798	8,131	9,814	5,285	1,512	273,702	689,334	6,927	1,878,060	100.0
Per cent of total cargo:																								
January, 1930.....	52.8	1.6	4.6	59.0	1.2	.....	0.9	1.8	62.9	14.9	1.1	0.1	1.4	3.0	0.4	0.4	0.5	0.3	0.1	14.5	36.7	0.4	.....	.....
January, 1929.....	41.8	1.6	4.8	48.2	0.7	0.1	1.6	1.6	52.2	18.9	1.2	0.4	1.8	4.4	3.7	1.0	0.3	.....	1.7	13.9	47.3	0.1	100.0	.....
January, 1928.....	42.1	3.3	3.3	48.7	1.2	0.6	2.2	1.4	54.1	16.3	2.9	0.1	1.9	6.9	4.7	1.8	1.4	.....	0.4	9.0	45.4	0.5	100.0	.....

¹ General cargo not routed so as to allow segregation between definite ports.² Includes both local and transit cargo.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., February 26, 1930. No. 30.

CANAL WORK IN JANUARY, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of January, 1930.

BALBOA HEIGHTS, C. Z., February 17, 1930.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of January, 1930:

NUMBER OF TRANSITS.

During the month 531 commercial vessels and 4 nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 52 vessels belonging to the United States Government, 2 transits of a Panamanian Government vessel, and 7 transits of vessels solely for repairs, on which no tolls were collected, making a total of 596 transits for the month, or a daily average of 19.22.

Tolls on the 531 commercial vessels amounted to \$2,360,211.24, and on the launches to \$11.25, a total of \$2,360,222.49, or a daily average on all traffic of \$76,136.21. Total commercial traffic for the past month increased 9 transits and \$51,180.36 in tolls as compared with the previous month, and decreased 72 transits and \$142,603.88 in tolls in comparison with January, 1929, which stands as a record month in Canal traffic. The heavy decrease in traffic as compared with the corresponding month in 1929 was caused primarily by the lessened movement of two important bulk commodities—wheat and nitrates.

The total numbers of craft of all kinds transiting the Canal during the month of January, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	January, 1930.	January, 1929.	January, 1928.
Commercial vessels.....	531	603	540
Launches (under 20 tons).....	4	7	12
Noncommercial vessels:			
United States Government.....	52	119	38
Panamanian Government.....	2	2	.....
For repairs.....	7	4	2
Totals.....	596	735	592

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc. was passed through the locks as follows:

	North- bound.	South- bound.	Total.
Gatun.....	5	4	9
Pedro Miguel.....	25	25	50
Miraflores.....	25	25	50
Totals.....	55	54	109

COMMERCIAL TRAFFIC. *

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1930, to the end of January, 1930, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928-9	1929-30	1928-29.	1929-30.	1928-9.	1929-30.	1928-9.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,109,083.19	\$2,259,582.37
August....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September.	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November.	527	535	2,468,297	2,498,906	2,501,630	2,554,631	2,225,937.48	2,244,895.94
December.	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
January....	603	531	2,771,280	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
Totals...	3,788	3,733	17,503,791	17,849,534	17,688,231	18,228,515	15,866,110.35	16,188,845.40

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for January, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the calendar year 1929:

	January, 1930.	January, 1929.	January, 1928.	Average per month for calendar year 1929.
Number of vessels.....	531	603	540	536
Panama Canal net tonnage.....	2,601,628	2,771,280	2,422,770	2,529,432
United States net tonnage.....	1,980,313	2,117,812	1,885,052	1,928,223
Registered gross tonnage.....	3,246,931	3,470,934	3,064,268	3,171,832
Registered net tonnage.....	1,981,575	2,122,121	1,884,538	1,936,803
Tolls.....	\$2,360,211.24	\$2,502,815.12	\$2,212,752.50	\$2,299,392.99
Tons of cargo carried.....	2,611,632	2,858,835	2,372,061	2,620,874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	January, 1930.	January, 1929.	January, 1928.	
Number of transits.....	17.13	19.45	17.42	17.62
Panama Canal net tonnage.....	83,923	89,396	78,154	83,159
Tolls.....	\$76,135.84	\$80,735.97	\$71,379.11	\$75,596.48
Tons of cargo carried.....	84,246	92,220	76,518	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of January, 1930, as compared with January, 1929, and 1928, are shown in the following tabulation:

	Average per vessel.		
	January, 1930.	January, 1929.	January, 1928.
Panama Canal net tonnage.....	4,899	4,596	4,487
United States net tonnage.....	3,729	3,512	3,491
Registered gross tonnage.....	6,115	5,756	5,675
Registered net tonnage.....	3,732	3,519	3,490
Tolls.....	\$4,444.84	\$4,150.61	\$4,097.69
Tons of cargo (including vessels in ballast).....	4,918	4,741	4,393
Tons of cargo (laden vessels only).....	5,791	5,834	5,491

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.937 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.721 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of January, 1930, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$25,331.47	\$22,804.60		\$2,526.87
British.....	570,301.16	601,095.00	\$30,793.84	
Chilean.....	11,873.75	12,440.00	566.25	
Colombian.....	923.65	766.00		157.65
Danish.....	31,624.05	31,241.00		383.05
Danzig.....	30,587.44	26,512.20		4,075.24
Dutch.....	57,374.30	66,904.00	9,529.70	
French.....	57,936.45	55,674.00		2,262.45
German.....	101,764.97	117,790.20	16,025.23	
Greek.....	7,582.50	8,774.00	1,191.50	
Italian.....	19,137.50	21,452.00	2,314.50	
Japanese.....	105,291.25	101,666.00		3,625.25
Norwegian.....	137,593.50	152,569.40	14,975.90	
Panamanian.....	9,990.00	11,879.00	1,889.00	
Swedish.....	45,413.89	47,768.20	2,354.31	
United States.....	1,142,461.61	1,172,822.00	30,360.39	
Yugoslav.....	5,023.75	4,700.00		323.75
Totals.....	2,360,211.24	2,456,837.60	110,000.62	13,354.26
Net increase for all traffic.....			96,046.36	

* Includes \$3,562 collected from naval vessels at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$27,673.08
United States foreign trade.....	3,682.01
United States—Canal Zone trade.....	*994.70
Net increase.....	30,360.39

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in January, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels on'y are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....		1.54	1.54
British.....	.78	1.29	1.07
Chilean.....	.44	1.03	.84
Colombian.....	.32	1.30	.74
Danish.....	1.21	1.66	1.53
Danzig.....		1.89	1.89
Dutch.....	.68	1.28	.95
French.....	.46	1.78	1.11
German.....	.82	1.28	1.12
Greek.....	1.41	1.96	1.68
Italian.....	.48	.72	.65
Japanese.....	1.28	1.28	1.28
Norwegian.....	1.31	1.65	1.50
Panamanian.....	.95	1.82	1.31
Swedish.....	1.07	3.29	2.09
United States.....	.66	1.46	1.13
Yugoslav.....		2.02	2.02
Averages, January, 1930.....	.79	1.44	1.17
Averages, January, 1929.....	.83	1.52	1.27
Averages, January, 1928.....	.78	1.53	1.22

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of January is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	2	19,303	\$11,101.25	61	318,337	\$330,438.45
Ballast.....	48	252,989	182,288.37	1	4,345	3,128.40
General cargo ships:						
Laden.....	181	918,716	834,144.00	207	983,441	913,681.15
Ballast.....	21	96,536	69,557.00	4	15,896	11,445.12
None cargo-carrying ships:						
Naval.....	1		3,000.00	1		562.00
Yachts.....	4	1,065	865.50			
Totals.....	257	1,279,609	1,100,956.12	274	1,322,019	1,259,255.12
Method of propulsion:						
Steam.....	186	929,603	829,566.36	223	1,052,945	1,069,675.62
Motor.....	68	349,621	280,090.51	51	260,074	249,579.50
Motor auxiliary.....	3	335	239.25			
Totals.....	257	1,279,609	1,100,956.12	274	1,322,019	1,259,255.12

Of the 409 steam-driven vessels, 300 were oil burning, 106 coal burning, and 3 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of January, 1930. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships.....				1	4,405	\$5,506.25
Cruisers.....	1	3,200	\$1,600.00	1	3,200	1,600.00
Gunboats.....	2	3,000	1,500.00	2	3,000	1,500.00
Launches.....	1	10	7.50			
Mine layers.....	1	3,800	1,900.00			
Mine sweepers.....	5	4,750	2,375.00	2	1,900	950.00
Submarines.....	19	16,541	8,270.50			
Submarine tenders.....	2	4,368	5,460.00			
Tankers.....				2	12,848	15,417.60
Tugs.....	1	279	139.50			
U. S. Army vessels:						
Launches.....	3	30	22.50			
Mine planters.....	1	1,208	604.00			
Transports.....	2	7,816	9,770.00	2	7,816	9,770.00
Tugs.....	3	301	225.75	1	46	34.50
Totals, U. S. Government.....	41		31,874.75	11		34,778.35
Panamanian Government vessels:						
Transports.....	1	101	72.72	1	101	72.72
Vessels for repairs:						
General cargo.....	2	2,212	1,659.00	3	3,525	2,643.75
Tankers.....	1	1,636	1,227.00	1	1,636	1,227.00
Grand totals.....	45		34,833.47	16		38,721.82

¹ Indicates displacement tonnage.

² Indicates United States net tonnage.

³ Indicates Panama Canal net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of January, 1930, carried cargo as follows: Atlantic to Pacific, 1,109 tons; Pacific to Atlantic, 24,138 tons; total 25,247 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of January, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	2	13	\$9.75
Pacific to Atlantic.....	2	2	1.50
Totals.....	4	15	\$11.25

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of January, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	61,215	27,793	89,008
Local cargo shipped..... tons..	8,467	1,487	9,954
Transit cargo arriving..... tons..	2,723,013	2,601,221	5,324,234
Transit cargo clearing..... tons..	2,704,168	2,627,681	5,331,849
Cargo received for transshipment..... tons..	33,254	1,488	34,742
Cargo transshipped..... tons..	30,168	1,611	31,779
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	98	30	128
Number of releases issued.....	451	1,505	1,956
Tons received.....	3,148	874	4,022
Tons withdrawn.....	1,905	793	2,698
Packages received.....	8,424	5,906	14,330
Packages withdrawn.....	5,876	13,537	19,413
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	58	5	63
Commercial, Panama Railroad.....		1	1
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Co..... tons..	18,802	684	19,486
Commercial, Panama Railroad..... tons..		18	18
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	123	44	167
U. S. Army, including vessels..... tons..	48		48
Individuals and companies..... tons..	227		227
Transferred to Navy..... tons..	10,746		10,746
Total sales and issues..... tons..	29,946	746	30,692
Coal on hand January 1, 1930..... tons..	59,513		59,513
Coal on hand February 1, 1930..... tons..	29,567		29,567
Coal received from Navy..... tons..		746	746
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls..	5,583.50	18,578.80	24,162.30
Panama Railroad Company..... bbls..	2.47		2.47
U. S. Army and Navy..... bbls..	601.10	301.66	902.76
Total sales and issues..... bbls..	6,187.07	18,880.46	25,067.53
Fuel oil on hand February 1, 1930..... bbls..	50,238.90	73,241.47	123,480.37
Diesel oil issued and sold during January..... bbls..	181.97	2,385.87	2,567.84
Diesel oil on hand February 1, 1930..... bbls..	15,105.61	28,307.91	43,413.42
Miscellaneous transfers..... bbls..	393.65	923.07	1,316.62
Gasoline and Kerosene pumped for The Panama Canal..... bbls..	5,788.45	13,016.40	18,754.85
Gasoline pumped for individuals and companies..... bbls..	680.93	7,071.75	7,752.68
Oil pumped for individuals and companies..... bbls..	511,164.05	296,467.39	807,631.44
Oil pumped for U. S. Navy..... bbls..	3,960.00	4,394.00	8,354.00
Total fuel oil, gasoline, and kerosene handled..... bbls..	528,306.02	343,138.94	871,444.96
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	24	9	33
Measured for Panama Canal net tonnage.....	4	3	7
Remeasured for Panama Canal net tonnage.....	19	8	27
Panama Canal net tonnage corrected.....	6	7	13
U. S. equivalent tonnage corrected.....	9	19	28
Services of harbor equipment:			
Tugs, total operating hours.....	470	344 $\frac{1}{2}$	814 $\frac{1}{2}$
Launches, total operating hours.....	1,375	1,780	3,164

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue.....	\$15,272.50	\$10,733.75	\$26,006.25
Pilotage.....	20,732.00	9,239.00	29,971.00
Seamen.....	12,144.00	12,960.00	25,104.00
Launch service.....	1,901.00	3,303.00	5,204.00
Wharfage.....	18,445.82	6,717.54	25,163.36
Ships measured.....	70.00	100.00	170.00
Miscellaneous.....	1,700.04	367.50	2,067.54
Ships repaired at Panama Canal shops:			
Commercial.....	48	22	70
U. S. Army and Navy.....	7	4	11
Panama Canal equipment.....	7	9	16
Totals.....	62	35	97
Vessels dry-docked:			
Commercial.....	2	11	13
U. S. Army and Navy.....	2	2	4
Panama Canal equipment.....	3	3	6
Totals.....	7	16	23
Clearances issued.....	340	269	609
Bills of health issued.....	351	270	621

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal..	647	3,776,871	2,311,762	589	3,360,223	2,070,363
Vessels entering port but not transiting Canal..	80	505,332	293,054	14	35,756	26,894
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	111	644,705	400,076	116	705,803	426,514
<i>Ships clearing.</i>						
All vessels, including those transiting Canal..	647	3,808,988	2,329,269	567	3,356,282	2,056,698
Vessels clearing port but not transiting Canal..	81	507,915	296,351	12	33,871	25,874
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	109	630,740	391,440	117	712,766	430,794

* Includes 36 airplanes of 174 gross tons.

* Includes 30 airplanes of 146 gross tons.

* Includes 8 airplanes, weight 16 tons.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,562	645	2,207	116	426	542
From Pacific ports.....	218	136	354	258	127	385
Total disembarking.....	1,780	781	2,561	374	553	927
Embarking:						
For Atlantic ports.....	924	589	1,513	152	270	422
For Pacific ports.....	252	123	375	310	298	608
Total embarking.....	1,176	712	1,888	462	568	1,030
Remaining on board:						
From Atlantic to Pacific ports.....	1,879	2,459	4,338	2,015	2,156	4,171
From Pacific to Atlantic ports.....	937	1,289	2,226	1,003	1,155	2,158
From Atlantic to Atlantic ports.....	3,045	228	3,273			
From Pacific to Pacific ports.....				11	216	227
Total remaining on board.....	5,861	3,976	9,837	3,029	3,527	6,556
Total arriving.....	7,641	4,757	12,398	3,403	4,080	7,483
Total departing.....	7,037	4,688	11,725	3,491	4,095	7,586

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total com- mercial vessels.	Passenger- carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	257	50	19.4
Pacific to Atlantic.....	274	59	21.5
Totals.....	531	109	20.5

In addition to the aforesaid, 71 passenger-carrying vessels called at the port of Cristobal and 1 at Balboa without transiting the Canal, making a total of 181 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of January, 1930:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscel- laneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$1,794.39	\$13,503.58	\$26,316.57	\$256.27	\$6,037.33	\$47,908.14
Government vessels.....	152.78	1,404.27	10,660.61	37.67	1,511.07	13,766.40
P. R. R. vessels.....	4.50	107.16	1,523.39	895.09	59.11	2,589.25
Total sales January, 1930....	1,951.67	15,015.01	38,500.57	1,189.03	7,607.51	64,263.79
Total sales January, 1929....	3,345.72	16,521.80	57,792.25	1,238.52	10,169.47	89,067.76
Total sales January, 1928....	2,218.04	16,013.77	34,650.52	862.64	6,829.12	60,574.09
Sales at Balboa to:						
Commercial vessels.....	1,048.78	9,887.42	13,631.51	604.22	4,747.23	29,919.16
Government vessels.....	391.05	3,328.67	19,324.55	19.39	876.35	23,940.01
P. R. R. vessels.....				35.13		35.13
Total sales January, 1930....	1,439.83	13,216.09	32,956.06	658.74	5,623.58	53,894.30
Total sales January, 1929....	4,764.16	17,536.75	50,982.39	590.75	20,233.75	94,107.80
Total sales January, 1928....	1,763.22	14,454.53	37,851.35	734.46	5,831.39	60,634.95

The aggregate sales to Government vessels during the month was \$37,706.41; to Panama Railroad vessels, \$2,624.38; and to other commercial vessels, \$77,827.30; making the total sales to all vessels, \$118,158.09.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of January, 1930, as compared with the corresponding months in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.*			Jan. 1930.	Jan. 1929.	Jan. 1928.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	265	243	508	10	16	26	534	610	537
Pedro Miguel.....	267	253	520	13	25	38	558	614	567
Miraflores.....	265	251	516	13	22	35	551	563	562
Number of vessels put through locks.									
Gatun.....	274	256	530	28	56	84	614	760	608
Pedro Miguel.....	274	258	532	42	65	109	641	815	664
Miraflores.....	274	258	532	43	65	110	642	805	666

* Includes miscellaneous tolls-paying craft under 20 tons measurement.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	60	48	43
Panama Canal equipment.....	9	50	50
Launches under 20 tons.....	6	2	3
Panamanian Government vessels.....	2	2	2
Vessels for repairs.....	7	7	7

The total consumption of water for lockages and loss in leakage was as follows in January, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,386,100,000	1,149,830,000	1,187,650,000
Leakage.....	30,000,000	43,500,000	20,000,000
Totals, January, 1930.....	1,416,100,000	1,193,330,000	1,207,650,000
Totals, December, 1929.....	1,990,300,000	1,787,390,000	1,588,490,000
Totals, January, 1929.....	2,526,200,000	2,188,770,000	1,800,270,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of January, 1930, are shown in comparative form, in the following tabulation:

	January.		January—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	1,080	1,691	5,050	682	1,940
Maximum momentary discharge for the month.....	1,888	6,845	50,200		
Gatun Lake watershed, total yield.....	1,854	2,975	9,298	1,473	3,036
Gatun Lake watershed, net yield.....	1,106	2,143	8,641	623	2,227
Draft on Gatun Lake for lockages and power.....	1,993	3,275	2,665	987	2,155

¹ January 29, 1909.

² 1914 not included.

³ Power cut one-third beginning January 1.

The discharge of the Chagres River at Alhajuela was 44 per cent below the 29-year average, or 1,080 c. f. s., compared with an average of 1,940 c. f. s. The maximum momentary discharge for the month was 1,888 c. f. s. at elevation 93.04 feet on the 25th. The minimum discharge was 854 c. f. s. at elevation 92.06 feet on the 31st. The maximum monthly discharge on record for the month of January is 5,050 c. f. s., in 1910, and the minimum 682 c. f. s., in 1906. The maximum momentary discharge of record for January is 50,200 c. f. s., at elevation 106.55 feet, on January 29, 1909.

The total yield of the Gatun Lake watershed for January was 39 per cent below the 17-year average, or 1,854 c. f. s. compared with an average of 3,036 c. f. s. Maximum and minimum total yields of record for January are 9,298 c. f. s. in 1922, and 1,473 c. f. s. in 1926. The lake varied in elevation from 86.71 feet on the 1st to 86.10 feet on the 31st, averaged 86.45 feet, and ended at elevation 86.14 feet.

Miraflores Lake varied between elevations 54.28 feet on the 16th and 20th, and 53.34 feet on the 28th, averaged 53.87 feet, and at the end of the month was at elevation 53.63 feet.

SEISMOLOGY.

One seismic disturbance was recorded, on the 7th of the month.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 3,697,800 kilowatt hours, and the computed water consumption was 2,772,716,165 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 1,921,900 kilowatt hours, and the fuel oil consumption was 3,778.35 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 53 vessels during the month. There were 359 work orders issued during the month, as compared with 351 issued during the previous month.

MECHANICAL DIVISION.

During the month of January, 1930, miscellaneous repairs were made on 62 vessels at Cristobal and 35 at Balboa. Seven vessels were dry-docked at Cristobal and 16 at Balboa. The annual overhaul to the United States submarine *S-13*, and repairs to the *S-15*, were completed during the month. The Peruvian Government's submarines *R-1*, *R-2*, *R-3*, and *R-4*, were dry-docked for annual under-water repairs. Work was carried forward on repairs to several pieces of equipment of The Panama Canal and the United States Army and Navy.

MUNICIPAL ENGINEERING DIVISION.

The placing of concrete for the Madden Road was begun on January 9 at Quebrada Roque, approximately the midway point of the road, about 6 miles from Summit, and to the end of the month 10,404 lineal feet of 18-foot reinforced concrete road were laid, working back toward the base of supplies at Summit. Work was carried on by two shifts of 8 hours each working straight through from 6 a. m. to 10 p. m. Illumination for the concrete work at night was provided by two portable electric generating plants. Construction of the Chilibre River bridge was continued. Work was continued on the plant at Alhajuela for excavating gravel from the Chagres River by means of dragline buckets and cableway, and for screening the gravel, and the first load was excavated from the river on January 31.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. In connection with the improvement of Avenue "A" in Panama City, 982 feet of concrete curb and 218 square yards of concrete street were constructed. On the construction of National Avenue in Panama City, 2,000 cubic yards of earth were excavated, and 245 feet of cast iron pipe and 210 feet of vitrified sewer pipe were installed.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 795,364,750 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during January, with an average movement of 0.7 of a foot toward the Canal between stations 1779-00 and 1794-00 W. There was a slight surface movement at Southwest La Pita slide during the month. At West Lirio slide, between stations 1737-00 and 1739-00 W., there was a slight surface movement, but the amount of material entering the new prism was small.

There was no interference with shipping on account of slides during the month. The total excavation during January, 1930, was 877,268 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Gaillard Cut—			
Project No. 2.....	4,250	43,350	47,600
West Culebra slide.....	3,750	14,900	18,650
Southwest La Pita slide.....	450	4,000	4,450
Maintenance.....	1,600	4,700	6,300
Pacific entrance—			
Project No. 1.....		80,350	80,350
Maintenance.....	9,000	1,050	10,050
Balboa inner harbor—			
Maintenance.....	610,100		610,100
Plant excavation:			
Albrook Field.....	59,900		59,900
Chagres River gravel service.....	37,373		37,373
Dredging sand at Chame.....	2,495		2,495
Totals.....	728,918	148,350	877,268

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and fifty-six trips were made, and 65 Panama Canal, 397 U. S. Army, and 4,958 other vehicles, a total of 5,420, were ferried across the Canal.

MADDEN DAM PROJECT.

The consulting engineers for the project arrived on January 1, 1930. On the 2d, 3d, and 4th, they inspected the dam site, dike ridge, Azote Caballo-Chilibrillo and Madronal ridges, drill cores, etc. On the 5th a conference was held in the Madden Dam office, at which time many reports and much other data were furnished them. They sailed on the 5th, and subsequently 13 specimens of drill cores, and additional data were forwarded them. As a result of the visit of the consulting engineers additional exploratory work at the dam site and on the ridges has been laid out, and the area of the gravel survey has been extended.

Sketches and computations were made for straight gravity dam and spillway. A general layout of the Madden Dam Project was made, a number of marked maps and prints were prepared for the consulting engineers, 31 well log sheets were traced and checked, tests of stone were checked and a summary of same made, progress maps and records were kept up to date.

Progress was made on layouts of switching station at Summit, and the transmission line from Summit to Alhajuela. Work was also done on determination of natural flood storage above Alhajuela and a storage curve for Madden Lake, also a profile of the Chagres River to its mouth and tributaries above Alhajuela. Work performed included 2,629 lineal feet of core drilling and 235 acres of topographical mapping.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children occupying Panama Canal quarters on January 31, 1930, was 22,316, composed of 7,867 Americans, 2,860 of whom were men, 2,337 women, and 2,670 children; 250 Europeans, 100 of whom were men, 38 women, and 112 children; and 14,199 West Indians, 4,210 of whom were men, 2,613 women, and 7,376 children. The total number of persons in quarters on January 31, 1929, was 21,795.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of January 15, 1930, with a comparison of the working force for the preceding month and for January, 1929:

	As of January 15, 1930.			Total employees.	
	Gold.	Silver.	Total.	December, 1929.	January, 1929.
Operation and Maintenance:					
Office.....	55	110	165	160	96
Electrical.....	157	240	397	344	355
Municipal Engineering.....	80	691	771	802	1,386
Lock Operation.....	240	704	944	935	1,451
Dredging.....	195	1,076	1,271	1,262	1,101
Madden Project.....	76	698	774	720	
Mechanical.....	505	903	1,408	1,430	1,209
Marine.....	209	568	777	785	922
Fortifications.....	27	399	426	281	353
Totals.....	1,544	5,389	6,933	6,719	6,873
Supply Department:					
Quartermaster.....	220	2,162	2,382	2,437	1,970
Commissary.....	223	1,324	1,547	1,596	1,504
Cattle Industry—Plantations.....	3	114	117	117	180
Hotel Tivoli.....	10	113	123	120	124
Hotel Washington.....	9	106	115	110	110
Transportation.....	75	242	317	326	278
Totals.....	540	4,061	4,601	4,706	4,166
Accounting Department.....	207	6	213	209	204
Health Department.....	286	879	1,165	1,158	1,082
Executive Department.....	528	321	849	852	812
Totals.....	1,021	1,206	2,227	2,219	2,098
Panama Railroad Company:					
Superintendent.....	47	301	348	332	366
Transportation.....	57	129	186	173	197
Receiving & Forwarding Agency.....	94	1,283	1,377	1,269	1,857
Coaling Stations.....	43	265	308	247	361
Totals.....	241	1,978	2,219	2,021	2,781
Grand totals, January, 1930.....	3,346	12,634	15,980		
Grand totals, December, 1929.....	3,335	12,330		15,665	
Grand totals, January, 1929.....	3,169	12,749			15,918

Additions to the gold force on the Isthmus in January were as follows: Employed in the United States, 4; reemployed in the United States, 2; employed on the Isthmus, 28; reemployed on the Isthmus, 14; total, 48. Separations from the gold force totaled 32, as follows: Resigned, 15; discharged, 11; retired, 1; died, 5. At the end of the month there were on file 405 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 174 deaths occurred during the month of January, 1930, among the population of the Canal Zone and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.80 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 24; pneumonia (broncho and lobar), 18;

nephritis (acute and chronic), 16; organic diseases of the heart, 12; and diarrhea and enteritis, 8. There were 7 deaths from syphilis, 7 from apoplexy, 5 from cancer, 2 from dysentery, and 1 each from influenza, erysipelas, acute anterior poliomyelitis, meningococcus meningitis, and tetanus. There were 18 deaths among nonresidents. These are not included in the above statistics.

There were 324 live births, and 28 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 31.97. Deaths among children under 1 year of age numbered 36, giving an infant mortality rate based on the number of live births reported, of 111.11.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during January, 1930, was 109, of whom 29 were employees (7 white, 22 colored), 25 were families of employees (13 white, 12 colored), 7 were Canal Zone agriculturists, 19 were other civilian nonemployees, and 29 were Army and Navy personnel.

There were no deaths from malaria among residents.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$638,353.46, of which \$617,526.34 was for the Department of Operation and Maintenance, and \$20,827.12 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to \$54,863.74.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of December, 1929, as compared with December, 1928, with the figures for the first six months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of January at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	December, 1929.	December, 1928.	To end of December.	
			This year.	Last year.
Tolls.....	\$2,309,074.83	\$2,443,113.24	\$13,828,550.86	\$13,361,436.11
Other receipts.....	439,040.73	371,886.45	2,208,442.32	1,960,985.10
Total transit revenues.....	2,748,115.56	2,814,999.69	16,036,993.18	15,322,421.21
Total transit expenses.....	1,103,341.76	1,094,233.32	6,615,147.09	6,332,843.17
Net transit revenues.....	1,639,773.80	1,720,766.37	9,421,846.09	8,989,578.04
Three per cent capital charge....	623,944.72	616,431.64	3,722,539.33	3,695,521.90
Transit surplus.....	1,015,829.08	1,104,334.73	5,699,306.76	5,294,056.14
Business revenues.....	1,469,915.18	1,347,569.14	9,489,904.29	7,958,368.71
Business expenses.....	1,386,445.40	1,267,242.35	8,955,039.69	7,522,087.54
Net business revenues.....	83,469.78	80,326.79	534,864.60	436,281.17
Three per cent capital charge.....	63,036.28	60,003.61	399,850.53	390,322.17
Business surplus.....	20,433.50	20,318.18	135,014.07	45,959.00
Combined revenues.....	4,218,030.74	4,162,568.83	25,526,897.47	23,280,789.92
Combined expenses.....	2,494,787.16	2,361,475.67	15,570,186.78	13,854,930.71
Net revenues.....	1,723,243.58	1,801,093.16	9,956,710.69	9,425,859.21
Three per cent capital charge.....	686,931.00	676,440.25	4,122,389.86	4,085,844.07
Combined surplus.....	1,036,262.58	1,124,652.91	5,834,320.83	5,340,015.14

Respectfully,

H. BURGESS,
Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, February 22, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Colombia.....	14	18.10	16	6.05	16	13.02	16	23.15	American.....	Panama Mail S. S. Co.	380.0	48.7	23.7	New York, N. Y.	San Francisco, Cal.	General, coffee.....	1,590	6,015	4,281
Barat.....	13	22.55	16	6.00	16	13.09	16	14.30	Dutch.....	Royal Neth. S. S. Co.	202.9	33.0	12.2	Cristobal, C. Z.	Guayaquil, Ecuador	General.....	123	1,183	742
Missourian *.....	15	18.50	16	6.30	16	13.41	16	14.50	American.....	Amer.-Hawaiian Line.	445.0	59.8	22.6	Boston, Mass.	Portland, Oreg.	General.....	4,977	8,567	6,020
Prince *.....	16	12.55	16	7.30	16	14.06	16	15.00	British.....	Prince Line, Ltd.	441.6	60.0	22.0	New York, N. Y.	Manila, P. I.	General.....	5,034	9,240	6,152
Calagorlote *.....	16	3.45	16	7.45	16	15.02	16	19.25	British.....	Imperial Oil Co.	521.5	70.0	24.0	Halifax, N. S.	Talara, Peru	Ballast.....	12,339	7,711	7,711
Gerco.....	15	18.40	16	9.10	16	17.01	16	18.18	German.....	Hamburg-American Line	237.2	34.4	14.0	Cristobal, C. Z.	Guayaquil, Ecuador	General.....	236	1,572	1,011
S. C. T. Dodd.....	16	10.45	16	11.00	16	17.42	16	18.55	American.....	Standard Oil Co.	425.0	57.2	19.6	Bayonne, N. J.	San Francisco, Cal.	Ballast.....	7,481	4,975	4,975
Jelling.....	16	12.00	16	15.30	17	9.20	17	11.55	Danish.....	Isbrandtsen Moller.	285.6	41.2	18.6	Pro, Barrios, Guat	Petroleum prod.	2,100	2,649	1,879	
Francia Maru.....	16	21.35	17	6.20	17	14.23	17	16.10	Japanese.....	Kokura-Nippon Kaisha.	335.0	51.0	27.0	Baltimore, Md.	Yokohama, Japan	Zinc, rosin, etc.	7,681	6,209	4,658
Hegra.....	17	2.10	17	7.25	17	15.17	17	16.30	American.....	Norton, Lilly & Co.	440.0	56.0	24.6	Jacksonville, Fla.	Seattle, Wash.	Steel.....	7,746	8,363	6,113
Arcturus.....	17	7.55	17	8.25	17	16.02	18	1.23	American.....	Roosevelt S. S. Co., S. B.	401.4	53.2	18.0	New York, N. Y.	Adelaide, Australia.	General.....	2,080	7,043	5,167
Tamiahua.....	17	8.45	17	9.35	17	17.40	17	19.05	American.....	Richfield Oil Co.	590.0	71.2	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast.....	11,067	8,542	8,542
Tsuyama Maru.....	17	17.10	17	18.30	18	9.33	18	10.53	Japanese.....	Nippon Yusen Kaisha.	445.0	58.0	25.3	Kobe, Japan	Champerico, Guat.	Scrap steel, gen.	8,237	7,956	5,681
Acajula.....	7	16.00	18	6.20	18	13.02	18	14.10	British.....	Pacific Steam Nav. Co.	215.7	34.0	16.0	Cristobal, C. Z.	Manzanillo, Mex.	General.....	883	1,273	706
Andromede.....	17	13.20	18	6.20	18	14.33	18	16.00	French.....	Messageries Maritimes	430.0	57.0	22.6	Marseillaise.	Noumea, New Cal.	General.....	2,580	7,955	5,471
Tatsuma Maru.....	17	19.55	18	7.18	18	15.12	18	20.42	Japanese.....	Tatsuma Kisen Kaisha	423.0	56.0	25.3	Cardenas, Cuba.	Nihamma, Japan	Sugar, phosphate	8,445	6,763	4,959
Sir Osborn.....	18	4.30	18	7.35	18	15.36	18	18.35	Norwegian.....	Anglo-Saxon Pet. Co.	471.0	63.0	19.0	London, England.	Los Angeles, Calif.	Ballast.....	9,562	6,602	6,604
Holmden *.....	17	15.30	18	9.35	18	17.12	18	18.35	American.....	U. S. Navy	234.0	40.0	24.0	Cristobal, C. Z.	Bahoa, C. Z.	Ballast.....	1,061	3,984	2,628
Sacramento.....	18	6.13	18	9.35	18	17.18	18	18.35	American.....	Nelson Line	324.0	46.2	17.0	Baltimore, Md.	Seattle, Wash.	General.....	3,000	7,704	5,707
Fort Armstrong.....	18	10.30	18	10.55	18	18.29	18	21.02	American.....	Quaker Line	415.0	55.6	18.6	Philadelphia, Pa.	Seattle, Wash.	General.....	3,846	3,984	2,612
Peter Kerr.....	18	12.55	18	13.20	18	20.55	18	22.04	American.....	Swayze & Hoyt	224.0	46.2	21.6	Tampa, Fla.	Seattle, Wash.	General.....	2,000	2,856	1,806
Point Montara.....	18	8.20	18	14.35	19	9.35	19	11.35	(*).....	John G. Oisel	251.0	43.0	22.7	New York, N. Y.	Vladivostok, Rus	General.....	3,080	6,756	4,775
Lake Fausdale.....	18	14.40	18	15.00	18	21.45	18	22.40	American.....	Amer.-Hawaiian Line	494.0	53.0	...	New York, N. Y.	Bahoa, C. Z.	General.....	14,538	9,348	9,348
Montana.....	18	14.40	18	15.00	18	21.45	18	22.40	American.....	U. S. Navy	149.3	30.0	...	Cristobal, C. Z.	Bahoa, C. Z.	(*).....	14,538	9,348	9,348
Seioka *.....	17	6.40	19	6.25	19	13.23	19	14.25	American.....	Ore S. S. Corp.	549.6	72.0	22.6	Norfolk, Va.	Cruz Grande, Chile	Ballast.....	8,900	7,174	4,964
British Star.....	18	15.55	19	6.15	19	13.16	19	15.30	British.....	Bermuth Lemboke Co.	423.0	57.0	26.1	Middleborough, Eng.	San Francisco, Cal.	Crossite.....	10,471	12,933	8,991
Hertford.....	19	3.55	19	7.20	19	15.47	19	21.16	British.....	Federal Steam Nav. Co.	520.0	64.0	30.0	Avonmouth, Eng.	N. Plymouth, N. Z.	General.....	6,076	2,684	2,684
Appleleaf.....	18	16.35	19	11.00	19	17.48	20	7.27	British.....	British Government.	495.5	54.6	21.6	Plymouth, Eng.	Los Angeles, Calif.	Ballast.....	2,832	9,934	7,006
Trave.....	18	21.30	19	11.50	19	18.50	19	20.00	German.....	North German Lloyd.	471.0	60.4	18.10	Antwerp, Belgium	Vancouver, B. C.	General.....	5,507	11,018	8,057
Pakeha.....	19	8.50	19	13.55	19	21.15	20	3.45	British.....	Shaw, Savill & Albion.	477.0	63.1	29.7	Hamburg, Germany	Wellington, N. Z.	Basic slag.....	1,181	6,719	4,979
Modavia.....	18	20.10	19	14.30	19	21.45	20	4.54	British.....	Donaldson Brothers.	387.0	53.6	17.6	Glasgow, Scotland	Vancouver, B. C.	General, bananas	1,181	6,719	4,979
Horse.....	19	13.20	19	14.45	19	22.20	19	23.38	American.....	Luckenbach Line	445.0	58.0	20.6	Boston, Mass.	Seattle, Wash.	General.....	3,710	8,699	6,363
Luckenbach.....	19	16.20	19	16.40	20	9.30	20	13.10	Norwegian.....	Vacuum Oil Co.	458.0	59.0	18.0	Thameshaven	Los Angeles, Calif.	Ballast.....	8,291	5,822	5,822
Ostergren.....	19	11.58	20	6.15	20	14.33	20	15.55	British.....	Shaw, Savill & Albion.	500.3	63.3	32.5	London, England.	Wellington, N. Z.	General.....	10,065	12,821	9,507
Corinthian.....	19	5.57	20	7.07	20	10.35	20	12.35	American.....	U. S. Army	390.0	54.2	18.2	New York, N. Y.	San Francisco, Cal.	Army supplies.	2,400	...	...
Kenowis.....	19	5.57	20	7.07	20	10.35	20	12.35	American.....	U. S. Army	390.0	54.2	18.2	New York, N. Y.	San Francisco, Cal.	Army supplies.	2,400	...	...
* Tanker.									* Tug.	* Transpourt.				* Towing barge.					

* Tanker.

* Motor ship.

* Gunboat.

* Tug.

* Transport.

* Non-documentary.

* Towing barge.

	20	7 20	20	8 12	20	16 57	20	18 10	American	Calmar S. S. Corp.	385.3	51.2	25.6	Baltimore, Md.	Seattle, Wash.	General	6,839	6,224	4,465
Pennmar	20	2 08	20	11 10	20	17 50	21	6 20	American	N. O. & S. A. S. S. Co.	324.0	46.0	21.2	New Orleans, La.	Tachuanu, Chile.	General	2,056	3,978	2,560
Nos. King	20	6 07	20	13 10	20	19 31	21	2 23	American	Grace Line	466.0	61.0	21.2	New York, N. Y.	Tachuanu, Chile.	General	2,499	13,687	6,633
Santa Barbara	20	12 40	20	13 20	20	21 13	21	13 50	British	Avenue Shipping Co.	375.2	53.0	23.0	Antwerp, Belgium	Rabaul, N. Guinea	Slag, case oil, etc.	6,363	6,235	4,663
Winton	20	9 10	20	14 40	20	22 39	21	3 28	British	Pacific Steam Nav. Co.	549.0	67.0	27.8	Liverpool, England	Tachuanu, Chile.	General	4,495	16,844	11,731
Orbita	20	9 10	20	14 40	20	22 39	21	3 28	British	Pacific Steam Nav. Co.	549.0	67.0	27.8	Liverpool, England	Tachuanu, Chile.	General	4,495	16,844	11,731
Gen. Morgan	20	9 10	20	14 40	20	22 39	21	3 28	British	Pacific Steam Nav. Co.	549.0	67.0	27.8	Liverpool, England	Tachuanu, Chile.	General	4,495	16,844	11,731
Lewis	20	10 55	20	20 10	21	9 20	22	2 25	American	U. S. Army	150.0	23.0		Cristobal, C. Z.	Pedro Miguel, C. Z.	Ballast	4,838	6,659	4,919
Annie Johnson	20	15 25	21	6 00	21	13 15	21	16 55	Swedish	Johnson Line	392.0	52.0	23.8	Hallsaxie, Sweden	Vancouver, B. C.	General	6,127	8,454	6,344
San Francisco	20	15 25	21	6 00	21	13 15	21	16 55	Swedish	Johnson Line	392.0	52.0	23.8	Hallsaxie, Sweden	Vancouver, B. C.	General	6,127	8,454	6,344
Gen. 2	18	12 35	21	6 00	21	13 15	21	16 55	Colombian	National Navigation Co.	107.0	22.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	37	238	163
President	20	12 35	21	6 00	21	13 15	21	16 55	Colombian	National Navigation Co.	107.0	22.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	37	238	163
Van Buren	20	12 35	21	6 00	21	13 15	21	16 55	Colombian	National Navigation Co.	107.0	22.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	37	238	163
Thalia	20	21 50	21	7 20	21	16 03	21	22 00	American	Dollar Line	502.0	62.2	26.0	New York, N. Y.	San Francisco, Cal.	Machinery, gen.	4,241	12,023	8,495
Zelandie	20	21 50	21	7 20	21	16 03	21	22 00	American	Dollar Line	502.0	62.2	26.0	New York, N. Y.	San Francisco, Cal.	Machinery, gen.	4,241	12,023	8,495
Westonia	20	21 50	21	7 20	21	16 03	21	22 00	American	Dollar Line	502.0	62.2	26.0	New York, N. Y.	San Francisco, Cal.	Machinery, gen.	4,241	12,023	8,495
Wendron	21	3 10	21	9 50	21	17 23	22	4 33	British	Shaw, Savill & Albion	499.0	63.0	13.5	London, Holland	Talara, Peru.	Ballast	5,700	11,819	8,267
San Gabriel	21	6 31	21	9 43	21	18 24	21	19 30	British	W. R. Newman & Co.	375.0	52.0	23.0	Ghent, Belgium	Antcland, N. Z.	Phosphates	7,528	6,039	4,633
Oslopper	21	6 31	21	9 43	21	18 24	21	19 30	British	W. R. Newman & Co.	375.0	52.0	23.0	Ghent, Belgium	Antcland, N. Z.	Phosphates	7,528	6,039	4,633
Ships	21	12 03	21	12 23	21	18 24	21	23 55	British	Anglo-Saxon Pet. Co.	410.0	53.5	19.0	Newcastle, Eng.	Seattle, Wash.	General	1,950	5,719	4,023
Swan	21	12 03	21	12 23	21	18 24	21	23 55	British	Anglo-Saxon Pet. Co.	410.0	53.5	19.0	Newcastle, Eng.	Seattle, Wash.	General	1,950	5,719	4,023
Buenos Aires	21	14 50	22	6 15	22	13 05	22	14 05	Japanese	Osaka Shosen Kaisha	461.0	62.0	20.0	Buenos Aires, Arg.	Kobe, Japan.	General, etc.	1,217	3,683	2,373
Maru	21	14 50	22	6 15	22	13 05	22	14 05	Japanese	Osaka Shosen Kaisha	461.0	62.0	20.0	Buenos Aires, Arg.	Kobe, Japan.	General, etc.	1,217	3,683	2,373
Esparita	18	15 15	22	6 10	22	13 45	22	15 20	American	United Fruit Co.	330.6	44.0	17.0	Cristobal, C. Z.	San Francisco, Cal.	Ballast	2,427	2,676	1,803
Laake	22	1 00	22	6 10	22	13 45	22	15 20	American	United Fruit Co.	330.6	44.0	17.0	Cristobal, C. Z.	San Francisco, Cal.	Ballast	2,427	2,676	1,803
Island	20	20 01	22	7 00	22	14 40	23	11 45	German	Ford Motor Co.	439.0	55.0	21.0	Christier, Pa.	Seattle, Wash.	Automobile parts	3,800	7,094	5,017
Nebraska	21	15 10	22	7 10	22	15 20	22	16 30	British	Hamburg-American Line	450.0	58.0	19.1	Hamburg, Germany	Vancouver, B. C.	General	3,800	7,094	5,017
Theodore	21	15 10	22	7 10	22	15 20	22	16 30	British	Royal Mail S. P. Co.	450.0	58.0	19.1	Rotterdam, Holland	Vancouver, B. C.	General, bananas	1,946	8,878	6,588
Roosevelt	22	5 10	22	8 35	22	15 40	22	16 54	Norwegian	Fred Olsen & Co.	425.0	55.0	25.0	Antwerp, Belgium	Vancouver, B. C.	General	6,896	7,593	5,637
Mantala	18	18 15	22	8 57	22	16 40	22	17 47	German	Roland Line	216.5	32.9	11.7	Cristobal, C. Z.	Guayaquil, Ecuador	General	147	1,132	741
Buenaventura	21	2 20	22	9 05	22	16 40	22	17 47	American	Panama R. R. S. S. Line	231.0	43.0	18.0	New York, N. Y.	Guayaquil, Ecuador	General	1,157	2,873	1,776
Alkmaar	21	6 40	22	8 55	22	17 17	22	18 30	Dutch	Royal Netherlands S. S. Co.	447.0	62.6	19.2	Hamburg, Germany	Corral, Chile	General	3,255	9,505	6,644
Empire Arrow	22	6 40	22	8 55	22	17 17	22	18 30	Dutch	Royal Netherlands S. S. Co.	447.0	62.6	19.2	Hamburg, Germany	Corral, Chile	General	3,255	9,505	6,644
Peru	22	10 13	22	10 35	22	17 47	22	19 08	American	Standard Oil Co.	458.3	62.7	23.0	Providence, R. I.	Los Angeles, Calif.	Ballast	8,537	7,407	6,046
Vancouver City	22	6 30	22	12 05	22	19 23	22	20 37	Danish	Es. St. Atlantic S. S. Co.	425.0	55.0	25.10	Copenhagen, Den.	Vancouver, B. C.	General	8,537	7,407	6,046
Northbank	22	12 10	22	12 10	22	21 26	23	20 51	British	St. W. R. Smith & Sons	416.0	55.0	25.0	Sunderland, Eng.	Shanghai, China	General	8,290	7,990	5,660
	22	12 15	22	14 55	22	22 02	23	1 55	British	Andrew Weir & Co.	421.8	56.8	25.0	New York, N. Y.	Shanghai, China	General	7,500	7,500	5,660

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

River boat.

Mine sweeper.

Tanker.

Solana	16	1 45	16	6 26	16	13 40	16	13 40	American	Associated Oil Co.	419.6	56.5	25.6	San Francisco, Cal.	New York, N. Y.	Gasoline	9,812	7,060	5,025
Vaba	16	11 15	16	14 32	16	21 25	16	21 25	American	Kellogg S. S. Corp.	200.0	54.2	24.6	Manila, P. I.	New York, N. Y.	Coconut oil	6,461	2,631	1,568
Talarahite	15	23 00	16	14 41	16	21 50	16	21 50	British	Imperial Oil, Ltd.	250.0	43.8	21.7	Halifax, N. S.	Halifax, N. S.	Crude oil	3,255	6,336	4,301
Illinois	16	13 55	16	15 22	17	9 40	18	13 25	French	French Line	400.2	51.6	24.6	Le Havre, France.	Le Havre, France.	Copper, ultrates	1	1	1
Orr Kidd	16	13 55	16	15 22	17	9 40	18	13 25	French	Earl Orr	384.0	64.9		Gamboua, C. Z.	Gamboua, C. Z.	Ballast	1	1	1
Rochester	16	13 55	16	15 22	17	9 40	18	13 25	American	U. S. Navy	384.0	64.9		Key West, Fla.	Key West, Fla.		1	1	1
J. B. August	16	18 30	17	6 37	17	14 45	17	15 35	Dutch	Anglo Saxon Pet. Co.	377.0	50.0	24.0	San Francisco, Cal.	Curacao, D. W. I.	Store oil	5,871		
Kessler	4	12 52	17	7 32	17	15 30	18	9 35	American	U. S. Navy	224.0	44.0		San Francisco, Cal.	Cristobal, C. Z.		1,035	2,754	1,944
Sacramento	16	2 30	17	7 15	17	15 35	18	9 35	American	Panama R. S. S. Line	251.0	43.6	17.0	Guayaquil, Ecuador	New York, N. Y.	General	7,293	6,979	5,136
Guayaquil	17	2 30	17	7 15	17	15 35	18	9 35	American	Panama R. S. S. Line	251.0	43.6	17.0	Guayaquil, Ecuador	New York, N. Y.	General	7,293	6,979	5,136
Erken	16	18 55	17	8 10	17	16 03	17	16 05	Norwegian	Wallen & Co.	420.0	54.0	26.0	Tacoma, Wash.	Lorenzo Marques	Lumber, general	6,542	4,754	4,754
Sage Brush	17	1 30	17	8 46	17	17 15	17	17 15	American	Shepard S. Co.	400.8	54.2	23.6	Tacoma, Wash.	Philadelphia, Pa.	Lumber, general	7,028	7,611	5,450
Knoxville City	17	6 40	17	9 15	17	17 40	17	17 40	American	Isbuiden S. S. Lines	424.2	56.2	26.0	Seattle, Wash.	Baltimore, Md.	Lumber	7,028	7,611	5,450
Therborn	17	7 00	17	9 50	17	18 35	17	18 35	British	R. C. Chapman & Son	400.0	52.4	24.0	Vancouver, B. C.	Fayal	Wheat	7,424	5,699	4,126

Tanker.

Cruiser.

10 Cruiser.

10 Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Pacific Cedar.	17	9 10	17	10 13	17	19 28	17	22 15	American.	Dimon S. S. Corp.	399.4	54.7	24.6	Seattle, Wash.	Philadelphia, Pa.	Lumber.	7,500	6,138	4,354
North Pacific.	17	10 00	17	11 11	17	19 55	17	22 55	British.	A. Weir & Co.	379.5	53.0	22.0	Vancouver, B. C.	United Kingdom.	Wheat.	6,500	5,347	4,001
Nordline	17	10 30	17	17 32	17	20 40	17	20 40	Danish.	Islandsen Moller	374.8	52.2	24.0	Iloilo, P. I.	Providence, R. I.	Sugar, lumber.	6,812	5,920	4,483
T. Luna.	17	16 45	17	17 32	18	11 40	18	13 30	Norwegian.	Grace Line.	417.8	54.4	24.7	Tecpala, Chile	Savannah, Ga.	Nitrates.	9,384	7,176	5,219
Chica.	17	18 20	17	19 16	18	12 35	18	13 30	Colombian.	National Navigation Co.	107.0	32.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides.	289	238	163
Melpomene.	17	20 00	18	6 19	18	11 35	18	20 55	French.	Shell Oil Co.	425.8	56.7	24.6	Los Angeles, Calif.	United Kingdom.	Gasoline.	8,419	7,084	5,080
Sciota.	17	20 00	18	6 33	18	14 10	19	6 15	American.	U. S. Navy.	155.0	39.0		Balboa, C. Z.	Cristobal, C. Z.		1,081	3,682	2,373
Esparita.	17	14 40	18	6 33	18	15 15	18	17 15	American.	United Fruit Co.	330.6	44.6	20.0	San Francisco, Cal.	Cristobal, C. Z.		2,775	2,115	1,408
H. C. Flood.	17	22 00	18	7 04	18	15 35	18	17 15	American.	Seand-So. Pacific Co.	266.1	42.1	17.8	Tecpala, Chile	Azores Is.	Nitrates.	9,700	9,294	6,865
Lillian	18	00 12	18	7 56	18	15 40	18	15 40	American.	Luckenbach Line.	448.2	60.2	32.0	Portland, Oreg.	Boston, Mass.	Lumber, general.	5,221	6,766	4,767
Hawaiian.	18	1 30	18	8 47	18	17 05	18	17 05	American.	Amor-Hawaiian Line.	404.6	53.9	24.7	Portland, Oreg.	Boston, Mass.	General.	799	1,132	741
Manizales.	18	6 00	18	9 39	18	18 15	18	19 05	German.	Roland Line.	216.5	32.9	14.6	Buenaventura, Col.	Cristobal, C. Z.	General.	12,303	7,808	5,139
Fidore.	18	6 10	18	10 30	18	19 35	18	19 35	American.	Ore S. S. Corp.	449.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	3,270	7,864	4,672
Teno.	18	22 00	19	6 21	19	13 59	19	17 00	Chilean.	Chilean Line.	421.8	56.0	24.0	Pto. Montt, Chile.	New York, N. Y.	General.	6,721	10,609	8,135
Kent.	18	21 45	19	6 46	19	14 25	19	14 25	British.	N. Z. Shipping Co.	460.6	62.8	25.0	Dunedin, N. Z.	Glasgow, Scotland	Frozen, general.	8,598	10,794	7,619
Drechtidijk.	19	1 00	19	7 05	19	16 03	19	16 03	Dutch.	N. Pacific Coast Line.	485.5	62.3	23.7	Vancouver, B. C.	Rotterdam, Holland.	General.			
S-18.	19	9 48	19	9 48	19	18 03	19	18 03	American.	U. S. Navy.				Balboa, C. Z.	Cristobal, C. Z.				
S-23.	19	9 48	19	9 48	19	18 03	19	18 03	American.	U. S. Navy.				Balboa, C. Z.	Cristobal, C. Z.				
Corozal.	18	3 30	19	12 13	19	20 00	19	20 00	British.	General Navigation Co.	72.2	15.6	6.6	Vancouver, B. C.	Belize, Brit. Hond.	Ballast.	7,457	70	33
Targis.	19	11 45	19	12 18	19	20 39	19	20 39	German.	Roland Line.	425.9	55.0	25.4	San Antonio, Chile	Bremen, Germany.	General.			
City of Victoria.	19	12 50	19	13 42	19	22 35	20	5 20	British.	Brit.-Can. Steamships.	411.5	54.1	25.0	Balboa, C. Z.	Garston, England.		7,016		
Ojala.	20	6 12	20	12 25	20	13 25	20	13 25	American.	U. S. Navy.	375.0	52.2		Balboa, C. Z.	Cristobal, C. Z.				
Jefferson	19	23 20	20	6 36	20	15 00	20	15 00	American.	States S. S. Corp.	440.0	56.0	28.0	Portland, Oreg.	New York, N. Y.	Lumber, copper.	9,651	8,300	6,020
S-11.	20	7 04	20	17 00	20	17 00	20	17 00	American.	U. S. Navy.	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-12.	20	7 04	20	17 00	20	17 00	20	17 00	American.	U. S. Navy.	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-13.	20	7 11	20	17 00	20	17 00	20	17 00	American.	U. S. Navy.	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
S-15.	20	7 11	20	17 00	20	17 00	20	17 00	British.	Sir W. R. Smith & Sons	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Leeds City.	20	7 15	20	7 54	20	18 05	20	18 25	British.	Sir W. R. Smith & Sons	409.5	54.3	25.6	Vancouver, B. C.	London, England.	Wheat.	8,763	6,997	5,461
Mellard No. 41.	20	10 08	20	18 15	20	18 15	20	18 15	American.	U. S. Navy.	187.0	38.0		Balboa, C. Z.	Cristobal, C. Z.				
S-48.	20	10 10	20	18 15	20	18 15	20	18 15	American.	U. S. Navy.	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Cape Horn.	20	13 50	20	14 36	20	21 40	20	22 50	British.	Lyb's Shipping Co.	425.0	56.0	26.0	Vancouver, B. C.	London, England.	Wheat, lumber.	8,300	6,813	4,838
Pearcy.	19	00 05	20	15 01	20	21 40	20	21 40	American.	M. F. Bramley	136.0	22.6	13.0	Los Angeles, Calif.	Miami, Fla.				
San Zofico.	20	17 25	20	18 03	21	11 35	21	13 05	British.	Anglo-Mexican Pet. Co.	400.2	52.3	21.6	Ionique, Chile.	Aruba, D. W. I.	Ballast.	6,032	432	156
S-1.	21	6 22	21	11 35	21	11 35	21	11 35	American.	U. S. Navy.	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
S-19.	21	6 22	21	11 35	21	11 35	21	11 35	American.	U. S. Navy.	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				

* Lumber and fishmeal.

* Coffee, general, gasoline, and powder.

* For orders.

* Yacht.

* Submarine.

* Tug.

* Motor ship.

* Tanker.

S-21	21	6.25	21	15.35	American.	U. S. Navy	231.0	31.0	Balboa, C. Z.	Cristobal, C. Z.	
S-22	21	6.25	21	15.35	American.	U. S. Navy	231.0	31.0	Balboa, C. Z.	Cristobal, C. Z.	
Camden	21	7.11	21	14.20	American.	U. S. Navy	338.0	47.0	Balboa, C. Z.	Cristobal, C. Z.	
San Diego	21	7.58	21	16.50	21	18.05	376.4	52.3	Seattle, Wash.	Baltimore, Md.	Lumber, general
San Francisco	21	8.17	21	16.45	American.	U. S. Navy	187.0	35.6	Balboa, C. Z.	Cristobal, C. Z.	
Quail No. 21	21	8.17	21	16.45	American.	U. S. Navy	180.0	35.6	Balboa, C. Z.	Cristobal, C. Z.	
Quail No. 15	21	8.36	21	17.20	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-3	21	8.36	21	17.20	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-4	21	8.45	21	17.20	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-5	21	8.45	21	17.20	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-6	21	9.34	21	18.08	American.	U. S. Navy	328.0	45.7	Balboa, C. Z.	Cristobal, C. Z.	
Bushnell	21	9.34	21	18.08	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-7	21	9.34	21	18.08	American.	U. S. Navy	231.0	30.0	Balboa, C. Z.	Cristobal, C. Z.	
S-8	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-9	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-10	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-11	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-12	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-13	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-14	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-15	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-16	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-17	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-18	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-19	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-20	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-21	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-22	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-23	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-24	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-25	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-26	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-27	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-28	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-29	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-30	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-31	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-32	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-33	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-34	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-35	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-36	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-37	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-38	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-39	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-40	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-41	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-42	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-43	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-44	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-45	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-46	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-47	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-48	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-49	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-50	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-51	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-52	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-53	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-54	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-55	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-56	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-57	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-58	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-59	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-60	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-61	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-62	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-63	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-64	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-65	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-66	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-67	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-68	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-69	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-70	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-71	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-72	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-73	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-74	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-75	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-76	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-77	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-78	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-79	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-80	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-81	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-82	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-83	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-84	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-85	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-86	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-87	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-88	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-89	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-90	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-91	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-92	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-93	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-94	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-95	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-96	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-97	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-98	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-99	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-100	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-101	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-102	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-103	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-104	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-105	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-106	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-107	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-108	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-109	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-110	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-111	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-112	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-113	21	15.42	21	23.10	American.	U. S. Navy	490.0	57.8	Seattle, Wash.	Boston, Mass.	General
S-114	21	15.42	21	23.10	American.	U. S. Navy	4				

Tanker.

18 Motor schooner.

aking, wood, spccie.

explosives, paper, cotton.

PORT OF CRISTORAL.

* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 16.	Ulúa	United Fruit Co.	Port Limón, C. R.	February 16.	Macabi.	United Fruit Co.	New York via Kingston.
February 16.	Castilla.	United Fruit Co.	Puerto Colombia.	February 16.	Wanks.	United Fruit Co.	San Blas, R. P.
February 16.	No. 9085 ²¹ .	Pan-American Airways	Tela via waypoints.	February 16.	Ulu.	United Fruit Co.	New York via Habana.
February 19.	Tolón	United Fruit Co.	New York via waypoints.	February 16.	Suyvesant.	Royal Neth. S. S. Co.	Amsterdam via waypoints.
February 19.	Meltonian.	Leyland S. S. Line	Liverpool via waypoints.	February 16.	Cristóbal.	Panama R. S. S. Line	New York via Haiti.
February 18.	Nora B. ²²	II Blackwood	Colon, R. P.	February 16.	Mayan.	Gulf-Caribbean S. S. Co.	Tampa via waypoints.
February 19.	Zacapa.	United Fruit Co.	New York via Kingston.	February 17.	Carlaro.	United Fruit Co.	New Orleans via waypoints.
February 19.	Anacahuca ²¹ .	United Fruit Co.	Colon, R. P.	February 17.	Castilla.	United Fruit Co.	Port Limón via Bocus.
February 19.	Amnetta I. ²¹ .	A. Tagarapiles	Colon, R. P.	February 18.	No. 9088 ²¹ .	Pan-American Airways.	Tela via waypoints.
February 19.	El Panquaco ²⁴ .	Panamaman Government	Colon, R. P.	February 18.	No. 144-M ²¹ .	Pan-American Airways.	Guayaquil via waypoints.
February 19.	Tela.	United Fruit Co.	New Orleans, La.	February 18.	No. 945-M ²¹ .	Pan-American Airways.	Curacao via waypoints.
February 19.	No. 9003 ²¹ .	Pan-American Airways	Puntarenas.	February 19.	Anacahuca ²¹ .	United Fruit Co.	Colon, R. P.
February 19.	Scotia Airplane Co.	Scotia Airplane Co.	Barranquilla via waypoints.	February 19.	Annetta I. ²¹ .	A. Tagarapiles.	Colon, R. P.
February 19.	Corfoha C-40 ²¹ .	Corfoha C-40	Hamburg via waypoints.	February 19.	Nora B. ²² .	H. Blackwood	Port Limón, C. R.
February 20.	Magtalen.	Hamburg-American Line	New Orleans via Habana.	February 20.	Zacapa.	United Fruit Co.	New York via waypoints.
February 21.	Amnapa.	Stand. Fruit & S. S. Co.					

21 Air mail carrier. 22 Motorschooner. 23 Motor boat. 24 Transport. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 21...	Pasajero ²⁷ ...	Gough Brothers.	Belize via wayports.	February 20...	Magdalena	Hamburg-American Line.	Port Limon, C. R.
February 21...	Anachucuna ²⁵ ...	United Fruit Co.	Colon, R. P.	February 20...	Tolca	United Fruit Co.	Port Limon, C. R.
February 21...	Inapacutina ²⁵ ...	United Fruit Co.	Colon, R. P.	February 20...	Cordoba C-40 ²⁶ ...	Seadla Airplane Co.	Barranquilla via wayp'ts.
February 21...	No. 945-M ²⁶ ...	Pan-American Airways.	Guayaquil via wayports.	February 20...	No. 9685 ²⁶ ...	Pan-American Airways.	Tela via wayports.
February 21...	Cundinamarca C-33 ²⁶ ...	Seadla Airplane Co.	Buenaventura via wayp'ts.	February 21...	Tela	United Fruit Co.	Pto. Colombia via wayp'ts.
February 22...	Volendam	Holland-American Line.	New York via wayp'ts.	February 21...	Meltonian	Leeward S. S. Line.	Liverpool via wayports.
February 22...	Mayari	United Fruit Co.	New York via wayp'ts.	February 21...	Anachucuna ²⁵ ...	United Fruit Co.	Colon, R. P.
February 22...	Castilla	United Fruit Co.	B.c.s. R. P.	February 21...	Inapacutina ²⁵ ...	United Fruit Co.	Colon, R. P.
February 22...	Wants	Stand. Fruit & S. S. Co.	San Bli. s. R. P.	February 22...	Cundinamarca C-33 ²⁶ ...	Seadla Airplane Co.	Buenaventura via wayp'ts.
February 22...	Mardalena	Hamburg-American Line.	Port Limon, C. R.	February 22...	Amapala	Stand. Fruit & S. S. Co.	New Orleans via wayp'ts.
February 22...	Paraguina	United Fruit Co.	New Orleans via Habana.	February 22...	No. 9664 ²⁶ ...	Pan-American Airways.	Tela via wayports.
February 22...	No. 9685 ²⁶ ...	Pan-American Airways.	Tela via wayports.	February 22...	Castilla	United Fruit Co.	New Orleans, La.
February 22...	Haarlem	Royal Netb. S. S. Co.	Port Limon, C. R.				
PORT OF BALBOA.							
²⁵ Motor boat.	²⁶ Air mail carrier.	²⁷ Motor schooner.					
February 17...	Castana	U. S. Tankship.	High seas.	February 17...	Castana	U. S. Tankship.	Honolulu, T. H.
February 18...	Cathwood	Union Oil Co. of California.	Los Angeles, California.	February 19...	Sambu ²⁸ ...	Hans Elliot.	Panama Bay, R. P.
February 19...	Sambu ²⁸ ...	Hans Elliot.	Panama Bay, R. P.	February 19...	Real ²⁸ ...	Hans Elliot.	Panama Bay, R. P.
February 19...	Real ²⁸ ...	Hans Elliot.	Panama Bay, R. P.	February 20...	Cathwood.	Union Oil Co. of California.	Lcs Angeles, California.

* Other than ships passing through the Canal.

²⁸ Motor schooner.

Importation of Parrots into the United States.

THE PANAMA CANAL, HEALTH DEPARTMENT,

February 18, 1930.

To all steamship agents and others concerned:

This office is in receipt of the following regulations which are transmitted for your information:

J. F. SILER,
Chief Health Officer.

REGULATIONS GOVERNING THE IMPORTATION OF PARROTS INTO PORTS OF THE
UNITED STATES OR ITS POSSESSIONS OR DEPENDENCIES PRESCRIBED
IN ACCORDANCE WITH THE PROVISIONS OF EXECUTIVE ORDER
NO. 5264, APPROVED JANUARY 24, 1930.

1. The term "parrots" is defined for the purposes of these regulations to include only members of the family "Psittacidae" and for the present will not be construed to include cockatoos, macaws, parakeets, or love birds.

2. For the time being, until further notice, parrots shall not be permitted entry into ports of the United States its possessions or dependencies from foreign ports; (a) provided that an individual privately owned parrot which has been maintained in a good sanitary environment in the quarters of an accompanying owner for not less than sixty days prior to arrival and which has not been exposed to contact meanwhile with other parrots, following proper certification of these facts, may be permitted entry if apparently well for transportation directly to the home of the accompanying owner.

3. Any vessel arriving from foreign ports with parrots on board may be permitted to enter port under provisional pratique, which shall be conditioned upon all parrots aboard being detained on board while in such United States ports, except as herein provided.

4. All other public or private vehicles of transportation or persons transporting parrots from foreign ports will be refused entry when so engaged.

5. Parrots excluded from entry shall be deported on the vessel upon which they arrive; (a) provided that such parrots may be transferred to some other vessel in the same port for reshipment to a foreign port when approved by the quarantine officer of the port; (b) provided further, that parrots which were embarked at a foreign port prior to January 24, 1930, destined to and arriving at a United States port after January 24, 1930, may be removed from the vessel to the United States quarantine station at the port of arrival and there held for such period of observation and under such conditions as may be deemed advisable by the Surgeon General of the Public Health Service at the expense of the owner or consignee, and following such detention may then be permitted entry in the discretion of the Surgeon General.

APPROVED: February 3, 1930.

A. W. MELLON,

Secretary of the Treasury.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,

BALBOA HEIGHTS, C. Z., February 21, 1930.

No. 673.

PACIFIC COAST—PANAMA BAY.

South Frailc light, R. P., established, combination gas and whistling buoy discontinued. On February 19, 1930, an unwatched automatic gas lighthouse was established on South Frailc Island, replacing the sea buoy (No. 3132—1929 Light List) near that position.

Description: The new lighthouse is located on the small island, about 100 feet N. W. of the main island, and consists of a 375 m. m. acetylene gas lantern mounted on a 13-foot steel tower; tower set on a 11-foot concrete pedestal. *Color:* Tower and pedestal, painted white. *Characteristics:* Flashing white, period, 4 seconds; light 0.5 second, eclipse 3.5 seconds; 15 flashes per minute. Height above mean high water, 60 feet. *Visibility:* 15 nautical miles. *Position:* Latitude 7° 19' 45" N., longitude 80° 7' 55" W.

(See Notice to Mariners No. 665 for advance notice of above.)

H. BURGESS,
Governor.

**Report of Cargo Discharged and Laded by Vessels Entering and Clearing
from Port of Cristobal, C. Z., for Two Weeks Ending February 15, 1930.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ancon.....	Panama R. R. S. S. Line.....	February 2.....	February 2.....		1,472
Spreewald.....	Hamburg-American Line.....	February 2.....	February 2.....		829
Santa Cecelia.....	Grace Line.....	February 2.....	February 2.....		222
El Salvador.....	Panama Mail S. S. Co.....	February 2.....	February 2.....		386
Laila.....	Gulf-Caribbean Line.....	February 2.....	February 2.....		1
Calamares.....	United Fruit Co.....	February 2.....	February 2.....		9
Tela.....	United Fruit Co.....	February 2.....	February 3.....	12	30
Donaa.....	North German Lloyd.....	February 2.....	February 3.....	(¹)	211
Cauca.....	National Navigation Co.....	February 2.....	February 7.....	272	71
Ebro.....	Pacific Steam Nav. Co.....	February 3.....	February 3.....	21	2
Boskoop.....	Royal Neth. S. S. Co.....	February 3.....	February 4.....	140	90
Parismina.....	United Fruit Co.....	February 3.....	February 3.....	387	77
Wanks.....	Stand. Fruit & S. S. Co.....	February 3.....	February 4.....		1
Corinto.....	Panama Mail S. S. Co.....	February 3.....	February 4.....		1,215
Peron.....	French Line.....	February 3.....	February 5.....	101	241
Pacific Ranger.....	Furness, Withy & Co.....	February 3.....	February 5.....	(¹)	473
Archer.....	Roosevelt Line.....	February 4.....	February 4.....	128	(²) 241
Santa Cruz.....	Grace Line.....	February 4.....	February 4.....	189	140
Colombo.....	Italian Line.....	February 4.....	February 5.....	309	63
Durazzo.....	Hamburg-American Line.....	February 4.....	February 5.....	978	(²)
Kinderdijk.....	Holland-American Line.....	February 4.....	February 5.....	(¹)	232
San Mateo.....	United Fruit Co.....	February 4.....	February 5.....	1,398	33
Loehgill.....	Pacific Steam Nav. Co.....	February 5.....	February 5.....	14	103
Nellie Moulton.....	Bruce Surgeon.....	February 5.....	February 5.....	(¹)	45½
Iriona.....	United Fruit Co.....	February 5.....	February 6.....	783	4
Santa Elisa.....	Grace Line.....	February 5.....	February 6.....	37	(²)
Pastores.....	United Fruit Co.....	February 5.....	February 6.....	492	297½
Metapan.....	United Fruit Co.....	February 5.....	February 6.....	628	71
Almagro.....	Pacific Steam Nav. Co.....	February 5.....	February 6.....	217	96
La Paz.....	Pacific Steam Nav. Co.....	February 5.....	February 6.....	20	81
Bodegraven.....	Royal Neth. S. S. Co.....	February 5.....	February 6.....	217	203
Frontenac.....	Anglo-Saxon Pet. Co.....	February 5.....	February 7.....	11,045	(²)
Feedesia.....	Hamburg-American Line.....	February 5.....	February 8.....	581	225
Nosa Chief.....	N. O. & S. A. S. Co.....	February 6.....	February 6.....	59	50
Hague Maru.....	Osaka Shosen Kaisha.....	February 6.....	February 7.....	132	(²)
Orita.....	Pacific Steam Nav. Co.....	February 6.....	February 7.....	9	18
Eemdijk.....	Holland-American Line.....	February 6.....	February 8.....	227	347
Escape Fueges.....	P. Martinez.....	February 6.....	February 8.....	80	60
Cal.....	North German Lloyd.....	February 6.....	February 8.....	991	312
Edward L. Doheny.....	Huasteca Petroleum Co.....	February 7.....	February 8.....	8,839	(²)
San Mateo.....	United Fruit Co.....	February 7.....	February 8.....	(¹)	172
Amapala.....	Stand. Fruit & S. S. Co.....	February 7.....	February 8.....	379	369
Saint Louis.....	French Line.....	February 7.....	February 8.....	185	32
Oropesa.....	Pacific Steam Nav. Co.....	February 7.....	February 8.....	79	119
Acayutla.....	Pacific Steam Nav. Co.....	February 7.....	February 7.....	1,014	
Mercian.....	Leyland Line.....	February 8.....	February 8.....	2	228
Fauna.....	Royal Neth. S. S. Co.....	February 8.....	February 8.....	(¹)	481
Manaque.....	United Fruit Co.....	February 8.....	February 8.....	65	985
Tela.....	United Fruit Co.....	February 8.....	February 8.....	1½	531
Waunta.....	Stand. Fruit & S. S. Co.....	February 8.....	February 8.....	20	(²)
Wanks.....	Stand. Fruit & S. S. Co.....	February 8.....	February 8.....	59	1
Arkansas.....	French Line.....	February 8.....	February 9.....	29	(²)
Gladiator.....	T. & J. Harrison.....	February 8.....	February 10.....	215	(²)
Heredia.....	United Fruit Co.....	February 8.....	February 10.....	139	25
Saint Jean.....	French Line.....	February 8.....	February 11.....	600	145
Pastores.....	United Fruit Co.....	February 9.....	February 9.....	6	15
Durazzo.....	Hamburg-American Line.....	February 9.....	February 10.....	(²)	320
Havel.....	North German Lloyd.....	February 9.....	February 10.....	(¹)	369
Wido.....	North German Lloyd.....	February 9.....	February 10.....	290	9
Manizales.....	North German Lloyd.....	February 9.....	February 13.....	588	26
West Camargo.....	McCormick S. S. Line.....	February 10.....	February 11.....	154	(²)
Buenos Aires.....	Spanish Line.....	February 10.....	February 12.....	165	511
Sonora.....	French Line.....	February 10.....	February 12.....	101	211
Stuyvesant.....	Royal Neth. S. S. Co.....	February 10.....	February 10.....	1	(²) 8
Fella.....	Nav. Libera-Triestina.....	February 10.....	February 10.....	(¹)	
Laurits Swenson.....	Fred Olsen & Co.....	February 10.....	February 11.....	323	(²)
Salvador.....	Pacific Steam Nav. Co.....	February 10.....	February 11.....		583
Emil Kirdorf.....	Hamburg-American Line.....	February 11.....	February 12.....	87	131
Cerigo.....	Hamburg-American Line.....	February 11.....	February 12.....	814	(²)
Wisconsin.....	French Line.....	February 11.....	February 11.....	139	46
Santa Teresa.....	Grace Line.....	February 11.....	February 11.....	128	450
Leme.....	Nav. Libera-Triestina.....	February 11.....	February 12.....	106	(²)
Suriname.....	United Fruit Co.....	February 11.....	February 15.....	1,451	(²)
Ulua.....	United Fruit Co.....	February 12.....	February 13.....	483	218
Cristobal.....	Panama R. R. S. S. Line.....	February 12.....		5,546	
City of San Francisco.....	Panama Mail S. S. Co.....	February 12.....		1,560	
Rugia.....	Hamburg-American Line.....	February 12.....	February 12.....	147	20
Aconagua.....	Chilean Line.....	February 12.....	February 12.....	(¹)	4

* No cargo discharged.

* No cargo laded.

* 800 pounds.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Iriona	United Fruit Co.	February 12.	February 12.	11	50
Lochinvar	Pacific Steam Nav. Co.	February 12.	February 12.	38	263
Carare	United Fruit Co.	February 12.	February 12.	13	(¹)
Castilla	United Fruit Co.	February 12.	February 13.	686	48
Maravi	United Fruit Co.	February 12.	February 13.	1	68
Swiftwind	C. D. Mallory & Co.	February 12.	February 13.	11,768	(²)
Sixola	United Fruit Co.	February 12.	February 13.	254	155
Santa Inez	Grace Line	February 12.	February 14.	1	600
Victorious	Tampa Intercean Co.	February 13.	February 14.	277	(²)
Venezuela	Panama Mail S. S. Co.	February 13.	February 15.	1,539	712
Baralt	Royal Neth. S. S. Co.	February 13.	February 15.	372	
Cid	Pacific Steam Nav. Co.	February 14.	February 15.	519	14
Iselohn	Hamburg-American Line	February 14.	February 15.	(¹)	691
Atlantida	Stand. Fruit & S. S. Co.	February 14.	February 15.	124	1,101
Mayan	Gulf-Caribbean Line	February 14.	February 15.	1,164	(²)
Colombia	Panama Mail S. S. Co.	February 14.	February 15.	360	
Cartago	United Fruit Co.	February 15.	February 15.	169	
Wanks	Stand. Fruit & S. S. Co.	February 15.	February 15.	81	
Macabi	United Fruit Co.	February 15.	February 15.	79	983
Iriona	United Fruit Co.	February 15.	February 15.	93	351
Surrey	Federal Steam Nav. Co.	February 15.	February 15.	123	(²)
Magellan	Pacific Steam Nav. Co.	February 15.	February 15.	(¹)	43
Carmania	R. Feuillebois.	February 15.	February 15.	(¹)	45½
Grunewald	Hamburg-American Line	February 8.	February 9.	5	1,346

* No cargo discharged. • No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending February 22, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cambrai	U. S. Government	February 7.	February 8.	746	51
Cuyama	U. S. Government	February 9.	February 10.	3,571	
Santa Teresa	Grace Line	February 10.	February 10.	12	
Suriname	United Fruit Co.	February 10.	February 11.	88	
Lauris Swenson	Fred Olsen & Co.	February 11.	February 13.	2,160	
City of San Francisco	Panama Mail S. S. Co.	February 12.	February 12.	1	
Rio Nozaro	H. T. Lau	February 12.	February 24.	466	
Anyo Maru	Nippon Yusen Kaisha	February 13.	February 13.	184	
Venezuela	Panama Mail S. S. Co.	February 13.	February 14.	95	
Victorious	U. S. Shipping Board	February 13.	February 13.	127	
Santa Inez	Grace Line	February 13.	February 14.	2	18
Virginia	Panama Pacific Line	February 14.	February 14.		142
Suriname	United Fruit Co.	February 15.	February 15.		1
Colombia	Panama Mail S. S. Co.	February 16.	February 16.	77	2
Esparta	United Fruit Co.	February 17.	February 18.	135	
Cathwood	Union Oil Co.	February 18.	February 20.	11,482	25
Santa Barbara	Grace Line	February 20.	February 20.	26	
Nesa King	N. O. & S. A. S. S. Co.	February 20.	February 20.	557	
Champerico	Pacific Steam Navigation Co.	February 21.	February 22.		1
Zealandia	Shaw, Savill & Albion	February 21.	February 23.		19

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(a) For handling cargo from ship's side to storage place, the customary inward local charge of \$1 per ton.

(b) For delivery or reforwarding, customary outward local charge of \$1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(c) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers"). Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.	11.00	14.00

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1913, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., March 5, 1930. No 31.

Traffic Through the Panama Canal in February, 1930.

During the month of February, 1930, 491 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,131,386.12, and on the launches \$5.25, or a total tolls collection of \$2,131,391.37.

The daily average number of commercial transits for the month was 17.54, and the average tolls collection was \$76,120.93, as compared with average of 17.13 transits and \$76,135.84 in tolls for the previous month, and an average of 18.64 transits and \$78,998.62 in tolls for February, 1929. The average amount of tolls paid by each of the commercial transits was \$4,340.91, as compared with \$4,444.84 for the month of January, 1930.

In point of transits, commercial traffic for the past month was the lowest since September, 1928, when 487 ships were passed through the Canal, while the amount of tolls collected was the lowest since June, 1929, when that revenue amounted to \$2,127,805.97. The daily averages for the past month, however, compare very favorably with the averages for the first 7 months of the current fiscal year (owing to the fewer number of days in February), the average transits in February being exceeded only by those in October, and the average tolls surpassed only by those in October and January.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 8 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 8 months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,435,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
Totals, first 8 months of fiscal year, 1930.....	4,224	18,320,231.52	17.38	75,391.90
Totals, first 8 months of fiscal year, 1929.....	4,310	18,078,071.55	17.74	74,395.35
Totals, first 8 months of fiscal year, 1928.....	4,394	18,398,340.46	18.01	75,403.03

In comparison with the first 8 months of the fiscal year 1929, the corresponding period this year has had 86 fewer transits and \$242,159.97 more tolls.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, March 1, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Argon Maru	22	22.30	23	6.30	23	13.44	23	15.10	Japanese.	Osaka Shosen Kaisha.	415.0	55.0	27.0	New York, N. Y.	Moji, Japan.	(^s)	7,551	7,273	5,294
Snead	22	23.20	23	6.30	23	14.39	23	15.30	Norwegian.	Fern Line.	377.6	54.0	24.0	Tampa, Fla.	Osaka, Japan.	General	6,973	6,079	4,534
Alaskan	23	5.40	23	7.40	23	15.23	23	16.30	American.	Amer-Hawaiian Line.	415.0	53.7	21.0	Boston, Mass.	Portland, Oreg.	General	3,638	7,380	5,339
Atlantic	23	8.15	23	7.45	23	15.36	23	16.45	American.	Arzonaut S. S. Co.	410.5	54.3	23.6	Oslo, Norway.	Portland, Oreg.	Steel, general	6,727	6,567	4,917
Borra	23	8.15	23	9.00	23	16.15	23	22.45	Norwegian.	Fred Olsen & Co.	362.0	51.0	14.0	Batavia, N. Y.	Los Angeles, Calif.	Ballast	5,242	3,706	
Stedore	22	18.35	23	14.10	23	21.08	23	22.08	American.	Ore S. S. Corp.	550.3	72.2	21.0	New York, N. Y.	Cruz Grande, Chile	Ballast	15,551	4,297	
Buena Vista	23	20.45	24	6.15	24	14.12	24	15.20	Norwegian.	Caucasian Oil Co.	388.0	55.7	21.0	Preston, England.	Los Angeles, Calif.	Ballast	5,469	3,744	
Castle	24	00.30	24	7.15	24	14.50	24	16.05	British.	Barber S. S. Line.	464.0	60.0	24.0	Philadelphia, Pa.	Manila, P. I.	General	7,016	8,859	6,094
Lancaster	24	9.15	24	9.20	24	18.20	24	23.48	American.	Arzonaut S. S. Co.	434.3	57.7	26.0	Mobile, Ala.	Seattle, Wash.	Steel products.	9,109	7,365	5,841
Seedmaker	24	11.30	24	11.40	24	19.25	25	2.47	British.	Isthmian S. S. Lines.	395.5	55.0	27.0	Baltimore, Md.	Shanghai, China.	Steel, general	8,277	7,330	5,245
Port Hunter	24	9.00	24	12.30	24	20.23	24	21.30	British.	Comth & Dom. Line.	481.0	62.0	26.4	London, England.	Brisbane, Australia.	General	1,594	10,825	7,968
Alvarado	23	23.05	24	14.34	24	22.10	24	22.20	British.	Pacific Steam Nav. Co.	303.0	43.0	17.0	New York, N. Y.	Callao, Peru	General	1,215	2,834	1,748
Charles	24	15.10	24	15.20	24	22.15	24	23.20	American.	Sudden & Christenson.	410.0	54.0	22.0	Jacksonville, Fla.	Seattle, Wash.	General	4,100	6,693	4,915
Christensen	22	18.00	24	6.30	24	14.55			Panamaian	H. Elliott.	62.0	17.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast		46	22
Real	24	8.00	24	14.55					American.	U. S. Army	156.0	32.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Graham	24	8.09	24	14.55					American.	U. S. Army				Cristobal, C. Z.	Balboa, C. Z.	Ballast			
J-10	24	8.30	24	18.24					American.	U. S. Army	150.0	28.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Lewis	24	9.05	24	20.30	25	10.05	25	16.00	Norwegian.	Moore & McCormack.	411.0	67.0	16.9	New York, N. Y.	Balboa, C. Z.	General	3,000	7,542	5,027
Belnap	24	8.35	25	6.10	25	15.35	26	16.02	American.	Standard Shipping Co.	411.6	53.2	21.3	Baytown, Texas.	Talara, Peru.	Gasoline	2,986		
Bout Brewster	24	23.05	25	6.35	25	16.35	25	17.38	American.	States S. S. Co.	410.0	54.0	18.0	Philadelphia, Pa.	Seattle, Wash.	General	2,953	6,484	4,675
San Rafael	24	23.05	25	7.12	25	17.25	25	18.45	British.	Anglo-Saxon Pet. Co.	440.5	57.6	20.9	Falmouth, England.	Los Angeles, Calif.	Ballast	7,478	5,040	
El Oro	24	23.05	25	7.50	25	18.00	25	19.03	American.	Isthmian S. S. Lines.	430.7	54.3	28.0	Baltimore, Md.	Vancouver, B. C.	Steel, general	8,044	7,946	5,698
Greylock	25	6.40	25	7.50	25	18.00	25	19.03	American.	Isthmian S. S. Lines.	430.7	54.3	28.0	Baltimore, Md.	Vancouver, B. C.	Steel, general	8,044	7,946	5,698
J. W. Van	25	9.25	25	9.40	25	18.25	25	19.50	American.	Atlantic Refining Co.	364.0	51.0	20.6	Brunswick, Ga.	Los Angeles, Calif.	Ballast	5,174	3,528	
Dyke	25	9.40	25	10.10	25	18.25	25	20.15	Norwegian.	Fern Line.	385.3	54.8	25.9	Galveston, Texas.	Yokohama, Japan.	General	7,436	6,615	4,859
Fereng	25	2.55	25	11.25	25	19.40	25	20.50	British.	Ellerman & Bucknall.	422.0	53.7	21.2	New York, N. Y.	Wangmuni, N. Z.	General	4,007	7,016	5,280
City of Lincoln	24	12.18	25	12.15	25	20.45	26	17.35	American.	Panama Mail S. S. Co.	380.0	48.7	21.1	New York, N. Y.	San Francisco, Cal.	General, coffee	1,617	5,926	4,178
Ecuador	25	11.00	25	12.55	25	21.00	25	22.28	American.	Nelson Line.	386.8	52.0	19.2	New York, N. Y.	Seattle, Wash.	General	3,684	5,699	4,167
Americus	25	9.50	25	13.55	25	21.00	25	23.10	American.	Texas S. S. Co.	416.0	55.0	21.0	Norfolk, Va.	Los Angeles, Calif.	Ballast	3,650	5,349	2,950
Herman Frasch	25	14.35	25	14.40	25	22.00	25	23.42	American.	Texas Gulf Sulph. Co.	356.0	51.6	23.6	Galveston, Tex.	Portland, Oreg.	Crude sulphur.			
Edw. P. Jones	25	14.35	25	14.40	25	22.00	25	23.42	American.	U. S. Army	101.0	23.5		Cristobal, C. Z.	Balboa, C. Z.	Ballast	2,915	7,983	5,912
Georgian	26	6.20	26	6.40	26	13.31	26	15.20	American.	Amer-Hawaiian Line.	434.3	57.7	17.0	Boston, Mass.	Seattle, Wash.	General	4,662	8,508	6,179
Lockenbach	26	5.05	26	7.45	26	15.15	26	16.20	American.	Lockenbach Line.	446.0	56.1	23.8	Boston, Mass.	Tacoma, Wash.	General			

* Steel bars, phosphate rocks, and general.

† Tug.

‡ River boat.

§ Launch.

¶ Mine planter.

‡ Motor schooner.

‡ Motor ship.

‡ Motor schooner.

‡ Tanker.

Pennyworth	23	13.05	26	8.30	26	16.43	26	18.00	British	Guinet, L'lyn & Merret.	410.0	53.3	25.6	Tyne, England	Thio, New Cal	Coal, coke	5,747	6,179	4,377
South Sea	26	2.20	26	9.45	26	17.40	27	1.32	British	Tankers, Ltd	442.0	57.0	18.0	Newport, England	Los Angeles, Calif	Ballast			
Canadian	26	3.05	26	10.45	26	18.26	26	20.13	British	Can. Nat. Steamships	400.0	52.0	18.6	Halifax, N. S.	Vancouver, B. C.	Steel, general	2,230	5,891	4,186
Importer	26	6.35	26	12.00	26	19.35	26	21.00	British	Can. Nat. Steamships	400.0	52.0	20.5	Halifax, N. S.	Adeleide, Australia	General	3,724	5,891	4,114
Cities Service	26	10.30	26	13.30	26	20.27	26	21.35	American	Richfield Oil Co.	431.0	59.2	19.6	New York, N. Y.	Los Angeles, Calif	Ballast	8,093		5,347
Oklahoma	27	3.40	27	6.30	27	14.07	27	22.54	British	N. Z. Shipping Co.	552.0	70.0	23.3	London, England	Auckland, N. Z.	General	5,620	18,197	13,326
Rangitiki	27	00.05	27	6.40	27	14.45	28	20.20	American	U. S. Army	448.0	58.0	24.1	Brooklyn, N. Y.	San Francisco, Cal	General	451		
Cambrai	27	17.55	27	7.20	27	15.42	28	2.48	German	North German Lloyd	393.0	54.0	21.0	Hamburg, Germany	San Antonio, Chile	General	3,770	6,542	4,532
Ausar	25																		
Pacific	26	7.45	27	7.40	27	16.40	1	17.45	British	Furness, Withly & Co.	435.0	60.0	17.10	Glasgow, Scotland	Vancouver, B. C.	General	1,178	9,644	6,967
Reliance	27	5.30	27	9.00	27	16.34	27	21.44	Swedish	Ore S. S. Corp.	561.0	72.2	23.0	Sparrows Pt., Md.	Cruz Grande, Chile	Ballast	15,425		4,421
Sweden	25	9.15	27	10.05	27	17.27	27	18.48	American	Dimon S. S. Corp.	409.6	54.2	20.6	Philadelphia, Pa.	Tacoma, Wash.	General	5,691	6,537	4,845
Pacific Redwood	26	20.25	27	11.45	1	10.01			American	U. S. Navy	292.0	44.0	19.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Galveston	26	17.00	27	12.25	27	19.30	27	20.00	French	French Line	399.0	52.5	15.4	Havre, France	Talcahuano, Chile	General	2,000	5,822	4,122
Vermont	26	22.10	27	12.50	27	20.05	27	21.00	Norwegian	Westfal, Larsen & Co.	398.0	54.7	15.6	Buenos Aires, Arg	Los Angeles, Calif	General	800	6,854	5,132
Hindanger	26	22.10	27	13.35	27	20.55	25	22.40	British	Pacific Steam Nav. Co.	335.1	52.2	21.0	Swansea, England	Valparaiso, Chile	General	4,217	5,656	3,823
Lagarto	27	9.15	27	14.10	27	21.44	28	9.15	Russian	Antong	231.0	43.6	21.10	New York, N. Y.	Vladivostok, Russ.	General	2,000	2,768	1,678
Lake Fabius	27	8.00	27	13.35	27	20.55	25	22.40	British	Antong	335.1	52.2	21.0	New York, N. Y.	Valparaiso, Chile	General	4,217	5,656	3,823
Anita I.	27	14.15	28	6.00	28	13.37	28	19.25	American	Set. Hallmeyer	406.0	53.0	20.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	2,841	8,730	5,860
Goetendijk	27	22.45	28	6.30	28	17.54	28	19.25	Dutch	Holland-American Line	488.2	62.7	18.0	Rotterdam, Holland	Portland, Ore	General	3,807	25,262	18,194
India Arrow	28	6.10	28	7.25	28	16.16	1	3.00	American	Standard Transp. Co.	536.4	80.3	20.0	New York, N. Y.	San Francisco, Cal	General			
Pennsylvania	28	7.40	28	7.40	28	14.07			American	Panama-Pacific Line	48.0	11.6		New York, N. Y.	San Francisco, Cal	General			
Rolling Stone	28	7.40	28	7.40	28	14.07			American	Robert Wilcox	219.3	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
S-20	28	10.10	28	18.18					American	U. S. Navy	219.3	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
City of San Francisco	12	18.45	28	10.30	28	18.45	28	19.55	American	Panama Mail S. S. Co.	296.0	45.0	18.0	Cristobal, C. Z.	San Francisco, Cal	General	1,298	3,848	2,606
Ebro	27	22.57	28	11.06	28	19.06	28	21.40	British	Pacific Steam Nav. Co.	450.0	56.0	24.3	New York, N. Y.	Talcahuano, Chile	General	2,506	9,291	6,301
Margaret Johnson	27	18.50	28	12.57	28	19.50	28	23.35	Swedish	Johnson Line	405.0	54.0	23.2	Stockholm, Sweden	San Francisco, Cal	General	3,820	7,048	5,337
Silverguava	28	10.55	28	13.50	28	20.48	28	22.33	British	S. & J. Thompson	425.0	56.0	24.0	New York, N. Y.	Calcutta, India	General	5,693	8,216	6,030
Neton	28	11.10	28	15.05	28	22.33	1	5.29	American	Tidewater Oil Co.	425.8	57.0	20.0	Perth Amboy, N. J.	Los Angeles, Calif	Ballast	2,484	5,212	
Virgilio	28	8.00	1	6.03	1	14.40	1	22.42	Italian	Nav. Gen. Italiana	434.0	61.0	25.0	Genoa, Italy	Valparaiso, Chile	General	2,401	12,041	9,329
C. O.																			
Sullivan	26	20.55	1	7.20	1	15.12	1	16.25	British	International Pet. Co.	565.0	75.6	24.0	New York, N. Y.	Los Angeles, Calif	Ballast	16,780		9,885
Mexican	28	19.10	1	8.45	1	15.59	1	17.05	American	Amer-Hawaiian Line	472.3	57.2	19.10	Boston, Mass	Portland, Ore	General	3,083	9,258	6,944
Abasco	28	20.15	1	9.15	1	17.17	1	18.20	American	Musson, McCork Line	409.6	54.6	22.3	Baltimore, Md	Tacoma, Wash.	General	3,893	6,027	4,983
Geisha	28	10.25	1	10.10	1	18.21	2	2.55	Norwegian	Scand-Sov. Pacific Line	375.8	51.4	22.0	Kristiansund, Nor.	Arica, Chile	Gen., dynamite	5,205	5,081	3,925
City of Cambridge	28	20.55	1	11.05	1	17.53	1	22.42	British	Ellerman & Bucknall	454.0	57.11	26.3	New York, N. Y.	Fremantle, Aust'lia	Autos, oil, gen.	4,369	9,194	6,915
Yorkmar	28	23.40	1	11.15	1	19.47	1	19.48	American	Calmar S. S. Corp.	409.8	54.2	23.5	Baltimore, Md	Seattle, Wash.	General, steel	6,069	6,757	4,919
Malchase	28	15.18	1	11.55	1	19.38	1	21.00	American	Mallory Transp. Line	333.8	48.0	22.2	Fresport, Texas	Los Angeles, Calif	Sulphur	4,962	4,176	2,897
La Veta	25	16.00	1	12.17	1	19.12	1	20.35	American	United Fruit Co.	325.2	48.1	21.0	Cristobal, C. Z.	San Francisco, Cal	General, coffee	4,222	4,033	3,261
El Lobo	1	8.45	1	12.45	1	20.10	1	22.43	British	C. T. Bowring & Co.	335.2	51.0	20.0	Curacao, D. W. I.	Guayquil, Ecuador	Oil	4,494	4,851	3,620
Oakland	28	8.25	1	13.25	1	20.34	1	21.40	German	Hamburg-American Line	433.0	59.0	19.8	Hamburg, Germany	Vancouver, B. C.	General	2,235	8,510	6,387
Narore	28	16.30	1	13.30	1	21.04	1	22.12	American	Ore S. S. Corp.	550.3	72.2	21.6	New York, N. Y.	Cruz Grande, Chile	Ballast	15,551		4,297
Paul																			
Lukenbach	1	13.05	1	14.33	1	21.44	1	22.42	American	Lukenbach Line	471.0	59.6	26.0	Houston, Texas	Seattle, Wash.	General	7,722	9,927	6,539

Transport, Cruiser.

Yacht

Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for s.a.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Nature.	Tons.			Gross.	Net.		
Akiba-san Maru.	22	21.50	23	6.02	23	13.40	23	14.55	Japanese.	Mitsui & Co., Ltd.	375.0	50.0	24.3	Manila, P. I.	New York, N. Y.	Sugar.	5,900	5,045	3,634
Kellerwald.	22	23.30	23	6.40	23	11.45	23	16.15	German.	Hamburg-American Line	399.4	54.2	26.0	Toconipilla, Chile.	Charleston, S. C.	Nitrates.	8,072	6,545	4,483
Brookwood.	23	1.10	23	7.49	23	15.23	23	19.33	British.	J. Constantine	408.2	53.5	23.6	Vancouver, B. C.	Azores ¹⁴ .	Wheat.	7,564	6,200	4,627
Port Sydney.	23	3.30	23	7.54	23	15.30	23	19.55	British.	Com. Th. & Dom. Line.	501.3	53.3	27.0	Opua, N. Z.	London, England.	Frozen, general.	8,165	7,978	5,839
Pat Doherty.	20	11.05	23	12.01	23	20.00	24	2.15	American.	Richfield Oil Co.	430.2	59.2	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	8,165	7,978	5,839
St. Quentin.	23	11.20	23	12.24	23	20.18	23	22.30	British.	De La Guardia & Co.	349.0	49.9	19.5	Englandwood, B. C.	Providence, R. I.	Lumber.	4,545		
Epitauru.	23	15.00	23	16.46	24	13.50	24	18.52	Yugoslav.	Baburina & Co.	365.0	48.0	25.6	Taital, Chile.	Azores ¹⁴ .	Nitrates.	6,930	4,617	3,412
Santa Maria.	23	18.05	24	6.20	24	14.05	24	18.35	American.	Grace Line.	465.0	64.0	26.0	Talcahuano, Chile.	New York, N. Y.	General.	5,631	10,426	6,680
Hadnot.	23	20.00	24	6.39	24	15.25	24	15.25	American.	Cities Service Trans. Co.	416.9	56.2	27.0	Los Angeles, Calif.	Tiverton, R. I.	(Gas line.)	9,174	6,706	4,639
Tacoma.	23	22.45	24	7.26	24	16.15	24	17.45	Danish.	Canadian Transp. Co.	379.3	53.3	26.3	Vancouver, B. C.	Hull, England.	Lumber.	7,890	6,297	4,559
Onaida.	23	17.08	24	7.34	24	17.47	24	17.47	American.	Ford Motor Co.	231.0	43.0	26.0	Aberdeen, Wash.	Philadelphia, Pa.	(¹⁵)	2,700	2,656	1,621
Sacramento.	23	16.30	24	7.40	24	18.50	24	18.59	American.	Nelson S. S. Co.	380.0	53.2	27.0	Tacoma, Wash.	Baltimore, Md.	Copper, lumber.	6,655	5,653	4,122
Birkenhead.	23	10.24	8.57	24	19.15	24	19.15	19.15	American.	Vacuum Oil Co.	425.0	57.2	27.0	Estero Bay, Calif.	Wilmington, Va.	Crude oil.	9,271	7,502	4,639
Glan Macbean.	23	16.30	24	8.41	24	19.15	24	19.15	American.	Vacuum Oil Co.	425.0	57.2	27.0	Estero Bay, Calif.	Wilmington, Va.	Crude oil.	9,271	7,502	4,639
Nurtleton.	24	4.25	24	9.25	24	20.25	24	22.05	British.	R. Chapman & Co.	400.0	52.4	25.0	Toconipilla, Chile.	Charleston, S. C.	Nitrates.	7,300		
Calgarotte.	24	7.45	24	10.07	24	21.25	24	23.28	British.	Imperial Oil Co., Ltd.	521.5	70.4	31.8	Cruz Grande, Chile.	Sparrows Pt., Md.	Iron ore.	9,350		
Epoca.	23	23.55	24	11.49	24	23.06			Swedish.	Grace Line.	213.0	33.0	11.9	Talara, Peru.	Halifax, N. S.	Crude oil.	16,300	12,339	7,717
Stonepool.	24	11.05	24	11.35	24	22.00	24	23.20	British.	Pool Shipping Co.	405.0	53.5	23.6	Buenaventura, Col.	United Kingdom.	Coffee, hides, etc.	6,639	1,223	746
Commercial Trader.	24	18.30	24	19.15	25	11.55	25	11.55	American.	Moore & McCormack.	399.0	51.0	27.6	Caleta Colosa.	New Orleans, La.	Nitrates.	8,100	6,190	4,455
California.	24	12.35	25	6.10	25	13.40	25	14.05	American.	Panama-Pacific Line.	574.4	80.3	30.7	San Francisco, Cal.	New York, N. Y.	(¹⁶)	8,890	24,501	17,565
Lubrafol.	24	21.30	25	7.02	25	17.30	25	17.30	Belgian.	Soc. Anonyme D'Arne ¹⁷	440.3	47.4	26.6	San Francisco, Cal.	Rotterdam, Holl'd.	Dissed oil.	9,800	7,615	4,976
La Perla.	24	23.20	25	7.11	25	16.00			American.	United Fruit Co.	325.2	43.1	23.0	San Francisco, Cal.	Cristobal, C. Z.	General, edifice.	1,386	4,033	2,261
Brielle.	24	23.25	25	7.15	25	16.15	26	2.45	Dutch.	Royal Neth. S. S. Co.	409.0	58.0	26.2	Valparaiso, Chile.	Hamburg, Germany.	Nitrates, general.	7,480	7,322	4,778
Sale.	24	23.10	25	7.23	25	18.55	26	12.00	German.	North German Lloyd.	473.8	61.1	28.0	Vancouver, B. C.	Bremen, Germany.	General.	9,290	9,335	6,844
Sylvan Arrow.	25	00.25	25	8.47	25	19.00	25	19.00	American.	Standard Transp. Co.	467.6	62.7	28.5	Los Angeles, Calif.	New York, N. Y.	Gas oil.	12,613	9,693	6,862
Pacific Enterprise.	25	1.45	25	9.15	25	19.50	25	19.50	British.	Furness-Pacific Line.	435.9	60.3	27.0	Vancouver, B. C.	Glasgow, Scotland.	General.	7,796	9,641	6,989
York City.	25	2.50	25	9.84	25	20.53	25	21.50	British.	Sir W. R. Smith & Sons	411.8	55.5	27.3	Vancouver, B. C.	Manchester, Eng.	General.	8,116	7,038	5,166
Walter A.	25	3.50	25	10.18	25	20.10	25	20.10	American.	Lockenbach Line.	446.5	56.1	32.0	Portland, Oreg.	Boston, Mass.	(¹⁶)	8,693	8,735	6,567
Quarrington.	25	6.00	25	10.48	25	21.55	25	21.55	British.	W. L. Comyn.	420.0	56.5	26.6	Vancouver, B. C.	Liverpool, England.	Frozen, general.	9,771	6,997	4,955
Fernale.	25	7.15	25	11.23	25	22.30	26	6.10	British.	White Star Line.	500.0	63.2	27.4	Gladstone, N. Z.	London, England.	Gas oil.	5,293		
Gargyle.	25	10.45	25	11.49	25	22.30	26	23.45	American.	Vacuum Oil Co.	425.0	57.2	24.0	San Francisco, Cal.	Providence, R. I.	Frozen, general.	9,993	7,510	4,989
Kitty Taylor.	25	11.00	25	12.28	25	23.25	26	1.15	British.	Lambert Bros.	395.1	53.8	25.0	Cruz Grande, Chile.	Baltimore, Md.	Iron ore.	8,300		
Timountain.	24	7.35	25	12.50	25	23.45	25	23.45	American.	B. L. Shipping Co.	416.9	56.2	27.0	Los Angeles, Chile.	Curacao, D. W. I.	Iron ore.	6,728		7,734
Moerdijk.	25	12.00	25	13.24	26	9.35	26	12.20	Dutch.	Holland-American Line.	472.6	61.0	24.3	Vancouver, B. C.	Antwerp, Belgium.	Ballast.	9,104	9,165	7,056
Kentuckian.	25	14.30	25	15.20	26	10.25	26	10.25	American.	Amer.-Hawaiian Line.	414.5	53.7	26.6	Portland, Oreg.	Boston, Mass.	General.	6,108	7,049	4,941
Tanker.																			

¹⁶ Canned goods, general.¹⁷ Wheat, lumber, and general.¹⁸ Motor ship.¹⁹ For orders.

Gen. Morgan Lewis	24	18.20	25	7.18	25	17.25	American	U. S. Army	251.0	43.6	22.6	Balboa, C. Z.	Cristobal, C. Z.	Raw sugar	3,359	2,823	1,740
Santa Veronica	25	17.45	26	6.45	26	14.15	American	Amcr-Cuban Line	410.5	54.2	24.6	Los Angeles, Calif.	Philadelphia, Pa.	(22)	6,898	6,114	4,125
Mary	25	20.20	26	6.51	26	15.50	American	Luckenbach Line	410.5	54.2	24.6	Los Angeles, Calif.	Baltimore, Md.	Lumber	4,755	6,572	4,900
San Vincente	25	20.40	26	7.30	26	16.55	American	Quaker Line	369.4	51.1	23.0	Everett, Wash.	Philadelphia, Pa.	Wheat	6,900		
Tregarten	25	2.40	26	8.10	26	18.10	British	Hain S. S. Co.	216.5	52.9	14.2	Portland, Oreg.	Cobb, Ireland	General	1,020		
Calif.	20	8.00	26	9.35	26	18.30	German	Roland Line	466.9	52.8	26.0	Guayaquil, Ecuador	Cristobal, C. Z.	Frozen, general	6,326	9,959	7,226
Port Dunedin	20	1.15	26	9.56	26	19.12	British	Com'lth & Dom Line	292.0	44.0		Sydney, Australia	London, England				
Galveston	26	11.51	26	20.25			American	U. S. Government	500.9	63.6	27.0	Balboa, C. Z.	Cristobal, C. Z.				
Mahana	26	16.00	27	17.03	27	14.45	British	Shaw, Savill & Albion	360.2	51.6	27.0	Napier, N. Z.	London, England	Frozen, general	7,047	12,083	8,503
Guatemala	26	10.05	27	6.20	27	13.10	American	Panama Mail S. S. Co.	421.4	58.2	22.0	San Francisco, Cal.	New York, N. Y.	General	2,749	5,773	4,081
Paul Shoup	26	10.45	27	6.52	27	13.45	American	Associated Oil Co.	451.8	59.2	25.6	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,245	7,336	5,182
Turicum	26	16.30	27	7.03	27	15.45	Norwegian	Anglo-Saxon Pet. Co.	429.3	58.2	25.6	Los Angeles, Calif.	Land & End, Eng.	Gasoline	9,649	8,279	5,442
Atlantic Sun	26	21.05	27	7.36	27	17.50	American	Sun Oil Co.	480.6	66.0	29.0	Los Angeles, Calif.	Miami, Fla.	Gasoline	9,232	7,568	5,283
Sun	27	5.20	27	8.30	27	18.00	American	Sun Oil Co.	410.5	54.3	25.6	Olympia, N. Y.	Chester, Pa.	Gasoline	13,009	9,620	6,476
Texmar	26	19.45	27	8.09	27	18.25	American	Calmar S. S. Corp.	445.0	58.0	28.9	New York, N. Y.	New York, N. Y.	Lumber	7,533	5,567	4,909
Tatsumo Maru	26	15.05	27	9.09	27	19.40	Japanese	Nippon Yusen Kaisha	440.0	56.0	28.9	Manila, P. I.	New York, N. Y.	Lumber	9,123	8,015	5,716
Pomona	26	22.30	27	9.48	27	20.00	American	Pomona S. S. Co.	514.6	63.1	27.5	Everett, Wash.	Baltimore, Md.	Lumber	10,000	8,324	6,036
Cornwall	26	23.20	27	10.19	27	20.25	British	Federal Steam Nav. Co.	420.0	56.5	26.6	N. Plymouth, N. Z.	Glasgow, Scotland	Frozen, general	7,508	12,217	8,519
Rossington	27	4.00	27	10.45	27	21.45	British	Haldin & Phillips	309.7	52.3	25.2	Cruz Grande, Chile	Baltimore, Md.	Iron ore	10,350	6,963	4,959
Clan Skene	27	8.00	27	11.10	27	22.35	British	Inter-Freighters Co.	379.9	53.1	22.0	Quique, Chile	New Orleans, La.	Nitrates	7,500	5,775	4,048
Delight	27	1.35	27	12.11	27	22.25	American	Redwood Line, Inc.	575.0	107.9		Portland, Oreg.	Mobile, Ala.	Lumber, general	5,852	5,667	4,103
Lexington	27	10.00	28	7.40	28	15.50	British	U. S. Navy	531.0	70.2	28.6	San Diego, Calif.	Guantanamo, Cuba	Disp.	33,000		
Rangitata	27	14.36	28	7.49	28	19.28	American	N. Z. Shipping Co.	435.0	56.2	28.6	Lytleton, N. Z.	London, England	Frozen, general	5,994	18,206	13,500
R. J. Hanna	27	14.36	28	7.49	28	19.28	American	Standard Oil Co. of Cal.	435.0	56.2	28.6	San Francisco, Cal.	Philadelphia, Pa.	Gasoline	9,500	7,639	5,135
Swan	27	8.24	28	6.35	28	17.05	American	U. S. Navy	387.0	52.0		Balboa, C. Z.	Cristobal, C. Z.	Tug			
Aroostock	27	8.24	28	6.35	28	17.05	American	U. S. Navy	387.0	52.0		San Diego, Calif.	Guantanamo, Cuba	General	6,908	7,079	5,028
Lovan	28	4.12	28	8.52	28	20.10	American	U. S. Navy	407.7	53.7	27.0	Seattle, Wash.	Boston, Mass.				
S-16	28	9.12	28	8.12	28	20.10	American	Amcr-Hawaiian Line	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Langleetarn	27	23.00	28	9.43	28	20.45	British	F. Garriek	416.0	55.8	24.0	Portland, Oreg.	United Kingdom	Wheat	7,678	6,671	4,831
Christensen	28	7.45	28	9.59	28	21.35	American	Suddon & Christensen	415.5	54.2	24.2	Portland, Oreg.	New York, N. Y.	Lumber	7,581	6,603	4,931
Grady M.	28	9.50	28	11.36	28	22.30	British	Donaldson Bros	410.0	54.2	27.0	Vancouver, B. C.	Glasgow, Scotland	General	6,452	6,809	4,842
Annam	28	11.25	28	12.21	28	23.05	American	McCormick S. S. Co.	401.4	53.2	27.0	Seattle, Wash.	Baltimore, Md.	Lumber, copper	7,919	7,082	5,107
Gen. Wm. M. Graham	28	16.20	28	17.11	28	23.45	American	East Asiatic Co., Ltd.	410.0	55.2	28.0	Tacoma, Wash.	Copenhagen, Den.	General	9,232	7,067	5,286
Bendoran	28	13.30	28	15.04	28	23.45	Danish	U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.	Iron ore	4,950	4,232	3,095
Lebore	28	1.15	28	5.56	28	18.15	American	Cao-Amcr. Ship. Co.	378.0	46.0	23.0	Gray's Harb., Wash.	Hamburg, Germany	(24)	21,000	14,325	4,625
Gustaf E.	28	13.28	28	13.28	28	23.45	American	Ore S. S. Corp.	549.6	72.2	34.6	Cruz Grande, Chile	Baltimore, Md.				
Renter	28	22.00	28	1.68	28	18.35	Swedish	Caucasian Oil Co.	418.8	55.1	26.0	Los Angeles, Calif.	Hamburg, Germany	Gasoline	8,431	6,384	4,497
Cauca	28	21.10	28	6.17	28	18.55	Colombian	National Navigation Co.	107.2	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	Frozen, general	239	238	163
Doristar	1	2.50	1	7.31	1	19.48	British	Blue Star Line	499.8	64.0	29.0	New Westminster, B. C.	Newcastle, Eng.	General	9,449	11,075	8,143
Tai Pin Yang	1	5.00	1	7.53	1	19.08	Panamaian	Barber S. S. Line	460.0	60.6	21.0	Manila, P. I.	New York, N. Y.	General	3,238	9,866	6,955
Canada	1	6.00	1	11.25	1	21.05	Swedish	Johnson Line	429.9	56.2	25.5	Honolulu, T. H.	Stockholm, Sweden	General	7,327	7,476	5,507
Aryan	1	11.45	1	12.24	1	21.00	American	Texas S. S. Co.	416.8	56.1	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,508	6,932	5,115

Sugar and sardine oil.

Kerosene distillate.

Submarine.

Mine planter.

Airplane carrier.

Cruiser.

Tanker.

Wheat, zinc and lumber.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 23.	Veendam.	Holland-American Line.	New York via wayports.	February 23.	Volendam.	Holland-American Line.	New York via wayports.
February 23.	Republic.	United States Lines	Philadelphia via wayp'ts.	February 23.	Tolosa.	United Fruit Co.	New York via Habana.
February 23.	Tolosa.	United Fruit Co.	Port Limon, C. R.	February 23.	Magdalena.	Hamburg-American Line.	Hamburg via wayports.
February 24.	Consulshk Line.	Consulshk Line.	New York via Habana.	February 23.	Haarlem.	Royal Neth. S. S. Co.	Amsterdam.
February 24.	Camden.	United Fruit Co.	Curacao, D. W. I.	February 23.	Parishina.	Royal Neth. S. S. Co.	New Orleans via wayp'ts.
February 24.	No. 9664 ¹⁸ .	Pan-American Airways	Tela via wayports.	February 23.	Republie.	United States Lines	Habana, Cuba.
February 25.	Venezuela.	Royal Neth. S. S. Co.	Amsterdam via wayp'ts.	February 24.	Mayari.	United Fruit Co.	New York via Kingston.
February 25.	Tela.	United Fruit Co.	Cartagena, Colombia.	February 24.	Veendam.	Holland-American Line.	New York via wayports.
February 26.	Ancón.	Panama R. R. S. S. Line.	New York via Haiti.	February 25.	Pasajero ¹⁹ .	Gough Brothers.	Port Limon, C. R.
February 26.	Cavinti.	Elders & Wyffes Line	Avonmouth via wayp'ts.	February 25.	Vulcania.	Consulshk Line.	New York via wayp'ts.
February 26.	Calamares.	United Fruit Co.	New York via Habana.	February 25.	No. 9685 ¹⁸ .	Pan-American Airways	Tela via wayports.
February 26.	Santa Marta.	United Fruit Co.	New York via Kingston.	February 25.	No. 144-M ¹⁸ .	Pan-American Airways	Curacao via wayports.
February 26.	Marblehead ²⁰ .	United Fruit Co.	New Orleans, La.	February 25.	No. 945-M ¹⁸ .	Pan-American Airways	Guayaquil via wayports.
February 26.	Trenton.	U. S. Navy.	Guantanamo, Cuba.	February 25.	Camden.	United Fruit Co.	Curacao, D. W. I.
February 26.	Memphis ¹⁹ .	U. S. Navy.	Guantanamo, Cuba.	February 25.	Wankas.	Royal Neth. S. S. Co.	Port Limon, C. R.
February 26.	Richmond ²⁰ .	U. S. Navy.	Guantanamo, Cuba.	February 26.	Cayman.	Elders & Wyffes Line.	San Blas, R. P.
February 26.	Cardoba C-40 ¹⁸ .	Scadta Airplane Co.	Guantanamo, Cuba.	February 26.	Tela.	United Fruit Co.	Avonmouth via wayp'ts.
February 27.	Lizzie D. Peabody ¹⁹ .	G. I. Bryan.	Barranquilla via wayp'ts.	February 27.	No. 9664 ¹⁸ .	Pan-American Airways	Tela via wayports.
February 27.	No. 144-M ¹⁸ .	M. P. Martinez.	Colon, R. P.	February 27.	Santa Marta.	United Fruit Co.	New York via wayp'ts.
February 27.	Atlantida.	Canadlan-Pacific S. S. Co.	New York via wayports.	February 27.	Iriona.	Pan-American Airways	Puntarenas via wayports.
February 28.	No. 309-M ¹⁸ .	Pan-American Airways	Curacao via wayports.	February 27.	Calamares.	United Fruit Co.	Port Limon, C. R.
February 28.	Venezuela.	Standl. Fruit & S. S. Co.	New Orleans via Habana.	February 27.	Pearl Marie ¹⁹ .	United Fruit Co.	G. I. Bryan.
February 28.	Caldonia.	Pan-American Airways	Puntarenas via wayports.	February 27.	Cordoba C-40 ¹⁸ .	Scadta Airplane Co.	Bluefields, Nicaragua.
February 28.	No. 9185 ¹⁸ .	Royal Neth. S. S. Co.	Port Limon, C. R.	February 28.	Duchess of Bedford.	Canadlan-Pacific S. S. Co.	New York via wayports.
February 28.	No. 945-M ¹⁸ .	Pan-American Airways	Tela via wayports.	March 1.	Atlantida.	Pan-American Airways	Tela via wayports.
February 28.	Guantanamo C-33 ¹⁸ .	Guad Line.	New York via wayports.	March 1.	Tela.	Standl. Fruit & S. S. Co.	New Orleans via wayp'ts.
February 28.	Paul H. Harwood.	Pan-American Airways	Guayaquil via wayp'ts.	March 1.	Garmania ¹⁹ .	United Fruit Co.	New Orleans, La.
March 1.	Wankas.	Pan-American Pac. Co.	Aruba, D. W. I.	March 1.	Venezuela.	R. Puelllebois.	Bluefields, Nicaragua.
March 1.	Amnetta I. ²¹ .	Standl. Fruit & S. S. Co.	San Blas, R. P.	March 1.	Amnetta I. ²¹ .	Royal Neth. S. S. Co.	Amsterdam via wayports.
March 1.	Kingsholm.	A. Tsagaropoulos.	Colon, R. P.	March 1.	Cundinamarca C-33 ¹⁸ .	A. Tsagaropoulos.	Colon, R. P.
March 1.	Tela.	Swedish-American Line	Colon, R. P.	March 1.		Scadta Airplane Co.	Buenaventura via wayp'ts.
March 1.	No. 9664 ¹⁸ .	United Fruit Co.	New York via wayports.				
March 1.	Heredia.	Pan-American Airways	Tela via wayports.				
March 1.	Nessian.	United Fruit Co.	New Orleans via Habana.				
March 1.		Leyland S. S. Line.	Manchuelo via wayports.				

¹⁸ Air mail carrier.¹⁹ Motor schooner.²⁰ Cruiser.²¹ Motor boat.

* Other than ships passing through the Canal.

Continued on page 440, column 2.

Salt Water Draft of Vessels Transiting the Canal in 1929.

During the calendar year 1929, the average salt-water draft of 3,296 commercial vessels transiting the Panama Canal from the Atlantic to the Pacific was 20.9 feet. From the Pacific to the Atlantic, the average draft of 3,134 commercial transits was 24.2 feet. The average draft of the total commercial transits during the year, 6,430, was 22.5 feet.

In the following table is shown the salt-water draft of vessels through the Canal during 1929, separated in 1-foot intervals and segregated by direction of transit, with the averages for 1929, 1928, and 1927:

Draft.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.	Percentage of total.
Under 10 feet.....	57	36	93	1.446
10 to 11 feet.....	16	23	39	.607
11 to 12 feet.....	21	32	53	.824
12 to 13 feet.....	38	48	106	1.649
13 to 14 feet.....	54	42	96	1.493
14 to 15 feet.....	62	44	106	1.649
15 to 16 feet.....	76	43	119	1.851
16 to 17 feet.....	119	33	152	2.364
17 to 18 feet.....	188	38	226	3.515
18 to 19 feet.....	267	40	307	4.774
19 to 20 feet.....	343	40	383	5.956
20 to 21 feet.....	363	51	414	6.439
21 to 22 feet.....	305	79	384	5.972
22 to 23 feet.....	254	149	403	6.267
23 to 24 feet.....	240	293	542	8.429
24 to 25 feet.....	239	393	632	9.829
25 to 26 feet.....	208	443	651	10.124
26 to 27 feet.....	164	483	647	10.062
27 to 28 feet.....	112	342	454	7.061
28 to 29 feet.....	69	200	269	4.184
29 to 30 feet.....	39	119	158	2.457
30 to 31 feet.....	17	68	85	1.322
31 to 32 feet.....	11	21	32	.498
32 to 33 feet.....	3	9	12	.187
33 to 34 feet.....	1	22	23	.357
34 to 35 feet.....	1	39	40	.622
35 to 36 feet.....		4	4	.062
Totals.....	3,296	3,134	6,430	100.00
Average, 1929.....	20.9	24.2	22.5	
Average, 1928.....	20.3	24.3	22.2	
Average, 1927.....	22.4	25.2	23.8	

The transit of vessels of the greatest draft through the Canal in 1929 were three of the *Bethore* and one of the *Chilore*, carrying iron ore from Chile to the United States, drawing 35.0 feet. From the Atlantic to the Pacific, the vessel of the greatest draft was the whaling ship *Kosmos*, from Sandefjord, Norway, to Wellington, New Zealand, with a draft of 34.0 feet.

It will be noted that the average draft of vessels transiting the Canal from the Pacific to the Atlantic is greater than of vessels passing though in the opposite direction. This is accounted for by the fact that the Pacific-to-Atlantic traffic is made up to a great extent of vessels carrying capacity cargoes such as mineral oils, iron ore, wheat, nitrates, and other bulk products, while the Atlantic-to-Pacific traffic is composed largely of vessels carrying miscellaneous manufactured goods which either are essentially not so heavy or else do not permit the fullest use of stowage space of the vessels, and by far the greater proportion of the transits in ballast are included in the Atlantic-to-Pacific traffic.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Summary of Passenger Movement at the Canal During 1929.

During the calendar year 1929 the number of passengers disembarking at Canal Zone ports in termination of voyage was 46,333, and the number embarking, or beginning a voyage during the same period, was 44,659. Approximately 55 per cent of the arrivals and 57 per cent of the departures were carried as first class, and the remainder either as second, tourist, third, or steerage. These figures do not include passengers merely calling at the Canal, that is, arriving and departing on the same ship.

The following tabulation shows by months, the number of passengers embarking and disembarking at Canal Zone ports during the calendar year 1929, segregated as between first class and "others," with comparative totals for the calendar years 1928 and 1927:

Month.	Disembarking.			Embarking.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
January.....	2,391	1,562	3,953	1,870	1,075	2,945
February.....	2,276	1,572	3,848	2,104	1,549	3,653
March.....	2,152	2,228	4,380	2,875	1,577	4,452
April.....	2,557	1,932	4,489	2,341	1,950	4,291
May.....	1,807	1,334	3,141	2,429	1,938	4,367
June.....	2,041	1,342	3,383	2,364	1,745	4,109
July.....	2,146	1,781	3,927	2,420	1,738	4,158
August.....	1,924	1,570	3,494	2,457	2,107	4,564
September.....	2,041	1,865	3,906	2,041	1,294	3,335
October.....	2,331	1,544	3,875	1,708	1,593	3,301
November.....	2,041	1,891	3,932	1,394	966	2,360
December.....	2,029	1,976	4,005	1,674	1,450	3,124
Totals, 1929.....	25,736	20,597	46,333	25,677	18,982	44,659
Totals, 1928.....	25,405	18,711	44,116	23,768	16,926	40,694
Totals, 1927.....	24,601	17,047	41,648	22,918	16,459	39,377

As compared with 1928, the calendar year 1929 shows a 5 per cent increase in the total number of arrivals and an increase of 9.7 per cent in the total number of departures.

During the past 3 calendar years approximately 78 per cent of the passenger movement to and from the Canal has been through the port of Cristobal as may be seen from the following tabulation in which the totals are given for the years 1929, 1928, and 1927:

	Port of Cristobal			Port of Balboa.		
	1929.	1928.	1927.	1929.	1928.	1927.
Passengers disembarking.....	35,053	32,535	34,656	11,280	11,581	6,902
Passengers embarking.....	34,434	30,342	32,883	10,225	10,352	6,494

A further segregation of the passenger movement shows that 34,286 incoming and 32,078 outgoing passengers were brought from and were destined to ports on the Atlantic, and 12,047 incoming and 12,581 outgoing passengers were brought from and were destined to ports on the Pacific.

TRANSIENT VISITORS.

In addition to the figures shown above of passengers embarking and disembarking, there were 207,970 passengers (110,256 at Cristobal, and 97,714 at Balboa) brought to the Isthmus by vessels calling at Canal Zone ports during 1929. For the calendar year 1928, this number was 173,315. Most of these passengers came ashore for a period of

from 24 to 48 hours, but as they departed on the same vessel on which they arrived, they are not taken up in the above tabulation. This group of 207,970 passengers is segregated as follows:

	Calendar year 1929.			Totals.	
	Cristobal.	Balboa.	Totals.	1928.	1927.
Remaining on board vessels transiting Canal.....	88,359	92,467	180,766	149,570	151,845
Remaining on board vessels entering port but not transiting Canal.....	21,897	5,307	27,204	23,745	20,839
Totals.....	110,256	97,714	207,970	173,315	172,684

Segregating those remaining on board vessels transiting the Canal according to direction of transit for the 3 calendar years shows the following:

	Calendar year.		
	1929.	1928.	1927.
En route from Atlantic to Pacific ports.....	104,723	86,399	97,866
En route from Pacific to Atlantic ports.....	76,043	63,171	53,979

The above represents the strictly passenger traffic passing through the Canal and to and from Canal Zone ports. To get the total number of arrivals and departures of individuals at Canal Zone ports during the year, it would be necessary to add the crews of 6,430 vessels and 649 noncommercial vessels which transited the Canal during the year, as well as some 1,157 vessels calling at the ports of Cristobal and Balboa during the year without transiting the Canal. In the aggregate the combined crews would considerably outnumber the passengers, though owing to the fact that many of the vessels made a number of transits or calls at terminal ports during the year there would be considerable duplication in so far as the number of individuals was concerned in any figures compiled relative to crews.

New Record for Daily Tolls on Canal Traffic in One Direction.

A new high record for the amount of tolls collected in one direction in one day was established on February 25, 1930, when \$92,056.48 was levied on 16 ships transiting from the Pacific to Atlantic. The aggregate net tonnage, Panama Canal measurement, of these vessels was 100,567, and the cargo carried by them amounted to 120,766 long tons. The previous record for the amount of tolls collected on traffic in one direction was established on January 28, 1930, when \$86,665 was collected from 14 ships transiting from the Pacific to the Atlantic.

The record for one day's traffic, both directions combined, is a total of 33 vessels transiting on October 1, 1927, and aggregate net tonnage, Panama Canal net, of 152,610, on November 15, 1927; tolls amounting to \$137,053.98, collected on April 10, 1928; and cargo aggregating 163,602 tons, carried through on January 14, 1924.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

New East Asiatic Company Motor Ship in Service.

It is reported that the motor ship *Amerika*, recently constructed for the East Asiatic Company for its service between Europe and the west coast of North America, completed her trials in the North Sea during the latter part of January, and prior to her entrance in the European-North America trade, will make one trip in the Bangkok service of the company. The *Amerika* is 465 feet long, of 62 feet beam, 40 feet depth, 11,200 tons deadweight, and 17,300 tons displacement. Accommodations are provided for 52 passengers.

With the addition of the new vessel, the East Asiatic Company will have a fleet of nine vessels in the European-west coast North America trade, as follows: *Asia*, *Australien*, *Tongking*, *Chile*, *Annam*, *Panama*, *Denmark*, *Siam*, and *Amerika*, all motor ships.

Luckenbach Line Buys Two Ships.

The Luckenbach Steamship Company (Luckenbach Line), operator of a weekly service between north Atlantic ports and the west coast of the United States, and of a fortnightly service between the Gulf of Mexico and the United States west coast, has purchased the steamers *Radnor* and *Dryden* from the United States Shipping Board for its Gulf service. With the addition of these two vessels, and the steamers *Neponset* and *Kelvinia*, purchased last year, the company contemplates a 10-day service in the Gulf trade instead of fortnightly as heretofore.

The *Radnor* and *Dryden* are sister ships turned out in 1918 and 1919, respectively, by the Sun Shipbuilding Company at Chester, Pa. Each of the steamers is 434 feet long, 57 feet beam, and of 27 feet depth. Net tonnage of the *Radnor* is 5,598 and the *Dryden* is 3,567.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 1, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Kenowis.....	U. S. Government.....	February 20..	February 21..	252	.....
Annie Johnson.....	Johnson Line.....	February 21..	February 21..	378	.....
Itauri.....	Hamburg-American Line.....	February 22..	February 23..	469	.....
Trimountain.....	Trimountain S. S. Corp.....	February 24..	February 25..	9,883	.....
Benjamin Brewster.....	Standard Oil Co.....	February 25..	February 25..	1,847	.....
Ecuador.....	Panama Mail S. S. Co.....	February 25..	February 26..	61	6
Guatemala.....	Panama Mail S. S. Co.....	February 26..	February 27..	54	.....
Paul Shoup.....	Associated Oil Co.....	February 26..	February 27..	832	.....
Tatsuno Maru.....	Nippon Yusen Kaisha.....	February 26..	February 27..	244	.....
Cambrai.....	U. S. Government.....	February 27..	February 27..	6	13
F. H. Hillman.....	Standard Oil Co.....	February 27..	February 28..	16,000	.....
Ansgir.....	North German Lloyd.....	February 27..	February 28..	14	466
Lagarto.....	Pacific Steam Nav. Co.....	February 27..	February 27..	.....	50
Pennsylvania.....	Panama-Pacific Line.....	February 28..	February 28..	.....	174
Tai Ping Yang.....	Trans-Pacific Corp.....	March 1.....	March 1.....	1	.....

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
<i>Cristobal</i>	March 4.....	March 9.....	March 12.....	March 16.....	March 19.....	March 24.
<i>Ancon</i>	March 18.....	March 23.....	March 26.....	March 30.....	April 2.....	April 7.
<i>Cristobal</i>	April 1.....	April 6.....	April 9.....	April 13.....	April 16.....	April 21.
<i>Ancon</i>	April 15.....	April 20.....	April 23.....	April 27.....	April 30.....	May 5.
<i>Cristobal</i>	April 29.....	May 4.....	May 7.....	May 11.....	May 14.....	May 19.
<i>Ancon</i>	May 13.....	May 18.....	May 21.....	May 25.....	May 28.....	June 2.
<i>Cristobal</i>	May 27.....	June 1.....	June 4.....	June 8.....	June 11.....	June 16.
<i>Ancon</i>	June 10.....	June 15.....	June 18.....	June 22.....	June 25.....	June 30.
<i>Cristobal</i>	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.
<i>Ancon</i>	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
<i>Cristobal</i>	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
<i>Ancon</i>	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
<i>Cristobal</i>	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
<i>Ancon</i>	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.
<i>Cristobal</i>	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
<i>Ancon</i>	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
<i>Cristobal</i>	October 13.....	October 20.....	October 23.....	October 28.....	October 31.....	November 5.
<i>Ancon</i>	October 23.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.
<i>Cristobal</i>	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
<i>Ancon</i>	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
<i>Cristobal</i>	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
<i>Ancon</i>	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after *S. S. Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$4.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 434.

PORT OF BALBOA.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 25.....	Camargo ²²	Julius Fleischman	Galapagos I. and Peru,	February 24.....	Rio Nazaro	H. T. Lau	Puntarenas, C. R.
February 26.....	Kenowis ²³	U. S. Army	High s.s.s.	February 27.....	Kenowis ²¹	U. S. Army	San Francisco, Calif.
February 27.....	F. H. Hillman	Standard Oil Co. of Calif.	Los Angeles, California,	February 28.....	F. H. Hillman	Standard Oil Co. of Calif.	Los Angeles, California,
.....	.....	.....	.....	February 28.....	Camargo ²²	Julius Fleischman	Galapagos I. and Peru,
.....	.....	.....	.....	March 1.....	Caldas ²⁴	National Navigation Co.	Buenaventura, Colombia.

* Other than ships passing through the Canal.

²² Yaolt. ²³ Transport. ²⁴ Motor ship.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., March 12, 1930. No. 32.

Tanker Traffic Through the Panama Canal in February, 1930.

During the month of February, 1930, 93 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 480,478, on which tolls of \$420,206.59 were collected. Cargo amounted to 422,973 tons, which included 8,900 tons of creosote, 6,461 tons of coconut oil, and 407,612 tons of mineral oils. In point of net tonnage, tanker traffic increased 7.1 per cent over the same traffic for the corresponding month a year ago, and cargo tonnage 7 per cent over the cargo tonnage of February, 1929.

Tanker traffic comprised 18.9 per cent of the total commercial transits through the Canal during the month; made up 20.3 per cent of the total Panama Canal net tonnage; were the source of 19.7 per cent of the tolls collected; and carried 17.8 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of February, 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for February, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British.....	12	51,673	\$40,407.76	*16,582
Danish.....	1	6,054	4,358.88	
Danzig.....	1	5,929	4,268.88	
French.....	1	4,178	3,008.16	
German.....	1	4,435	3,193.20	
Norwegian.....	6	31,558	22,721.76	
Swedish.....	2	10,532	7,614.84	
United States.....	28	148,919	111,501.84	23,272
Totals, February, 1930.....	52	263,278	197,075.32	39,854
Totals, January, 1930.....	50	263,292	193,389.62	13,351
Totals, December, 1929.....	50	263,852	194,228.44	22,227
Totals, February, 1929.....	46	246,217	183,264.62	36,345
<i>Pacific to Atlantic.</i>				
Belgian.....	1	4,976	5,710.00	8,900
British.....	8	36,416	38,087.24	65,235
Danish.....	1	5,695	5,910.00	10,736
Danzig.....	2	12,437	13,267.50	22,555
Dutch.....	1	3,625	3,857.50	5,871
French.....	1	5,050	5,445.00	8,419
Norwegian.....	3	14,713	15,366.25	27,242
United States.....	24	134,288	135,487.78	*234,161
Totals, February, 1930.....	41	217,200	223,131.27	383,119
Totals, January, 1930.....	62	322,682	333,566.85	581,928
Totals, December, 1929.....	50	277,367	277,672.15	493,431
Totals, February, 1929.....	36	202,210	205,146.05	358,704

* Includes 8,900 tons creosote.

* Includes 6,461 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during February, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	23	123,683	\$90,962.11	9,252
United States to South America.....	2	11,098	7,990.56	.....
United States to Balboa.....	1	4,487	4,526.25	2,286
United States to Hawaiian Islands.....	1	4,286	3,085.92	.....
United States to Far East.....	1	7,140	6,215.00	11,734
Canada to United States.....	1	4,835	3,481.20	.....
Canada to South America.....	3	10,754	7,742.88	.....
South America to United States.....	1	5,075	3,654.00	.....
West Indies to South America.....	2	9,352	8,134.95	7,682
Europe to United States.....	16	76,639	57,013.57	3 8,900
Europe to South America.....	1	5,929	4,268.88	.....

³ Creosote.

PACIFIC TO ATLANTIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	19	105,520	\$106,727.50	190,229
United States to West Indies.....	2	8,359	7,265.98	5,871
United States to Europe.....	10	53,758	57,451.25	98,783
South America to United States.....	4	20,513	22,999.30	41,099
South America to Canada.....	2	9,287	9,963.75	19,555
South America to West Indies.....	1	3,892	2,802.24	.....
South America to Europe.....	2	11,587	12,082.50	21,121
Philippine Islands to United States.....	1	4,284	3,838.75	4 6,461

⁴ Coconut oil.

Of the tanker traffic passing through the Canal in February, 1930, the following is a summary of the vessels reporting Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for February, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
February, 1930.....	39	195,925	\$143,213.92	9,252
January, 1930.....	42	226,591	164,917.56	1,140
December, 1929.....	41	225,048	163,604.04	8,574
February, 1929.....	31	170,099	124,280.17	8,397
<i>From Los Angeles.</i>				
February, 1930.....	25	138,239	140,667.23	240,931
January, 1930.....	54	282,283	290,921.90	513,416
December, 1929.....	39	218,565	217,711.25	388,571
February, 1929.....	26	143,336	143,518.55	257,589

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 8, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
East Lynn.....	Oakwin S. S. Co.....	March 1.....	March 2.....	503	10
Caldas.....	National Navigation Co.....	January 22.....	March 1.....	.....	.....
Maravi.....	Balboa Shipping Co.....	March 2.....	March 2.....	24	.....
Montebello.....	Union Oil Co.....	March 2.....	March 3.....	11,400	.....
Knute Nelson.....	Fred Olsen & Co.....	March 2.....	March 4.....	2,739	.....
San Jose.....	United Fruit Co.....	March 3.....	March 4.....	72	.....
Invincible.....	U. S. Shipping Board.....	March 4.....	March 5.....	274	.....
Trontolite.....	Imperial Oil Co.....	March 5.....	March 7.....	10,204	.....
Santa Teresa.....	Grace Line.....	March 6.....	March 6.....	2	.....
Lillehorn.....	Atlantic-Pacific Nav. Co.....	March 6.....	March 7.....	.....	38
Bennekorn.....	Royal Neth. S. S. Co.....	March 6.....	March 7.....	223	.....
President Garfield.....	Dollar Line.....	March 7.....	March 7.....	.....	3
Rio Nozara.....	H. T. Lau.....	March 7.....	March 8.....	270	.....
Cauca.....	National Navigation Co.....	March 8.....	March 8.....	.....	13
Haimon.....	North German Lloyd.....	March 8.....	March 8.....	.....	270

Treatment of American Seamen as Beneficiaries of Public Health Service.

THE PANAMA CANAL, HEALTH DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 26, 1930.

To masters, steamship agents and others concerned:

1. In order to obviate misunderstandings in the method of procedure to be followed by masters or agents of vessels of American registry who desire to have sick or injured American seamen treated at Canal Zone dispensaries and hospitals as beneficiaries of the U. S. Public Health Service, the medical officer in charge of the relief station at Balboa Heights, C. Z. has requested me to transmit the following for your information.

2. The provision of the *Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters* must be complied with before American seamen may be considered as beneficiaries of the Public Health Service.

3. The following excerpts from the rules and regulations referred to cover the discharge of American seamen in the Canal Zone:

Rule 32. *Discharge of members of crews:* No member of the crew of any vessel shall be discharged in the Canal Zone except with the permission of the Canal authorities.

Regulation 152.2. Masters of American vessels are required by law to discharge and ship seamen at Canal Zone ports before a Deputy Shipping Commissioner. (The Chief Customs Inspectors at Balboa and Cristobal are also Deputy Shipping Commissioners in charge at their respective ports. The Shipping Commissioner is located in room 309, Administration Building, Balboa Heights.) (See Rule 32.)

Regulation 152.4. Sick or injured American seamen may be discharged for treatment by the United States Public Health Service in the local hospitals on a master's certificate; however, except in cases of emergency, such seamen shall be discharged before a deputy shipping commissioner and in no case will such discharge be allowed until the seaman in question has been examined and accepted by the proper medical authorities. In emergency cases the master shall report the case to the Deputy Shipping Commissioner, with whom he shall deposit the seaman's wages due and personal effects.

Regulation 152.6. American seamen discharged in the Canal Zone without the consent of the Shipping Commissioner or a deputy shall be maintained and returned at the expense of the vessel from which such seamen were discharged, and such seamen will be deported by the immigration authorities of the Canal Zone.

4. Information recently received from the Surgeon General of the U. S. Public Health Service states that the following conditions will govern the medical treatment of beneficiaries of the Public Health Service in the Canal Zone:

(a) An American seaman possessing proper credentials may receive out-patient or hospital treatment as a beneficiary of the Public Health Service during the time his vessel is in port without being discharged.

(b) An American seaman possessing proper credentials may not receive treatment as a beneficiary of the Public Health Service after his vessel has sailed unless he has been properly discharged by the Shipping Commissioner prior to its departure.

(c) The failure of master or agents to have a seaman who remains in the Canal Zone properly discharged from his vessel prior to its departure, will result in the Public Health Service refusing to be responsible for medical treatment of such seaman. It would therefore follow that the vessel would be held responsible for all expenses, including cost of any medical treatment necessary, incident to the maintenance and repatriation of such seaman.

(d) Emergency cases may be admitted to the hospital as beneficiaries of the Public Health Service without being discharged before the Shipping Commissioner under the provisions of Regulation 152.4. In such cases the medical officer in charge of the Public Health Service Relief Station will decide whether the case will be classed as an emergency.

(e) Responsibility for the medical treatment of beneficiaries of the Public Health Service is assumed from the date of receipt of acceptable credentials. A master's certificate signed by local agents will not be considered as acceptable credentials.

(f) Contract laborers who may be employed on board American vessels and who do not have the status of American seamen as interpreted by the Shipping Commissioner, are not entitled to hospital privileges accorded American seamen under the regulations of the Public Health Service.

J. F. SILER,
Chief Health Officer.

Landing from Vessels Tied Up at Pedro Miguel.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., March 4, 1930.

Memorandum for all steamship agents:

1. Agents for northbound vessels given partial transit and tied up at the Pacific Locks should communicate with the Port Captain, Balboa, and obtain the required permission:

(a) When it is necessary for any officer of the ship to land because of ship's business.

(b) When it is necessary for a member of the crew to land for medical attention.

(c) When it becomes necessary, because of some emergency, that either officers or members of the crew land.

Approved:

H. BURGESS,
Governor.

C. H. WOODWARD,
Marine Superintendent.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, March 8, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality	Operator.	Length.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.			Day.	Hour.				Nature.	Tons.	Gross.	Net.
Chinese																	
▲ Prince ¹ 2	1	16.35	2	6.20	2	13.04	2	14.00	441.0	60.0	22.6	New York, N. Y.	Manila, P. I.	General	4,322	9,254	6,265
Shenandoah ¹	1	23.20	2	7.35	2	14.33	2	15.45	416.0	56.0	20.0	Mobile, Ala.	Los Angeles, Calif.	Ballast	2,413	6,967	5,060
R. D. Leonard ¹	1	21.50	2	8.25	2	16.57	2	18.15	265.0	39.0	19.7	Philadelphia, Pa.	Oleum, Calif.	Lubricating oil	2,413	1,936	1,364
Calif.	26	18.35	2	9.30	2	16.57	2	18.15	216.5	33.0	12.9	Cristobal, C. Z.	Guayaquil, Ecuador	General	200	1,105	698
Atlas ¹	2	7.43	2	10.00	2	17.07	2	18.35	430.0	58.2	21.0	Providence, R. I.	Guayaquil, Ecuador	Ballast	1,177	7,348	5,164
Santa Cruz	2	4.25	2	11.10	2	17.49	2	19.50	216.5	33.0	12.9	New York, N. Y.	Callao, Peru	General	1,177	7,348	5,164
Kurtle Nelson ²	1	6.35	2	12.55	2	19.14	2	20.25	436.0	56.0	21.3	Oleum, Wash.	Los Angeles, Calif.	General	4,879	8,016	5,854
New Jersey ²	2	12.45	2	13.10	2	20.25	2	22.08	416.8	56.0	20.0	Oslo, Norway	Vancouver, B. C.	General	6,925	5,014	3,868
Subotawan ²	2	12.45	2	13.10	2	20.25	2	22.08	416.8	56.0	20.0	Pt. Arthur, Texas	Los Angeles, Calif.	Ballast	6,925	5,014	3,868
Sonanger ²	2	17.25	3	6.25	3	13.58	3	18.05	386.8	52.2	23.0	Houston, Texas	Seattle, Wash.	General	6,656	5,708	4,138
Wisconsin ²	2	18.30	3	7.15	3	14.30	3	18.05	458.0	52.0	19.0	Falmouth, England	Los Angeles, Calif.	Ballast	3,104	6,994	5,053
Ensley City ²	3	00.25	3	8.30	3	16.21	3	17.30	395.0	51.0	26.0	New York, N. Y.	Fremantle, Australia	General, autos	8,565	7,330	5,239
Vendemaire ²	3	7.55	3	10.10	3	17.30	3	17.30	466.0	61.6	21.0	Mobile, Ala.	Mojito, Japan	General	8,565	7,330	5,239
Memphis ²	26	15.05	3	9.40	3	13.40	3	13.40	550.0	55.0	21.0	Hamburg, Germany	Los Angeles, Calif.	Ballast	9,351	6,907	3,907
Bonhomie ²	2	1.35	4	6.13	4	14.22	5	21.11	80.0	20.0	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast	92	58	58
Daghestan ²	3	19.30	4	6.30	4	14.22	4	18.30	405.0	52.0	19.6	Cardiff, England	Los Angeles, Calif.	Ballast	6,355	4,657	2,745
Washington ²	3	14.12	4	6.20	4	15.12	4	16.15	470.0	51.0	17.0	Havre, France	Vancouver, B. C.	General	754	10,322	7,475
Hesshu Marn ²	4	00.50	4	7.25	4	16.01	4	17.20	400.0	51.0	24.0	Tampa, Fla.	Yokohama, Japan	General	6,423	5,556	3,950
Pear Branch ²	4	00.55	4	7.35	4	16.55	4	18.20	398.6	53.8	17.0	N. Shields, Eng'd.	Corral, Chile	General	2,961	5,760	3,866
Robin	4	5.30	4	8.45	4	17.29	4	19.00	424.8	55.0	27.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	8,813	7,473	5,536
Goodfellow	4	8.55	4	10.45	4	18.48	4	20.08	422.0	57.0	23.0	Tampa, Fla.	Shanghai, China	General	7,303	6,373	4,486
Lindenbank	4	6.45	4	11.55	4	19.18	5	2.47	484.0	62.0	27.2	Avonmouth, Eng.	Dundee, N. Z.	General	6,373	7,486	6,578
Tasmania	4	6.45	4	12.36	4	20.08	4	21.15	407.7	53.7	20.0	Boston, Mass.	Seattle, Wash.	General	3,412	7,107	5,041
Pennsylvania	4	10.55	4	13.50	4	21.50	4	22.50	409.0	55.3	21.6	New York, N. Y.	Yokohama, Japan	General	5,670	7,257	5,458
Neptunian ²	4	11.05	4	13.50	4	21.50	4	22.50	409.0	55.3	21.6	New York, N. Y.	Shanghai, China	General	6,372	9,019	6,226
William Penn ²	4	13.10	4	14.15	4	22.50	5	00.02	439.6	60.2	24.4	New York, N. Y.	Gatun, C. Z.	Ballast	212	1,633	1,041
L-53 ²	4	13.10	4	14.15	4	22.50	5	00.02	439.6	60.2	24.4	New York, N. Y.	Gatun, C. Z.	Ballast	212	1,633	1,041
Durazzo	3	17.35	5	6.35	5	15.23	5	16.30	226.9	34.5	13.1	Cristobal, C. Z.	Guayaquil, Ecuador	General	3,577	3,984	2,612
Point Sur	5	3.30	5	6.40	5	15.21	5	16.30	324.0	46.2	22.0	New Orleans, La.	Tacoma, Wash.	General	2,483	5,680	4,080
Willpelo	5	3.50	5	6.30	5	15.52	5	17.00	386.8	50.2	19.0	Baltimore, Md.	Seattle, Wash.	General	4,129	9,262	6,853
Harry	4	23.55	5	7.20	5	16.50	5	18.20	448.0	60.2	21.0	Boston, Mass.	Seattle, Wash.	General	4,129	9,262	6,853
Luckenbach	5	6.35	5	7.45	5	17.06	5	18.20	420.0	57.8	18.0	Rouen, France	Los Angeles, Calif.	Ballast	357	7,132	4,658
Clydefield ²	5	6.38	5	8.45	5	18.06	5	19.25	362.0	51.5	16.6	Chester, Pa.	Valparaiso, Chile	General	7,264	7,296	5,448
Nordya	5	6.55	5	8.55	5	18.54	5	21.50	415.0	54.7	24.0	Antwerp, Belgium	Vancouver, B. C.	General	2,303	5,726	4,086
Handicap ²	5	6.55	5	8.55	5	18.54	5	21.50	415.0	54.7	24.0	Antwerp, Belgium	Vancouver, B. C.	General	2,303	5,726	4,086
Santa Teresa	5	19.57	6	6.10	6	15.30	6	17.15	360.2	51.5	23.2	New York, N. Y.	Talcahuano, Chile	General	3,795	5,584	4,030
Woods	5	15.47	6	6.18	6	16.23	6	19.45	410.0	54.0	20.5	Santa Fe, Arg.	Los Angeles, Calif.	General	3,795	5,584	4,030
Hollywood	5	15.47	6	6.18	6	16.23	6	19.45	410.0	54.0	20.5	Santa Fe, Arg.	Los Angeles, Calif.	General	3,795	5,584	4,030

¹ Phosphates and scrap iron.

² Launch.

³ Yacht.

⁴ Cruiser.

⁵ Motor ship.

⁶ Tanker.

	5 18.05	6	7 20	6 17.44	6 19.00	British	Andrew Weir & Co.	400.0	53.0	27.3	Nuevas, Cuba	Auckland, N. Z.	7,349	4,497
Elvert	5 18.05	6	7.40	6 17.55	6 19.00	American	Tidewater Oil Co.	419.5	56.5	22.0	New York, N. Y.	San Francisco, Cal.	7,060	5,025
Solana	6 00.25	6	8.45	6 18.25	6 19.34	American	Pacific Atlantic S. S. Co.	409.0	54.0	19.6	Seattle, Wash.	San Francisco, Cal.	4,029	6,755
San Anselmo	6 1.50	6	9.55	6 18.46	6 19.55	Swedish	W. L. Comyn & S. Co.	350.0	50.6	20.6	Antwerp, Belgium	San Francisco, Cal.	4,515	3,532
Constance	6 8.45	6	9.50	6 19.16	6 20.45	American	Sudden & Christensen	409.6	54.2	18.0	Baltimore, Md.	Seattle, Wash.	3,870	6,621
Chandler	3 9.05	6	11.40	6 19.37	6 20.45	British	Donaldson Brothers	425.0	60.0	17.1	Glasgow, Scotland	Vancouver, B. C.	880	7,827
Sulairia	3 9.05	6	12.21	6 20.40	6 21.58	British	Pacific Steam Nav. Co.	525.3	62.8	24.0	Liverpool, England	Talechano, Chile	4,174	9,067
Oroya	5 21.25	6	13.45	6 21.06	6 18.03	British	General Nav. Co.	207.0	33.6	12.3	Antwerp, Belgium	Shanghai, China	777	1,219
Lillehorn	5 6.20	6	14.40	6 22.05	6 16.30	Dutch	Royal Neth. S. S. Co.	449.0	58.0	21.3	Hamburg, Germany	Corral, Chile	3,041	7,849
Bonnekom	7 19.37	7	6.10	7 15.18	8 16.00	American	United Fruit Co.	330.0	44.5	16.6	Cristobal, C. Z.	San Francisco, Cal.	3,073	2,359
Onondaga	4 4.05	7	6.25	7 14.58	7 16.00	American	Ford Motor Co.	231.0	44.0	20.0	Chester, Pa.	Portland, Oreg.	2,201	1,621
President	7 6.05	7	7.15	7 15.55	7 17.25	American	Dollar Line	502.0	62.0	28.0	Genoa, Italy	Shanghai, China	4,313	12,583
Garfield	7 6.35	7	8.20	7 16.21	7 17.30	British	Kenrick & Co.	400.0	52.0	13.0	New Orleans, La.	Chile	5,801	9,207
Trevarrack	24 23.06	7	9.38	7 17.32	7 22.44	Swedish	Grace Line	213.0	38.0	9.5	Cristobal, C. Z.	Talara, Peru	1,223	746
Epoca	2 2.45	7	11.45	7 18.31	7 19.45	British	Shaw Savill & Albion	448.0	56.5	23.6	Antwerp, Belgium	Auckland, N. Z.	4,986	8,237
Kia Ora	6 15.20	7	20.15	8 9.37	8 10.47	American	Ore S. S. Corp.	449.1	57.0	20.0	Norfolk, Va.	Cruz Grande, Chile	7,808	5,139
Santoro	7 8.45	7	21.00	8 14.03	8 15.10	British	Ore S. Shipping Co.	457.0	58.0	30.5	Glasgow, Scotland	Wellington, N. Z.	5,750	9,079
Ruapahu	1 18.55	8	6.08	8 14.32	8 19.51	Colombian	National Navigation Co.	107.0	22.0	8.6	Cristobal, C. Z.	Buenaventura, Col.	80	238
Carac	5 18.18	8	6.08	8 14.37	8 16.00	Dutch	Royal Neth. S. S. Co.	200.0	33.0	11.5	Cristobal, C. Z.	Guayaquil, Ecuador	78	183
Nosa Prince	7 7.00	8	7.10	8 15.13	8 16.40	American	N. O. & A. S. S. Co.	324.0	46.0	21.0	New Orleans, La.	Talechano, Chile	3,052	9,983
Port Napier	7 16.00	8	7.20	8 16.05	8 17.35	British	Com. & Dom. Line	490.0	61.0	26.4	New York, N. Y.	Dunedin, N. Z.	2,184	10,978
Casletown	7 20.55	8	8.30	8 17.04	8 18.38	American	Nelson Line	321.7	50.0	16.0	Seattle, Wash.	San Francisco, Cal.	1,540	3,872
East Lynn	6 15.00	8	13.00	8 19.58	8 21.23	Dutch	Holland-American Line	490.0	64.6	21.1	Rotterdam, Holland	Vancouver, B. C.	3,517	11,724
Pacific	8 1.40	8	14.00	8 21.23	8 22.24	German	North German Lloyd	360.7	51.0	16.1	Bremen, Germany	Champerico, Guat.	1,555	4,822
Minden	7 10.05	8	13.55	8 21.43	9 7.14	American	Asano Busan	305.0	43.0	23.0	Jacksonville, Fla.	Yawata, Japan	3,350	3,283
Eastern Pilot	7 7.05	8	19.40	9 9.30	9 10.40	American	Ore S. S. Corp.	449.1	57.2	20.5	Baltimore, Md.	Cruz Grande, Chile	7,847	2,188
Finnore	7 16.30	8	19.40	9 9.30	9 10.40	American	Ore S. S. Corp.	449.1	57.2	20.5	Baltimore, Md.	Cruz Grande, Chile	7,847	2,188

* Cotton, machinery, and general.

* Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ludwigshafen.....	2	6.05	2	7.36	2	15.35	4	00.20	German.....	408.0	54.0	26.6	Valparaiso, Chile.....	Bremen, Germany.....	7,694	6,600	4,622
Karachi Maru.....	3	6.30	2	7.45	2	16.50	2	20.40	Japanese.....	385.0	51.0	26.0	Vancouver, B. C.....	United Kingdom.....	6,750	5,914	4,388
East Lynn.....	1	16.15	2	9.51	2	17.35	2	17.35	British.....	401.0	54.0	25.0	Vancouver, B. C.....	London, England.....	7,566	6,784	5,107
Maravi.....	2	6.45	2	10.46	2	18.25	3	00.25	Panamanian.....	303.0	47.0	25.0	Pto. Armeles, R. P.....	New York, N. Y.....	3,014	1,748	
Pacific Oak.....	2	10.05	2	10.56	2	18.45	2	18.45	American.....	409.7	54.2	25.0	Bellingham, Wash.....	Baltimore, Md.....	8,849	6,087	4,883
Buffalo Bridge.....	2	10.25	2	11.40	2	19.45	2	19.45	American.....	324.0	46.2	22.0	San Francisco, Cal.....	Baltimore, Md.....	3,200	3,985	2,630
Point Reyes.....	2	11.00	2	12.06	2	19.45	2	19.45	American.....	324.0	46.2	22.0	Portland, Oreg.....	New Orleans, La.....	2,824	3,984	2,617
Chinku Maru.....	2	12.10	2	12.51	2	20.30	2	22.10	Japanese.....	335.0	51.0	25.0	Pulupandan, P. I.....	East coast of U. S.....	7,170	5,919	4,400
Amerikaland 9.....	2	13.30	2	16.50	3	12.05	3	15.12	Swedish.....	561.0	72.2	33.6	Cruz Grande, Chile.....	New York, N. Y.....	21,800	15,560	4,496
Thalia.....	3	2.00	3	6.52	3	15.12	3	15.12	Danzig.....	470.9	63.2	27.0	Talara, Peru.....	Hamburg, Germany.....	11,000	9,019	5,929
Langley.....	27	16.05	3	6.29	3	14.33	3	15.50	American.....	520.0	65.2	27.0	San Diego, Calif.....	Guantanamo, Cuba.....	12,700	12,700	
W. S. Rheem 9.....	3	3.25	3	7.33	3	15.90	3	15.50	American.....	500.0	68.2	28.6	Los Angeles, Calif.....	Bayonne, N. J.....	13,800	11,224	7,895
West Malwah.....	2	21.00	3	7.54	3	16.55	3	16.55	American.....	410.0	54.0	24.6	San Francisco, Cal.....	Buenos Aires, Arg.....	5,401	6,388	5,047
Essequibo.....	3	6.45	3	8.32	3	16.20	3	23.28	British.....	490.0	57.0	26.0	Talechano, Chile.....	New York, N. Y.....	3,764	6,058	1,176
Celina 9.....	3	3.00	3	9.06	3	18.05	3	21.50	Italian.....	448.0	55.2	26.6	Vancouver, B. C.....	Trieste, Italy.....	8,850	7,790	6,064
Durazovo.....	3	7.20	3	9.29	3	17.35	3	6.35	German.....	227.5	34.4	14.8	Guayaquil, Ecuador.....	Cristobal, C. Z.....	1,103	1,633	1,041
Kambove.....	3	12.45	3	13.24	3	19.55	3	19.55	Belgium.....	400.5	52.3	23.6	Honolulu, P. I.....	Antwerp, Belgium.....	6,259		

90 Airplane carrier.

Motor ship.

Tanker.

* Motor ship.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Benjamin Franklin ¹¹ .	3	14 18	3	15 28	3	21 50	4	23 33	Norwegian.	North Pacific Line.	452.0	59.5	26.1	Vancouver, B. C.	Oso, Norway.	General.	7,441	9,082	76,140
Saratoga ¹² .	27	16 05	4	4 46	4	15 50	6	00 30	American.	U. S. Navy.	875.0	107.9		San Diego, Calif.	Guantanamo, Cuba.				
Nedra ¹³ .	27	16 05	4	6 20	4	18 47	6	00 30	American.	U. S. Navy.	485.7	56.2		San Diego, Calif.	Guantanamo, Cuba.	Fuel oil.			
Partridge ¹³ .	27	16 05	4	6 20	4	18 47	6	00 30	American.	U. S. Navy.	187.0	35.1		San Diego, Calif.	Guantanamo, Cuba.				
Axel Johnson.	3	21 25	4	7 16	4	17 45	4	22 15	Swedish.	Johnson Line.	382.9	32.6	24.9	Vancouver, B. C.	Stockholm, Swed.	Wheat, fruit.	5,550	6,642	4,880
Kingfisher ¹¹ .	27	16 05	4	7 24	4	17 35	4	22 15	American.	U. S. Navy.	187.0	35.7		San Diego, Calif.	Guantanamo, Cuba.				
San Jose.	3	17 00	4	7 58	4	19 37	4	22 15	American.	United Fruit Co.	330.0	44.6	18.8	San Francisco, Calif.	Cristobal, C. Z.	Gen., gasoline.	1,182	3,675	2,359
Pruitt, 347 ¹⁴ .	27	16 05	4	7 58	4	19 30	4	22 15	American.	U. S. Navy.	314.0	31.0		San Diego, Calif.	Guantanamo, Cuba.				
Preble, 345 ¹⁴ .	27	16 05	4	8 15	4	20 40	4	22 15	American.	U. S. Navy.	314.0	31.0		San Diego, Calif.	Guantanamo, Cuba.				
Litchfield, 336 ¹⁴ .	27	16 05	4	8 15	4	20 40	4	22 15	American.	U. S. Navy.	310.0	30.0		San Diego, Calif.	Guantanamo, Cuba.				
Decatur, 341 ¹⁴ .	27	16 05	4	8 26	4	20 40	4	22 15	American.	U. S. Navy.	310.0	30.0		San Diego, Calif.	Guantanamo, Cuba.				
Stear, 346 ¹⁴ .	27	16 05	4	8 26	4	20 40	4	22 15	American.	U. S. Navy.	310.0	30.0		San Diego, Calif.	Guantanamo, Cuba.				
Lora.	3	21 25	4	8 56	4	21 25	6	1 20	French.	French Line.	448.9	53.3	25.4	Vancouver, B. C.	Le Havre, France.	(*)	8,616	7,469	5,020
Dorothy.	4	1 05	4	9 41	4	21 25	4	21 25	American.	Luckenbach Line.	448.9	60.2	32.0	Portland, Oreg.	Boston, Mass.	Lumber, general.	10,500	9,294	6,861
Fedosta.	4	4 00	4	10 01	4	21 58	5	15 20	German.	Hamburg-American Line.	337.7	48.3	15.0	Champerie, Guat.	Hamburg, Germany.	(*)	886		
Callifornia ¹¹ .	4	7 36	4	10 40	4	23 05	4	23 05	American.	Amer.-Hawaiian Line.	445.0	59.8	27.0	Portland, Oreg.	Boston, Mass.	General.	8,937	8,567	6,020
West.																			
Loquasuek.	4	5 42	4	11 40	4	23 35	4	23 35	American.	Roosevelt S. S. Co., S. B.	409.6	54.2	21.6	Adelaide, Australia.	Baltimore, Md.	Ore, wool, gen.	6,022	6,644	4,910
Tanul.	4	13 35	4	14 18	4	23 00	5	11 50	British.	Shaw, Savill & Albion.	477.8	61.1	23.9	Lyttelton, N. Z.	London, England.		4,400	10,657	7,617
Oregon.	4	18 04	4	17 52	5	11 40	4	23 00	British.	French Line.	443.6	61.3	26.9	Vancouver, B. C.	Antwerp, Belgium.	General.	9,113	10,332	7,465
California ¹⁵ .	27	14 00	5	5 43	5	14 55	5	14 55	American.	U. S. Navy.	624.0	97.0		San Diego, Calif.	Guantanamo, Cuba.				
Maryland ¹⁵ .	27	14 00	5	6 12	5	15 50	5	15 50	American.	U. S. Navy.	600.0	97.3		San Diego, Calif.	Guantanamo, Cuba.				
Procyon ¹⁶ .	27	14 00	5	6 12	5	15 55	5	15 55	American.	U. S. Navy.	401.0	54.6		San Diego, Calif.	Guantanamo, Cuba.				
Brant ¹⁷ .	27	14 00	5	6 52	5	15 55	5	15 55	American.	U. S. Navy.	180.0	33.6		San Diego, Calif.	Guantanamo, Cuba.				
Tern ¹⁷ .	27	14 00	5	7 09	5	15 55	5	15 55	American.	U. S. Navy.	187.0	33.0		San Diego, Calif.	Guantanamo, Cuba.				
Henri.	4	15 00	5	7 24	5	17 00	5	17 00	French.	Desmarais Freres.	400.5	51.2	24.0	Los Angeles, Calif.	Le Havre, France.	Benzine.	7,300	5,030	4,178
Temple Lane.	5	4 00	5	8 27	5	17 35	5	17 35	British.	Temple S. S. Co.	390.0	52.0	26.0	Junin, Chile.	Azores ²¹ .	Nitrates.	7,700	5,815	4,130
Barclay.	5	7 55	5	9 10	5	18 18	5	18 18	Dutch.	Royal Neth. S. S. Co.	200.0	31.1	13.0	Guayaquil, Ecuador.	Cristobal, C. Z.	Coffee, cacao, gen.	474	1,183	742
San Felipe.	5	8 10	5	10 02	5	18 50	5	18 50	American.	States S. S. Co.	410.0	54.2	28.0	Portland, Oreg.	New London, Conn.	Lumber.	6,906	6,821	4,927
Maine.	5	8 00	5	13 14	5	20 25	5	20 25	American.	States Shipping Co.	402.0	54.2	26.6	Seattle, Wash.	Baltimore, Md.	Lumber, general.	7,644	6,936	5,024
Invincible.	4	18 40	5	14 28	5	22 30	6	1 00	British.	Tampa Intercean Co.	440.0	56.0	26.6	Manila, P. I.	New Orleans, La.		9,244	8,329	6,157
Uganda.	5	15 00	5	15 47	6	23 05	6	1 00	British.	Maclean & McIntyre.	402.5	52.2	24.0	Vancouver, B. C.	United Kingdom.	Wheat.	7,300	5,593	4,069
Colombia.	5	15 15	5	15 56	6	00 05	7	10 00	Italian.	Italian Line.	318.0	44.0	23.5	San Antonio, Chile.	Genoa, Italy.	General.	12,553	7,516	
Sheaf Crown.	5	17 40	5	18 25	6	11 15	6	11 15	British.	Sheaf S. S. Co.	405.4	54.5	26.0	Portland, Oreg.	Belfast, Ireland.	Wheat.	8,005	7,127	5,506
West Virginia ¹⁸ .	27	6 02	6	6 02	6	15 35	10	15 30	American.	U. S. Navy.	624.0	97.3		San Diego, Calif.	Guantanamo, Cuba.				

¹⁶ Auxiliary.¹⁷ Mine sweeper.¹⁸ Sugar, lumber, and merchandise.¹⁹ Battleship.²⁰ For orders.²¹ Destroyer.²² Foodstuffs, wool, and hides.²³ Coffee, hides, and honey.²⁴ Motor ship.²⁵ Tanker.²⁶ Corn, copper, and coffee.

Mississippi ¹ 5.	27	6	6.42	6 17.20	10 15.30	American	U. S. Navy	624.0	97.6	San Diego, Calif.	Guantanamo, Cuba	Disp.	32,000
V-1 ² 5.	27	6	7.55	6 18.30	10 12.30	American	U. S. Navy	342.0	28.0	San Diego, Calif.	Guantanamo, Cuba		
V-2 ³ 5.	27	6	7.51	6 18.30	10 12.30	American	U. S. Navy	342.0	28.0	San Diego, Calif.	Guantanamo, Cuba		
V-3 ⁴ 5.	27	6	8.07	6 18.50	10 12.30	American	U. S. Navy	342.0	28.0	San Diego, Calif.	Guantanamo, Cuba		
Argonne ⁵ 6.	27	6	8.36	6 19.10	20 15.30	American	U. S. Navy	448.0	58.0	San Diego, Calif.	Guantanamo, Cuba	Disp.	13,400
Gannet ⁶ 7.	27	6	8.40	6 19.55	10 15.30	American	U. S. Navy	187.0	35.0	San Diego, Calif.	Guantanamo, Cuba	Disp.	950
Biscaya ⁷ 5.	5	17.20	6	8.44	6 20.20	German	Atlantic Tank Rhoderet	412.6	55.1	Los Angeles, Calif.	Liverpool, England	8,456	6,585
Canadian													4,435
HIGHLANDER	5	21.57	6	9.25	6 21.05	British	Can.-Nat. Steamships	400.0	52.4	Wellington, N. Z.	Halifax, N. S.	1,280	6,192
Willapa	6	4.00	6	10.04	6 21.50	American	Williams S. S. Line	415.0	56.0	Seattle, Wash.	Baltimore, Md.	8,200	7,731
Ampullaria ¹	6	7.00	6	12.25	6 22.50	British	Anglo-Saxon Pet. Co.	412.0	52.8	Los Angeles, Calif.	Land's End ²¹	7,086	6,290
Orduna	6	2.30	6	13.22	6 23.10	British	Pacific Steam Nav. Co.	550.3	29.9	Magallanes, Chile.	(*)	6,054	17,145
Capt. Edward													12,015
P. Nones ¹ 5.	6					American	U. S. Army	101.0	23.0	Balboa, C. Z.	Cristobal, C. Z.	Disp.	32,000
New Mexico ² 5.	27					American	U. S. Navy	624.0	96.0	San Diego, Calif.	Guantanamo, Cuba	Disp.	32,300
Tennessee ³ 5.	27					American	U. S. Navy	624.0	97.0	San Diego, Calif.	Guantanamo, Cuba	Disp.	32,300
Illinois ⁴ 5.	6	23.10	7	7.39	7 16.25	American	The Texas Co.	416.8	56.1	Wilmington, Calif.	New York, N. Y.	7,634	6,945
Relief ⁵ 24.	27	7	8.13	7 17.03	10 21.25	American	U. S. Navy	484.0	64.0	San Diego, Calif.	Guantanamo, Cuba	Disp.	9,750
Sir Karl													
Knudsen ¹ 11	6	14.35	7	8.54	7 17.55	Norwegian	Anglo-Saxon Pet. Co.	450.5	59.2	Los Angeles, Calif.	Land's End ²¹	10,476	8,085
Acme ² 5.	6	19.00	7	9.21	7 18.35	American	Standard Transp. Co.	435.0	56.0	Los Angeles, Calif.	New York, N. Y.	9,758	7,165
Salvador	7	6.20	7	9.27	7 19.30	British	Pacific Steam Nav. Co.	215.0	35.5	Champerico, Guat.	Cristobal, C. Z.	834	1,270
Nebraska	7	1.10	7	9.41	7 19.57	American	Amer.-Hawaiian Line	471.0	60.0	Tacoma, Wash.	Boston, Mass.	8,037	9,032
Hanley	7	5.00	7	10.40	7 20.50	American	Hanley S. S. Co.	440.0	56.0	Long View, Wash.	Portsmouth, R. I.	9,501	8,310
Mincola	7	8.30	7	10.55	7 21.45	American	N.O. & S. A. S. S. Co.	298.6	40.0	Iquique, Chile.	New Orleans, La.	3,544	2,835
Jane													1,805
Christenson	7	9.40	7	11.25	7 22.20	American	Christenson S. S. Co.	403.4	54.2	Vancouver, B. C.	Baltimore, Md.	7,854	6,615
Almagro	7	8.30	7	12.24	7 22.08	British	Pacific Steam Nav. Co.	303.4	43.0	Guayaquil, Ecuador	New York, N. Y.	311	2,826
Behore	8	4.30	8	5.54	8 15.50	American	Ore S. S. Corp.	550.3	72.2	Cruz Grande, Chile	New York, N. Y.	21,161	15,476
Herman F.													4,354
Whiton	7	20.50	8	6.45	8 14.43	American	Union Sulphur Co.	409.8	54.2	Portland, Ore.	Providence, R. I.	7,900	6,851
Julia													4,784
Lukenbach	7	21.45	8	7.21	8 17.00	American	Lukenbach Line	436.6	57.2	Seattle, Wash.	Philadelphia, Pa.	8,368	8,543
Lubrico ¹	8	4.00	8	8.10	8 17.57	American	Standard Oil Co. of Cal.	425.0	57.2	Los Angeles, Calif.	New York, N. Y.	9,410	7,227
Baarn	7	23.00	8	8.48	8 18.50	Dutch	Royal Neth. S. S. Co.	400.6	58.3	Corral, Chile	Rotterdam, Holland	6,381	7,819
D. G. Schofield	8	3.30	8	9.26	8 19.25	American	Standard Oil Co. of Cal.	440.0	58.0	Los Angeles, Calif.	Providence, R. I.	9,000	8,698
Queenmoor	8	6.45	8	9.48	8 20.35	British	W. Roumanian & Co.	405.1	53.6	Cruz Grande, Chile	Baltimore, Md.	8,400	6,300
Queen Olga	8	13.05	8	13.57	8 22.25	British	Andrew Weir & Co.	400.1	52.3	Iquique, Chile.	Norfolk, Va.	7,621	5,792
Independence	8	13.50	8	14.47	8 23.05	American	Tampa Intercean Co.	440.0	56.0	Manila, P. I.	New Orleans, La.	9,765	8,290

¹ Tanker.

²⁵ Mine planter.

²⁶ Wool, oil cake, cotton, general, tin, copper, oats, and barley.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

²⁷ Garlic, potassium, and nitrates.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	From—	Date.	Vessel.	Line.	For—
March 2.....	Inapaquina ²⁹	Colon, R. P.	March 2.....	Inapaquina ²⁹	United Fruit Co.	Colon, R. P.
March 2.....	Anachucua ²⁹	Colon, R. P.	March 2.....	Anachucua ²⁹	United Fruit Co.	Colon, R. P.
March 2.....	Calameres	Colon, R. P.	March 2.....	Caledonia	Cunard Line.	New York via waypoints.

²⁹ Motor boat.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 2	Irona	United Fruit Co.	Puerto Colombia.	March 2	Paul H. Harwood	Pan-American Pet. Co.	Aruba, D. W. I.
March 2	Macoris	French Line	St. Nazaire via wayports.	March 2	Colamarcas	United Fruit Co.	New York via Habana.
March 3	No. 9688 ³¹	Pan-American Airways.	Tela via wayports.	March 2	Ancon	Panama R. R. S. S. Line	New York via Haiti.
March 5	Pastores	United Fruit Co.	New York via Habana.	March 3	Kingsholm	Swedish American Line	New York via wayports.
March 5	Poseidon	Royal Neth. S. S. Co.	Amsterdam via waypts.	March 3	Herlia	United Fruit Co.	New Orleans via waypts.
March 5	Metapan	United Fruit Co.	New York via Kingston.	March 3	Irona	United Fruit Co.	Port Limon via Bocas.
March 5	Castilla	United Fruit Co.	New Orleans, La.	March 3	Nessian	Leyland S. S. Line	Port Limon, C. R.
March 5	Partia ³²	Cuban Government.	Habana.	March 3	Wanks	Standard Fruit S. S. Co.	San Blas, R. P.
March 5	Cordoba C-40 ³¹	Scadta Airplane Co.	Baranquilla via waypts.	March 4	No. 9685 ³¹	Pan-American Airways.	Tela via wayports.
March 5	Annetta I. ³³	A. Tagaropulos	Curacao via wayports.	March 4	No. 144-M ³¹	Pan-American Airways.	Curacao via wayports.
March 6	No. 144-M ³¹	Pan-American Airways.	Curacao via wayports.	March 4	No. 945-M ³¹	Pan-American Airways.	Guayaquil via wayports.
March 6	No. 9685 ³¹	Pan-American Airways.	Tela via wayports.	March 5	Macoris	French Line	Havre via wayports.
March 6	Anachucuna ³⁴	United Fruit Co.	Colon, R. P.	March 5	Poseidon	Royal Neth. S. S. Co.	Puerto Barrios.
March 7	Amapala	Standard Fruit S. S. Co.	San Blas, R. P.	March 5	Annetta I. ³³	A. Tagaropulos	Colon, R. P.
March 7	Cuba	Houston Chamber of Commerce.	Houston via wayports.	March 6	No. 9664 ³¹	Pan-American Airways.	Tela via wayports.
March 7	Jan Sebastian Elcano	Spanish Line	New York via wayports.	March 6	Cordoba C-40 ³¹	Scadta Airplane Co.	Baranquilla via waypts.
March 7	Cundinamarca C-33 ³¹	Pan-American Airways.	Baretona via wayports.	March 6	Metapan	United Fruit Co.	New York via wayports.
March 7	No. 945-M ³¹	Pan-American Airways.	Guayaquil via waypts.	March 6	Lizzie D. Peabody ³⁴	M. P. Martinez	Colon, R. P. via wayports.
March 8	Manaquí	United Fruit Co.	Buenaventura via waypts.	March 6	Pastores	United Fruit Co.	Port Limon, C. R.
March 8	Irona	United Fruit Co.	Guayaquil via wayports.	March 6	Anachucuna ³³	Cuban Government	Habana via Kingston.
March 8	Creole Jefe	Venezuela Gulf Oil Co.	Bocas, R. P.	March 6	Castilla	United Fruit Co.	Colon, R. P.
March 8	Wanks	Standard Fruit S. S. Co.	Aruba, D. W. I.	March 7	Inapaquina ³³	United Fruit Co.	Puerto Colombia.
March 8	Standard Fruit S. S. Co.	Standard Fruit S. S. Co.	San Blas, R. P.	March 8	Anachucuna ³³	United Fruit Co.	Colon, R. P.
March 8	Rugia	Leyland S. S. Line	Port Limon, C. R.	March 8	Cundinamarca C-33 ³¹	Scadta Airplane Co.	Buenaventura via waypts.
March 8	Hamburg-American Line	Hamburg-American Line	Tampico via wayports.	March 8	Amapala	Standard Fruit S. S. Co.	New Orleans via waypts.
March 8	United Fruit Co.	United Fruit Co.	New Orleans via Habana.	March 8	Irona	United Fruit Co.	New Orleans.
March 8	No. 9664 ³¹	Pan-American Airways.	Tela via wayports.	March 8	Reliance	Hamburg-American Line	New York via wayports.
March 8	Inapaquina ³³	United Fruit Co.	Colon, R. P.	March 8	Cuba	Houston Chamber of Commerce.	Houston via wayports.
March 8	Anachucuna ³³	United Fruit Co.	Colon, R. P.	March 8	Manaquí	United Fruit Co.	New York via Kingston.
March 8				March 8	Nessian	Leyland S. S. Line	Liverpool via wayports.
March 8				March 8	Wanks	Standard Fruit S. S. Co.	Puerto Cabezas.
March 8				March 8	Creole Jefe	Venezuela Gulf Oil Co.	Aruba, D. W. I.
March 8				March 8	No. 9685 ³¹	Pan-American Airways.	Tela via wayports.
March 8				March 8	No. 9668 ³¹	Pan-American Airways.	Puntarenas via wayports.

PORT OF BALBOA.

31 Motor schooner.

32 Training ship.

33 Motor boat.

34 Motor schooner.

PORT OF BALBOA.			
Date.	Vessel.	Line.	From—
March 2	Montebello	Union Oil Co. of Calif.	Los Angeles, Calif.
March 2	Real ³⁵	Hans Elliot	Panama Bay, R. P.
March 6	Real ³⁵	Hans Elliot	Panama Bay, R. P.
March 6	Sambu ³⁵	Hans Elliot	Panama Bay, R. P.
March 7	San Lorenzo	National Nav. Co. (Panama)	Panama Bay, R. P.
March 7	Eto Nazaro	National Nav. Co. (Panama)	Panama Bay, R. P.
March 7	San Lorenzo	National Nav. Co. (Panama)	Panama Bay, R. P.

* Other than ships passing through the Canal.

35 Motor schooner.

Origin and Destination of Cargo Passing Through the Panama Canal During the Calendar Year 1929.

Cargo tonnage through the Canal during the calendar year 1929, aggregating 31,450,493 tons, established a new high record for a year's cargo tonnage, increasing 2,048,912 tons over the previous calendar year, and 787,487 tons over the fiscal year 1929, which set the previous high mark for cargo tonnage for a calendar or fiscal year since the opening of the Canal. In another part of this issue (pages 452 to 455) will be found tables showing in detail the origin and destination of all cargo tonnage passing through the Canal in the calendar year ended December 31, 1929. This tonnage, segregated according to direction, as compared with the calendar year 1928, and the increase, is shown in the following tabulation:

	Calendar year, 1929.	Calendar year, 1928.	Increase.	
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>	<i>Per cent.</i>
Atlantic to Pacific.....	10,166,211	9,065,934	1,100,277	12.1
Pacific to Atlantic.....	21,284,282	20,335,647	948,635	4.7
Totals.....	31,450,493	29,401,581	2,048,912	7.0

As will be noted above, the greatest increase was in the cargo movement from the Atlantic to the Pacific. While the movement in the opposite direction showed a substantial increase, a heavy decrease in the shipments of several commodities, principally grain, reduced the percentage of increase to less than half of that in the opposite direction.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 25.5 per cent in Europe, these two areas contributing over 90 per cent of the cargo moving from the Atlantic to the Pacific. Tonnage from the United States increased 600,848 tons, or 10 per cent, in comparison with the tonnage from that area in 1928, although the percentage of the total in 1929 was slightly lower than that in 1928 (66.3 per cent). Tonnage coming from Europe also increased—313,658 tons, or 13.7 per cent—over the tonnage from that region in 1928, while the proportion of same to the respective totals in the two years was about the same.

Destination.—Over 42 per cent of all cargo moving from the Atlantic to the Pacific was destined to the west coast of the United States; 20.7 per cent to Asia; 15.4 per cent to South America; and 14.5 per cent to Australasia. Tonnage to the United States increased 508,324 tons, or 13.4 per cent over the previous year; that to Asia gained 36,429 tons, or 1.8 per cent; that to South America 344,189 tons, or 27.9 per cent; and that to Australasia 105,376 tons, or 7.7 per cent. Tonnage to the United States and South America also increased in its proportion to the total, while that to Asia and Australasia decreased.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 51.3 per cent originated on the west coast of the United States; 29.3 per cent in South America; 10.7 per cent in Canada; 4.1 per cent in Asia; and 3.8 per cent in Australasia. Tonnage from all of these areas with the exception of Canada increased in actual tonnage as well as in proportion to the total cargo as compared with the calendar year 1928, as follows:

From the United States, 836,976 tons, or 8.3 per cent; from South America, 571,529 tons, or 10.1 per cent; from Asia, 268,787 tons, or 45.4 per cent; and from Australasia, 116,361 tons, or 16.7 per cent. Tonnage from Canada decreased 863,870 tons, or 27.5 per cent, on account of lessened grain movement from this area.

Destination.—Segregated according to destination, 56.7 per cent of the cargo moving from the Pacific to the Atlantic during the year was destined to the eastern and Gulf seaboard of the United States, and 37.4 per cent to Europe. Tonnage to the United States showed an increase in its relation to the total cargo as well as an increase in actual tonnage of 1,334,033, or 12.4 per cent, over the amount destined to that region in 1928, while that to Europe registered a decrease in its proportion to the total cargo in this direction and an actual loss of 224,810 tons, or 2.7 per cent, under the calendar year 1928.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

Manufactures of iron and steel, consisting of 2,374,926 tons, comprised the principal class of cargo from the Atlantic to the Pacific during 1929, and registered an increase of 214,505 tons over the calendar year 1928. The greatest percentage of this increase was in the coast-to-coast trade of the United States. Other leading commodities passing through the Canal in this direction were mineral oils, cement, and phosphates, in order named, each showing substantial increases over 1928.

From the cargo declarations submitted it was possible to classify 86 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific during 1929. The remaining 14 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo." Commodities which aggregated more than 100,000 tons in this direction in either the calendar year 1929 or the calendar year 1928 are listed in the following tabulation, showing differences:

Commodity.	Calendar year, 1929.	Calendar year, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	135,767	94,010	+41,757
Asphalt.....	102,277	93,433	+8,844
Automobiles.....	244,948	190,537	+54,411
Canned goods (fish, fruit, vegetables, etc.).....	122,739	104,454	+18,285
Cement.....	477,734	298,823	+178,911
Coal and coke.....	236,335	268,040	-31,705
Cotton.....	257,508	309,718	-52,210
Manufactured goods:			
Iron and steel.....	2,374,926	2,160,421	+214,505
Machinery.....	195,036	180,775	+14,261
Railroad material.....	221,085	243,132	-22,047
Textiles.....	129,334	126,599	+2,735
Tinplate.....	287,907	190,630	+97,277
Miscellaneous.....	185,382	152,464	+32,918
Metals:			
Scrap.....	122,518	98,820	+23,698
Various (iron, lead, etc.).....	119,637	93,395	+26,242
Oils mineral.....	788,536	726,583	+61,953
Paper.....	251,400	196,638	+54,762
Phosphates.....	309,817	262,395	+47,422
Sugar.....	132,182	73,172	+59,010
Sulphur.....	239,147	201,416	+37,731
Tobacco.....	103,023	137,714	-34,691

The above 21 commodity groups make up a little more than 69 per cent of the total cargo carried from the Atlantic to the Pacific through the Canal during the calendar year 1929. Seventeen of the 21 items listed increased over the calendar year 1928.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

Of the commodities passing from the Pacific to the Atlantic during 1929, the heaviest increase was in the shipments of mineral oils, which registered a gain of nearly a million tons over the preceding year. Smaller increases were made in shipment of ores (principally iron) and sugar, each of which gained over 300,000 tons as compared with the shipments in 1928. The principal trades over which the larger part of the mineral oils were shipped were the United States intercoastal and from the United States to Europe, although there were some 800,000 tons shipped out of South America (Peru and Ecuador) and reported destined to the United States, Canada, and Europe. Heavy shipments of iron ore from Chile to the United States contributed principally to the increased ore tonnage, while the larger portion of the increased sugar tonnage was carried from the Philippine Islands to the United States. Wheat shipments declined over 900,000 tons as compared with the previous calendar year, while lumber fell off close to 150,000 tons.

Of the total cargo reported during the year it was possible to classify 98.6 per cent of the total in transit through the Canal from the Pacific to the Atlantic. Commodities which aggregated more than 100,000 tons either in 1929 or 1928, with the increase or decrease, are listed below:

Commodity.	Calendar year, 1929.	Calendar year, 1928.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	268,729	246,777	+21,952
Beans.....	134,616	156,236	-21,620
Canned goods (fish, fruit, vegetables, etc.).....	847,496	867,178	-19,682
Coffee.....	141,228	143,142	-1,914
Cold storage (food products).....	317,914	307,563	+10,351
Copra.....	111,621	103,245	+8,376
Cotton.....	98,497	100,528	-2,031
Flour.....	101,425	126,322	-24,897
Fruit, dried.....	239,451	308,268	-68,817
Fruit, fresh.....	207,361	132,652	+74,709
Lumber.....	3,399,393	3,548,910	-149,517
Metals (principally copper).....	665,755	667,479	-1,724
Nitrates.....	2,537,715	2,449,326	+88,389
Oils, mineral.....	5,712,461	4,728,106	+984,355
Ores (principally iron).....	1,993,717	1,633,769	+359,948
Rice.....	106,385	84,907	+21,478
Sugar.....	880,308	576,045	+304,263
Wheat.....	1,901,157	2,820,425	-919,268
Wool.....	157,099	158,894	-1,795

* Fresh fruit not included.

The above 19 commodity groups comprise over 93 per cent of the cargo moving from the Pacific to the Atlantic during the calendar year 1929. Nine of the items show increases and 10 decreases.

(Continued on next page.)

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature, Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18).....	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces)

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, During the Calendar Year 1929.—Continued from page 451.

(Figures represent tons of 2,240 pounds.)

From—	SOUTH AMERICA					NORTH AMERICA					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	West coast of States.	West coast of Canada.	West coast of Central America.	West coast of North America. ¹	Total, North America.
NORTH AMERICA:											
UNITED STATES—											
North Atlantic ports.....	176,379	27,525	9,136	95,903	58,748	367,691	2,715,001	6,653	27,826	.....	2,841,056
South Atlantic ports.....	193	.....	.....	1,513	85	1,701	46,342	.....	.....	.....	46,342
Gulf ports.....	39,133	2,992	2,047	7,374	6,401	58,007	613,544	18,912	4,275	.....	665,699
Totals, United States.....	215,705	30,517	11,183	104,790	65,294	427,489	3,374,887	25,565	32,101	.....	3,582,997
Cristobal, C. Z. ²											
East coast of Canada.....	14,068	24,364	12,961	11,112	15,581	78,086	50,665	211	117,390	.....	108,845
West Indies.....	74,180	6,855	.....	296	185	81,516	30,177	58,437	.....	.....	79,614
East coast of Central America.....	18,169	.....	.....	.....	1,428	19,597	14,902	24,002	130	.....	54,341
Totals, North America.....	322,122	61,736	24,144	116,198	82,488	606,688	3,491,840	108,215	160,365	.....	3,881,443
Europe:											
British Isles.....	177,237	2,927	3,034	30,600	72,724	292,522	108,523	59,781	15,996	.....	195,765
Belgium.....	62,581	11,525	5,339	16,008	19,064	114,517	291,441	34,988	9,959	.....	343,837
Denmark.....	3,077	.....	.....	534	3,964	7,575	416	58	1,516	.....	2,004
France.....	25,133	1,018	719	5,143	11,936	43,949	27,636	8,854	1,646	.....	38,272
Germany.....	35,668	5,632	4,998	13,297	22,511	82,036	91,843	9,685	20,968	.....	140,745
Holland.....	14,533	548	1,704	11,160	6,680	34,585	58,153	7,639	1,700	.....	67,741
Italy.....	6,446	9	37	247	15,324	22,063	6,290	6,290	4,766	.....	24,576
Norway and Sweden.....	34,593	6,557	2,826	5,898	37,209	87,083	60,015	1,265	26,731	.....	102,375
Russia.....	1,638	37	75	449	.....	3,141	2,758	3,729	101	.....	2,758
Spain and Portugal.....	34,211	2,913	1,940	5,557	208,199	252,820	70,218	10,967	15,602	.....	8,548
Europe.....	385,117	31,166	20,672	94,823	398,523	940,301	729,236	143,256	98,920	.....	97,499
Totals, Europe.....	.....	.....	.....	.....	43	31,005	88,770	26,692	1,383	.....	1,024,123
East coast of South America.....											
Africa.....	17,163	7,489	.....	6,305	.....	.....	.....	.....	.....	.....	117,036
Grand totals, 1929.....	734,407	100,391	44,816	217,326	481,054	1,577,994	4,309,846	278,163	260,668	.....	5,022,602
Grand totals, 1928.....	476,754	123,116	42,067	183,112	408,756	1,233,805	3,801,522	223,993	218,149	.....	4,408,319
Per cent of total cargo, 1929.....	7.2	1.0	0.4	2.1	4.7	15.4	42.4	2.7	2.6	.....	49.4
Per cent of total cargo, 1928.....	5.2	1.4	0.5	2.0	4.5	13.6	41.9	2.5	2.4	.....	48.6

¹ General cargo not routed so as to allow segregation between definite ports.² Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, During the Calendar Year, 1929.

(Figures represent tons of 2,240 pounds.)

From—	ASIA.					AUSTRALASIA.				GRAND TOTALS.		Per cent of total cargo, 1929.	Per cent of total cargo, 1928.
	Japan.	China.	Philippines	Far East. *	Total, Asia.	Australia.	New Zealand.	Australasia ¹	Total, Australasia	1929.	1928.		
NORTH AMERICA:													
UNITED STATES—													
North Atlantic ports.....	429,960	257,189	159,758	231,596	1,078,503	307,805	118,567	7,812	434,184	4,721,434	46.4	47.4	
South Atlantic ports.....	69,529	6,535	5,759	11,658	93,481	100	.....	.....	100	141,714	1.4	1.7	
Gulf ports.....	544,599	188,594	36,604	72,379	842,176	95,782	47,600	37,100	180,482	1,746,264	17.2	17.2	
Totals, United States.....	1,044,088	452,318	202,121	315,633	2,014,160	403,687	166,167	44,912	614,766	6,609,412	65.0	66.3	
Cristobal, C. Z. ².....	.....	.....	.....	4	4	.....	.....	.....	50	246,985	2.4	2.3	
East coast of Canada.....	10,860	1,570	.....	.....	12,430	67,348	55,494	11,476	134,318	226,362	2.2	2.1	
West Indies.....	3,100	31,900	.....	.....	25,000	28,684	.....	.....	28,684	199,541	2.0	1.0	
East coast of Central America.....	6,788	.....	.....	.....	6,788	35,155	6,308	5,807	47,270	99,301	1.0	1.4	
Totals, North America.....	1,064,836	485,788	202,121	315,637	2,068,382	506,190	256,653	62,245	825,088	7,381,601	72.6	73.1	
EUROPE:													
British Isles.....	8,450	400	.....	.....	8,850	2,245	503,054	6,540	511,839	1,008,976	9.9	10.6	
Belgium.....	.....	405	.....	.....	405	.....	68,159	.....	68,159	526,918	5.2	4.5	
Denmark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,579	0.1	0.2	
France.....	.....	.....	.....	.....	.....	.....	.....	12,085	12,085	94,306	0.9	1.2	
Germany.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	222,781	2.2	2.0	
Holland.....	.....	.....	.....	.....	.....	.....	.....	6,724	6,724	109,063	1.0	1.0	
Italy.....	.....	23	.....	.....	23	.....	.....	.....	.....	31,933	0.5	0.3	
Norway and Sweden.....	.....	.....	.....	.....	.....	23,553	.....	.....	23,553	213,011	2.1	1.5	
Russia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,758	.....	.....	
Spain and Portugal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,689	0.1	0.2	
Europe ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	350,319	3.5	3.7	
Totals, Europe.....	8,450	828	.....	.....	9,278	25,798	571,213	25,349	622,360	2,596,062	25.5	25.2	
East coast of South America.....	4,365	468	29	68	4,930	.....	.....	.....	.....	152,971	1.5	1.3	
Africa.....	15,081	.....	.....	.....	15,081	.....	20,496	.....	20,496	35,577	0.4	0.4	
Grand totals, 1929.....	1,092,732	487,084	202,150	315,705	2,097,671	531,988	848,362	87,594	1,467,944	10,166,211	100.0	.....	
Grand totals, 1928.....	1,038,757	474,090	165,793	382,602	2,061,242	522,116	695,078	145,374	1,362,568	9,065,934	.....	100.0	
Per cent of total cargo, 1929.....	10.8	4.8	2.0	3.1	20.7	5.2	8.4	0.9	14.5	.....	100.0	.....	
Per cent of total cargo, 1928.....	11.5	5.2	1.8	4.2	22.7	5.8	7.7	1.6	15.1	.....	.....	100.0	

¹ General cargo not routed so as to allow segregation between definite ports.² Includes both local and transit cargo.

Origin and Destination of Cargo Passing through the Panama Canal, from the Pacific to the Atlantic, During the Calendar Year 1929.

(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.							EUROPE.						
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z. ²	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.										
SOUTH AMERICA:														
Chile.....	2,100,897	305,772	359,388	2,766,057		28,123		3,248	2,797,428	217,911	83,734	178	82,950	76,205
Colombia.....	18,934			18,934				43,610	62,544	400	239	11	9	29
Ecuador.....	152,015			152,015		3		31,418	183,436	1,411	948	16	1,079	1,019
Peru.....	278,619	8,885		287,504	408,269	138		9,654	700,665	179,664	22,737	3,471	30,635	42,653
West coast of S. America	35,631			35,631		293		4,660	40,484	9,190	3,188		63	841
Totals, S. America.....	2,536,096	314,657	359,388	3,200,141	408,269	28,557		92,590	3,784,557	408,582	110,836	3,676	114,736	120,747
NORTH AMERICA:														
West coast of Canada.....	339,681		10,470	350,151	140,305	37,850	553	362	529,221	778,900	58,119	35,059	59,326	104,627
West coast of Cen. Amer.	3,349			3,349		1,697	419	51,113	56,578	3,703	58		2,328	4,999
West coast United States.	6,870,072	111,051	483,953	7,465,076	3,454	139,925	22,847	50,337	7,681,639	1,864,892	78,260	21,096	171,927	291,543
Hawaii.....	45,518		34,040	79,558					79,558	3,203	34	179		638
Bahhou.....														
West coast N. America														
Totals, N. America.....	7,258,620	111,051	528,463	7,898,134	143,759	179,472	23,819	101,812	8,346,996	2,650,698	136,471	57,234	233,581	461,807
ASIA:														
China.....	58,085		461	58,546		15,298		4,115	77,959	1,816				8,000
Japan.....	43,326		184	43,510		1,475		473	45,458					
Philippines.....	490,854		106,728	597,582					597,582					
Far East	27,696			27,696		51,483		65	79,244	17,745		7,000		
Totals, Asia.....	619,961		107,373	727,334		68,256		4,653	800,243	19,561		7,000		8,000
AUSTRALASIA:														
Australia.....	89,238	144	5,584	94,966	19,785			211	114,962	26,342			3,011	20
New Zealand.....	42,823			42,823	9,675			250	53,048	450,656	2,924		22,505	184
Australasia	46,529		8,801	55,420					55,420	31,938	2,200			
Totals, Australasia.....	178,590	144	14,475	193,209	29,760			461	223,430	517,936	5,124		25,516	204
Grand totals, 1929.....	10,643,267	425,852	1,009,699	12,078,818	576,788	276,285	23,819	199,516	13,155,226	3,596,777	252,431	67,910	373,833	590,758
Grand totals, 1928.....	9,477,954	580,905	685,926	10,744,785	450,901	287,399	118,674	366,883	11,968,642	3,803,684	323,334	45,664	319,545	709,610
Per cent of total cargo, 1929.....	50.0	2.0	4.7	56.7	2.8	1.3	0.1	0.9	61.8	16.9	1.2	0.3	1.8	2.7
Per cent of total cargo, 1928.....	46.6	2.9	3.4	52.9	2.2	1.3	0.6	1.8	58.8	18.7	1.6	0.2	1.6	3.8

² Includes both local and transit cargo.³ General cargo not routed so as to allow segregation between definite ports.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, During the Calendar Year, 1929.

(Figures represent tons of 2,240 pounds.)

From—	EUROPE.						East coast of South America.	Egypt.	Africa.	GRAND TOTALS.		Per cent of total cargo, 1929.	Per cent of total cargo, 1928.
	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. ¹	Total, Europe.				1929.	1928.		
SOUTH AMERICA:													
Chile.....	18,640	49,774	17,771	25,631	1,293,662	1,866,446	147	92,600		4,755,630	4,469,214	22.3	22.0
Colombia.....	3			13	119	829	3			63,376	79,726	0.3	0.4
Ecuador.....	463	3,965	30	868	836	10,635	776			194,847	141,180	0.9	0.7
Peru.....	23,150	325	35,992	1	100,234	438,862	989			1,140,416	941,722	5.4	4.6
West coast of South America ¹		69		77	28,106	41,534				82,118	34,016	0.4	0.2
Totals, South America.....	42,256	54,133	53,793	26,590	1,422,957	2,358,306	1,915	92,609		6,237,387	5,665,858	29.3	27.9
NORTH AMERICA:													
West coast of Canada.....	145,371	29,381	42,907	29,432	388,132	1,731,254	14,505		64	2,275,104	3,138,974	10.7	15.4
West coast of Central America.....	4,387	361	5,406	5,000	7,990	34,232	240			91,050	120,023	0.4	0.6
West coast of United States.....	104,486	19,187	36,908	57,616	541,947	3,188,762	41,054	7,400	6,281	10,925,136	10,088,160	51.3	49.6
Hawaii.....			625			4,679				84,237	30,126	0.4	0.1
Bahia.....											1,436		
West coast of North America ¹											1,850		
Totals, North America.....	254,244	48,929	85,846	92,048	938,069	4,958,927	55,859	7,400	6,345	13,375,527	13,383,569	62.8	65.7
ASIA:													
China.....					7,297	17,113	400			95,472	77,962	0.4	0.4
Japan.....							10			45,468	32,132	0.2	0.2
Philippines.....										597,582	388,817	2.9	1.9
Far East ¹					16,613	41,358	1,200			121,802	92,626	0.6	0.5
Totals, Asia.....					23,910	58,471	1,610			860,324	591,537	4.1	3.0
AUSTRALASIA:													
Australia.....						29,353				144,315	68,746	0.7	0.3
New Zealand.....	622				4,170	467,392				520,440	512,051	2.4	2.5
Australasia ¹			8,250	4,609	21,183	90,869				146,289	113,886	0.7	0.6
Totals, Australasia.....	622		8,250	4,609	25,353	587,614				811,044	694,683	3.8	3.4
Grand totals, 1929.....	297,122	103,062	147,889	123,247	2,410,289	7,963,318	59,384	100,009	6,345	21,284,282		100.0	
Grand totals, 1928.....	571,212	220,429	151,848	160,606	1,822,196	8,188,128	55,725	96,624	26,528		20,335,647		
Per cent of total cargo, 1929.....	1.4	0.5	0.7	0.6	11.3	37.4	0.3	0.5					100.0
Per cent of total cargo, 1928.....	2.8	1.1	0.7	0.8	9.0	40.3	0.3	0.5	0.1		100.0		

¹ General cargo not routed so as to allow segregation between definite ports.² Includes both local and transit cargo.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending March 1, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cristobal.	Panama R. R. S. S. Line.		February 16		1,094
Baralt.	Royal Neth. S. S. Co.		February 16		123
Colombia.	Panama Mail S. S. Co.		February 16		324
Wanks.	Stand. Fruit & S. S. Co.		February 16		20
Cerigo.	Hamburg-American Line.		February 16		236
Stuyvesant.	Royal Neth. S. S. Co.		February 16		939
Portland.	Hamburg-American Line.	February 16.	February 16.	16	13
Ulua.	United Fruit Co.	February 16.	February 16.	4	4
Castilla.	United Fruit Co.	February 16.	February 17.	(²)	35
Cartago.	United Fruit Co.		February 17.		34
Pearl Marie.	G. I. Bryan.		February 17.		29
Illinois.	French Line.	February 17.	February 18.	436	(²)
Trave.	North German Lloyd.	February 17.	February 19.	(²)	121
Modavia.	Donaldson Line.	February 17.	February 19.	(²)	345
Cauca.	National Navigation Co.	February 18.	February 21.	323	37
Guayaquil.	Panama R. R. S. S. Line.	February 17.	February 20.	122	361
Acajutla.	Pacific Steam Nav. Co.		February 18.		889
Esparta.	United Fruit Co.	February 18.	February 22.	1,345	(²)
Manizales.	North German Lloyd.	February 18.	February 22.	794	174
Teno.	Chilean Line.	February 19.	February 19.	62	(²)
Toloo.	United Fruit Co.	February 19.	February 20.	433	65
Zacapa.	United Fruit Co.	February 19.	February 20.	749	14
Targis.	North German Lloyd.	February 19.	February 20.	11½	811
Drechtijk.	Holland-American Line.	February 19.	February 20.	(²)	467
Tela.	United Fruit Co.	February 19.	February 20.	652	70
Meltonian.	Leyland S. S. Line.	February 19.	February 21.	743	174
Orbita.	Pacific Steam Nav. Co.	February 20.	February 20.	96	141
Santa Barbara.	Grace Line.	February 20.	February 20.	37	447
Nosa King.	N. O. & S. A. S. S. Co.	February 20.	February 20.	50	86
Annie Johnson.	Johnson Line.	February 20.	February 20.	175	(²)
Magdalena.	Hamburg-American Line.	February 20.	February 20.	89	(²)
San Francisco.	Hamburg-American Line.	February 20.	February 21.	(²)	56
Itauri.	Hamburg-American Line.	February 20.	February 22.	232	427
Alkmaar.	Royal Neth. S. S. Co.	February 21.	February 22.	242	56
Amapala.	Stand. Fruit & S. S. Co.	February 21.	February 22.	58	264
Buenaventura.	Panama R. R. S. S. Line.	February 21.	February 22.	1,500	44
Nebraska.	Royal Mail S. P. Co.	February 21.	February 22.	13	288
Champerico.	Pacific Steam Nav. Co.	February 22.		1,350	
Peru.	Danish-East Asiatic Line.	February 22.	February 22.	94	(²)
Magdalena.	Hamburg-American Line.	February 22.	February 23.	15	364
Wanks.	Stand. Fruit & S. S. Co.	February 22.	February 24.	60	1
Castilla.	United Fruit Co.	February 22.	February 22.	(²)	305
Parismina.	United Fruit Co.	February 22.	February 22.	170	1½
Santa Rita.	Grace Line.	February 22.	February 22.	114	(²)
Haarlem.	Royal Neth. S. S. Co.	February 22.	February 23.	(²)	460
Mayari.	United Fruit Co.	February 22.	February 24.	12	447
Toloo.	United Fruit Co.	February 23.	February 23.	1	13
Alvarado.	Pacific Steam Nav. Co.	February 23.	February 24.	210	19
Epoca.	Grace Line.	February 24.		639	
Santa Maria.	Grace Line.	February 24.	February 24.	62	182
Camden.	United Fruit Co.	February 24.	February 25.	9,447	(²)
Ecuador.	Panama Mail S. S. Co.	February 24.	February 25.	146	150
Benjamin Brewster.	Standard Shipping Co.	February 24.	February 25.	429	(²)
Venezuela.	Royal Neth. S. S. Co.	February 25.	February 25.	17	19
Brielle.	Royal Neth. S. S. Co.	February 25.	February 26.	150	2
Tela.	United Fruit Co.	February 25.	February 26.	½	22
La Perla.	United Fruit Co.	February 25.		1,637	
Saale.	North German Lloyd.	February 25.	February 26.	(²)	209
Ansigr.	North German Lloyd.	February 25.	February 28.	229	432
Moerdijk.	Holland-American Line.	February 26.	February 26.	(²)	12
Pacific Reliance.	Furness, Withy & Co.	February 26.	February 27.	60	(²)
Iriona.	United Fruit Co.	February 26.	February 27.	836	236
Vermont.	French Line.	February 26.	February 27.	98	16
Cali.	North German Lloyd.	February 26.		1,013	
Ancon.	Panama R. R. S. S. Line.	February 26.		6,371	
Calamares.	United Fruit Co.	February 26.	February 27.	395	254½
Santa Marta.	United Fruit Co.	February 26.	February 27.	481	70
Hindanger.	Westfal, Larsen & Co.	February 26.	February 27.	40½	(²)
Lagarto.	Pacific Steam Nav. Co.	February 27.	February 27.	6	45
Pearl Marie.	G. I. Bryan.	February 27.	February 27.	(²)	35
Tatsuno Maru.	Nippon Yusen Kaisha.	February 27.	February 27.	62	(²)
Paul Shoup.	Associated Oil Co.	February 27.	February 27.	500	(²)
Grootendijk.	Holland-American Line.	February 27.	February 28.	298	(²)
Guatemala.	Panama Mail S. S. Co.	February 28.	February 28.	1,789	378
Margaret Johnson.	Johnson S. S. Line.	February 27.	February 28.	197	82
Ebro.	Pacific Steam Nav. Co.	February 27.	February 28.	25	58
Oakland.	Hamburg-American Line.	February 28.		124	
Virgilio.	Italian Line.	February 28.		246	
Venezuela.	Royal Neth. S. S. Co.	February 28.		1	1
City of San Francisco.	Panama Mail S. S. Co.		February 28.		1,462

¹ No cargo discharged.

² No cargo laded.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., March 19, 1930. No. 33.

Canal Traffic During First Fifteen Days of March.

During the first fifteen days of March, 1930, 245 commercial vessels and 1 small launch transited the Canal. Tolls on the commercial vessels aggregated \$1,082,102.22, and on the launch \$10.08, or a total tolls collection of \$1,082,112.30.

The daily average of transits of commercial vessels was 16.33, and the average tolls collection \$72,140.15, as compared with an average of 18.13 transits and \$77,202.17 for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,416.74, as compared with \$4,257.47 for the first 15 days of February.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 8½ months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 8½ months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,250,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,997.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March (first 15 days).....	245	1,082,102.22	16.33	72,140.15
Totals, first 8½ months of fiscal year, 1930.....	4,469	19,402,333.74	17.32	75,202.84
Totals, first 8½ months of fiscal year, 1929.....	4,581	19,272,385.87	17.75	74,699.17
Totals, first 8½ months of fiscal year, 1928.....	4,661	19,490,232.65	17.99	75,251.87

As compared with the first 8½ months of the fiscal year 1929, the corresponding period this year has had 112 fewer transits and \$129,947.87 more in tolls.

Notice to Aviators and Navigators.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 15, 1930.

No. 680.

Canal Zone, Cristobal and Balboa Heights aviation lights established on weather towers.

1. *Balboa Heights:* On February 10, 1930, a group of four fixed 50-watt red lights was established on the skeleton steel weather tower at Balboa Heights on the west side of Ancon hill between Quarry Heights and the Administration building. The lights are 90 feet above the ground and are lit between sunset and sunrise for the protection of aviation at night.

2. *Cristobal:* On February 14, 1930, a group of four fixed red lights, arranged horizontally, was established on the skeleton steel weather tower on Cristobal mole between piers 8 and 9. The lights are lit between sunset and sunrise to warn aircraft during night flying.

H. BURGESS,
Governor.

Gen. G. W.	12	8.00	12	14.28	American.	U. S. Army.	89.0	22.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	6,164	6,581	4,795
Getty 7.	12 21.40	13 6.30	13 13.36	13 14.45	American.	Calmar S. S. Corp.	409.0	54.0	Philadelphia, Pa.	Seattle, Wash.	Steel, general.	2,631	2,631	5,970
Losmar.	12 22.05	13 6.30	13 13.36	13 14.45	British.	Imperial Oil Co.	250.0	43.0	Halifax, N. S.	Talara, Peru.	Ballast.	6,330	7,982	5,911
Thialatlalte.	13 10.05	13 10.15	13 17.32	13 18.50	American.	Amer.-Gulf Orient Line.	450.0	57.0	New Orleans, La.	Cebu, P. I.	Gen., kerosene	1,137	1,137	741
Thianover.	11 15.55	13 10.15	13 20.39	13 21.26	German.	Roland Line.	216.5	32.9	Cristobal, C. Z.	Guayaquil, Ecuador	General.	1,670	1,732	4,934
Manizalks.	13 7.25	13 14.52	13 21.35	13 22.45	French.	French Line.	418.0	56.0	Havre, France.	Vancouver, B. C.	(*)	2,515	10,002	6,743
Indiana.	13 16.40	14 6.00	14 13.05	14 15.20	German.	North German Lloyd.	491.0	63.0	Bremen, Germany.	Vancouver, B. C.	General, iron.	3,470	24,506	17,565
Schwaben.	13 18.30	14 6.30	14 14.12	14 17.40	British.	Anglo-Mexican Pet. Co.	475.0	63.0	Middlesboro, Eng.	Los Angeles, Calif.	Ballast.	1,462	7,892	5,858
Abtholregent.	14 6.15	14 7.10	14 15.54	15 1.25	American.	Panama-Pacific Line.	574.4	80.3	New York, N. Y.	San Francisco, Cal.	General.	1,633	8,956	6,562
California.	14 6.15	14 7.10	14 15.54	15 1.25	American.	Panama-Pacific Line.	574.4	80.3	New York, N. Y.	San Francisco, Cal.	General.	5,200	3,068	2,308
Pacific.	14 2.55	14 7.45	14 16.42	14 23.05	British.	Furness, Withy & Co.	420.0	58.0	Glasgow, Scotland	Vancouver, B. C.	General.	3,071	5,668	4,297
Shipper 5.	13 20.30	14 10.25	14 17.12	14 23.30	American.	Grace Line.	370.0	53.0	New York, N. Y.	Valparaiso, Chile.	General.	7,600	6,656	4,954
Santa Rita 5.	14 6.35	14 11.00	14 17.54	14 22.05	British.	Furness, Houlder, Arg.	450.0	58.0	London, England.	Hobart, Tasmania.	Ballast.	6,183	7,978	5,839
Canonesa.	14 12.45	14 14.38	14 22.14	15 5.25	British.	Kerr S. S. Line.	451.0	61.0	New York, N. Y.	Singapore, Str. Settlement.	General.	2,000	2,000	2,000
Silverway 5.	11 21.20	15 16.15	15 15.34	15 15.10	American.	United Fruit Co.	336.7	42.0	Cristobal, C. Z.	San Francisco, Cal.	General.	1,670	1,670	1,670
Sarawacca.	15 4.45	15 6.25	15 14.37	15 16.00	American.	Munson, McCork Line.	370.0	53.0	Baltimore, Md.	Tacoma, Wash.	General.	1,670	1,670	1,670
Mundela.	14 19.45	15 6.15	15 15.28	15 16.50	British.	Texas S. S. Co.	401.6	54.0	Pt. Arthur, Tex.	Shanghai, China.	Case oil.	6,183	7,978	5,839
Buchaness.	15 1.15	15 7.30	15 16.19	15 21.25	American.	Richfield Oil Co.	430.2	59.2	Baltimore, Md.	Los Angeles, Calif.	Ballast.	2,703	2,703	2,703
Pt. Pohnoy 1.	15 1.25	15 7.35	15 17.12	15 21.40	British.	Anglo-Mexican Pet. Co.	407.0	52.0	Jarrow, England.	Los Angeles, Calif.	Ballast.	6,183	7,978	5,839
San Manuel 1.	14 22.40	15 9.05	15 17.24	15 21.10	British.	Johnsun, G. Olson.	251.0	44.0	Piston, Mass.	Valdostock, Russ.	Ballast.	1,816	1,816	1,816
Lake Pandon.	14 23.55	15 9.45	15 17.37	15 21.10	(*)	Union S. Co. of N. Z.	242.0	38.0	Newcastle, Eng.	Wellington, N. Z.	Ballast.	4,253	6,573	4,629
Wanmut.	14 17.05	15 11.15	15 18.20	15 20.05	German.	North German Lloyd.	303.0	54.0	Hamburg, Germany.	Valparaiso, Chile.	General.	3,055	6,779	4,921
Witrand.	15 13.05	15 13.30	15 19.52	15 21.10	American.	Amer.-Hawaiian Line.	404.0	53.0	Piston, Mass.	San Francisco, Cal.	General.	6,023	6,023	6,023
Kansas.	15 16.05	15 17.40	16 9.50	16 14.20	British.	Barber S. S. Line.	400.0	52.0	New York, N. Y.	Shanghai, China.	General.	6,023	6,023	6,023
Castle 5.	15 16.05	15 17.40	16 9.50	16 14.20	British.	Barber S. S. Line.	400.0	52.0	New York, N. Y.	Shanghai, China.	General.	6,023	6,023	6,023

Steel, bricks, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Hainon.....	8	3.00	9	6.12	9	13.08	12	16.05	German.....	North German Lloyd.....	403.4	54.2	21.5		Arica, Chile.....	Bremen, Germany.....	General.....	3,421	6,667	4,888
Santa Estelita.....	8	18.25	9	6.43	9	14.08	9	14.08	American.....	Isthmian S. S. Lines.....	251.0	43.6	22.5		Port Allen, T. H.....	New Orleans, La.....	Raw sugar.....	3,370	2,823	1,730
Cities Service Ohio : °.....	8	22.00	9	7.07	9	14.57	9	14.57	American.....	Cities Service Trans. Co.....	431.0	59.6	26.2		Los Angeles, Calif.....	New York, N. Y.....	Gasoline.....	9,663	7,862	5,049
Eagle : °.....	8	19.20	9	8.14	9	16.05	9	16.05	American.....	Standard Oil Co. of N. Y.....	410.0	56.0	28.0		Los Angeles, Calif.....	New York, N. Y.....	Gas oil.....	8,907	8,001	6,226
Lantaro : °.....	9	1.50	9	8.51	9	16.05	9	16.05	British.....	Pacific Steam Nav. Co.....	399.1	52.2	20.2		Corral, Chile.....	Liverpool, England.....	General.....	3,898	6,759	4,840
Yohoku Maru.....	9	5.50	9	9.04	9	17.20	9	17.20	Japanese.....	Kokusa Kisen Kaisha.....	385.0	51.0	27.8		Manila, P. I.....	New York, N. Y.....	Sugar.....	7,700	6,212	4,710
Hosho Maru.....	9	6.00	9	9.37	9	17.50	9	17.50	Japanese.....	Uowima, Uryu.....	410.4	54.0	25.1		Chenai, B. C.....	Nerark, N. J.....	Lumber.....	7,871	6,532	5,030
Aladdin : °.....	9	9.40	9	10.11	9	18.30	9	18.30	American.....	Standard Transp. Co.....	435.6	56.2	27.5		Los Angeles, Calif.....	Portland, Maine.....	Gasoline.....	8,675	7,408	5,141
Ousbridge.....	9	9.40	9	10.43	9	19.25	9	21.00	British.....	Crosby Son & Co.....	406.1	56.1	22.0		Vancouver, B. C.....	Newmouth, Eng.....	Wheat.....	8,902	6,860	4,125
Manhattan Island.....	9	11.35	9	12.12	9	19.35	9	19.35	American.....	Redwood Line, Inc.....	387.0	52.2	23.0		Seattle, Wash.....	New Orleans, La.....	Sugar, lumber.....	4,900	5,696	4,142
Curaca.....	9	16.00	9	17.05	10	11.30	10	15.55	Panamanian.....	Grace Line.....	403.0	53.4	29.0		Coquimbo, Chile.....	Norfolk, Va..... ⁽⁺⁾	General.....	8,950	6,804	4,897
Australia : °.....	9	14.15	10	6.06	10	15.15	10	17.00	American.....	The Texas Co.....	599.7	70.3	30.0		Los Angeles, Cal.....	Baltimore, Md.....	Gasoline.....	16,952	12,514	8,427
Dintelhof.....	9	23.35	10	6.48	10	16.45	11	00.30	Dutch.....	Holland-American Line.....	485.0	62.3	30.1		Victoria, B. C.....	Rotterdam, Holland.....	General.....	9,968	10,786	7,551
Santa Cecilia.....	10	1.25	10	7.48	10	18.30	11	1.55	American.....	Grace Line.....	408.0	55.2	22.0		Callao, Peru.....	New York, N. Y.....	Copper, lead.....	3,836	6,672	4,905
City of Panama : °.....	10	8.25	10	9.12	10	17.45	12	6.10	American.....	Panama Mail S. S. Co.....	296.1	45.9	20.2		San Francisco, Cal.....	Cristobal, C. Z..... ⁽⁺⁾	General.....	2,018	3,848	2,603
Santa Elisa.....	10	11.15	10	12.02	10	19.55	11	1.25	American.....	Grace Line.....	860.3	51.7	26.0		Valparaiso, Chile.....	New York, N. Y.....	General.....	3,763	5,957	4,325
Cananga : °.....	9	20.15	10	12.13	10	19.35	11	16.20	American.....	Juhls Fleischmann.....	190.0	32.3	16.0		Cocos Island.....	New York, N. Y.....	General.....	1,042	1,467	1,067
Nelson Traveler.....	10	15.15	10	16.05	11	11.30	11	11.30	American.....	Nelson Line.....	380.3	53.1	23.9		Tacoma, Wash.....	Baltimore, Md.....	Lumber, copper.....	6,428	5,657	4,133

+ Motor ship.
° Tanker.

* Manganese ore and nitrates.
** Coffee, wood, cotton, and general.

13 Coffee, wood, cotton, and general.

12 Manganese ore and nitrates.

Yacht.

Motor ship.

Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	Port—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Gen. W. M. Grauman ¹⁴ .	10	19.30	10	6.05	10	17.35	11	13.30	American.	U. S. Army.	169.2	32.0	Balboa, C. Z.	Cristobal, C. Z.	Gasoline.	11,323	9,669	6,857
Royal Arrow ¹ .	10	14.45	11	6.58	11	13.50	11	13.30	American.	Standard Transp. Co.	467.6	42.7	Los Angeles, Calif.	Boston, Mass.	Nitrates.	8,822	2,492	1,676
Forden.	10	14.45	11	6.58	11	13.55	11	13.35	Norwegian.	S. Brammeland.	275.7	40.2	Quique, Chile.	Lake Charles, La.	General.	294	1,132	741
Manizales.	11	2.20	11	6.54	11	15.55	11	15.35	German.	Roland Line.	216.5	32.9	Guayaquil, Ecuador.	Cristobal, C. Z.	General.	6,930	25,254	18,170
Virginia.	10	7.15	11	14.35	11	15.15	11	15.15	American.	Panama-Pacific Line.	586.6	80.3	San Francisco, Cal.	New York, N. Y.	General.	20,000	14,538	9,438
Chilore.	11	00.20	11	8.10	11	19.05	11	19.05	American.	Ore S. S. Corp.	549.6	72.2	Crus Grande, Chile	Baltimore, Md.	Iron ore.	1,977	5,905	4,175
Canadian.	10	20.00	11	8.32	11	19.30	11	21.45	British.	Can. Nat. Steamships.	399.9	52.2	Adelaide, Australia	Halifax, N. S.	General.	11,632	11,487	8,762
Andrea F. Luckenbach.	11	3.40	11	9.19	11	19.55	11	19.55	American.	Luckenbach Line.	496.0	68.2	Portland, Oreg.	Boston, Mass.	Lumber, general.	8,108	8,529	5,993
London.	11	2.10	11	10.44	11	20.10	11	21.25	British.	Furness & Co., Ltd.	450.4	58.0	Vancouver, B. C.	Glasgow, Scotland.	General.	3,632	3,256	2,010
Nesa Chief.	11	4.43	11	10.44	11	21.00	11	21.00	American.	N. O. & S. A. S. S. Co.	299.4	45.0	Antofagasta, Chile.	New Orleans, La.	Nitrates.	6,388	7,098	5,065
Panama.	11	8.03	11	11.00	11	21.50	11	22.48	American.	Amer-Hawaiian Line.	407.7	53.7	Portland, Oreg.	Boston, Mass.	General.	2,634	6,538	4,770
Havana Maru.	11	8.10	11	11.24	11	23.00	12	10.00	Japanese.	Osaka Shosen Kaisha.	336.7	42.0	Shanghai, China.	New York, N. Y.	General.	1,013	3,608	2,308
Sarumaca.	10	18.45	11	12.11	11	21.20	12	2.45	American.	United Fruit Co.	380.4	53.1	San Francisco, Cal.	Cristobal, C. Z.	General.	6,700	5,659	4,138
Charles Nelson.	11	7.45	11	12.30	11	23.45	12	2.45	American.	Charles Nelson & Co.	380.4	53.1	Seattle, Wash.	Baltimore, Md.	Copper, lumber.	7,440	8,454	6,344
Gen. G. W. Getty ¹⁴ .	11	12.30	11	8.35	11	19.15	12	8.00	American.	U. S. Army.	98.0	22.0	Balboa, C. Z.	Cristobal, C. Z.	General.	6,224	5,551	3,881
Los Angeles ¹⁵ .	11	13.00	11	13.28	11	22.15	12	00.20	German.	Hamburg-American Line.	432.2	59.1	Vancouver, B. C.	Hamburg, Germany.	Coconut oil.	9,079	7,382	5,663
Cedarhurst ¹ .	11	13.00	11	14.28	12	9.16	12	9.16	American.	Kellogg S. S. Co.	390.0	54.2	Manila, P. I.	New York, N. Y.	General.	7,400	6,623	4,668
Republic ¹ .	11	14.00	11	14.52	12	10.20	12	10.20	American.	Petroleum Nav. Co.	391.8	51.3	Los Angeles, Calif.	Baltimore, Md.	Kerosene.	8,98	6,400	6,200
Chile ¹⁵ .	11	16.10	11	17.12	12	11.30	12	11.30	Danish.	East Asiatic Co.	413.0	53.6	Tacoma, Wash.	Copenhagen, Den.	General.	7,200	6,162	4,483
Chateau Thierry ¹⁶ .	10	14.38	12	6.18	12	13.30	12	13.30	American.	U. S. Army.	436.0	58.2	Balboa, C. Z.	New York, N. Y.	Household goods.	8,784	5,618	4,116
Munmytic.	11	20.10	12	6.43	12	15.00	12	15.00	American.	Munson, McCork Line.	400.7	54.2	Aberdeen, Wash.	Baltimore, Md.	Lumber, general.	6,301	5,710	4,023
St. Michel ¹⁶ .	11	9.20	12	7.15	12	16.05	12	16.05	American.	U. S. Army.	448.0	58.0	San Francisco, Cal.	New York, N. Y.	Army supplies.	4,000	Disp.	9,700
Willmote ¹⁵ .	11	21.50	12	7.43	12	17.30	12	17.30	American.	Dimon S. S. Corp.	350.0	57.2	Seattle, Wash.	New York, N. Y.	Lumber.	8,500	7,956	5,075
Coburn ¹⁵ .	12	1.50	12	8.18	12	18.35	12	22.05	American.	Calmar S. S. Corp.	450.6	53.2	Seattle, Wash.	Philadelphia, Pa.	Lumber.	696	1,572	1,011
Orogo.	12	9.45	12	10.51	12	19.20	13	7.55	German.	Hamburg-American Line.	227.8	34.4	Guayaquil, Ecuador.	Cristobal, C. Z.	Cacao, coffee.	8,734	5,618	4,116
Huguenot ¹ .	12	10.50	12	11.40	12	23.55	13	7.55	American.	Richfield Oil Co. of Cal.	434.8	56.2	Corral, Chile	New York, N. Y.	Gasoline, oils.	3,348	5,710	4,023
Maple Branch.	12	14.09	12	14.51	12	22.17	13	00.05	British.	F. & W. Rison.	400.0	51.6	Corral, Chile	New York, N. Y.	Coife, general.	4,000	Disp.	9,700
El Salvador.	12	11.10	13	6.20	13	14.30	14	12.53	American.	Panama Mail S. S. Co.	360.2	52.6	San Francisco, Cal.	Guantanamo, Cuba.	General.	8,590	6,970	5,075
Arctic.	11	9.00	13	6.50	13	15.00	13	15.30	American.	U. S. Navy.	416.0	56.1	San Francisco, Cal.	Providence, R. I.	Gasoline.	6,951	6,755	4,895
Ocidental ¹ .	12	17.20	13	7.02	13	15.00	13	17.45	American.	The Texas Co.	416.0	56.4	Los Angeles, Calif.	Wilmington, Del.	Lumber.	7,749	6,213	4,665
San Marcos.	13	00.05	13	7.37	13	17.45	14	14.55	Japanese.	Quaker Line.	410.0	51.0	Everett, Wash.	Boston, Mass.	Sugar.	3,236	14,827	10,630
Glasgow Maru.	13	23.10	14	6.28	14	13.15	14	14.55	Japanese.	Kokusa Kisen Kaisha.	385.0	66.3	Hilo, P. I.	Liverpool, England.	General.	9,079	7,382	5,663
Oropesa.	14	3.55	14	8.15	14	13.15	15	1.25	British.	Pacific Steam Nav. Co.	630.0	66.3	Talcahuano, Chile.	Liverpool, England.	General.	9,079	7,382	5,663

¹⁴ Transport.¹⁵ Motor ship.¹⁶ Mine planter.¹ Tanker.

Arizona.....	14	7.10	14	9.19	14	16.45	14	16.45	American.....	Amer.-Hawaiian Line.....	434.3	57.7	25.0	Seattle, Wash.....	Boston, Mass.....	General.....	7,431 7,983	5,916
Santa Tecla.....	14	9.20	14	10.11	14	18.19	14	21.45	American.....	N. O. & S. S. Co.....	298.6	40.0	21.6	Tocopilla, Chile.....	Mobile, Ala.....	Nitrates.....	3,548 2,832	1,803
Turkana.....	14	13.15	14	13.47	14	20.50	14	20.50	British.....	N. Z. Shipping Co.....	480.5	62.5	24.0	N. Plymouth, N. Z.....	London, England.....	Frozen, general.....	6,612 10,618	7,306
Willaro.....	14	14.00	14	14.42	14	22.45	14	22.45	American.....	Williams S. S. Line.....	386.8	59.2	23.9	Seattle, Wash.....	Baltimore, Md.....	(²⁰)	5,965 5,984	4,070
Gen. M. H. Sherman.....	14	18.05	14	18.49	15	11.50	15	14.45	American.....	Arrow Line.....	402.6	53.8	26.0	Port Alberni, B. C.....	New York, N. Y.....	Lumber.....	7,385 6,675	4,712
Steeple.....	15	4.45	15	5.30	15	15.45	15	15.45	American.....	Ore S. S. Corp.....	530.3	72.2	24.8	Cruz Grande, Chile.....	Baltimore, Md.....	Iron ore.....	21,653 15,551	4,287
Temple Pier.....	14	21.00	15	6.46	15	14.55	15	14.55	British.....	Lambert Brothers.....	390.0	53.0	24.0	Caleta Colosa, Chile.....	Azores is.....	Nitrates.....	7,600 5,726	4,165
Canadian.....	14	22.45	15	7.30	15	16.45	15	18.50	British.....	Can. Nat. Steamships.....	400.0	52.4	16.0	Adelaide, Australia.....	Halifax, N. S.....	General.....	1,167 5,956	4,172
Marechal.....	15	6.00	15	7.57	15	17.10	15	17.10	American.....	Nelson S. S. Co.....	324.0	46.2	24.6	Seattle, Wash.....	Baltimore, Md.....	Lumber, general.....	3,944 3,984	2,628
Queen Eleanor.....	15	6.45	15	8.24	15	18.05	15	18.47	British.....	Thos. Dunlop & Sons.....	400.3	52.3	25.0	Iquique, Chile.....	New Orleans, La.....	Nitrates.....	7,450 5,708	4,054
Hesperos.....	15	7.30	15	8.58	15	18.55	15	20.05	Norwegian.....	Buena Vista Kisterud.....	389.8	54.1	23.0	Seattle, Wash.....	London, England.....	Lumber, general.....	7,258 5,993	4,230
Chattanooga City.....	15	11.00	15	12.26	15	20.15	16	1.25	American.....	U. S. Steel Prod. Co.....	424.2	56.2	26.0	Vancouver, B. C.....	Avonmouth, Eng.....	(²⁰)	7,768 7,611	5,450
Sea Thrush.....	15	12.03	15	13.04	15	20.55	15	20.55	American.....	Shepard S. S. Co.....	410.4	54.2	24.6	Everett, Wash.....	New York, N. Y.....	Lumber, general.....	7,195 6,625	4,841
Scottsburg.....	15	00.05	15	14.17	15	22.30	16	12.30	American.....	Tampa Intercoastal Co.....	419.5	55.5	25.0	Manila, P. I.....	New Orleans, La.....	(²¹)	8,539 8,996	6,316

¹⁹ For orders.¹⁹ Lumber and canned goods.²⁰ Barley, lumber, and canned goods.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 9.....	Texas ²²	U. S. Navy.....	Guantanamo, Cuba.	March 9.....	Pastores.....	United Fruit Co.....	New York via Habana.
March 9.....	Pastores.....	United Fruit Co.....	Port Limon, C. R.	March 10.....	Cartago.....	United Fruit Co.....	New Orleans via wayp'ts.
March 10.....	Laila.....	Gulf-Caribbean S. S. Line.....	New Orleans, La.	March 10.....	Rugia.....	Hamburg-American Line.....	Hamburg via wayp'ts.
March 10.....	Statendam.....	Holland-American Line.....	New York via wayp'ts.	March 10.....	Marblehead ²⁵	U. S. Navy.....	Guantanamo, Cuba.
March 10.....	Loantaka.....	A. L. Surgeon.....	Baltimore via wayp'ts.	March 10.....	Trenton ²⁵	U. S. Navy.....	Guantanamo, Cuba.
March 10.....	No. 9685 ²³	Royal American Airways.....	Tela via wayp'ts.	March 10.....	Memphis ²⁵	U. S. Navy.....	Guantanamo, Cuba.
March 11.....	Van Rensselaer.....	Panama R. R. S. S. Co.....	Amsterdam via wayp'ts	March 10.....	Richmond ²⁵	U. S. Navy.....	Guantanamo, Cuba.
March 11.....	Pearl Marie ²⁴	United Fruit Co.....	Puerto Colombia.	March 10.....	Texas ²²	Spanish Line.....	Guantanamo, Cuba.
March 11.....	United Fruit Co.....	United Fruit Co.....	Colon, R. P.	March 10.....	Juan Sebastian Elcano.....	Gulf-Caribbean S. S. Line.....	Barcelona via wayp'ts.
March 12.....	Cristobal.....	Panama R. R. S. S. Line.....	New York via Habana.	March 11.....	Laila.....	Royal Neth. S. S. Co.....	New Orleans via wayp'ts.
March 12.....	Argonaut.....	Elders & Fyffes Line.....	Avonmouth via wayp'ts.	March 11.....	Pearl Marie ²⁴	G. I. Bryan.....	Port Limon, C. R.
March 12.....	Cordoba C-40 ²³	Seadla Airplane Co.....	Barranquilla via wayp'ts.	March 11.....	Statendam.....	Holland-American Line.....	Bluefields, Nicaragua.
March 12.....	Tela.....	United Fruit Co.....	New Orleans, La.	March 11.....	No. 945 ²³	Pan American Airways.....	Talara via wayp'ts.
March 12.....	Wanderer.....	T. & J. Harrison.....	Liverpool via wayp'ts.	March 11.....	No. 144-M ²³	Pan American Airways.....	Tela via wayp'ts.
March 12.....	Teutonia.....	Hamburg-American Line.....	New York via Kingstons.	March 12.....	Argonaut.....	Elders & Fyffes Line.....	Curacao via wayp'ts.
March 12.....	Skaola.....	United Fruit Co.....	Puntarenas via wayp'ts.	March 12.....	Castilla.....	United Fruit Co.....	Avonmouth via wayp'ts.
March 13.....	No. 209 ²³	Pan American Airways.....	Tela via wayp'ts.	March 12.....	Teutonia.....	Hamburg-American Line.....	Boeas, R. P.
March 13.....	No. 9664 ²³	Pan American Airways.....	Tela via wayp'ts.	March 13.....	Cordoba C-40 ²³	Seadla Airplane Co.....	Port Limon, C. R.
March 13.....	Atlantida.....	Standard Fruit & S. S. Co.....	New Orleans, La.	March 13.....	No. 9685 ²³	Pan American Airways.....	Barranquilla via wayp'ts.
March 14.....	Republic.....	United States Lines.....	Philadelphia via wayp'ts.	March 13.....	Tela.....	United Fruit Co.....	Tela via wayp'ts.
March 14.....	Van Rensselaer.....	Royal Neth. S. S. Co.....	Port Limon, C. R.	March 13.....	Wanderer.....	T. & J. Harrison.....	Puerto Colombia, Col.
March 14.....	Atlantic C-29 ²³	Seadla Airplane Co.....	Buenaventura via wayp'ts.	March 13.....	Sicaola.....	United Fruit Co.....	Cathleen, Cuba.
March 14.....	Macabi.....	United Fruit Co.....	New York via wayp'ts.	March 13.....	Ulua.....	United Fruit Co.....	New York via wayp'ts.

²² Battleship.²³ Air mail carrier.²⁴ Motor schooner.²⁵ Cruiser.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 14.	Castilla.	United Fruit Co.	Bocas, R. P.	March 14.	Anacucuna ²⁶	United Fruit Co.	Colon, R. P.
March 14.	Volendam.	Holland-American Line.	New York via wayports.	March 14.	Macabi.	United Fruit Co.	New York via wayports.
March 14.	Anacucuna ²⁶ .	United Fruit Co.	Colon, R. P.	March 14.	Republie.	United States Line.	Philadelphia via wayports.
March 14.	No. 945-M ²⁷ .	Pan American Airways.	Talara via wayports.	March 14.	No. 209 ²⁷ .	Pan American Airways.	Panama via wayports.
March 15.	No. 9685 ²⁷ .	Pan American Airways.	Tela via wayports.	March 15.	Atlantico C-29 ²⁷ .	Scadta Airplane Co.	Buenaventura, Colombia.
March 15.	Parismina.	United Fruit Co.	New Orleans via Habana.	March 15.	Loantaka.	A. L. Surcouf.	Colon, R. P.
March 15.	Escarpé Trego ²⁸ .	Martinez & Conolly.	Puerto Cabezas.	March 15.	Annetta I. ²⁶ .	Standard Fruit & S. S. Co.	Colon, R. P.
March 15.	Annetta I. ²⁶ .	A. Tagaropoulos.	Colon, R. P.	March 15.	Atlantida.	United Fruit Co.	New Orleans and waypts.
				March 15.	Castilla.	Royal Neth. S. S. Co.	New Orleans, La.
				March 15.	Van Renselaer.	Holland-American Line.	Amsterdam via waypts.
				March 15.	Volendam.	Holland-American Line.	New York via waypts.
				March 15.	No. 9664 ²⁷ .	Pan American Airways.	Tela via wayports.

²⁶ Motor boat. ²⁷ Air mail carrier. ²⁸ Motor schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From —	Date.	Vessel.	Line.	For —
March 9.....	Heluan.....	Hamburg-American Line.....	Valparaiso, Chile.	March 9.....	Heluan.....	Hamburg-American Line.....	Puntarenas, C. R.
March 9.....	Swiftarrow.....	C. D. Mallory.....	Los Angeles, California.	March 11.....	Swiftarrow.....	C. D. Mallory.....	Los Angeles, California.
March 14.....	El Sona.....	National Navigation Co.....	Panama Bay, R. P.	March 13.....	Andagoya.....	Colombian Government.....	Buenaventura, Colombia.
March 14.....	Sambu ²⁹	Hans Elliot.....	Panama Bay, R. P.	March 14.....	Real ²⁹	Hans Elliot.....	Panama Bay, R. P.
March 14.....	Real ²⁹	Hans Elliot.....	Panama Bay, R. P.	March 14.....	A. B. Obarrio ²⁹	Hans Elliot.....	Panama Bay, R. P.
March 14.....	A. B. Obarrio ²⁹	Hans Elliot.....	Panama Bay, R. P.	March 14.....	El Sona.....	National Navigation Co.....	Panama Bay, R. P.
March 15.....	La Mascota ²⁹	Hans Elliot.....	Panama Bay, R. P.	March 15.....	La Mascota ²⁹	Hans Elliot.....	Panama Bay, R. P.

²⁹ Motor schooner. * Other than ships passing through the Canal.

Cargo Through Canal During February, 1930.

On pages 466 and 467 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in February, 1930. This cargo segregated according to direction as compared with February, 1929, and the differences, is shown in the following tabulation:

	February, 1930.	February, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	795,413	864,344	-68,931
Pacific to Atlantic.....	1,582,487	1,686,154	-103,667
Total.....	2,377,900	2,550,498	-172,598

It will be noted from the above that the Atlantic to Pacific tonnage decreased 68,931 tons as compared with February, 1929, and that from the Pacific to the Atlantic 103,667 tons, making a total decrease of cargo tonnage in both directions of 172,598 tons. The heavy decrease was accounted for by curtailment in shipments of several important commodities, as indicated under "Principal commodities."

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five and nine-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 27.2 per cent in Europe. Tonnage from the United States declined slightly—2,790 tons or 0.5 per cent—as compared with February, 1929, while the proportion to the total in February, 1930, was considerably higher than in February, 1929. Tonnage from Europe decreased 40,382 tons, or 15.7 per cent, its proportion to the total cargo also being slightly lower in February of this year.

Destination.—Thirty-eight and seven-tenths per cent of the Pacific-bound cargo tonnage was destined to the United States; 25.4 per cent to Asia; 16.3 per cent to Australasia; and 12.4 per cent to South America. Tonnage to the United States, Australasia, and South America decreased in actual tonnage as compared with February, 1929, in the amounts of 27,249 tons, or 8.1 per cent, 17,594 tons, or 11.9 per cent, and 52,813 tons, or 24.9 per cent, the latter two areas also showing decreases in their proportion to the total cargo. The proportion of the total cargo going to the United States was approximately the same as in February, 1929. Tonnage to Asia increased 40,272 tons, or 25.0 per cent over February, 1929, and also registered a heavy increase in its proportion to the total cargo.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 46.9 per cent came from the United States, 29.6 per cent from South America, 11.6 per cent from Canada, 5.9 per cent from Australasia, and 4.5 per cent from Asia. The small increase of 9,203 tons, or 1.2 per cent, was made in cargo tonnage coming from the United States, and an increase of 12,736 tons, or 21.6 per cent, in that from Asia. Both of these areas also showed increases in their relation to the total cargo tonnage over February, 1929. Tonnage from South America, Canada, and Austral-

asia, decreased 28,202 tons, or 5.6 per cent; 104,475 tons, or 36.2 per cent; and 757 tons, or 0.8 per cent, respectively, as compared with the tonnage coming from those areas in February, 1929. Tonnage from Canada also registered a heavy decrease in its relation to the total cargo, while that from South America and Australasia were approximately the same as in February, 1929.

Destination.—Segregated according to destination, 57.3 per cent of the cargo in this direction went to the United States, and 37.9 per cent to Europe. Tonnage to both of these areas decreased—1,246 tons, or 0.13 per cent, and 107,750 tons, or 15.2 per cent, respectively—under the amounts destined to these regions in February, 1929. In point of their relation to the total cargo tonnage, that to the United States increased in February, 1930, while that to Europe decreased.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 87 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 13 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for February, 1930, or February, 1929, are listed in the following tabulation, showing differences:

Commodity.	February, 1930.	February, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Automobiles.....	12,396	17,239	-4,843
Cement.....	20,187	50,890	-30,703
Coal and coke.....	21,976	38,886	-16,910
Cotton.....	19,889	17,469	+2,420
Flour.....	4,336	14,390	-10,054
Manufactured goods:			
Iron and steel.....	155,221	175,890	-20,669
Machinery.....	15,484	12,918	+2,566
Railroad material.....	11,529	24,503	-12,974
Textiles.....	12,096	11,567	+529
Tinsplate.....	28,839	24,235	+4,604
Miscellaneous.....	15,257	13,385	+1,872
Metals, various.....	10,157	5,923	+4,234
Metals, scrap.....	13,104	7,508	+5,596
Oils, mineral.....	69,302	84,175	-14,873
Paper.....	24,315	18,814	+5,501
Phosphates.....	57,225	14,169	+43,056
Slag.....	19,984	25,698	-5,714
Sulphur.....	20,023	32,500	-12,477
Tobacco.....	13,111	7,233	+5,878

The above 19 commodity groups comprise over 68 per cent of the cargo moving from the Atlantic to the Pacific during February, 1930. As will be noted 10 of the items increased and 9 decreased as compared with February, 1929. The heaviest gain was in the shipments of phosphates, while cement and iron and steel registered rather large decreases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of February, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month in 1929 are listed below.

Commodity.	February, 1930.	February, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	11,459	28,070	-16,611
Canned goods (fish, fruit, vegetables, etc.).....	64,208	65,829	-1,621
Coffee.....	17,935	20,737	-2,802
Cold storage (food products) ¹	58,269	44,782	+13,487
Copra.....	8,837	11,444	-2,607
Fruit, dried.....	12,447	17,353	-4,906
Fruit, fresh.....	12,634	18,058	-5,424
Lumber.....	251,946	202,002	+49,944
Metals, various.....	45,140	54,295	-9,155
Nitrates.....	184,609	250,588	-65,979
Oils, mineral.....	380,319	369,388	+10,931
Ores (principally iron).....	154,554	136,463	+18,091
Sugar.....	70,899	68,854	+2,045
Wheat.....	173,169	261,273	-88,104
Wool.....	22,438	20,034	+2,404

¹ Does not include fresh fruit.

The above 15 commodity groups comprise 92.8 per cent of the cargo moving from the Pacific to the Atlantic during February, 1930. Six of the items show increases and 9 decreases. Of the latter, shipments of wheat and nitrates fell off 88,104 tons and 65,979 tons, respectively, as compared with February, 1929. Shipments of lumber registered the heaviest increase.

(Continued on next page.)

New Hamburg-American Line Vessel Launched.

The Hamburg-American Line has announced the launching of the steamship *Tacoma*, which is soon to be placed in the company's service between Europe and the west coast of North America, via the Panama Canal. The *Tacoma* is the sixth of a newly constructed fleet of vessels especially designed for this service, having been preceded by the motor ships *San Francisco*, *Los Angeles*, *Seattle*, *Portland*, and *Oakland*. One other vessel, the *Vancouver*, which, like the *Tacoma*, is to be steam-driven with oil burners is under construction in Germany. Upon entry of the two ships into service the company will maintain a fortnightly service instead of the present schedule of sailings every three weeks.

A description of these vessels appeared in THE PANAMA CANAL RECORD of October 30, 1929.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 15, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
San Jose.....	United Fruit Co.....	March 7.....	March 8.....	73	67
Swiftarrow.....	Boat Owning & Operating Co.....	March 9.....	March 10.....	12,000	.....
Santa Elisa.....	Grace Line.....	March 10.....	March 10.....	4	.....
Saramacca.....	United Fruit Co.....	March 10.....	March 11.....	155	.....
City of Panama.....	Panama Mail S. S. Co.....	March 10.....	March 10.....	1	.....
Arctic.....	U. S. Government.....	March 11.....	March 13.....	1	.....
St. Mihiel.....	U. S. Government.....	March 11.....	March 12.....	960	200
Havana Maru.....	Osaka Shoshen Kaisha.....	March 11.....	March 11.....	2	.....
Venezuela.....	Panama Mail S. S. Co.....	March 12.....	March 12.....	70	8
El Salvador.....	Panama Mail S. S. Co.....	March 12.....	March 13.....	71	1
California.....	Panama Pacific Line.....	March 14.....	March 14.....	.....	176

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, February, 1930.—Continued from page 465.

(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.						SOUTH AMERICA.						AUSTRALASIA.				ASIA.				Grand totals.	Per cent of total cargo.	
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	Australia.	New Zealand.	Australasia. ¹	Total, Australasia.	Philippine Islands.	China.	Japan.	Far East. ¹			Total, Asia.
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports.....	176,407	927 11,033	149 8,644	197,160	7,411	929	244	5,799	8,457 22,840	11,396	8,989	4,818	25,203 14,628	21,176 47,829	28,354	111,987 357,190	44.9						
South Atlantic ports.....	4,244				4,244	2,516				2,516						5,945 748	6,693 13,453	1.7					
Gulf ports.....	53,875	6,501	2,783		68,159	2,964	295	282		30	3,571					19,374 42,634	19,332	81,340 153,070	19.3				
Totals, United States.....	239,526	7,428 11,033	2,932 8,644	269,563	12,891	1,224	526	5,799	8,457 28,927	11,396	8,989	4,818	25,203 14,628	40,550 96,408	48,434	200,020 523,713	65.9						
East coast of Canada.....	337	2,230			2,567						3,724	4,500	4,500	12,724		15,291	1.9						
East coast of Central America.....	2,069	2,100			2,100	1,869	932	775	1,210	670	5,456		129		129	2,229	0.3						
Cristobal, C. Z. ².....	2,578	71			2,649	7,694			2	7,696						12,364	1.6						
West Indies.....																10,345	1.3						
Totals, North America.....	244,510	9,729 17,972	2,932 8,644	283,787	22,454	2,156	1,301	7,011	9,157 42,079	15,120	13,018	9,318	38,056 14,628	40,550 96,408	48,434	200,020 563,942	71.0						
EUROPE:																							
British Isles.....	6,131	6,677	16			12,824	7,513		2,013	5,297 14,823	2,509	53,490	5,747	61,746		89,393	11.3						
Belgium.....	16,448	1,196	945	29		18,618	1,680	43	15	1,352	2,247	3,237		18,451		42,306	5.3						
France.....	1,175	424	324			1,923	1,261			329	2,012	3,602		2,580		8,105	1.0						
Germany.....	9,395	500	96	487		10,478	1,849	251	413	338	1,105	3,656				14,434	1.8						
Holland.....	2,621	439				3,060	1,325	11	43	1,508	80	2,967				6,027	0.8						
Italy.....	1,521	43	9			1,573				2,526	2,526					4,099	0.5						
Norway and Sweden.....	9,628	66	1,885	2,365		13,944	3,208			1,092	4,300	1,688				19,432	2.5						
Spain and Portugal.....	55	8				63	79		138		217					280	0.0						
Europe ¹.....	11,059	127	1,960			13,146	552		197	17,632	18,381					31,527	4.0						
Totals, Europe.....	58,033	9,480	5,235	2,881		75,629	14,259	3,513	668	5,578	31,991	56,009	4,197	71,941	8,327	216,103	27.2						
East coast of South America.....	6,111	330				6,441		168				168		7,600		7,768	0.9		1,159				
Africa.....																7,600	0.9						
Grand totals.....	308,654	19,539	23,207	5,813	8,644	365,837	36,713	5,837	1,969	12,589	41,148	98,256	19,317	93,159	17,645	130,121	14,628	40,550	97,567	48,434	201,179	795,413	100.0
Per cent of total cargo:																							
February, 1930.....	38.7	2.5	2.9	0.7	1.1	45.9	4.6	0.7	0.3	1.6	5.2	12.4	2.4	11.7	2.2	16.3	1.8	5.1	12.4	6.1	25.4	100.0	
February, 1929.....	38.8	3.6	2.7	0.4	1.3	46.8	8.6	1.2	0.5	2.7	4.5	17.5	5.5	7.9	3.7	17.1	1.3	5.3	7.7	4.3	18.6	100.0	
February, 1928.....	40.5	4.6	2.0	0.1	1.1	48.3	4.3	0.8	0.3	1.7	7.2	14.3	4.8	9.2	0.9	14.9	0.9	4.4	11.2	6.0	22.5	100.0	

* General cargo not routed so as to allow segregation between definite ports.

† Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, February,

(Figures represent tons of 2,240 pounds.)

From —	NORTH AMERICA.										EUROPE.										Grand totals.	Per cent of total cargo.			
	UNITED STATES.					CENTRAL AMERICA.					ASIA.					AFRICA.									
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Central America.	Cristobal, C. Z.*	West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.†	Total, Europe.			East coast of South America.	Egypt.	Africa.
NORTH AMERICA:																									
West coast of U. S.	441,154	12,749	23,067	476,970	2,850	3,369	6,293	489,482	114,399	1,744	864	7,271	39,280	14,305	2,694	13			65,950	246,520	703	3,793	740,498	46.9	
West coast of Canada.	27,857			27,857	5,861	14	4,223	37,955	76,285	2,135	15	200	10,040	1,105	556				51,771	142,107	450	3,500	184,012	11.6	
West coast of Cen. Am.	174			174		8,934	120	9,228	368					1,549	125	497			728	3,267			12,495	0.8	
Bahian, C. Z.						44			44															44	
Hawaiian Islands.	11,457			37	11,494				11,494															11,494	0.7
Totals, N. Amer.	480,642	12,749	23,104	516,495	5,861	2,850	12,361	10,636	548,203	191,052	3,879	879	7,471	50,869	15,535	3,747	13		118,449	391,894	1,153	7,293	948,543	60.0	
SOUTH AMERICA:																									
Chile.	197,717	32,425	85,881	266,023			77	1,969	268,069	18,580	929		3,861	770	461		675		61,311	86,587			354,656	22.5	
Colombia.	326			326			6,253	6,629	376															6,629	0.4
Ecuador.	9,363			9,363			2,064	11,427	55				64	60		39	32	59		309				11,736	0.7
Peru.	39,259			39,259			112	58,926	9,084	2,660			104	452		10,771			11,737	34,808				93,734	5.9
West coast of S. Amer.	1,463			1,463			70	17	1,550	206									118	324				1,874	0.1
Totals, S. Amer.	248,128	32,425	85,931	316,484	19,555	8,576	1,986	346,601	27,925	3,589			4,029	1,282	461	39	11,478	59	73,166	122,028				468,629	29.6
AUSTRALASIA:																									
Australia.	2,559			2,559	4,059			6,618	4,031											4,031				10,649	0.7
New Zealand.					140			140	78,537											78,537				78,537	5.0
Australasia.																			4,457	4,457				4,457	0.3
Totals, Australasia.	2,559			2,559	4,199			6,758	82,568										4,457	87,025				93,783	5.9
ASIA:																									
Philippine Islands.	58,382			58,382																				58,382	3.9
China.	4,419			4,419			407	4,826																4,826	0.3
Japan.	3,546			3,546			33	3,579																3,579	0.2
Far East.	971			971				971																971	0.1
Totals, Asia.	67,318			67,318			440		71,532															71,532	4.5
Grand totals.	798,647	45,174	62,809	906,630	29,615	2,850	21,377	12,622	973,091	301,545	7,468	879	11,500	52,151	15,996	3,786	11,491	59	196,072	600,947	1,153	7,293	1,582,487	100.0	
Per cent of total cargo:																									
February, 1930.	50.4	2.9	4.0	57.3	1.9	0.2	1.3	0.8	61.5	19.0	0.5	0.1	0.7	3.3	1.0	0.2	0.7		12.4	737.9	0.1		100.0	.....	
February, 1929.	43.8	2.6	7.4	53.8	1.9	0.2	1.1	0.3	57.3	19.4	1.3	1.2	1.3	3.5	1.3	0.2	0.3	0.9	12.7	42.1	0.1	0.5	100.0	.....	
February, 1928.	41.4	5.5	4.3	51.2	2.7	0.5	2.3	0.5	57.2	17.3	2.7	0.1	1.4	5.6	4.1	1.8	0.8		8.1	41.9	0.9		100.0	.....	

* General cargo not routed so as to allow segregation between definite ports.

* Includes both local and transit cargo.

Commercial Traffic Through the Panama Canal in February, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of February, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for February, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States interoastal:							
United States.....	79	414,078	314,543	509,260	314,492	\$358,173.61	241,256
East coast of United States to west coast of South America:							
British.....	6	36,592	27,788	50,174	29,427	30,623.06	6,293
Chilean.....	2	7,708	6,066	10,889	6,233	7,582.50	3,341
Norwegian.....	1	5,027	4,288	7,203	4,285	5,360.00	3,000
Panamanian.....	1	4,897	4,014	6,386	4,067	3,525.84	.....
Swedish.....	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States.....	12	47,441	37,889	66,451	37,884	39,413.31	18,366
Totals.....	24	110,642	87,531	171,779	90,658	92,924.95	31,000
Europe to west coast of South America:							
British.....	5	34,693	26,603	44,747	27,574	33,253.75	17,356
Chilean.....	5	186	70	714	244	2,450.00	.....
Danzig.....	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch.....	2	12,662	7,396	12,485	7,576	9,245.00	7,395
French.....	3	12,762	9,495	15,338	9,478	11,868.75	4,913
German.....	5	24,645	18,294	29,419	17,917	22,867.50	20,006
Italian.....	1	7,516	5,514	12,003	6,053	6,892.50	2,704
Norwegian.....	1	4,868	2,688	4,494	2,732	3,360.00	6,800
Totals.....	23	103,251	75,253	127,945	76,605	94,206.38	59,174
East coast of United States to Far East:							
British.....	8	45,520	27,251	44,606	26,959	34,063.75	55,635
Japanese.....	7	35,392	28,595	43,527	28,097	35,743.75	54,801
Norwegian.....	3	16,222	9,057	15,245	9,207	11,321.25	20,391
United States.....	4	15,869	12,065	19,438	12,005	15,081.25	24,011
Totals.....	22	113,003	76,968	122,816	76,268	96,210.00	154,838
Europe to west coast of United States:							
British.....	6	25,182	21,388	36,449	21,338	20,951.87	14,994
Danish.....	1	6,054	5,058	8,271	5,057	4,353.88	.....
French.....	1	4,178	3,601	5,907	3,337	3,008.16	.....
German.....	2	12,133	9,420	15,395	9,294	10,225.70	3,921
Norwegian.....	6	30,648	24,446	41,744	24,058	21,944.31	.....
Swedish.....	2	10,532	9,670	14,235	10,901	7,614.84	.....
United States.....	1	4,248	3,436	5,833	3,506	3,058.56	.....
Totals.....	19	92,975	77,019	126,834	77,491	71,162.32	18,915
Europe to west coast of Canada:							
British.....	5	33,057	21,951	36,116	22,143	27,438.75	10,571
Danish.....	1	5,660	5,233	6,919	5,223	6,541.25	8,537
Dutch.....	2	11,926	10,047	16,020	9,967	12,558.75	4,259
French.....	2	12,583	8,709	14,931	8,784	10,886.25	4,236
German.....	2	13,350	8,827	14,709	8,926	11,033.75	9,014
Italian.....	1	6,497	4,905	8,124	5,128	6,131.25	1,455
Norwegian.....	3	15,180	10,913	17,662	11,018	12,648.32	9,584
Swedish.....	2	10,256	5,751	10,170	7,412	7,188.75	8,653
Totals.....	18	108,509	76,336	124,651	78,601	94,427.07	56,314
Europe to Australasia:							
British.....	13	96,599	68,239	111,194	69,706	85,298.75	92,901
French.....	1	5,471	4,777	6,037	3,747	5,971.25	2,580
Swedish.....	1	6,190	3,278	5,841	4,083	4,097.50	1,688
Totals.....	15	108,260	76,294	123,072	77,536	95,367.50	97,169

* Includes 3 naval vessels having a total displacement tonnage of 4,725 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal to west coast of South America:							
Colombian.....	2	326	325	466	332	\$391.20	108
Dutch.....	1	742	294	780	323	367.50	123
German.....	5	4,232	2,879	5,398	2,974	3,598.75	1,042
Totals.....	8	5,300	3,501	6,644	3,629	4,357.45	1,273
East coast of United States to Philippine Islands:							
British.....	2	12,246	7,299	13,103	7,463	9,123.75	12,100
Danish.....	1	2,510	1,938	3,252	1,985	2,422.50	3,735
United States.....	4	23,773	17,633	26,729	16,697	22,041.25	31,741
Totals.....	7	38,529	26,870	43,084	26,145	33,587.50	47,576
Cristobal to west coast of United States:							
United States.....	6	13,306	10,357	17,355	10,262	11,355.44	3,134
East coast of United States to Australasia:							
British.....	3	20,037	13,697	21,858	13,780	17,121.25	10,421
United States.....	1	5,167	3,816	6,094	3,816	4,770.00	2,080
Totals.....	4	25,204	17,513	27,952	17,596	21,891.25	12,501
East coast of United States to west coast of Central America:							
German.....	1	2,322	1,443	2,446	1,434	1,671.84	.....
Panamanian.....	1	1,748	1,565	2,802	1,522	1,956.25	2,596
United States.....	1	4,565	3,284	5,326	3,306	4,105.00	6,610
Totals.....	3	8,635	6,292	10,574	6,262	7,733.09	9,206
East coast of Canada to west coast of South America:							
British.....	3	10,754	9,262	16,825	9,390	7,742.88	.....
East coast of Canada to Australasia:							
British.....	3	13,732	10,959	18,078	11,076	13,698.75	12,724
East coast of South America to west coast of United States:							
Norwegian.....	3	15,247	10,745	17,241	10,763	11,995.25	4,090
Cristobal to Balboa:							
Panamanian.....	2	45	48	90	58	36.00	.....
United States.....	1	20	15	20	16	14.40	.....
Totals.....	3	65	63	110	74	50.40	.....
East coast of United States to Hawaiian Islands:							
United States.....	2	6,026	4,615	7,678	4,648	5,013.42	3,017
West Indies to west coast of South America:							
British.....	1	3,892	3,363	5,582	3,370	4,203.75	7,682
Norwegian.....	1	5,460	4,398	7,350	4,397	3,931.20	.....
Totals.....	2	9,352	7,761	12,932	7,767	8,134.95	7,682
East coast of South America to Far East:							
Japanese.....	2	13,452	9,617	16,893	10,241	12,021.25	3,508
Cristobal to west coast of Central America:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	1,471
Around the world:							
United States.....	2	19,028	14,573	24,661	14,515	18,216.25	8,730
East coast of United States to west coast of Canada:							
Danish.....	1	4,744	2,743	4,500	2,747	3,428.75	5,501
East coast of United States to Balboa:							
United States.....	1	4,487	3,621	5,950	3,677	4,526.25	2,286
East coast of Canada to west coast of United States:							
British.....	1	4,835	4,566	7,005	4,256	3,481.20	.....
Canadian intercoastal:							
British.....	1	4,186	3,322	5,465	3,400	4,152.50	2,230

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to west coast of Central America:							
German.....	1	3,142	3,036	3,252	1,899	\$3,770.40	2,118
Central American intercoastal:							
Danish.....	1	1,879	1,144	1,909	1,172	1,430.00	2,100
Africa to Far East:							
British.....	1	4,615	2,662	4,392	2,649	3,327.50	7,600
Grand totals, February, 1930..	257	1,258,677	938,452	1,561,155	945,123	1,083,993.81	795,413
Grand totals, February, 1929..	277	1,293,704	987,172	1,629,408	994,588	1,119,089.89	864,344
Grand totals, February, 1928..	267	1,207,793	917,832	1,498,684	916,250	1,043,679.76	713,293

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	67	353,404	268,769	433,705	268,641	\$335,921.07	495,458
West coast of South America to east coast of United States:							
British.....	16	69,116	55,660	92,972	55,589	69,575.00	123,930
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	3,236
Danish.....	1	4,519	3,595	5,886	3,658	4,493.75	8,700
German.....	1	4,483	3,857	5,032	2,983	4,821.25	8,072
Italian.....	1	4,849	4,250	6,472	4,078	5,312.50	8,126
Japanese.....	1	4,248	3,410	5,447	3,405	4,262.50	8,113
Norwegian.....	1	5,219	5,207	7,041	5,234	6,262.80	9,385
Swedish.....	1	4,421	3,743	15,339	4,377	4,678.75	22,146
United States.....	16	63,387	50,768	80,660	50,801	62,785.35	128,227
Totals.....	39	164,914	133,923	226,159	134,101	166,483.15	319,935
West coast of Canada to Europe:							
Belgian.....	1	7,044	6,936	7,217	4,396	8,452.80	9,275
British.....	18	88,388	63,021	101,806	63,245	78,758.25	129,488
Danish.....	1	4,559	3,577	5,905	3,637	4,471.25	7,890
Dutch.....	3	20,735	15,189	24,299	15,099	18,986.25	25,452
German.....	2	13,510	8,443	14,394	8,621	10,553.75	15,692
Italian.....	1	6,035	5,055	7,061	4,460	6,318.75	8,962
Norwegian.....	1	5,021	4,286	7,203	4,283	5,357.50	9,544
United States.....	2	10,687	7,314	11,883	7,299	9,142.50	15,385
Totals.....	29	155,979	113,821	179,768	111,040	142,041.05	221,688
West coast of United States to Europe:							
Belgian.....	1	4,976	4,568	7,138	3,988	5,710.00	8,900
British.....	10	44,744	31,389	51,066	31,367	39,236.25	72,369
Danish.....	2	10,981	8,935	14,327	8,949	11,168.75	19,968
Danzig.....	1	6,310	5,346	8,940	5,050	6,682.50	11,355
French.....	1	5,050	4,356	7,011	3,989	5,445.00	8,419
German.....	1	6,790	4,432	7,256	4,418	5,540.00	8,737
Norwegian.....	2	9,253	7,845	13,205	7,843	9,868.75	17,321
United States.....	2	13,661	11,365	18,207	11,251	14,206.25	25,971
Totals.....	20	101,765	78,286	127,150	76,855	97,857.50	173,040
West coast of South America to Europe:							
British.....	4	19,182	14,917	24,089	14,953	18,646.25	23,422
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,200
Dutch.....	2	10,895	7,185	12,446	7,244	8,981.25	14,929
French.....	2	8,402	7,016	11,071	6,817	8,770.00	15,103
German.....	3	15,254	10,251	16,828	10,308	12,082.23	16,251
Greek.....	1	3,755	2,308	3,831	2,294	2,885.00	7,022
Norwegian.....	3	10,831	8,163	13,693	8,197	10,203.75	19,221
Yugoslav.....	2	7,575	6,393	9,984	6,353	7,991.25	15,397
Totals.....	18	82,021	61,501	100,881	61,173	76,144.73	122,545
Australasia to Europe:							
British.....	15	119,751	83,487	138,469	85,369	104,358.75	91,753
Philippine Islands to east coast of United States:							
Danish.....	1	4,483	2,495	4,194	2,532	3,118.75	6,812
Japanese.....	4	18,361	15,846	23,327	15,648	19,641.25	27,889
Norwegian.....	2	11,359	6,516	11,084	6,607	8,145.00	10,929
United States.....	3	16,420	12,771	20,238	12,730	15,963.75	23,056
Totals.....	10	50,623	37,628	58,843	37,517	46,868.75	68,686

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Cristobal:							
Colombian.....	2	326	328	466	332	\$405.40	532
Dutch.....	1	742	294	780	323	367.50	371
German.....	6	4,930	3,497	6,401	3,590	4,371.25	5,041
Swedish.....	1	746	600	1,036	582	750.00	639
Totals.....	10	6,744	4,719	8,683	4,827	5,894.15	6,583
West coast of United States to Cristobal:							
United States.....	5	11,710	9,512	15,848	9,406	11,871.75	6,700
West coast of Canada to east coast of United States:							
British.....	1	2,844	2,223	3,528	2,210	2,778.75	4,545
Norwegian.....	1	4,663	2,490	4,258	2,490	3,112.50	6,200
United States.....	1	4,788	3,386	5,411	3,386	4,232.50	7,267
Totals.....	3	12,295	8,099	13,197	8,086	10,123.75	18,012
Balboa to Cristobal:							
Panamanian.....	3	69	73	132	83	78.75	44
West coast of United States to West Indies:							
Dutch.....	1	3,625	3,085	5,131	2,999	3,857.50	5,871
United States.....	1	4,734	3,945	6,386	3,943	3,408.48	.....
Totals.....	2	8,359	7,031	11,517	6,942	7,265.98	5,871
West coast of Central America to Cristobal:							
British.....	2	2,293	1,920	3,703	2,065	2,400.00	2,364
Hawaiian Islands to east coast of United States:							
United States.....	2	6,428	5,355	8,867	5,354	6,693.75	11,457
West coast of South America to east coast of Canada:							
British.....	2	9,287	7,971	14,572	8,006	9,963.75	19,555
West coast of South America to West Indies:							
British.....	2	4,044	3,465	6,106	3,567	2,911.68	.....
Canadian intercoastal:							
British.....	1	4,114	3,341	5,492	3,380	4,176.25	5,861
West coast of United States to Africa:							
Norwegian.....	1	5,136	4,112	6,552	4,122	5,140.00	7,293
West coast of Central America to Europe:							
German.....	1	2,731	2,171	3,704	2,145	2,713.75	728
Australasia to east coast of United States:							
British.....	1	4,139	3,254	5,448	3,336	4,067.50	2,025
Far East to east coast of United States:							
Japanese.....	1	4,772	3,533	5,642	3,452	4,416.25	2,884
Grand totals, February, 1930..	234	1,110,578	841,971	1,374,438	839,467	1,047,392.31	1,582,487
Grand totals, February, 1929..	245	1,134,826	876,251	1,426,912	879,266	1,092,871.31	1,686,154
Grand totals, February, 1928..	280	1,252,313	964,811	1,575,146	969,195	1,210,075.51	1,947,132

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 12, 1930.

No. 679.

The following is quoted from Notice to Mariners, Washington, D. C., March 1, 1930:

Central America, West coast, Gulf of Fonseca, La Union approach, Cochina shoal, buoy withdrawn. The second officer of the American motor ship *City of San Francisco* reports that the white buoy formerly marking Cochina shoal has been permanently withdrawn. Approximate position: 13° 18' N., 87° 47' W.

H. BURGESS,
Governor.

Traffic by Nationality for February, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of February, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for February, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	60	347,381	249,636	417,892	253,835	\$296,089.01	251,978
Chilean.....	7	7,954	6,136	11,603	6,477	10,032.50	3,341
Colombian.....	2	326	328	466	332	391.20	108
Danish.....	5	20,847	16,116	24,851	16,184	18,181.38	19,873
Danzig.....	1	5,929	5,193	8,745	5,026	4,268.88	.....
Dutch.....	5	25,330	17,737	29,285	17,866	22,171.25	11,777
French.....	7	34,984	26,582	42,213	25,346	31,734.41	11,729
German.....	16	59,824	43,899	70,619	42,444	53,167.94	36,101
Italian.....	2	14,013	10,419	20,127	11,186	13,023.75	4,159
Japanese.....	9	48,844	38,212	60,420	38,338	47,765.00	58,309
Norwegian.....	16	82,537	58,702	97,583	58,702	62,205.08	40,575
Panamanian.....	4	6,690	5,627	9,278	5,647	5,518.09	2,596
Swedish.....	7	35,895	26,185	60,922	31,158	25,321.33	10,346
United States.....	116	568,123	433,680	707,151	432,582	494,123.99	344,521
Totals, February, 1930...	257	1,258,677	938,452	1,561,155	945,123	1,083,993.81	795,413
Totals, February, 1929...	277	1,293,704	987,172	1,629,408	994,538	1,119,089.89	864,344
Totals, February, 1928...	267	1,207,793	917,832	1,498,684	916,250	1,043,679.76	713,293

* Includes 3 naval vessels having a total displacement tonnage of 4,725 tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	12,020	11,504	14,355	8,384	\$14,162.80	18,175
British.....	72	367,902	270,648	447,251	273,087	336,872.43	475,317
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	3,236
Colombian.....	2	326	328	466	332	405.40	532
Danish.....	5	24,542	18,602	30,312	18,776	23,252.50	43,370
Danzig.....	2	12,437	10,614	17,879	10,057	13,267.50	22,555
Dutch.....	7	35,997	25,754	42,656	25,665	32,192.50	46,623
French.....	3	13,452	11,372	18,082	10,806	14,215.00	23,522
German.....	14	47,698	32,651	53,615	32,065	40,082.23	54,521
Greek.....	2	3,755	2,308	3,831	2,294	2,835.00	7,022
Italian.....	2	10,884	9,305	13,533	8,538	11,631.25	17,088
Japanese.....	6	27,381	22,789	34,416	22,505	28,320.00	38,886
Norwegian.....	11	51,482	38,669	63,036	38,776	48,090.30	79,893
Panamanian.....	3	69	73	132	83	78.75	44
Swedish.....	2	5,167	4,343	16,375	4,959	5,428.75	22,785
United States.....	99	485,219	373,185	601,205	372,811	464,225.40	713,521
Yugoslav.....	2	7,575	6,393	9,984	6,353	7,991.25	15,397
Totals, February, 1930...	234	1,110,578	841,971	1,374,438	839,467	1,047,392.31	1,582,487
Totals, February, 1929...	245	1,134,826	876,251	1,426,912	879,266	1,092,871.31	1,686,154
Totals, February, 1928...	280	1,252,318	964,811	1,575,146	969,195	1,210,075.51	1,947,132

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	12,020	11,504	14,355	8,384	\$14,162.80	18,175
British.....	132	715,283	520,284	865,143	526,922	632,961.44	727,295
Chilean.....	1	12,626	9,569	18,913	10,453	14,323.75	6,577
Colombian.....	4	652	656	932	664	796.60	640
Danish.....	10	45,389	34,718	55,163	34,960	41,433.88	63,243

* Includes 3 naval vessels having a total displacement tonnage of 4,725 tons.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Danzig.....	3	18,366	15,807	26,624	15,083	\$17,536.38	22,555
Dutch.....	12	61,327	43,491	71,941	43,531	54,363.75	58,400
French.....	10	48,436	37,954	60,295	36,152	45,949.41	35,251
German.....	30	107,522	76,550	124,234	74,509	93,250.17	90,622
Greek.....	1	3,755	2,308	3,831	2,294	2,885.00	7,022
Italian.....	4	24,897	19,724	33,660	19,724	24,655.00	21,247
Japanese.....	15	76,225	61,001	94,836	60,843	76,085.00	97,195
Norwegian.....	27	134,019	97,371	160,619	97,478	110,295.38	120,468
Panamanian.....	7	6,759	5,700	9,410	5,730	5,596.84	2,640
Swedish.....	9	41,062	30,528	77,297	36,117	30,750.08	33,131
United States.....	215	1,053,342	806,865	1,308,356	805,393	958,349.39	1,058,042
Yugoslav.....	2	7,575	6,393	9,984	6,353	7,991.25	15,397
Totals, February, 1930.....	491	2,369,255	1,780,423	2,935,593	1,784,590	2,131,386.12	2,377,900
Totals, February, 1929.....	522	2,428,530	1,863,423	3,056,320	1,873,854	2,211,961.20	2,550,498
Totals, February, 1928.....	547	2,460,111	1,882,643	3,073,830	1,885,445	2,253,755.37	2,660,425

United States Intercoastal Traffic by Commodities for February, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for February, 1930, and the totals for February, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Agricultural implements.....	1,560	114	1,674
Alfalfa.....	358	358	358
Alfalfa meal.....	512	512	512
Ammonia.....	680	680	680
Asbestos.....	31	15	46
Asphalt.....	181	181	181
Automobiles.....	3,807	88	3,895
Automobile accessories.....	650	45	695
Bamboo.....	34	34	34
Bark:			
Cascara.....	13	13	13
Other.....	125	125	125
Barley.....	224	224	224
Beans.....	12	3,668	3,680
Burax.....	20	1,215	1,235
Bricks.....	360	360	360
Burlap.....	296	12	308
Calcium carbide.....	145	145	145
Camphor.....	64	64	64
Canned:			
Fish.....	241	10,597	10,838
Fruit.....	659	22,900	23,559
Milk.....	57	57	57
Soup.....	1,420	1,420	1,420
Vegetables.....	627	7,194	7,821
Miscellaneous.....	1,367	5,570	6,937
Carbon black.....	75	41	116
Celite filtercel.....	175	175	175
Cement.....	566	178	744
Charcoal.....	105	105	105
Chemicals.....	2,104	788	2,892
China and fire clay.....	50	50	100
Coal.....	794	794	794
Cocoa.....	50	50	50
Coconuts.....	12	20	32
Coffee.....	309	16	325
Cold storage:			
Cheese.....	18	18	18
Fish.....	10	10	10
Lard.....	10	11	21
Other.....	223	135	358

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Confectionery.....	1,680		1,680
Copra.....		30	30
Cork.....	42		42
Cotton.....	157	3,469	3,626
Drugs.....	1,437	68	1,505
Dyewoods.....		30	30
Earthenware.....	309	5	314
Eggs, dried.....		7	7
Explosives.....	33		33
Flour.....	286	4,984	5,270
Fruit:			
Dried.....	31	6,588	6,619
Fresh.....	3	11	14
Fuller's earth.....	68		68
Furniture.....	350	101	451
General.....	46,813	11,571	58,384
Glass and glassware.....	1,730	50	1,780
Glue.....	39	21	60
Granite.....	118		118
Guano.....		84	84
Hair.....	75	64	139
Hardwoods.....	325	200	525
Hats.....	5		5
Hay.....		100	100
Hemp.....	141	395	536
Hops.....		2	2
Ink.....	8		8
Jute.....		23	23
Lard substitute.....	1,566		1,566
Linoleum.....	325		325
Liquors.....	81		81
Lumber.....	2,925	164,591	167,516
Malt.....	326		326
Manufactured goods:			
Iron and steel.....	84,510	1,119	85,629
Machinery.....	5,226	977	6,203
Railroad material.....	287		287
Tinplate.....	11,733		11,733
Textiles.....	4,574	376	4,950
Miscellaneous.....	7,722	497	8,219
Marble.....	231		231
Matches.....	98		98
Metals:			
Copper.....		10,011	10,011
Iron.....	1,915		1,915
Lead.....		941	941
Scrap.....	143		288
Tin.....		92	92
Zinc.....		1,768	1,768
Other.....	20		20
Milk, powdered.....		304	304
Molasses.....	301		301
Musical instruments.....	23		23
Nuts.....		251	251
Oats.....	28		28
Oils:			
Coconut.....		46	46
Cottonseed.....	60		60
Crude.....	9,232		9,232
Gas oil, fuel oil.....		45,181	45,181
Gasoline, benzine, naphtha.....		123,716	123,716
Kerosene.....	80	17,385	17,465
Linseed.....	508		508
Lubricating and greases.....	2,623	3,645	6,268
Olive.....	15		15
Vegetable.....	572	1,000	1,572
Wood.....	14	37	51
Other.....	159	634	793
Ores:			
Chrome.....	86		86
Copper.....	340	300	640
Gold and silver.....		48	48
Iron.....	40		40
Magnesite.....		213	213
Manganese.....		960	960
Other.....		25	25
Paint.....	304		304
Paper.....	4,355	4,233	8,588
Paper pulp.....		4,081	4,081
Peanuts.....	422	586	1,008
Peas.....	20	48	68
Phosphates.....	1,695	150	1,845
Plaster.....		98	98
Porcelain.....	109	316	425
Rags.....	24	185	209

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Rice.....	935	90	1,025
Rope.....	303	127	430
Rosin.....	1,017		1,017
Rubber:			
Manufactured.....	990	280	1,270
Scrap.....		9	9
Salt.....	265		265
Sand.....	522		522
Seeds:			
Canary.....	30		30
Grass.....		60	60
Hemp.....		68	68
Other.....		163	163
Shells.....	883		883
Silk.....		1,093	1,093
Skins and hides.....		2,958	2,958
Slag.....	966		966
Slate.....	395		395
Soap.....	1,647	26	1,673
Soda.....	233		233
Soda ash.....	1,942		1,942
Soda, bicarbonate.....	179		179
Soda, caustic.....	171		171
Starch.....	29		29
Sugar.....	113	2,913	3,031
Sulphur.....	13,623	125	13,748
Syrup.....	20		20
Talc.....	20	132	152
Tallow.....		24	24
Tar.....	5		5
Tea.....		67	67
Tobacco.....	2,332	104	2,436
Toys.....	35	103	138
Turpentime.....	21		21
Vegetables.....	30	661	691
Waste.....	70	61	131
Wax.....	15	46	61
Wine.....		7	7
Wool.....		1,703	1,703
Zinc Oxide.....	9		9
Totals, February, 1930.....	239,526	476,970	716,496
Totals, February, 1929.....	258,944	539,256	798,200
Totals, February, 1928.....	210,677	580,239	790,916

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending March 15, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
La Perla.....	United Fruit Co.....		March 1.....		409
Oakland.....	Hamburg-American Line.....		March 1.....		365
Virgilio.....	Italian Line.....		March 1.....		42
Venezuela.....	Royal Neth. S. S. Co.....		March 1.....		943
Annam.....	Danish East Asiatic Line.....		March 1.....		28
Atlantida.....	Standard Fruit S. S. Co.....		March 1.....		448
Carmania.....	R. Feuillebois.....	March 1.....	March 1.....	(¹)	27½
Tela.....	United Fruit Co.....	March 1.....	March 1.....		281
Paul H. Harwood.....	Pan.-Amer. Pet. & Tr. Co.....	March 1.....	March 2.....	10,412	(²)
Canada.....	Johnson Line.....	March 1.....	March 2.....	(¹)	146
Knute Nelson.....	Fred Olsen & Co.....	March 1.....	March 2.....	375	263
Heredia.....	United Fruit Co.....	March 1.....	March 3.....	185	64
Nessian.....	Leyland S. S. Line.....	March 1.....	March 3.....	606	(²)
Wanks.....	Standard Fruit S. S. Co.....	March 1.....	March 4.....	81	(²)
Cauca.....	National Navigation Co.....	March 1.....	March 8.....	323	80
Cali.....	North German Lloyd.....		March 2.....		131
Anecon.....	Panama R. R. S. S. Line.....		March 2.....		1,320
Santa Cruz.....	Grace Line.....	March 2.....	March 2.....	17	82
Calamares.....	United Fruit Co.....	March 2.....	March 2.....	4	19
Maravi.....	United Fruit Co.....	March 2.....	March 2.....	(¹)	292
Irióna.....	United Fruit Co.....	March 2.....	March 3.....	15	97
Ludwigshafen.....	North German Lloyd.....	March 2.....	March 3.....	227	455
Essequibo.....	Pacific Steam Nav. Co.....	March 3.....	March 3.....	35	155
Cellina.....	Nav. Libera-Triestina.....	March 3.....	March 3.....	(¹)	5
Washington.....	French Line.....	March 3.....	March 4.....	36	(²)
Durazzo.....	Hamburg-American Line.....	March 3.....	March 5.....	1,200	213
Macoris.....	French Line.....	March 3.....	March 5.....	281	1,380

* No cargo discharged.

* No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Sulairia	Donaldson Line.	March 3.	March 6.	(¹)	390
San Jose	United Fruit Co.	March 4.	March 7.	1,464	(²)
Axel Johnson	Johnson Line.	March 4.	March 4.	(¹)	109
Benjamin Franklin	Fred Olsen & Co.	March 4.	March 4.	(¹)	880
Feodosia	Hamburg-American Line.	March 4.	March 5.	34	605
Iowa	French Line.	March 4.	March 5.	294	112
Bennekom	Royal Neth. S. S. Co.	March 5.	March 6.	140	240
Castilla	United Fruit Co.	March 5.	March 6.	583	13
Oregon	French Line.	March 5.	March 6.	113	56
Pastores	United Fruit Co.	March 5.	March 6.	477	98
Metapan	United Fruit Co.	March 5.	March 6.	694	137
Santa Teresa	Grace Line.	March 5.	March 6.	9	91
Hollywood	Chas. R. McCormick & Co.	March 5.	March 6.	94	(²)
Invincible	Tampa Intercocean Co.	March 5.	March 6.	161	(²)
Baralt	Royal Neth. S. S. Co.	March 5.	March 8.	470	(²)
Oroya	Pacific Steam Nav. Co.	March 6.	March 6.	124	275
Orduna	Pacific Steam Nav. Co.	March 6.	March 7.	5	25
Colombo	Italian Line.	March 6.	March 7.	11	1,461
Delftdijk	Holland-American Line.	March 6.	March 8.	43	303
Nosa Prince	N. O. & S. A. S. S. Co.	March 7.	March 8.	39	686
Manaquí	United Fruit Co.	March 7.	March 8.	8	805
Amapala	Standard Fruit S. S. Co.	March 7.	March 8.	137	415
Juan Sebastian Elcano	Spanish Line.	March 7.	March 8.	192	
Almagro	Pacific Steam Nav. Co.	March 7.	March 8.	128	146
Nessian	Leyland S. S. Line.	March 8.	March 8.	2	137
Creole Jefe	Venezuelan Gulf Oil Co.	March 8.	March 8.	3,852	(²)
Minden	North German Lloyd	March 8.	March 8.	65	185½
Baarn	Royal Neth. S. S. Co.	March 8.	March 8.	44	
Iriona	United Fruit Co.	March 8.	March 8.	11	98½
Wanks	Standard Fruit S. S. Co.	March 8.	March 8.	62½	(²)
Rugia	Hamburg-American Line.	March 8.	March 8.	32	
Cartago	United Fruit Co.	March 8.	March 8.	46	
Salvador	Pacific Steam Nav. Co.	March 7.	March 9.	835	
Pastores	United Fruit Co.	March 9.	March 9.	24	7
Baarn	Royal Neth. S. S. Co.	March 9.	March 9.		539
Lautaro	Pacific Steam Nav. Co.	March 9.	March 9.	(²)	95
Juan Sebastian Elcano	Spanish Line.	March 9.	March 10.		454
Rugia	Hamburg-American Line.	March 9.	March 10.		257
Cartago	United Fruit Co.	March 9.	March 10.		15
Nitokris	Hamburg-American Line.	March 9.	March 11.	597	653
Haimon	North German Lloyd	March 9.	March 12.	409	887
Santa Cecilia	Grace Line.	March 10.	March 10.	194	674
Santa Elisa	Grace Line.	March 10.	March 10.	50	138
Laila	Gulf-Caribbean Line.	March 10.	March 11.	1,012	(²)
Peltre	Nav. Lib. Triestina	March 10.	March 11.	272	(²)
Dinteldijk	Holland-American Line.	March 10.	March 11.	(²)	202
City of Panama	Panama Mail S. S. Co.	March 10.	March 12.	2,273	(²)
Pearl Marie	G. I. Bryan	March 11.	March 11.	(²)	31
Van Renselaer	Royal Neth. S. S. Co.	March 11.	March 11.	73	(²)
Venezuela	Panama Mail S. S. Co.	March 11.	March 12.	515	379
Castilla	United Fruit Co.	March 11.	March 12.	10	62
Havana Maru	Osaka Shosen Kaisha	March 11.	March 12.	90	(²)
Ballena	Pacific Steam Nav. Co.	March 11.	March 12.	89	273
Manizales	North German Lloyd	March 11.	March 13.	296	159
Saramacca	United Fruit Co.	March 11.	March 15.	1,146	195
Cristobal	Panama R. R. S. S. Line	March 12.	March 12.	7,119	
Teno	Chilean Line.	March 12.	March 12.	(¹)	48
Champerico	Pacific Steam Nav. Co.	March 12.	March 12.		1,160
Chile	Danish East Asiatic Line	March 12.	March 12.	(¹)	10
Huguenot	Richfield Oil Co.	March 12.	March 13.	500	(²)
Wanderer	T. & J. Harrison Line.	March 12.	March 13.	370	(²)
Tela	United Fruit Co.	March 12.	March 13.	709	50
Cerigo	Hamburg-American Line.	March 12.	March 13.	724	
Teutonia	Hamburg-American Line.	March 12.	March 13.	113	14
Sixaola	United Fruit Co.	March 12.	March 13.	315	174
Utua	United Fruit Co.	March 12.	March 13.	895	260
Indiana	French Line.	March 13.	March 13.	54	39
Santa Rita	Grace Line.	March 13.	March 14.	201	437
Schwaben	North German Lloyd	March 13.	March 14.	(¹)	92
El Salvador	Panama Mail S. S. Co.	March 13.	March 14.	1,330	222
Seattle	Hamburg-American Line.	March 14.	March 14.	13	
Wiegand	North German Lloyd	March 14.	March 15.	74	317
Mecabi	United Fruit Co.	March 14.	March 15.	99	347
Nordhav	Anglo-Saxon Pet. Co.	March 14.	March 14.	7,774	
Atlantida	Stand. Fruit S. S. Co.	March 14.	March 15.	226	456
Castilla	United Fruit Co.	March 14.	March 15.	78½	145
Oropesa	Pacific Steam Nav. Co.	March 14.	March 15.	19½	(²)
Escupe Fuego	P. Martinez	March 15.	March 15.	35	
Scottsburg	Tampa Intercocean S. S. Co.	March 15.	March 15.	328	
Parissima	United Fruit Co.	March 15.	March 15.	101	
Van Renselaer	Royal Neth. S. S. Co.	March 15.	March 15.	93	867

¹ No cargo discharged.

² No cargo laded.

Telegraphic Communication.

Telegraphic communication between the Isthmus and the rest of the world is handled by the All America Cables, Inc., the Naval radio system, and the radio system of the United Fruit Co. The information presented below is from authentic sources but the rates are subject to change.

The Naval radio system is used for Government communication with the United States; and for messages to or from ships, on both Government and commercial business. The only land areas to which it handles commercial messages are those sections of the Republic of Panama contiguous with the outlying radio stations at La Palma and Puerto Obaldia, and the radio stations operated by the Tropical Radio Telegraph Company, a subsidiary of the United Fruit Company in the Caribbean area as follows: Nicaragua, Costa Rica, Salvador, Republic of Honduras, British Honduras, and Bocas del Toro Province, Republic of Panama.

LAND TELEGRAPH ON THE ISTHMUS.

For both the Naval radio service and the cable lines, messages may be filed in any office of the Panama Railroad's railway telegraphic system or of the National Telegraphs of the Republic of Panama. When this is done the local telegraph service collects a charge for local transmission which is in addition to the regular radio or cable rates as levied on messages filed at the radio stations or cable offices.

This charge is at the rate of two cents per word, no minimum. If a message be filed through the Panama Railroad or Panama National telegraph offices, their transmission charges must be reckoned as in addition to the radio and cable rates as given below.

NAVAL RADIO RATES.

The rates on commercial business sent or received through the Naval radio stations (Balboa, Colon, or Cape Mala) are as follows:

		Per word.
To and from ships at sea:		
Naval radio station charge.....		\$0.12
Commercial ship charge.....		.08
Panama National telegraph.....		.02
Total.....		.22
Costa Rica, all places.....		.09
Guatemala, all places.....		.19
Nicaragua, all places.....		.14
Salvador, all places.....		.24
British Honduras, all places.....		.25
Honduras.....		.19

ALL AMERICA CABLE RATES.—FULL AND DEFERRED RATES.

The rates in effect at present for transmission by the cables of the All America Cables, Inc., are as follows. In general, the rates from the points named to the Canal Zone are the same as the rates from the Canal Zone to the points. There is at present in force from the Isthmus of Panama, a deferred cable rate which is just half of the ordinary commercial cable rate, with some exceptions, which are slightly more than half. This rate is in force to practically all parts of the world, including Central and South America. Full paid commercial traffic naturally has precedence over deferred rate traffic. The latter, however, is subject to a possible delay of 24 hours, after which time it takes equal turn with full paid commercial traffic.

From Canal Zone to—	Full rate per word.	From Canal Zone to—	Full rate per word.
Alabama.....	\$0.38	Ascension Island (Atlantic Ocean).....	\$1.06
Alaska.....	.69	Australia:	
Alberta, Canada.....	.44	Via Pacific.....	1.08
Antigua (British West Indies).....	.71	Via Azores.....	1.08
Argentina:		Austria.....	.70
Buenos Aires, Mendoza, Junin, Rosario,		Azores.....	.66
and Villa Mercedes.....	.40	Bahama.....	.63 to .70
Other places.....	.48	Barbados (British West Indies).....	.59
Arizona.....	.44	Belgium.....	.63
Arkansas.....	.41	Bermuda (Atlantic Ocean) (via New York).....	.74
Aruba and Bonaire.....	1.02	Bolivia.....	.47 to .52

From Canal Zone to—	Full rate per word.	From Canal Zone to—	Full rate per word.
Brazil:		Kansas.....	\$0.41
Rio Janeiro, Santos, and Sao Paulo.....	\$0.50	Kentucky.....	.38
Amazon River stations.....	.60 to	Labrador.....	.44
	1.20	Labuan Island (Borneo), via Azores.....	1.26
British Columbia, Canada.....	.44	Lagos, via Azores and Singapore.....	1.30
British Guiana.....	.71 to .81	Latvia (Letonia).....	.74
Bulgaria and Eastern Rumania.....	.73	Les Saintes (French West Indies).....	.95
California.....	.44	Liberia-Monrovia, via Azores.....	1.38
Canada:		Lithuania (Mamel).....	.73
Cape Breton, New Brunswick, Nova		Louisiana.....	.41
Scotia.....	.38	New Orleans City.....	.30
Ontario, Prince Edward Island, Quebec.....	.38	Luxemburg.....	.67
Ceylon (Indian Ocean).....	1.01	Madagascar (Indian Ocean).....	1.10
Chile:		Madeira Islands.....	.86
Iquique, Antofagasta, Valparaiso, San-		Maine.....	.36
tiago, Tacna, Arica, and Tocopilla.....	.30	Makatea Island:	
Punta Arenas (via Santiago and wireless).....	.46	Via Pacific.....	.94
Other places.....	.36	Via Azores.....	1.64
China.....	1.30 to	Malay Peninsula.....	1.29 to
	1.45		1.31
Colombia:		Malta.....	.72 to .83
Buenaventura and Cartagena.....	.16	Manchuria, China, via Indo or Northern.....	1.40
Other places.....	.18 to .21	Manitoba, Canada.....	.41
Colorado.....	.41	Maria Galante.....	.87
Connecticut.....	.34	Marshall Islands.....	1.35 to
Costa Rica:			1.48
San Jose, Puntarenas, and Port Limon.....	.15	Martinique.....	.87
Other places.....	.20	Maryland.....	.34
Cuba:		Massachusetts.....	.34
Santiago de Cuba and Fisherman's Point.....	.25	Mauretania, via Havre.....	.98
Other places.....	.30	Mauritius Island.....	1.06
Curacao (Dutch West Indies).....	.90	Mesopotamia.....	1.09
Delaware.....	.34	Mexico:	
Denmark.....	.66	Salina Cruz, Vera Cruz, Mexico City,	
District of Columbia.....	.34	Tampico, and Puerto Mexico.....	.30
Dominica (British West Indies).....	.71	Other places.....	.33
Dominican Republic:		Michigan.....	.38
Santo Domingo and Puerto Plata.....	.50	Minnesota.....	.41
Other places.....	.47 to .85	Mississippi.....	.38
Dutch Guiana.....	1.47	Missouri.....	.41
Ecuador:		Monaco.....	.63
Esmeraldas, Guayaquil, and Santa Elena.....	.25	Monrovia.....	1.38
Other places.....	.30	Montana.....	.41
Egypt:		Montenegro.....	.71
Alexandria and Cairo.....	.85	Montserrat.....	.71
Estonia.....	.76	Morocco, North Africa.....	.75 to .77
Finland.....	.69	Nassau, Bahama Islands (Atlantic Ocean).....	.65
Florida:		Nebraska.....	.41
Key West.....	.44	Nevada.....	.44
Other places.....	.41	New Brunswick, Canada.....	.38
Formosa Island.....	1.48	Newfoundland.....	.44
France.....	.63	New Hampshire.....	.34
French Guiana.....	1.20	New Jersey.....	.34
Galveston, Texas.....	.41	New Mexico.....	.41
Georgia.....	.38	New Orleans, La.....	.30
Germany.....	.65	New York City.....	.30
Gibraltar.....	.76	New York State.....	.34
Great Britain and Ireland.....	.60	New Zealand.....	1.00
Greece and Islands.....	.75	Nicaragua:	
Grenada (British West Indies).....	.71	San Juan del Sur.....	.15
Guadeloupe (French West Indies).....	.87	Other places.....	.20
Guam Island:		North Carolina.....	.38
Via commercial Pacific.....	1.17	North Dakota.....	.41
Via Eastern or Indo.....	1.60	Norway.....	.64
Guatemala, all places.....	.25	Nova Scotia, Canada.....	.38
Haiti:		Ohio.....	.38
Port-au-Prince, Mole St. Nicholas, Cape		Oklahoma.....	.41
Haitien.....	.50	Ontario, Canada.....	.38
Other places.....	.55	Oregon.....	.44
Hawaiian Islands:		Paraguay.....	.48
Honolulu, and all places Oahu Island.....	.77	Pennsylvania.....	.34
Hawaii, Maui, Kauai, and Molokai Islands.....	.92	Persia.....	.99 to
Holland.....	.65		1.22
Honduras.....	.25	Pern:	
Hungary.....	.73	Paita, Callao, Lima and Trujillo.....	.35
Iceland.....	.68	Mollendo, Arequipa, and other southern	
Idaho.....	.44	stations.....	.55
Illinois.....	.38	Other places.....	.38
India.....	.95	Iquitos, via wireless.....	.45
Indiana.....	.38	Philippine Islands.....	1.27 to
Iowa.....	.41		1.58
Italy.....	.67	Poland.....	.70
Jamaica (British West Indies).....	.59		
Jap or Yap, Carolina Islands.....	1.48		
Japan.....	1.22		

From Canal Zone to—	Full rate per word.	From Canal Zone to—	Full rate per word.
Porto Rico:		Tennessee.....	\$0.38
Ponce and San Juan.....	\$0.30	Texas, via New York.....	.41
Other places.....	.33	Galveston.....	.35
All Porto Rico (via F. P. and wireless).....	.45	Tobago (British West Indies).....	.77
Portugal.....	.73	Trinidad (British West Indies).....	.71
Quebec, Canada.....	.38	Port of Spain.....	.71
Rhode Island.....	.34	Other places.....	.73
Rumania.....	.73	Turkey in Asia.....	.76
Russia in Asia (Siberia, including Vladivostok).....	.76	Turkey in Europe.....	.76
Russia in Caucasus.....	.76	Turks Island.....	.80
Russia in Europe.....	.76	Uruguay:	
Salvador.....	.25	Montevideo.....	.50
Servia.....	.71	Other places.....	.57
South Carolina.....	.38	Utah.....	.44
South Dakota.....	.41	Venezuela:	
Spain.....	.70	Via Santiago de Cuba.....	.90
Sweden.....	.65	Via Trinidad and wireless.....	.84
Switzerland.....	.67	Vermont.....	.34
Syria.....	.89	Virginia.....	.38
St. Christopher (British West Indies).....	.71	Washington (state).....	.44
St. Croix and St. Thomas (West Indies).....	.67	West Virginia.....	.38
St. Kitts (British West Indies).....	.71	Wisconsin.....	.38
St. Lucia (British West Indies).....	.71	Wyoming.....	.41
St. Vincent (British West Indies).....	.71	Yukon.....	.74
Tasmania.....	1.06		

WEEK-END LETTER AND NIGHT LETTER RATES.

In connection with the rates quoted above for the All America Cables, the manager on the Isthmus has furnished the following regarding rates on week-end and night letters:

"The week-end letter rate can be used only on messages forwarded over the week-end. Such messages, however, may be filed at any time during the week but are not transmitted until Saturday, and are prepared for delivery with the opening of business Monday morning. Such messages can only be sent to offices of this company, registered code addresses being permitted at the sender's risk. We will also accept these messages for points beyond our lines providing postal address is entirely clear to enable us to mail from our nearest office.

"The messages must be written in plain language of the country of origin or destination, code not being admissible. Numbers, except in addresses, must be written in words. The use of more than one language in the same message is not permitted. The charge is for 20 words or less, with additional charge for each word over 20."

The rates in effect at present for transmission by the cables of the All America Cables, Inc., of week-end letters are as follows:

WEEK-END LETTER RATE.

New York City:		Arkansas, Colorado, North Dakota, South Dakota, Florida (except Key West), Iowa, Kansas, Louisiana (except New Orleans), Minnesota, Missouri, Montana, Nebraska, New Mexico, Oklahoma, Texas (via New York), Wyoming:	
20 words or less.....	\$1.50	20 words or less.....	\$2.05
Each additional word.....	.07½	Each additional word.....	.10½
New Orleans City:		Arizona, California, Key West, Florida, Idaho, Nevada, Oregon, Utah, Washington:	
20 words or less.....	1.50	20 words or less.....	2.20
Each additional word.....	.07½	Each additional word.....	.11
Connecticut, District of Columbia, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York (except New York City), Pennsylvania, Rhode Island, and Vermont:		Cape Breton, New Brunswick, Nova Scotia, Ontario, Prince Edward Island, Quebec:	
20 words or less.....	1.70	20 words or less.....	1.90
Each additional word.....	.08½	Each additional word.....	.09½
Maine:		Manitoba:	
20 words or less.....	1.80	20 words or less.....	2.05
Each additional word.....	.09	Each additional word.....	.10½
Alabama, Georgia, Illinois, Indiana, Kentucky, Michigan, Mississippi, North Carolina, Ohio, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin:		Alberta, British Columbia, Newfoundland, Saskatchewan, St. Pierre, Miquelon:	
20 words or less.....	1.90	20 words or less.....	2.20
Each additional word.....	.09½	Each additional word.....	.11
		Mexico:	
		20 words or less.....	1.50
		Each additional word.....	.07½

A service known as "night letter cable" is in effect between Panama and the United States and Canada. The night letter rate is one-third of the full tariff with a minimum charge for 20 words and additional charge for each word over 20. Such messages may be filed at any time during the day for delivery the following morning. The day being considered from midnight to midnight. In the event of a curtailment of facilities owing to interruptions or other causes beyond our control, the night letter would naturally take its place in the order of disposal immediately following the deferred rate messages.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective March 11, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.24
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.15
Metal, yellow.....	Lb.	.26
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.13
Oil, marine engine.....	Gal.	.53
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.11
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.20 and \$1.25 per barrel at Balboa, and \$1.25 at Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50

tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., March 26, 1930. No. 34.

CANAL WORK IN FEBRUARY, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of February, 1930.

BALBOA HEIGHTS, C. Z., March 17, 1930.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering the operations of The Panama Canal during the month of February, 1930:

NUMBER OF TRANSITS.

During the month 491 commercial vessels and 3 small nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 73 vessels belonging to the United States Government, 1 transit of a Panamanian Government vessel, and 4 transits of vessels solely for repairs, on which no tolls were collected, making a total of 572 transits for the month, or a daily average of 22.

Tolls on the 491 commercial vessels amounted to \$2,131,386.12, and on the launches to \$5.25, a total of \$2,131,391.37, or a daily average on all traffic of \$76,121.12. Total commercial traffic for the past month decreased 40 transits and \$228,825.12 in tolls as compared with the previous month, and 31 transits and \$80,575.08 in tolls under February, 1929. The number of commercial transits for the past month was the lowest since September, 1928, when 487 ships were passed through the Canal, while the amount of tolls collected was the lowest since June, 1929, when that revenue amounted to \$2,127,805.97. The daily averages of transits and tolls for the past month, however, compare very favorably with the averages for the first 7 months of the current fiscal year (owing to the fewer number of days in February), the average transits in February being exceeded only by those in October, and the average tolls surpassed only by those in October and January.

The total number of crafts of all kinds transiting the Canal during the month of February, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	February, 1930.	February, 1929.	February, 1928.
Commercial vessels.....	491	522	547
Launches (under 20 tons).....	3	23	8
Noncommercial vessels:			
United States Government.....	73	55	40
Panamanian Government.....	1	2	.....
For repairs.....	4	4	2
Totals.....	572	606	597

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun.....	4	6	10
Pedro Miguel.....	23	21	44
Miraflores.....	21	20	41
Totals.....	48	47	95

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1930, to the end of February, 1930, as compared with the same months in the previous years:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928-9	1929-30	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,100,083.19	\$2,259,582.37
August.....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September...	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October.....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November...	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,895.94
December...	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
January.....	603	531	2,771,280	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
February...	522	491	2,428,530	2,369,255	2,550,498	2,377,900	2,211,961.20	2,131,386.12
Totals...	4,310	4,224	19,932,321	20,218,789	20,238,729	20,606,415	18,078,071.55	18,320,231.52

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noneommercial traffic."

The following is a summary of the commercial traffic for February, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the calendar year 1929:

	February, 1930.	February, 1929.	February, 1928.	Average per month for calendar year 1929.
Number of vessels.....	491	522	547	536
Panama Canal net tonnage.....	2,369,255	2,428,530	2,460,111	2,529,432
United States net tonnage.....	1,780,423	1,863,423	1,882,643	1,928,223
Registered gross tonnage.....	2,935,593	3,056,320	3,073,830	3,171,832
Registered net tonnage.....	1,784,590	1,873,854	1,885,445	1,936,803
Tolls.....	\$2,131,386.12	\$2,211,961.20	\$2,253,755.37	\$2,299,392.99
Tons of cargo carried.....	2,377,900	2,550,498	2,660,425	2,620,874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	February, 1930.	February, 1929.	February, 1928.	
Number of transits.....	17.54	18.64	18.86	17.62
Panama Canal net tonnage.....	84,616	86,733	84,831	83,159
Tolls.....	\$76,120.93	\$78,998.62	\$77,715.70	\$75,596.48
Tons of cargo carried.....	84,925	91,089	91,738	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of February, 1930, as compared with February, 1929, and 1928, are shown in the following tabulation:

	Average per vessel.		
	February, 1930.	February, 1929.	February, 1928.
Panama Canal net tonnage.....	4,825	4,652	4,497
United States net tonnage.....	3,626	3,570	3,442
Registered gross tonnage.....	5,979	5,855	5,619
Registered net tonnage.....	3,635	3,590	3,447
Tolls.....	\$1,340.91	\$4,237.47	\$4,120.21
Tons of cargo (including vessels in ballast).....	4,843	4,886	4,863
Tons of cargo (laden vessels only).....	5,730	5,890	5,873

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor less be than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.925 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.721 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of February, 1930, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$14,162.80	\$12,020.00		\$2,142.80
British.....	632,961.44	696,525.40	\$63,563.96	
Chilean.....	14,323.75	14,914.10	590.35	
Colombian.....	796.60	652.00		144.60
Danish.....	41,433.88	42,967.40	1,533.52	
Danzig.....	17,536.38	15,994.40		1,541.98
Dutch.....	54,863.75	61,327.00	6,463.25	
French.....	45,949.41	46,764.80	815.39	
German.....	93,250.17	102,725.60	9,475.43	
Greek.....	2,885.00	3,755.00	870.00	
Italian.....	24,655.00	24,897.00	242.00	
Japanese.....	76,085.00	76,225.00	140.00	
Norwegian.....	110,295.38	118,093.40	7,798.02	
Panamanian.....	5,596.81	4,772.20		824.64
Swedish.....	30,750.08	33,282.40	2,532.32	
United States.....	958,349.39	987,280.00	28,930.61	
Yugoslav.....	7,991.25	7,575.00		416.25
Totals.....	2,131,386.12	2,249,770.70	123,454.85	5,070.27
Net increase for all traffic...			118,384.58	

* Includes \$2,362.50 collected for naval vessels at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$23,968.12
United States foreign trade.....	5,093.73
United States—Canal Zone trade.....	* 131.24
Net increase.....	28,930.61

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ration of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in February, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....		1.51	1.51
British.....	.83	1.31	1.09
Chilean.....	.43	.69	.53
Colombian.....	.33	1.63	.98
Danish.....	1.34	1.77	1.61
Danzig.....		1.81	1.81
Dutch.....	.47	1.30	.95
French.....	.38	1.75	.80
German.....	.68	1.28	.95
Greek.....		1.87	1.87
Italian.....	.30	1.58	.85
Japanese.....	1.19	1.42	1.28
Norwegian.....	.95	1.55	1.28
Panamanian.....	1.49	1.00	1.47
Swedish.....	.63	4.41	1.53
United States.....	.84	1.49	1.19
Yugoslav.....		2.03	2.03
Averages, February, 1930.....	.82	1.44	1.15
Averages, February, 1929.....	.96	1.49	1.26
Averages, February, 1928.....	.85	1.56	1.28

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of February is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	5	25,409	\$25,495.00	39	208,574	\$216,920.55
Ballast.....	47	237,869	171,580.32	2	8,626	6,210.72
General cargo ships:						
Laden.....	185	943,420	847,172.85	186	887,235	819,819.30
Ballast.....	14	51,773	37,281.24	2	5,539	3,998.73
Noncargo-carrying ships:						
Naval.....	3		2,362.50			
Tugs.....	2	186	87.50	2	185	136.44
Yachts.....	1	20	14.40	3	419	306.57
Totals.....	257	1,258,677	1,083,993.81	234	1,110,578	1,047,392.31
Method of propulsion:						
Steam.....	190	927,067	820,685.22	186	877,609	836,477.91
Motor.....	65	331,565	263,272.59	47	232,947	210,884.40
Motor auxiliary.....	2	45	36.00	1	22	30.00
Totals.....	257	1,258,677	1,083,993.81	234	1,110,578	1,047,392.31

Of the 376 steam-driven vessels, 271 were oil burning, 103 coal burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of February, 1930. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Airplane carriers.....				1	33,000	\$16,500.00
Cruisers.....	1	3,200	\$1,600.00	2	11,350	5,675.00
Gunboats.....	1	1,425	712.50	1	1,425	712.50
Mine layers.....				1	3,800	1,900.00
Mine sweepers.....	2	1,900	950.00	4	3,800	1,900.00
Submarines.....	6	5,212	2,606.00	24	8,990	4,495.00
Submarine tenders.....				3	7,560	3,780.00
Tankers.....				1	5,503	2,751.50
Tugs.....	2	2,000	1,000.00	3	3,000	1,500.00
U. S. Army vessels:						
Launches.....	4	40	30.00			
Mine planters.....	2	2,416	1,208.00	3	3,624	1,812.00
Transports.....	2	7,361	3,680.50	2	7,816	3,908.00
Tugs.....	5	1,720	860.00	3	983	491.50
Totals, U. S. Government.....	25		18,597.75	48		24,055.35
Panamanian Government vessels:						
Transports.....				1	101	72.72
Vessels for repairs:						
General cargo.....	2	1,023	1,278.75	2	1,023	1,278.75
Grand totals.....	27		19,876.50	51		25,333.80

¹ Indicates displacement tonnage.

² Indicates Panama Canal net tonnage.

³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of February, 1930, carried cargo as follows: Atlantic to Pacific, 2,851 tons; Pacific to Atlantic, 4,292 tons; total, 7,143 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of February, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	2	6	\$4.50
Pacific to Atlantic	1	1	.75
Totals	3	7	5.25

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of February, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	129,018	62,064	191,082
Local cargo shipped..... tons..	8,681	396	9,077
Transit cargo arriving..... tons..	2,375,884	2,385,129	4,761,013
Transit cargo clearing..... tons..	2,354,145	2,378,928	4,733,073
Cargo received for transshipment..... tons..	33,387	541	33,928
Cargo transshipped..... tons..	29,861	761	30,622
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	94	24	118
Number of releases issued.....	681	406	1,087
Tons received.....	3,001	340	3,341
Tons withdrawn.....	3,440	628	4,068
Packages received.....	12,551	5,731	18,282
Packages withdrawn.....	9,458	9,943	19,401
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	69	2	71
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	28,027	32	28,059
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	21	32	53
U. S. Army, including vessels..... tons..	19	40	59
Individuals and companies..... tons..	136		136
Panama Railroad Company..... tons..	16		16
Transferred to Navy..... tons..	104		104
Total sales and issues..... tons..	28,323	104	28,427
Coal on hand February 1, 1930..... tons..	29,567		29,567
Coal on hand March 1, 1930..... tons..	58,284		58,284
Coal received during the month..... tons..	57,040		57,040
Coal received from Navy..... tons..		104	104
Fuel oil issued from Panama Canal tanks:			
Panama Canal Departments..... bbls..	4,820.25	23,325.82	28,146.07
Panama Railroad Company..... bbls..	1,648.23	497.79	2,146.02
U. S. Army and Navy..... bbls..		885.31	885.31
Individuals and companies..... bbls..		401.40	401.40
Total sales and issues..... bbls..	6,468.48	25,110.32	31,578.80
Fuel oil on March 1, 1930..... bbls..	43,783.25	47,922.01	91,705.26
Diesel oil issued and sold during February..... bbls..	153.49	1,941.78	2,095.27
Diesel oil on hand March 1, 1930..... bbls..	14,956.97	26,314.17	41,271.14
Miscellaneous transfers..... bbls..	351.09	705.40	1,056.49
Gasoline and kerosene pumped for The Panama Canal..... bbls..	5,769.00	15,902.50	21,671.50
Gasoline pumped for individuals and companies..... bbls..	3,492.24	23,384.57	26,876.81
Oil pumped for individuals and companies..... bbls..	565,724.09	542,375.69	1,108,099.78
Oil pumped for U. S. Navy..... bbls..	34,563.70	30,248.30	64,812.00
Total fuel oil, gasoline and kerosene handled..... bbls..	616,522.09	639,668.56	1,256,190.65
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	24	9	33
Measured for Panama Canal net tonnage.....	4	1	5
Re-measured for Panama Canal net tonnage.....	23	4	27
Panama Canal net tonnage corrected.....	2	10	12
U. S. equivalent tonnage corrected.....	11	13	24
Services of harbor equipment:			
Tugs, total operating hours.....	490	372	862
Launches, total operating hours.....	1,348½	1,562	2,910½

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue.....	\$15,571.25	\$11,897.50	\$27,468.75
Pilotage.....	21,425.00	9,518.00	30,943.00
Scamen.....	11,896.00	10,798.00	22,694.00
Launch service.....	1,818.00	2,878.00	4,696.00
Wharfage.....	17,901.01	5,905.73	23,806.74
Ships measured.....	150.00	10.00	160.00
Miscellaneous.....	1,241.56	458.50	1,700.06
Ships repaired at Panama Canal shops:			
Commercial.....	54	20	74
U. S. Army and Navy.....	4	4	8
Panama Canal equipment.....	5	10	15
Totals.....	63	34	97
Vessels dry-docked:			
Commercial.....	2	5	7
U. S. Army and Navy.....	1	1	1
Panama Canal equipment.....		4	4
Totals.....	3	9	12
Clearances issued.....	304	328	632
Bills of health issued.....	268	268	536

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal..	619	3,923,215	2,462,864	550	3,433,886	2,231,365
Vessels entering port but not transiting Canal..	100	827,645	595,111	10	75,272	58,739
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	119	728,454	436,725	98	617,127	353,003
<i>Ships clearing.</i>						
All vessels, including those transiting Canal..	606	3,792,894	2,371,452	545	3,121,893	1,931,330
Vessels clearing port but not transiting Canal..	92	766,101	545,848	10	45,040	27,720
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	120	726,476	436,865	98	617,127	253,003

¹ Includes 28 airplanes of 126 gross tons.² Includes 30 airplanes of 138 gross tons.³ Includes 8 airplanes of 16 tons weight.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,316	802	2,118	150	333	483
From Pacific ports.....	243	131	374	297	378	675
Total disembarking.....	1,559	933	2,492	447	711	1,158
Embarking:						
For Atlantic ports.....	1,194	693	1,887	67	98	165
For Pacific ports.....	186	94	280	295	235	530
Total embarking.....	1,380	787	2,167	362	333	695
Remaining on board:						
From Atlantic to Pacific ports.....	2,293	2,102	4,395	2,329	2,104	4,433
From Pacific to Atlantic ports.....	1,147	1,254	2,401	1,323	1,287	2,610
From Atlantic to Atlantic ports.....	7,599	583	8,187			
From Pacific to Pacific ports.....				23	486	509
Total remaining on board.....	11,039	3,944	14,983	3,675	3,877	7,552
Total arriving.....	12,598	4,877	17,475	4,122	4,588	8,710
Total departing.....	12,419	4,731	17,150	4,037	4,210	8,247

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	257	55	21.4
Pacific to Atlantic.....	234	51	21.8
Totals.....	491	106	21.6

In addition to the aforesaid, 89 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 198 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of February, 1930.

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels.....	\$2,624.91	\$15,363.15	\$38,203.81	\$114.23	\$8,374.00	\$64,680.10
Government vessels.....	482.01	3,685.62	25,144.38	22.11	7,438.60	36,772.72
P. R. R. vessels.....		279.40	1,134.93	666.94	17.42	2,098.69
Total sales, February, 1930..	3,106.92	19,328.17	64,483.12	803.28	15,830.02	103,551.51
Total sales, February, 1929..	4,331.80	15,291.56	50,881.97	911.76	8,100.71	79,517.80
Total sales, February, 1928..	2,831.84	12,233.68	43,876.33	964.58	7,898.14	67,804.57
Sales at Balboa to:						
Commercial vessels.....	505.39	10,086.58	18,026.25	795.85	5,570.19	34,984.26
Government vessels.....	659.12	5,250.45	31,693.23	245.60	6,596.48	44,444.88
P. R. R. vessels.....				46.04		46.04
Total sales, February, 1930..	1,164.51	15,337.03	49,719.48	1,087.49	12,166.67	79,475.18
Total sales, February, 1929..	8,782.60	26,483.25	73,482.89	559.10	26,160.71	135,468.55
Total sales, February, 1928..	1,611.22	14,313.50	39,737.15	977.70	4,562.70	61,202.27

The aggregate sales to government vessels during the month was \$81,217.60; to Panama Railroad vessels, \$2,144.73; and to other commercial vessel, \$99,664.36, making the total sales to all vessels, \$183,026.69.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of February, 1930, as compared with the corresponding month in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.*			Feb., 1930.	Feb., 1929.	Feb., 1928.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	220	243	463	21	6	27	490	503	531
Pedro Miguel.....	225	248	473	27	15	42	515	515	560
Miraflores.....	219	244	463	24	13	37	500	466	556
	Number of vessels put through locks.								
Gatun.....	233	256	489	69	38	107	596	611	620
Pedro Miguel.....	234	257	491	81	47	128	619	674	650
Miraflores.....	234	257	491	79	46	125	616	636	654

*Includes miscellaneous toll-paying craft under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	87	77	77
Panama Canal equipment.....	10	44	41
Launches under 20 tons.....	5	2	2
Panamanian Government vessels.....	1	1	1
Vessels for repairs.....	4	4	4

The total consumption of water for lockages and loss in leakage was as follows in February, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,283,760,000	1,034,960,000	1,033,700,000
Leakage.....	40,000,000	8,500,000	20,000,000
Totals, February, 1930.....	1,323,760,000	1,043,460,000	1,053,700,000
Totals, January, 1930.....	1,416,100,000	1,193,330,000	1,207,650,000
Totals, February, 1929.....	1,574,820,000	1,389,390,000	1,486,900,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of February, 1930, are shown in comparative form, in the following tabulation:

	February.		February—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres at Alhajuela.....	666	773	3,315	516	1,217
Maximum momentary discharge for the month.....	1,500	1,084	43,500	400	.....
Gatun Lake watershed, total yield.....	936	1,250	5,077	705	1,803
Gatun Lake watershed, net yield.....	40	226	4,207	287	880
Draft on Gatun Lake for lockages and power.....	2,418	2,246	2,919	1,106	2,065

* February 1, 1909.

* 1914 not included.

The discharge of the Chagres River at Alhajuela was 45 per cent below the 29-year average, or 666 c. f. s. compared with an average of 1,217 c. f. s. The maximum momentary discharge for the month was 1,500 c. f. s. at elevation 92.70 feet on the 7th. The minimum discharge was 468 c. f. s. at elevation 91.58 on the 28th. The maximum monthly discharge on record for the month of February is 3,315 c. f. s. in 1909, and the minimum 516 c. f. s. in 1912. The maximum momentary discharge on record for February is 43,500 c. f. s. at elevation 105.25 feet on February 1, 1909.

The total yield of the Gatun Lake watershed for February was 48 per cent below the 17-year average, or 936 c. f. s. compared with an average of 1,803 c. f. s. Maximum and minimum total yields of record for February are 5,077 c. f. s. in 1915 and 705 c. f. s. in 1920. The lake varied in elevation from 86.17 feet on the 1st to 84.80 feet on the 28th, averaged 85.55 feet, and ended at elevation 84.85 feet.

Miraflores Lake varied between elevations 54.43 feet on the 27th and 53.22 feet on the 25th, averaged 53.71 feet, and ended at elevation 54.17 feet.

SEISMOLOGY.

No seismic disturbances were recorded during the month.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,860,600 kilowatt hours, and the computed water consumption was 3,532,332,298 cubic feet. Continuous service was maintained throughout the month. Full load was resumed by the hydroelectric station on February 7, 1930, relieving the Miraflores Diesel-electric station which had been carrying part load for the conservation of water in Gatun Lake during the dry season. The Miraflores Diesel-electric station had a gross generator output of 454,700 kilowatt hours, and fuel oil consumption was 892.22 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 44 vessels during the month. There were 288 work orders issued during the month, as compared with 359 issued during the previous month.

MECHANICAL DIVISION.

During the month of February, 1930, miscellaneous repairs were made on 63 vessels at Cristobal and 34 at Balboa. Three vessels were dry-docked at Cristobal and 9 at Balboa. Annual overhaul of the United States submarine *S-16* and light running repairs on the submarine *S-6* were completed during the month. Work was completed and carried forward on several pieces of equipment of The Panama Canal, the United States Army and Navy, and commercial steamship lines.

MUNICIPAL ENGINEERING DIVISION.

The placing of concrete on the Madden Road, which was commenced on January 9th, continued throughout February. During the month 17,500 lineal feet of pavement were constructed. At the end of the month 53 per cent of the highway had been completed. The abutments and the arch barrel for the 100-foot Chilibre River bridge were completed. The abutments for the Chilibrillo arch bridge were poured. Following this, equipment and material were to be transferred to a central point on the second half of the highway and work on that section started in the early part of March.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. In connection with the repairs to the Pedro Miguel-Paja road, 22,000 square yards were oiled and sanded, and 4,000 square yards resurfaced. On South Avenue, Panama, 354 square yards of street were concreted and 381 feet of concrete curb constructed.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 736,044,250 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during the month with an average movement of 1.2 feet toward the Canal between stations 1770-00 and 1797-00 W. The reference points over this slide showed no movements.

There was a surface movement at Southwest La Pita slide during the month. Several large boulders moved into the Canal while others lodged near the water's edge. These boulders were subsequently drilled and shot by drillboats. A dredge worked one day on this slide between stations 1672-00 and 1675-00, removing 1,950 cubic yards of mined rock.

There was a movement at West Whitehouse slide during the month. A point of rock extended out over the west prism line for 5 feet at the water's edge on station 1617-00 W., the 45-foot contour extending about 40 feet east of the west prism line. A drillboat worked 5 days drilling and blasting this point. A dredge worked 7 days between stations 1616-00 and 1619-00 W., removing 11,200 cubic yards, of mined material.

There was no interference with shipping on account of slides during the month.

The total excavation during February, 1930, was 460,450 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Gaillard Cut—			
Southwest La Pita slide.....		1,950	1,950
West Whitehouse slide.....		11,200	11,200
Maintenance.....	29,850	12,800	42,650
Pacific entrance—			
Project No. 1.....		80,100	80,100
Maintenance.....	9,000	400	9,400
Balboa inner harbor—			
Maintenance.....	256,000		256,000
Plant excavation:			
Chagres river gravel service.....	56,185		56,185
Dredging sand at Chame.....	2,965		2,965
Totals.....	354,000	106,450	460,450

The ferry crossing at the north end of Pedro Miguel locks operated 28 days during the month. One thousand one hundred and fourteen trips were made, and 168 Panama Canal, 1,049 U. S. Army, and 5,984 other vehicles, a total of 7,201, were ferried across the Canal.

MADDEN DAM PROJECT.

Computations and sketches for spillway were continued, and a study begun of cement handling facilities. Numerous well log sheets were traced and checked, tests of stone were checked and summary of same brought up to date, geologic cross sections were traced, contour maps pantographed, and progress maps and records were kept up. Storage curve for Madden Lake, and profile of the Chagres River to its mouth and tributaries above Alhajuela were completed. Progress was made on Summit switching station and transmission line layouts, on determination of natural flood storage above Alhajuela and on preparation of a report on hydroelectric survey.

Mapping of the contact of strata "d" and "e" on the Madronal side of the reservoir was completed, being carried as far as the danger zone extends. Structure sections were made in connection with checking drill logs and recommendations for drilling. A section along the Dike Ridge was commenced. Cores were classified, pressure tests were checked against drill logs, attempts were made to determine a permeability factor for comparison of pressure tests and laboratory percolation tests, a tentative explanation of increased flow in successive pressure test was formulated. Twelve sink-holes on the Madronal Ridge were excavated to a total depth of 206 feet, dynamiting being necessary for most of the footage. Considerable timbering was required and about 5 miles of trail were cleared. The system of holes mined was followed underground, and caves and structural features were mapped.

Three thousand seventeen lineal feet of diamond drilling was performed.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children occupying Panama Canal quarters on February 28, 1930, was 22,357, composed of 7,906 Americans, 2,893 of whom were men, 2,340 women, and 2,673 children; 248 Europeans, 98 of whom were men, 38 women, and 112 children; 14,203 West Indians, 4,165 of whom were men, 2,616 women, and 7,422 children. The total number of persons in quarters on February 28, 1929, was 22,002.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of February 19, 1930, with a comparison of the working force for the preceding month and for February, 1929:

	As of February 19, 1930.			Total employees.	
	Gold.	Silver.	Total.	January, 1930.	February, 1929.
Operation and Maintenance:					
Office.....	56	139	195	165	106
Electrical.....	158	232	390	397	350
Municipal Engineering.....	80	762	842	771	1,847
Lock Operation.....	240	743	983	944	1,419
Dredging.....	198	1,084	1,282	1,271	1,166
Madden Project.....	90	1,113	1,203	774	.....
Mechanical.....	503	926	1,429	1,408	1,224
Marine.....	209	633	842	777	960
Fortifications.....	27	442	469	426	454
Totals.....	1,561	6,074	7,635	6,933	7,526
Supply Department:					
Quartermaster.....	219	2,158	2,377	2,382	2,135
Commissary.....	223	1,342	1,565	1,547	1,543
Cattle Industry—Plantations.....	2	114	116	117	165
Hotel Tivoli.....	10	120	130	123	128
Hotel Washington.....	9	110	119	115	124
Transportation.....	74	257	331	317	287
Totals.....	537	4,101	4,638	4,601	4,382
Accounting Department.....	205	6	211	213	201
Health Department.....	284	872	1,156	1,165	1,081
Executive Department.....	525	321	846	849	813
Totals.....	1,014	1,199	2,213	2,227	2,095
Panama Railroad Company:					
Superintendent.....	47	292	339	348	334
Transportation.....	60	129	189	186	199
Receiving and Forwarding Agency.....	93	1,430	1,523	1,377	2,544
Coaling Stations.....	43	322	365	308	352
Totals.....	243	2,173	2,416	2,219	3,429
Grand totals, February, 1930.....	3,355	13,547	16,902	.....	.....
Grand totals, January, 1930.....	3,346	12,634	.....	15,980	.....
Grand totals, February, 1929.....	3,206	14,226	.....	.....	17,432

Additions to the gold force on the Isthmus in February were as follows: Employed in the United States, 12; reemployed in the United States, 5; employed on the Isthmus, 14; reemployed on the Isthmus, 8; total 39. Separations from the gold force totaled 36, as follows: Resigned, 22; discharged, 7; retired, 4; died, 3. At the end of the month there were on file 420 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 155 deaths occurred during the month of February, 1930, among the population of the Canal Zone and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.08 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 23; pneumonia (broncho and lobar), 18; nephritis (acute and chronic), 18; organic diseases of the heart, 13; and diarrhea and enteritis, 10. There were 7 deaths from syphilis, 6 from cancer, 5 from apoplexy, and 1 each from diphtheria, leprosy, and meningococcus meningitis. There were 25 deaths among nonresidents. These are not included in the above statistics.

There were 277 live births, and 8 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 25.88. Deaths among children under 1 year of age numbered 24, giving an infant mortality rate based on the number of live births reported, of 36.64.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during February, 1930, was 67, of whom 24 were employees (5 white, 19 colored), 4 were members of employees' families (1 white, 3 colored), 9 were Canal Zone agriculturists, 6 were other civilian nonemployees, and 24 were Army and Navy personnel.

There was one death attributed to malaria among residents, a white employee who probably contracted the disease in the interior of the Republic of Panama, and neglected to take treatment until serious nephritis and anemia had developed. Unfortunately it was impossible to obtain an autopsy.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$387,289.85, of which \$373,765.58 was for the Department of Operation and Maintenance, and \$13,524.27 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$47,013.29.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of January, 1930, as compared with January, 1929, with the figures for the first seven months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of February at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	January, 1930.	January, 1929.	To end of January.	
			This year.	Last year.
Tolls.....	\$2,360,222.49	\$2,502,896.12	\$16,188,773.35	\$15,864,332.23
Other receipts.....	340,803.94	359,431.26	2,549,246.26	2,320,416.36
Total transit revenues.....	2,701,026.43	2,862,327.38	18,738,019.61	18,184,748.59
Total transit expenses.....	1,076,367.27	1,099,118.93	7,691,514.36	7,431,962.10
Net transit revenues.....	1,624,659.16	1,763,208.45	11,046,505.25	10,752,786.49
Three per cent capital charge....	622,767.81	615,760.80	4,345,307.14	4,311,282.70
Transit surplus.....	1,001,891.35	1,147,447.65	6,701,198.11	6,441,503.79
Business revenues.....	1,764,379.02	1,719,614.60	11,254,283.31	9,677,983.31
Business expenses.....	1,665,116.84	1,583,092.32	10,620,156.53	9,105,179.86
Net business revenues.....	99,262.18	136,522.28	634,126.78	572,803.45
Three per cent capital charge.....	63,751.10	61,161.92	463,601.63	451,484.09
Business surplus.....	35,511.08	75,360.36	170,525.15	121,319.36
Combined revenues.....	4,465,445.45	4,581,941.98	29,992,302.92	27,862,731.90
Combined expenses.....	2,741,484.11	2,682,211.25	18,311,670.89	16,537,141.96
Net revenues.....	1,723,921.34	1,899,730.73	11,680,632.03	11,325,589.94
Three per cent capital charge.....	686,518.91	676,922.72	4,808,908.77	4,762,766.79
Combined surplus.....	1,037,402.43	1,222,808.01	6,871,723.26	6,562,823.15

Respectfully,

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 22, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Seattle ¹	14	10 55	16	6 05	16	12 51	16	16 50	German	Hamburg-American Line	461.5	61.0	21.2	Hamburg, Germany	Vancouver, B. C.	Gen., bananas	4,696	9,267	6,884
Washington ¹	15	18 43	16	6 10	16	13 46	16	15 05	American	Texas S. S. Co.	425.8	57.0	21.0	Wilmington, Del.	Los Angeles, Calif.	Ballast	7,484	5,216	
Britia ²	15	22 40	16	7 10	16	14 09	16	15 20	Norwegian	Gaussen Oil Co.	407.8	54.7	17.6	Falmouth, England	Los Angeles, Calif.	Ballast	6,539	4,252	
Siamese Prince ²	15	00 45	16	7 40	16	15 10	16	16 25	British	Prince Line, Ltd.	441.0	61.0	22.7	New York, N. Y.	Manila, P. I.	General	4,150	9,283	6,401
Cerigo.....	12	19 20	16	8 46	16	15 51	16	17 10	German	Hamburg-American Line	227.2	34.4	14.2	Cristobal, C. Z.	Guayaquil, Ecuador	General	771	1,572	1,011
Willboro.....	16	4 25	16	8 50	16	16 34	16	17 45	American	Williams S. S. Line	415.0	56.0	16.0	Baltimore, Md.	Tacoma, Wash.	General	1,491	7,717	5,763
William H. Doherty ¹	16	5 10	16	9 45	16	17 00	16	18 10	American	Huasteca Petroleum Co.	435.0	56.2	22.6	New York, N. Y.	Los Angeles, Calif.	Ballast	7,406	5,111	
Canadian Commander.....	15	22 25	16	10 15	16	18 18	16	19 34	British	Can. Nat. Steamships	400.0	52.0	19.6	Halifax, N. S.	Adelaide, Australia.	General	2,534	5,914	4,195
Oiltrader ¹	16	12 05	16	12 20	16	19 01	16	23 02	British	Anglo-Saxon Pet. Co.	410.0	53.5	15.0	New York, N. Y.	Los Angeles, Calif.	Ballast	6,995	12,872	9,577
Ionic.....	16	6 45	16	14 05	16	22 25	16	23 38	British	White Star Line	500.3	63.3	31.0	London, England	Bluff, N. Z.	General	6,464	5,958	4,114
Elmworth ²	16	19 45	17	6 40	17	14 03	17	17 35	British	S. Puerto Rico Sug. Co.	400.0	53.2	21.8	Romana, Dom. R.	San Francisco, Cal.	Sugar			
Edgar F. Luckenbach.....	17	13 50	17	14 15	17	20 50	17	21 58	American	Luckenbach Line	425.0	57.3	29.0	Houston, Texas	Tacoma, Wash.	General	5,450	8,568	6,648
Helen Whittier.....	17	13 45	17	16 00	17	23 35	18	00 43	American	Christenson S. S. Co.	409.6	54.0	21.0	Baltimore, Md.	Seattle, Wash.	General	4,800	6,667	4,949
Rhodops.....	17	11 20	18	6 05	18	19 05	18	20 12	German	Hamburg-American Line	435.0	53.2	24.3	Hamburg, Germany	Valparaiso, Chile	General	3,134	7,525	5,154
Nordhav ¹	14	6 10	18	6 35	18	20 06	18	21 10	Norwegian	Anglo-Saxon Pet. Co.	400.0	52.4	15.2	Caracas, D. W. I.	San Francisco, Cal.	Ballast	6,039	4,135	
Tairoa.....	17	13 35	18	7 25	18	21 14	18	22 21	British	Shaw, Savill & Albion	478.0	63.0	26.9	Glasgow, Scotland	Dunedin, N. Z.	General	4,142	11,192	8,149
Sun ²	17	23 00	18	7 40	18	22 23	18	23 26	American	Sun Oil Co.	480.6	66.0	21.6	Chester, Pa.	Los Angeles, Calif.	Ballast	9,620	6,476	
Point Arena.....	18	2 35	18	9 55	18	23 48	19	1 15	American	Swayne & Hoyt	324.0	46.0	23.0	New Orleans, La.	San Francisco, Cal.	General	3,868	3,984	2,612
Larry Doherty ¹	18	4 15	18	10 20	18	23 51	19	1 28	American	Richfield Oil Co.	431.0	59.0	31.0	London, England	Los Angeles, Calif.	Ballast	7,494	5,198	
Port Hardy.....	17	21 45	18	12 50	19	1 05	19	2 37	British	Com'lth. & Dom. Line	481.2	62.0	31.0	London, England	N. Plymouth, N. Z.	General	7,646	11,135	8,109
R. J. Hanna ¹	18	12 40	18	13 20	19	2 29	19	3 54	American	Standard Oil Co.	435.0	56.0	20.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast	7,639	5,135	
Chetopa.....	18	13 15	18	14 18	19	2 35	19	3 54	American	Nelson Line	324.0	46.0	19.0	Baltimore, Md.	Seattle, Wash.	General	1,935	3,984	2,628
City of Oron.....	18	13 57	18	15 28	19	3 50	19	12 40	British	Ellerman Lines, Ltd.	465.5	58.0	22.6	New York, N. Y.	Adelaide, Australia	General	3,678	9,533	7,417
Comliebank ²	18	15 00	18	16 00	19	4 35	19	10 05	British	Andrew Weir & Co.	419.0	53.9	26.6	Baltimore, Md.	Shanghai, China.	Case oil, general	6,012	7,097	4,993
U. S. A. Launch.....	18	20 10	18	18 00	18	14 33			American	U. S. Army				Cristobal, C. Z.	Gatun, C. Z.	Ballast			
Tacoma City.....	18	20 10	19	7 15	19	19 25	19	20 28	British	Reardon-Knigh Line	407.4	54.3	24.11	Tampa, Fla.	Shanghai, China.	Gen., phosphates	7,700	6,947	5,358
Buyo Mara.....	18	21 50	19	6 20	19	20 10	19	21 28	Japanese	Kokusan Kisen Kaisha	400.0	53.0	26.0	Brunswick, Ga.	Yokohama, Japan.	General	4,264	9,931	4,243
Paul Shoup ¹	18	22 33	19	7 15	19	20 58	19	22 30	American	Tidewater Oil Co.	424.4	58.2	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,333	5,182	
Rancagua ¹	17	10 53	19	8 17	19	22 02			Chilean	Chilean Government	365.0	49.7	15.10	Newcastle, Eng.	Valparaiso, Chile	Ballast	4,113	2,083	
Perryus ²	10	7 00	19	8 20	19	22 10			German	Petz & Co.	239.5	30.0	11.0	Rotterdam, Holland	Shanghai, China.	Liquors	767	1,029	697
Robin Hood.....	18	22 45	19	8 50	19	23 00	20	00 04	American	Isthmian S. S. Line	423.8	55.0	26.0	Baltimore, Md.	Seattle, Wash.	General	7,674	7,473	5,533
Lewis.....	18	23 58	19	9 50	19	23 50	20	00 48	American	Luckenbach Line	496.0	68.2	20.6	Boston, Mass.	Seattle, Wash.	General	4,292	11,487	8,762
Oregonian.....	19	1 05	19	10 00	20	00 50	20	2 00	American	Amer.-Hawaiian Line	404.0	53.5	19.0	Boston, Mass.	Seattle, Wash.	General	3,564	6,754	4,800
Wind Rush.....	19	4 20	19	10 54	20	1 47	20	3 15	American	Shepard S. S. Co.	409.8	54.2	21.0	Boston, Mass.	Tacoma, Wash.	General	5,960	6,558	4,753

¹ Tanker. ² Motor ship.

Java Arrow	19	6.05	19	11.10	20	2.46	20	3.53	American	Standard Transp. Co.	468.3	62.7	20.4	New York, N. Y.	Los Angeles, Calif	Ballast.	10,084	7,388																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Massar	19	6.30	19	12.25	20	3.34	20	5.01	American	Calmar S. S. Corp.	385.0	51.0	21.0	Baltimore, Md	Seattle, Wash	Steel, general	4,261	6,242																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Arana	18	21.15	19	13.05	20	4.40	20	5.49	British	Pacific Steam Nav. Co.	383.4	43.0	17.0	New York, N. Y.	Permat, Peru	General	780	1,770																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Dacred	19	7.15	19	13.30	20	4.30	20	9.00	Norwegian	J. P. Pedersen	385.0	54.0	18.0	Cardenas, Cuba	Portland, Ore	Sugar	4,019																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Swan	19	7.45	19	19.10					American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Swan	19	9.00	21						American	R. S. Ford				Cristobal, C. Z.	Balboa, C. Z.	Ballast																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
L-53	19	9.00	21			12.25			American	U. S. Army				Cristobal, C. Z.	Gatun, C. Z.	Ballast	31	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
San Lucas	19	8.40	19	15.05	20	9.06	20	10.12	American	Stades S. S. Corp.	415.0	55.0	21.4	Philadelphia, Pa.	Seattle, Wash	General	4,039	7,643																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Dodiet	19	10.47	19	16.00	20	10.02	20	11.15	American	Redwood Line	386.8	62.0	24.0	Houston, Texas	Seattle, Wash	General	5,975	5,657																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Orcema	19	16.05	20	6.00	20	14.57	20	16.05	British	Pacific Steam Nav. Co.	511.6	52.0	26.2	Liverpool, England	Tacabano, Chile	General	5,705	4,167																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Astral	19	16.00	20	7.30	20	15.41	20	16.35	American	Standard Transp. Co.	439.5	58.0	21.0	New York, N. Y.	Los Angeles, Calif	Ballast	4,962	12,417																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Marie Bakke	19	19.10	20	8.05	20	16.35	20	22.23	Norwegian	Stand.-So. Pacific Co.	375.6	58.0	24.0	Cato, Norway	Corral, Chile	General	8,913	6,210																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Atlantic Sun	20	00.45	20	8.05	20	17.11	20	18.28	American	Sun Oil Co.	429.3	59.2	18.0	Tampa, Fla.	Los Angeles, Calif	Ballast	7,391	6,077																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Pacific Pine	20	06.25	20	9.50	20	17.29	20	18.31	American	Dimon S. S. Corp	410.5	54.3	18.0	Philadelphia, Pa.	Tacoma, Wash	General	7,568	5,283																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Amerikand	20	6.45	20	10.10	20	18.07	21	2.56	Swedish	Ore S. S. Corp.	501.0	72.0	22.0	New York, N. Y.	Cruz Grande, Chile	Ballast	3,402	6,383																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Santa Maria	20	4.45	20	11.05	20	18.23	21	1.54	American	Grace Line	496.0	64.0	24.0	New York, N. Y.	Tacabano, Chile	General	15,569	4,496																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Penelope	20	7.30	20	11.55	20	19.30	21	17.29	Danzig	W. Tanksehiff Rhederei.	470.0	63.0	20.0	Hamburg, Germany	Talara, Peru	Ballast	3,819	10,626																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
W. S. Rheem	20	9.35	20	13.15	20	20.34	21	21.42	American	Standard Oil Co.	500.0	68.2	19.0	New York, N. Y.	Los Angeles, Calif	Ballast	9,302	6,127																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Fellere	19	20.15	20	19.30	21	9.16	21	11.02	American	Ore S. S. Corp.	449.0	57.2	21.6	Baltimore, Md	Cruz Grande, Chile	Ballast	11,224	7,895																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
San Mateo	18	15.45	21	6.05	21	13.07	22	14.54	American	United Fruit Co.	315.2	44.2	18.0	Cristobal, C. Z.	San Francisco, Cal	Ballast	7,808	5,139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Breda	20	7.10	21	6.19	21	13.15	21	23.54	Dutch	Royal Neth. S. S. Co.	402.0	58.0	20.5	Hamburg, Germany	Corral, Chile	General	3,406	2,141																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
President Polk	21	5.05	21	7.25	21	14.40	21	21.25	American	Dollar Line	502.0	62.2	27.6	New York, N. Y.	San Francisco, Cal	General	7,384	4,769																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Steel Inventor	21	2.30	21	7.15	21	15.14	21	18.46	American	British S. S. Lines	423.0	56.0	25.0	Mobile, Ala	Seattle, Wash	Steel products.	5,208	12,669																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Vancouver	21	8.00	21	8.35	21	15.20	21	15.20	British	British Government.	275.0	27.0	12.0	Kingston, Jamaica	Esquimalt, B. C.	Ballast	8,271	7,611																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Bullaren	21	6.50	21	10.00	21	17.15	21	18.45	Swedish	Transatlantic S. S. Co.	436.8	56.0	23.7	Antwerp, Belgium	San Francisco, Cal	General	5,887	7,614																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Nietheroy	21	9.30	21	14.35	21	18.18	21	22.30	British	Royal Mail S. P. Co.	450.2	58.3	17.6	Rotterdam, Holland	Vancouver, B. C.	General	1,640	8,874																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Salvador	7	19.30	21	15.00	21	21.52	23	00.10	British	Pacific Steam Nav. Co.	215.0	33.0	16.3	Cristobal, C. Z.	Champerico, Guatemala	General	1,142	1,270																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
King Arthur	7	17.05	21	18.30	22	11.50	22	18.35	British	Texas S. S. Co.	399.0	54.0	20.0	Pt. Arthur, Tex	Buenaventura, Col.	General	7,315	6,284																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Caldas	17	18.00	22	6.06	22	13.55	22	17.25	Colombian	National Navigation Co.	116.0	21.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	57	211																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Henry S. Grove	21	21.30	22	6.15	22	13.59	22	15.43	American	Argonaut S. S. Line	401.6	53.9	27.6	Baltimore, Md	Portland, Ore	Steel, general	7,791	6,755																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Guayaquil	20	18.15	22	6.15	22	15.25	22	16.30	American	Panama R. R. S. Line	251.0	44.3	16.8	New York, N. Y.	Guayaquil, Ecuador	General	2,874	1,944																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Jeff Davis	22	6.50	22	8.25	22	14.15	22	21.40	American	Roosevelt S. S. Co., S. B.	395.6	55.0	23.2	New York, N. Y.	Fremantle, Australia	General	2,800	7,339																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Fairfield	22	3.10	22	9.50	22	17.22	22	18.35	American	Isthmian S. S. Lines	309.0	48.0	21.0	New York, N. Y.	Hilo, Hawaii	General	3,462																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
George	22	9.30	22	11.05	22	18.09	22	22.11	Norwegian	Fred Olsen & Co.	405.0	54.0	20.0	Antwerp, Belgium	Vancouver, B. C.	General, iron	4,974																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Dunstaffnage	22	13.20	22	13.35	22	20.20	22	21.27	British	Moore & McCormack	384.0	52.0	16.0	Baltimore, Md	Valparaiso, Chile	General	777	5,173																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Tai Yang	22	17.30	22	18.05	23	9.32	23	10.25	Norwegian	Barber Wilhelmsen Line	461.4	60.6	20.0	New York, N. Y.	Shanghai, China	General	2,605	10,009																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Port Auckland	22	17.40	22	19.35	23	11.45	23	13.30	British	Com'lth & Dom. Line	480.8	62.0	20.0	London, England	Adelaide, Australia	General	689	10,808																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
Aconagua.....	17	2 00	17	7 14	17	14 05	17	16 08	Chilean	Chilean Line	422.8	56.2	25.6	Valparaiso, Chile.	New York, N. Y.	Nature.	Tons.	Gross.	Net.
Paris City.....	17	6 00	17	8 19	17	16 25	17	17 30	British	Sir W. R. Smith & Sons	412.0	55.0	28.0	Vancouver, B. C.	Manchester, Eng.	(14)	4,081	7,764	4,705
Mallemak.....	17	9 00	17	10 05	17	17 50	17	20 45	American	Malloy Transp. Line.	334.0	54.7	27.4	Tacuma, Wash.	New Bedford, Mass.	General.	8,454	6,673	4,764
Chr. Knudsen ..	17	15 15	17	17 37	18	11 10	18	11 10	Norwegian.	Canadian Transp. Co.	381.2	51.7	26.0	Guanacay, B. C.	Cardiff, Wales.	Lumber.	4,750	4,112	2,846
White.....																	6,900	6,083	4,561
Shadow ..	17	14 00	17	15 30	17	21 50			American	E. H. Norton	77.7	22.2	9.0	Guayaquil, Ecuador	Cristobal, C. Z.	Yacht.		98	55
Pueblo ..	17	17 20	17	18 10	18	11 35	18	11 30	American	Petroleum Nav. Co.	340.1	49.2	24.0	Los Angeles, Calif.	Norfolk, Va.	Gasoline.	6,000	4,613	2,936
El Cervo ..	17	19 45	17	20 55	18	13 10	18	16 03	British	C. T. Bowring & Co.	407.4	52.2	25.1	La Libertad, Peru.	Philadelphia, Pa.	Crude oil.	7,867	6,046	4,326
Bessie J. ..	17	7 25	17	7 25	17				Panamanian	Frank Judd	16.7	8.7		Balboa, C. Z.	Cristobal, C. Z.	Ballast.		17	14
San Mateo.....	17	14 30	18	7 37	18	15 45			American	United Fruit Co.	315.2	44.2	21.5	San Francisco, Cal.	Cristobal, C. Z.	General.	1,323	3,496	2,141
Helian.....	18	1 00	18	6 34	18	14 35	19	13 15	German	Hamburg-American Line	440.0	53.4	23.6	Valparaiso, Chile.	Hamburg, Germany	General.	5,756 ¹	7,621	5,313
Anglo.....																			
Canadian ..	17	21 25	18	7 16	18	16 50	18	16 50	British	Nitrates Producers Co.	426.0	58.0	21.0	Pt. Pirie, Australia.	Dunkirk, France.	Wheat, wood.	5,000	7,680	5,680
Glamorganshire	18	4 45	18	8 21	18	19 50	19	10 20	British	Royal Mail S. P. Co.	445.0	58.0	26.3	Vancouver, B. C.	Antwerp, Belgium	(15)	8,816		
Ferrhill ..	18	4 30	18	9 09	18	19 50	18	19 50	Norwegian.	Fearnley & Eger	376.0	53.9	25.0	Manila, P. I.	New York, N. Y.	Sugar.	7,000	6,081	4,538
Ohioan.....	18	6 00	18	10 10	18	20 35	18	20 35	American	Amer.-Hawaiian Line	407.7	53.7	29.8	Portland, Ore.	Boston, Mass.	General.	8,256	7,103	4,991
Betterton ..	18	6 00	18	11 32	18	21 15	19	2 08	American	Associated Oil Co.	431.0	59.1	25.4	Los Angeles, Calif.	Europe.	Gasoline.	9,439	7,863	5,104
Atlantica ..	18	8 00	18	12 58	18	21 55	18	21 55	Greek	Refthymis & Co.	410.5	51.1	24.5	Calcutta, India.	Savannah, Ga.	Nitrates	8,000	6,221	4,482
Katrina.....																			
Donan.....	18	11 49	18	13 43	18	22 15	18	22 15	American	Luckenbach Line.	446.0	56.1	29.6	Portland, Ore.	Boston, Mass.	General.	8,520	8,508	6,179
Pat ..	18	14 20	18	15 06	19	9 00	19	18 55	German	N. P. German Lloyd	529.8	63.6	27.2	Vancouver, B. C.	Bremenhaven, Ger.	General.	10,012	11,007	7,698
Svealand ..	18	17 30	19	6 25	19	15 53	19	15 53	American	C. T. Morgan	30.0	8.5		Balboa, C. Z.	Gatun Lake, C. Z.	Ballast.		8	7
Empire Arrow	18	12 15	19	6 27	19	17 00	19	17 00	Swedish	Ore S. S. Corp.	562.0	72.2	34.3	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	21,653	45,425	4,421
Tamashua ..	18	12 35	19	7 07	19	18 20	19	18 20	American	Standard Transp. Co.	486.3	62.7	28.6	Los Angeles, Calif.	New York, N. Y.	Fuel distillate.	12,421	9,841	6,946
Olinshipper ..	18	13 20	19	8 14	19	19 40	19	19 40	American	Richfield Oil Co.	500.0	71.2	30.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	17,100	11,667	8,532
Canadian ..	18	13 20	19	8 14	19	19 40	19	19 40	British	Anglo-Saxon Pet. Co.	410.0	53.5	22.6	Los Angeles, Calif.	Land's End, Eng.	Gasoline.	7,350	5,942	4,037
Inventor.....	18	21 05	19	9 18	19	20 25	19	22 30	British	Can. Nat. Steamships	400.0	52.4	23.0	Vancouver, B. C.	St. John, N. B.	Timber, general.	5,802	5,916	4,159
Villager.....	18	23 40	19	10 12	19	20 45	19	22 05	Norwegian.	Westfal-Larsen & Co.	398.0	54.7	22.0	N. Westminster, B. C.	Buenos Aires, Arg.	General.	4,000	6,873	5,135
Panga No. 4576	19	8 00	19	10 47	19	21 30			American	James Green	216.5	32.9	13.3	Gatun Lake, C. Z.	Gatun Lake, C. Z.	General.	726	1,105	698
British Glory	19	3 00	19	11 49	19	21 55	19	21 55	German	Roland Line	485.0	57.1	26.3	Guayaquil, Ecuador	Land's End, Eng.	Gas oil	9,611	7,568	4,985
El Lobo ..	18	23 20	19	13 17	19	22 50	19	22 50	British	Texas Oil Co.	385.0	51.0	24.0	Los Angeles, Calif.	Philadelphia, Pa.	Crude oil	6,129	4,851	3,926
Coptic ..	18	22 30	19	13 53	19	23 05	19	23 05	British	C. T. Bowring & Co.	482.0	64.2	26.4	Guayaquil, Ecuador	London, England	Frozen, general	6,400	11,819	8,366
Robin Gray ..	19	7 20	19	15 24	20	9 12	20	10 20	American	Shaw, Savill & Albion	424.0	55.2	26.0	Napier, N. Z.	Pt. Newark, N. J.	Lumber	7,773	7,472	5,542
Buenaventura	19	2 00	19	15 18	20	10 20	21	8 35	American	Seas Shipping Co.	424.0	55.2	26.0	Everett, Wash.	New York, N. Y.	General.	1,042	2,873	1,776
Florence.....										Panama R. R. S. S. Line	251.0	43.0	16.0	Guayaquil, Ecuador					
Luckenbach..	19	15 00	20	6 06	20	14 03	20	14 03	American	Luckenbach Line.	401.8	52.2	25.0	Portland, Ore.	Mobile, Ala.	General.	6,093	6,002	4,021
Moveria ..	20	4 00	20	7 40	20	16 35	20	19 45	British	Donaldson Bros.	385.6	51.6	27.5	Vancouver, B. C.	Glasgow, Scotland	General.	5,850	6,576	4,724

¹⁴ Nitrates, copper, minerals, cotton, fruit, and general.¹⁵ For orders.¹⁶ Motor ship.¹⁷ Commercial launch.¹⁸ Tanker.

Sagadahoc	20	1	23	20	7	49	20	17	30	American	Argonaut S. S. Line	425.0	54	2	27	0	Honolulu, T. H.	Baltimore, Md.	8,648	7,340	5,360			
Hermine	20	11	30	20	12	35	20	19	50	21	10	55	British	Shaw, Savill & Albion	407.6	63	1	24	0	Auckland, N. Z.	Frozen, general	5,452	10,973	7,848
Minnesota	20	11	45	20	13	01	20	20	45	20	20	45	American	Amer-Hawaiian Line	477.7	53	7	27	0	Seattle, Wash	General	7,827	7,150	5,024
Rangitane	20	00	33	20	13	26	20	22	15	20	22	15	British	N. Z. Shipping Co.	531.0	70	2	28	0	Auckland, N. Z.	Frozen, general	6,086	18,205	13,494
Canadian	20	15	30	20	17	09	21	11	50	21	14	30	British	Can. Nat. Steamships	400.3	52	4	26	0	Pt. Alberni, B. C.	Lumber	6,119	5,858	4,108
Planter	20	18	05	20	19	10	21	13	05	22	7	10	British	British Admiralty	405.5	54	6	27	0	Los Angeles, Calif.	Fuel oil	5,267	6,076	2,664
Applebon	20	17	50	21	6	22	21	14	07	21	14	07	American	Union Oil Co. of Calif.	435.0	56	0	27	0	Malta	Gasoline	8,722	7,482	5,209
Point San	21	6	33	21	8	30	21	15	30	21	15	30	American	Swayne & Hoyt	324.0	46	2	20	0	New Orleans, La.	(19)	2,986	3,994	2,590
Pablo	21	9	30	21	10	12	21	17	50	21	20	00	German	Hamburg-American Line	399.6	54	2	26	8	New York, N. Y.	(20)	8,100	6,808	4,979
Odenwald	20	23	30	21	11	00	21	18	45	22	1	50	American	Roosevelt S.S. Co., S. B.	395.5	55	0	26	0	New York, N. Y.	General	6,494	7,320	5,253
Potter	20	11	20	21	11	50	21	20	35	21	21	15	British	North of Eng. S. S. Co.	300.0	55	0	23	0	London, England	Wheat, lumber	7,885	6,129	4,521
Harbridge	20	14	30	21	15	37	21	23	15	21	23	15	American	Tampa Intercean Co.	440.0	56	0	28	6	New York, N. Y.	Sugar, molasses	9,600	8,263	6,078
Felipse	21	9	15	21	17	30	22	12	55	22	12	55	American	Ore S. S. Corp.	550.3	72	2	34	0	Baltimore, Md.	Iron ore	15,551	4,297	
Marore	21	18	01	21	18	56	22	15	25	22	16	15	British	Inter. Freightling Co.	399.6	53	0	26	6	Teopipilla, Chile	Nitrates	7,950	5,852	4,112
Hendonhall	21	19	25	22	6	05	22	14	00	23	00	08	American	Graces Line	370.0	53	2	20	2	Savannah, Ga.	Lead, sulphate	2,112	6,255	4,016
Santa Inez	21	21	00	22	7	20	22	15	45	22	00	08	British	N. Z. Shipping Co.	457.7	58	2	22	0	London, England	Frozen, general	4,060	9,201	6,961
Rimutaka	21	19	25	22	7	20	22	15	45	22	00	08	British	Tonsberg Rederi	388.1	52	7	24	6	Ellesmere, England	Gasoline	7,203	5,469	3,744
Bocsten	22	4	45	22	6	35	22	16	40	22	18	50	Norwegian	Hamburg-American Line	427.5	64	4	13	4	Guayaquil, Ecuador	(21)	479	1,633	1,041
Durazo	22	6	15	22	9	18	22	17	20				German	Con'th & Dom. Line	280.4	60	3	24	6	Liverpool, England	Frozen, general	6,420	10,795	8,142
Port Denison	22	8	30	22	9	18	22	18	45	22	23	25	British	U. S. Navy	188.0	35	0			Cristobal, C. Z.		7,343	5,919	4,421
Swan	22	10	50	22	11	34	22	18	45	23	1	10	American	Kokusa Kaisha	385.0	51	0	27	0	Cristobal, C. Z.	Sugar	7,000	6,112	4,265
Portland Maru	22	15	35	22	16	22	22	16	22	23	11	35	Norwegian	Fearnley & Eger	382.7	53	4	26	6	Norfolk, Va.	Sugar	7,343	5,919	4,421
Fernbank	22	15	35	22	16	22	22	16	22	23	11	35	Norwegian											

17 Tug. 18 Canned goods and general. 19 Lumber, grain, and general. 20 Copper, ore, and nitrates. 21 Coffee, cocoa, and hides.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.												* DEPARTURES.											
* ARRIVALS.						* DEPARTURES.						* DEPARTURES.						* DEPARTURES.					
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—	Date.	Vessel.	Line.	For—	Date.	Vessel.	Line.	For—	Date.	Vessel.	Line.	For—	Date.	Vessel.	Line.	For—
March 16.	Ulua	United Fruit Co.	Port Limon, C. R.	March 16.	Inapaquina	Ulua	Colon, R. P.	March 16.	Ulua	United Fruit Co.	Colon, R. P.	March 16.	Ulua	United Fruit Co.	Colon, R. P.	March 16.	Ulua	United Fruit Co.	Colon, R. P.	March 16.	Ulua	United Fruit Co.	Colon, R. P.
March 16.	Tela	United Fruit Co.	Puerto Colombia.	March 16.	Cristobal	Panama R. S. S. Line.	New York via Habana.	March 16.	Cristobal	Panama R. S. S. Line.	New York via Habana.	March 16.	Cristobal	Panama R. S. S. Line.	New York via Habana.	March 16.	Cristobal	Panama R. S. S. Line.	New York via Habana.	March 16.	Cristobal	Panama R. S. S. Line.	New York via Habana.
March 16.	Creole Jefe.	United Fruit Co.	Colon, R. P.	March 17.	Parismina	United Fruit Co.	New Orleans via waypts.	March 17.	Parismina	United Fruit Co.	New Orleans via waypts.	March 17.	Parismina	United Fruit Co.	New Orleans via waypts.	March 17.	Parismina	United Fruit Co.	New Orleans via waypts.	March 17.	Parismina	United Fruit Co.	New Orleans via waypts.
March 17.	Inapaquina	United Fruit Co.	Tela via wayports.	March 17.	Creole Jefe.	Creole Jefe.	Aruba, D. W. I.	March 17.	Creole Jefe.	Creole Jefe.	Aruba, D. W. I.	March 17.	Creole Jefe.	Creole Jefe.	Aruba, D. W. I.	March 17.	Creole Jefe.	Creole Jefe.	Aruba, D. W. I.	March 17.	Creole Jefe.	Creole Jefe.	Aruba, D. W. I.
March 17.	France	French Line.	Haere via wayports.	March 17.	Tela	Tela	Port Limon via Bocas.	March 17.	Tela	Tela	Port Limon via Bocas.	March 17.	Tela	Tela	Port Limon via Bocas.	March 17.	Tela	Tela	Port Limon via Bocas.	March 17.	Tela	Tela	Port Limon via Bocas.
March 18.	Orinoco	Hamburg-American Line.	Hamburg via wayports.	March 18.	No. 9685	No. 9685	Tela via wayports.	March 18.	No. 9685	No. 9685	Tela via wayports.	March 18.	No. 9685	No. 9685	Tela via wayports.	March 18.	No. 9685	No. 9685	Tela via wayports.	March 18.	No. 9685	No. 9685	Tela via wayports.
March 18.	Scottish Castle.	Anglo-Saxon Pet. Co.	Curacao, D. W. I.	March 18.	No. 209-N	No. 209-N	Curacao via wayports.	March 18.	No. 209-N	No. 209-N	Curacao via wayports.	March 18.	No. 209-N	No. 209-N	Curacao via wayports.	March 18.	No. 209-N	No. 209-N	Curacao via wayports.	March 18.	No. 209-N	No. 209-N	Curacao via wayports.
March 19.	Tolosa	United Fruit Co.	New York via Habana.	March 18.	No. 300-N	No. 300-N	Curacao via wayports.	March 18.	No. 300-N	No. 300-N	Curacao via wayports.	March 18.	No. 300-N	No. 300-N	Curacao via wayports.	March 18.	No. 300-N	No. 300-N	Curacao via wayports.	March 18.	No. 300-N	No. 300-N	Curacao via wayports.
March 19.	Zaeapa.	United Fruit Co.	New York via Kingston.	March 18.	Orinoco	Orinoco	Curacao via wayports.	March 18.	Orinoco	Orinoco	Curacao via wayports.	March 18.	Orinoco	Orinoco	Curacao via wayports.	March 18.	Orinoco	Orinoco	Curacao via wayports.	March 18.	Orinoco	Orinoco	Curacao via wayports.
March 19.	Friona.	United Fruit Co.	New Orleans, La.	March 20.	Scottish Castle.	Scottish Castle.	Tela via wayports.	March 20.	Scottish Castle.	Scottish Castle.	Tela via wayports.	March 20.	Scottish Castle.	Scottish Castle.	Tela via wayports.	March 20.	Scottish Castle.	Scottish Castle.	Tela via wayports.	March 20.	Scottish Castle.	Scottish Castle.	Tela via wayports.
March 19.	Darien	United Fruit Co.	Barranquilla via waypts.	March 20.	No. 9688	No. 9688	Curacao via wayports.	March 20.	No. 9688	No. 9688	Curacao via wayports.	March 20.	No. 9688	No. 9688	Curacao via wayports.	March 20.	No. 9688	No. 9688	Curacao via wayports.	March 20.	No. 9688	No. 9688	Curacao via wayports.
March 19.	Camden	United Fruit Co.	Curacao, D. W. I.	March 20.	Darien C-35	Darien C-35	Curacao via wayports.	March 20.	Darien C-35	Darien C-35	Curacao via wayports.	March 20.	Darien C-35	Darien C-35	Curacao via wayports.	March 20.	Darien C-35	Darien C-35	Curacao via wayports.	March 20.	Darien C-35	Darien C-35	Curacao via wayports.
March 19.	United Fruit Co.	United Fruit Co.	Port Limon, C. R.	March 20.	Zaeapa	Zaeapa	Curacao via wayports.	March 20.	Zaeapa	Zaeapa	Curacao via wayports.	March 20.	Zaeapa	Zaeapa	Curacao via wayports.	March 20.	Zaeapa	Zaeapa	Curacao via wayports.	March 20.	Zaeapa	Zaeapa	Curacao via wayports.
March 19.	Gough Brothers	Gough Brothers	Tela via wayports.	March 20.	Passajero	Passajero	Tela via wayports.	March 20.	Passajero	Passajero	Tela via wayports.	March 20.	Passajero	Passajero	Tela via wayports.	March 20.	Passajero	Passajero	Tela via wayports.	March 20.	Passajero	Passajero	Tela via wayports.
March 20.	No. 9685	No. 9685	Curacao via wayports.	March 20.	No. 309-N	No. 309-N	Curacao via wayports.	March 20.	No. 309-N	No. 309-N	Curacao via wayports.	March 20.	No. 309-N	No. 309-N	Curacao via wayports.	March 20.	No. 309-N	No. 309-N	Curacao via wayports.	March 20.	No. 309-N	No. 309-N	Curacao via wayports.
March 20.	Pearl Marie	Pearl Marie	Colon, R. P.	March 20.	Pearl Marie	Pearl Marie	Colon, R. P.	March 20.	Pearl Marie	Pearl Marie	Colon, R. P.	March 20.	Pearl Marie	Pearl Marie	Colon, R. P.	March 20.	Pearl Marie	Pearl Marie	Colon, R. P.	March 20.	Pearl Marie	Pearl Marie	Colon, R. P.

Continued on page 500, column 2.

Panama Canal Records.

A statement of various records made by traffic through the Panama Canal at different times was published in THE PANAMA CANAL RECORD of April 17, 1929. Since that time new records have been established with respect to several items, viz., largest cargo for a vessel, commercial traffic for a year, largest day's commercial tolls for traffic in one direction, and lowest pro rata cost of tolls per ton of cargo. A revised statement is accordingly given below.

In the tabulation directly following data are shown separately for merchant or commercial vessels and for naval vessels because they are different types of craft:

MERCHANT OR COMMERCIAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length.....	678.2 feet.....	Empress of Scotland.....	April 2, 1926.
Beam.....	83.2 feet.....	Malolo.....	November 2, 1927.
Draft.....	36 feet.....	Chilore.....	March 25, 1928.
Tonnage:			
Registered gross.....	27,132 tons.....	Belgenland.....	December 12, 1924.
Registered net.....	15,352 tons.....	Belgenland.....	December 12, 1924.
Panama Canal net.....	18,999 tons.....	Empress of Scotland.....	April 2, 1926.
United States net.....	13,769 tons.....	Empress of Scotland.....	April 2, 1926.
Tolls.....	\$17,211.25.....	Empress of Scotland.....	April 2, 1926.
Cargo.....	22,244 tons iron ore..	Svealand.....	January 2, 1930.

NOTE.—The *Belgenland* has made 5 transits since December 12, 1924, and the *Empress of Scotland* has made 1 transit since April 2, 1926.

NAVAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length.....	888 feet.....	U. S. S. <i>Saratoga</i>	February 5, 1928.
Beam.....	107.9 feet.....	U. S. S. <i>Saratoga</i>	February 5, 1928.
Draft.....	33 feet 1 inch.....	U. S. S. <i>Colorado</i>	March 19, 1926.
Tonnage.....	44,799 tons displacement.	H. M. S. <i>Hood</i>	July 23 and 24, 1924.
Tolls.....	\$22,399.50.....	H. M. S. <i>Hood</i>	July 23 and 24, 1924.

NOTE.—The U. S. S. *Lexington*, a sister ship of the U. S. S. *Saratoga*, transited on March 25, 1928; both of these vessels transited also in 1930.

In the following data the term "commercial traffic" includes all craft subject to payment of tolls except small vessels under 20 net tons, Panama Canal measurement. It does not include vessels in the public service of the Governments of the United States, Panama, and Colombia, and ships which transit the Canal solely for the purpose of having repairs made at the Balboa shops and dry-dock, as such vessels are exempt from payment of tolls.

Largest year's commercial traffic:

Number of transits, 6,456, fiscal year 1928.
 Panama Canal net tonnage, 30,353,189, calendar year, 1929.
 Tolls, \$27,592,715.84, calendar year, 1929.
 Cargo, 31,450,493, calendar year, 1929.

Largest month's commercial traffic:

Number of transits, 603, January, 1929.
 Panama Canal net tonnage, 2,771,280, January, 1929.
 Tolls, \$2,502,815.12, January, 1929.
 Cargo, 2,858,835 tons, January, 1929.

Largest day's commercial traffic:

Number of transits, 33, October 1, 1927.

Panama Canal net tonnage, 152,610, November 15, 1927.

Tolls, \$137,053.98, April 10, 1928.

Cargo, 163,202 tons, January 14, 1924.

Largest day's commercial traffic in one direction:

Number of transits, 22, Atlantic to Pacific, December 8, 1928.

Panama Canal net tonnage, 103,531, Atlantic to Pacific, December 8, 1928.

Tolls, \$92,056.48, Pacific to Atlantic, February 25, 1930.

Cargo, 133,757 tons, Pacific to Atlantic, May 2, 1924.

Largest number of transits in any one day:

Thirty-five Government and 22 commercial vessels, a total of 57 vessels, January 17, 1924.

Smallest day's commercial traffic occurred on November 18, 1924, on which the number of transits was 2; Panama Canal net tonnage, 2,870; tolls, \$2,865; and cargo, 2,809 tons.

The lowest pro rata cost of tolls per ton of cargo carried through the Canal on a commercial vessel is \$0.2103 per ton, which occurred with the transit of the Swedish motor ship *Svealand*, on January 2, 1930, carrying a cargo of iron ore from Cruz Grande, Chile, to Sparrows Point, Md. On this transit the *Svealand* carried 22,244 tons of cargo and paid tolls of \$4,678.75.

The fastest transit through the Canal, in 4 hours and 10 minutes, was made by the United States destroyer *Lawrence*, southbound, on December 2, 1917.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 25, 1930.

No. 683.

Atlantic coast of Colombia, Galera de Zamba light, report on characteristic. The French steamship *Flandre* under date of March 22, 1930, reports that the Galera de Zamba light exhibits one flash every 11 seconds instead of every 6 seconds as published in the Light Lists.

Approximate position: Latitude 10° 48' 25" N., longitude 75° 19' 45" W.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 22, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons. ⁴
Chateau Thierry.....	U. S. Government.....	March 10.....	March 12.....	474	167
Santa Rita.....	Grace Line.....	March 14.....	March 14.....	63	1
Scottsburg.....	U. S. Shipping Co.....	March 15.....	March 15.....	275	.....
San Mateo.....	United Fruit Co.....	March 17.....	March 18.....	73	.....
Bokuyo Maru.....	Nippon Yusen Kaisha.....	March 17.....	March 17.....	129	.....
Buenaventura.....	Panama R. R. S. S. Line.....	March 19.....	March 19.....	108	.....
Santa Maria.....	Grace Line.....	March 20.....	March 20.....	9	.....
Potter.....	U. S. Shipping Board.....	March 20.....	March 21.....	115	.....
Hartbridge.....	North of England S. S. Co.....	March 20.....	March 21.....	276	.....
Breda.....	Royal Neth. S. S. Co.....	March 21.....	March 21.....	131	.....

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Ancon.....	March 18....	March 23....	March 26....	March 30....	April 2.....	April 7.
Cristobal.....	April 1.....	April 6.....	April 9.....	April 13....	April 16....	April 21.
Ancon.....	April 15....	April 20....	April 23....	April 27....	April 30....	May 5.
Cristobal.....	April 29....	May 4.....	May 7.....	May 11....	May 14....	May 19.
Ancon.....	May 13....	May 18....	May 21....	May 25....	May 28....	June 2.
Cristobal.....	May 27....	June 1.....	June 4.....	June 8.....	June 11....	June 16.
Ancon.....	June 10....	June 15....	June 18....	June 22....	June 25....	June 30.
Cristobal.....	June 24....	June 29....	July 2.....	July 6.....	July 9.....	July 14.
Ancon.....	July 8.....	July 13....	July 16....	July 20....	July 23....	July 28.
Cristobal.....	July 22....	July 27....	July 30....	August 3....	August 6....	August 11.
Ancon.....	August 5....	August 10....	August 13....	August 17....	August 20....	August 25.
Cristobal.....	August 19....	August 24....	August 27....	August 31....	September 3....	September 8.
Ancon.....	September 3....	September 8....	September 11....	September 15....	September 18....	September 23.
Cristobal.....	September 16....	September 21....	September 24....	September 28....	October 1....	October 6.
Ancon.....	September 30....	October 5....	October 8....	October 12....	October 15....	October 20.
Cristobal.....	October 15....	October 20....	October 23....	October 28....	October 31....	November 5.
Ancon.....	October 28....	November 2....	November 5....	November 9....	November 12....	November 17.
Cristobal.....	November 11....	November 16....	November 19....	November 23....	November 26....	December 1.
Ancon.....	November 25....	November 30....	December 3....	December 7....	December 10....	December 15.
Cristobal.....	December 9....	December 14....	December 17....	December 21....	December 24....	December 29.
Ancon.....	December 23....	December 28....	December 31....	January 4....	January 7....	January 12.

¹ Effective April 30, steamers sail daylight saving time.

² Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4. p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat....	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys.....	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.;
Ward 6, Foreign, male and female, private rooms, American girls.....	6.30 to 8.00 p. m.
Ward 7, White female, private rooms.....	(No visitors permitted in nursery.)
Ward 8, Obstetrical department, white females (Nursery).....	
Section "C:"	
Ward 9, White foreign, male.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical.....	
Ward 12, Colored, male, medical, eye and ear.....	
Ward 13, Colored, male, G. U.....	
Ward 14, American, male, G. U.....	
Section "D:"	
Ward 15, American, male, surgical.....	{ Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear.....	{ Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White children.....	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical.....	{ Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical.....	
Isolation.....	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.20 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at \$8.00 per ton of 2,240 pounds at Cristobal, and \$11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, \$8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is \$9.00 per ton at Cristobal, \$12.00 at Balboa. If less than 50 tons is taken from lighters, prices are \$11.00 per ton at Cristobal and \$14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at \$9.00 Cristobal and \$12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, \$6.00 additional per ton; but if vessel furnishes sacks \$3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Panama Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line, Navigazione Generale Italiana, Hamburg-American Line. The Panama Mail and Hamburg-American Line charge \$6 for the trip, the others \$10 for first-class passage. The Chilean Line has also a rate of \$4 for intermediate class, and the Panama-Pacific Line a rate of \$6 for tourist class. The several services together afford about 4 transits of the Canal each way every week.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 495.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
March 21.....	Amapala.....	Stand. Fruit & S. S. Co.	March 20.....	Esquepu Fuego ²⁶	Martinez & Connolly
March 21.....	Ninian.....	Leyland S. S. Line.	March 20.....	Fiandre.....	French Line.
March 21.....	Tela.....	United Fruit Co.	March 21.....	Iriona.....	United Fruit Co.
March 21.....	No. 300-N ²⁸	Pan American Airways	March 21.....	Cumden.....	United Fruit Co.
March 21.....	Cundinamarca C-33 ²⁵	Soula Airplane Co.	March 22.....	Cundinamarca C-33 ²⁵	Soula Airplane Co.
March 22.....	Orinoco.....	Hamburg-American Line.	March 22.....	Tela.....	United Fruit Co.
March 22.....	No. 9688 ²⁵	Pan American Airways	March 22.....	Amapala.....	Stand. Fruit & S. S. Co.
March 22.....	Heredia.....	United Fruit Co.	March 22.....	Ninian.....	Leyland S. S. Line.
March 22.....			March 22.....	No. 9664 ²⁵	Pan American Airways
* Air mail carrier. ²⁵			PORT OF BALBOA.		
March 17.....	Bokuyo Maru.....	Nippon Yusen Kaisha.	March 17.....	Bokuyo Maru.....	Nippon Yusen Kaisha.
March 21.....	El Sona ²⁷	National Navigation Co.	March 21.....	El Sona ²⁷	National Navigation Co.
March 22.....	Real ²⁷	Hans Elliot.	March 22.....	Real ²⁷	Hans Elliot.
March 22.....	Dos Hermanos ²⁷	A. Valdez.	March 22.....	Dos Hermanos ²⁷	A. Valdez.
* Motor schooner. ²⁷			* Other than ships passing through the Canal.		
March 17.....	Bokuyo Maru.....	Nippon Yusen Kaisha.	March 17.....	Bokuyo Maru.....	Nippon Yusen Kaisha.
March 21.....	El Sona ²⁷	National Navigation Co.	March 21.....	El Sona ²⁷	National Navigation Co.
March 22.....	Real ²⁷	Hans Elliot.	March 22.....	Real ²⁷	Hans Elliot.
March 22.....	Dos Hermanos ²⁷	A. Valdez.	March 22.....	Dos Hermanos ²⁷	A. Valdez.

²⁷ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., April 2, 1930.

No. 35.

Traffic Through the Panama Canal in March, 1930.

During the month of March, 1930, 515 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,260,002.36, and on the launches \$42.06, or a total tolls collection of \$2,260,044.42.

The daily average number of commercial transits for the month was 16.61, and the average tolls collection was \$72,903.30, as compared with an average of 17.54 transits and \$76,120.93 in tolls for the previous month, and an average of 17.29 transits and \$75,608.57 in tolls for March, 1929. The average amount of tolls paid by each of the commercial transits was \$4,388.35, as compared with \$4,390.91 for the month of February, 1930.

The daily average number of commercial transits for March, 1930, was the lowest for the current fiscal year, while the daily average tolls collection was the lowest since July, 1929.

While the number of transits for the first 9 months of the current fiscal year is 107 fewer than the number in the corresponding period last year, the amount of tolls collected is \$158,296.78 greater in the first 9 months of 1930. This is accounted for by the fewer transits in ballast this year, and an increase in the average size of vessels using the Canal.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 9 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 9 months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
Totals, first 9 months of fiscal year, 1930.....	4,739	20,580,233.88	17.29	75,110.34
Totals, first 9 months of fiscal year, 1929.....	4,846	20,421,937.10	17.68	74,532.62
Totals, first 9 months of fiscal year, 1928.....	4,936	20,621,711.03	17.95	74,988.04

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS. *Week ending at midnight, March 29, 1930.*

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.			Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.	Hour.								Nature.	Tons.	
Nosa Queen...	22	8.55	23	6.10	23	13.25	23	14.55	American...	N. O. & S. A. S. Co.	324.0	46.0	18.10	New Orleans, La.	Talcahuano, Chile.	General	2,440	3,981	2,600
Steel Mariner	23	00.05	23	6.20	23	13.40	23	15.30	American...	U. S. Steel Products Co.	424.2	56.2	25.0	Baltimore, Md.	Shanghai, China.	General	3,309	7,011	5,450
Texas...	23	3.20	23	6.30	23	14.25	23	15.30	American...	Amer.-Hawaiian Line.	471.0	57.2	19.8	Boston, Mass.	Portland, Oreg.	General	3,700	9,155	6,966
Cal...	19	21.30	23	9.30	23	16.49	23	18.15	German...	North German Lloyd	216.0	33.0	12.4	Cristobal, C. Z.	Guayaquil, Ecuador	General	172	1,105	698
San Pedro...	23	9.25	23	9.45	23	16.44	23	18.05	American...	Quaker Line.	395.0	55.0	18.0	Wilmington, Del.	Seattle, Wash.	General	2,431	7,530	5,233
California	23	10.15	23	10.30	23	17.26	23	18.30	American...	Standard Oil Co.	513.0	68.3	23.0	Hull, England.	Los Angeles, Calif.	Ballast.	...	11,719	8,619
Standard *	22	12.45	23	13.10	23	20.23	23	21.30	British...	Royal Mail S. P. Co.	450.0	58.0	20.7	London, England.	Vancouver, B. C.	General, bananas	2,152	8,556	6,553
Narenta...	23	13.05	23	13.50	23	21.25	24	1.40	American...	Chile S. S. Corp.	411.0	54.0	13.11	New York, N. Y.	Channar, Chile.	Machinery, gen.	2,952	6,609	4,973
Chilope...	23	20.45	24	6.30	24	12.51	24	14.45	Norwegian...	A. F. Klavens & Co.	391.4	55.2	24.0	Copenhagen, Den.	Los Angeles, Calif.	(*)	5,675	6,507	5,044
Cornville *	23	20.45	24	6.30	24	14.49	24	16.00	Japanese...	Mitsui Bussan Kaisha.	375.0	50.0	23.6	Tampa, Fla.	Yokohama, Japan.	Phosphate rock.	5,701	5,045	3,634
Akiban Maru	23	21.15	24	6.20	24	14.12	24	16.35	Japanese...	Osaka Shosen Kaisha.	407.2	50.0	25.0	New York, N. Y.	Shanghai, China.	(*)	6,533	6,533	4,772
Hague Maru...	24	4.30	24	7.10	24	15.12	24	16.35	Japanese...	Donaldson Ltd.	425.0	56.0	19.0	Glasgow, Scotland.	Vancouver, B. C.	General.	877	7,827	5,442
Gregalia...	23	20.05	24	10.45	24	17.02	24	18.10	British...	Anglo-Saxon Pet. Co.	420.5	54.5	18.6	Newcastle, Eng.	Los Angeles, Calif.	Ballast.	...	...	...
Lustrous *	24	8.05	24	12.25	24	18.22	24	23.54	British...	F. & W. Rigan.	385.0	49.8	20.0	Liverpool, England.	Valparaiso, Chile.	General.	3,948	5,209	4,035
Oak Branch...	24	12.25	24	12.40	24	20.10	24	21.55	British...	Isthmian S. S. Lines.	410.0	56.0	28.6	Baltimore, Md.	Vancouver, B. C.	General.	9,350	7,780	5,811
Challenger *	24	19.35	24	20.00	25	9.40	25	14.25	American...	Fern Line.	382.0	52.0	25.1	New Orleans, La.	Adeleide, Australia.	Steel, general.	7,178	6,112	4,284
Ferncliff *	24	20.13	25	6.15	25	14.17	25	21.15	Norwegian...	Republic of Panama.	125.0	23.0	...	Cristobal, C. Z.	Panama, R. P.	Ballast.	...	288	101
El Panplaco *	25	6.15	25	6.15	25	16.47	...	...	Panamanian...	Standard Oil Co.	360.0	51.6	23.6	New York, N. Y.	San Francisco, Cal.	General.	1,624	5,776	4,081
Guatemala...	24	14.05	25	10.35	25	16.54	26	17.20	American...	Can. Nat. Steamships.	400.0	52.0	18.4	St. John, N. B.	Vancouver, B. C.	General.	2,900	5,892	4,186
Canadian	25	10.35	25	11.25	25	18.05	25	19.15	British...	Standard Oil Co.	425.0	57.2	19.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	...	7,227	4,827
Miller...	25	11.45	25	13.00	25	19.45	25	21.12	American...	Lockenbach Line.	448.0	60.0	20.10	Boston, Mass.	Seattle, Wash.	General.	4,000	9,294	6,861
Lubrico *	25	12.05	25	13.50	25	20.40	25	21.40	American...	Anglo-Saxon Pet. Co.	456.8	59.2	18.0	London, England.	Los Angeles, Calif.	Ballast.	...	8,102	5,695
J. L.	25	15.30	25	15.45	26	9.00	26	12.00	Danish...	Amer.-Hawaiian Line.	404.6	53.9	19.0	Boston, Mass.	Seattle, Wash.	General.	3,002	6,766	4,767
Caroline	25	21.45	26	6.15	26	13.21	26	14.50	American...	States S. S. Co.	376.0	52.0	15.0	Norfolk, Va.	Tacoma, Wash.	General.	1,392	5,455	3,879
Maersk *	25	8.40	26	8.50	26	16.38	26	18.50	American...	Anglo-Saxon Pet. Co.	426.5	56.9	19.0	Fall River, Mass.	Los Angeles, Calif.	Ballast.	...	7,149	4,927
Hawaiian	26	9.10	26	10.00	26	17.00	26	21.25	British...	Nelson Line.	324.0	46.2	23.0	New York, N. Y.	Los Angeles, Calif.	General.	4,140	3,984	2,628
San Diego...	26	9.43	26	11.00	26	18.30	26	22.09	American...	U. S. Navy.	380.0	60.4	26.6	Miami, Florida.	Balboa, C. Z.	Ballast.	...	6,945	5,032
Scottish	26	4.25	26	11.35	...	...	...	...	American...	Texas S. S. Co.	416.8	56.1	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast.	...	7,989	5,856
Borderer...	26	10.30	26	13.25	26	20.31	26	22.09	American...	Nippon Yusen Kaisha.	443.0	58.0	26.0	Baltimore, Md.	Kobe, Japan.	General.	8,512	7,989	5,856
Tashiroo	26	11.25	26	14.35	26	21.38	26	23.05	Japanese...	D. Salmon.	484.0	61.10	23.6	Cristobal, C. Z.	Gatun, C. Z.	Ballast.	...	12,977	9,373
Rohsber *	26	4.23	26	11.00	26	18.30	26	22.09	American...	Nav. Gen. Italiana.	484.0	61.10	23.6	Genoa, Italy.	Talcahuano, Chile.	General.	2,826	12,977	9,373
Illinois *	26	4.23	26	11.00	26	18.30	26	22.09	American...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788
Takko Maru	26	10.30	26	13.25	26	20.31	26	22.09	American...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788
Hurry On *	26	11.25	26	14.35	26	21.38	26	23.05	Japanese...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788
Orazio *	25	8.50	27	6.00	27	13.19	27	20.40	Italian...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788
Eleanor	26	23.50	27	7.15	27	15.07	27	16.15	American...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788
Christensen	26	23.50	27	7.15	27	15.07	27	16.15	American...	Arrow Line.	410.0	54.0	20.0	Baltimore, Md.	Seattle, Wash.	General.	3,837	6,572	4,788

* Sulphur, general, and asphalt.

* Cotton, rosin, and phosphates.

* Coke and fire bricks.

* Launch.

* Cruiser.

* Transport.

* Motor ship.

* Tanker.

City of	Winnipeg...	27	7.50	27	8.40	27	16.02	28	7.49	British...	Ellerman & Bucknall...	431.7	54.9	21.0	New York, N. Y.	Dunedin, N. Z.	3,683	7,415	5,757
Bethora	26	19.00	27	12.30	27	19.45	27	21.00	American...	Ore S. S. Corp.	556.3	72.2	21.0	New York, N. Y.	Crus Grande, Chile	15,476	4,354	4,354	
St. Joseph	26	6.40	27	13.40	27	21.00	27	22.30	French...	France, France	338.0	50.0	21.8	Havre, France	Tacahano, Chile	3,289	6,925	4,187	
St. George	27	14.37	27	15.05	27	22.42	28	4.05	American...	Ford Motor Co.	250.0	43.6	19.6	Chester, Pa.	Seattle, Wash.	2,450	2,692	1,808	
Northern	27	15.17	27	15.35	27	22.30	28	18.53	American...	W. V. Astor	264.0	41.6	16.6	Miami, Fla.	Galapagos, Island.	2,384	1,566	1,566	
L-53	27		27		27	14.38			American...	U. S. Army				Cristobal, C. Z.	Balboa, C. Z.				
Adolf	27	2.15	28	6.10	28	13.58	28	15.45	German...	Hamburg-American Line	409.8	54.0	20.10	Hamburg, Germany	Valparaiso, Chile	4,042	7,173	5,514	
Von Bayer	27	14.30	28	6.10	28	13.20	28	14.45	British...	Pacific Steam Nav. Co.	450.0	57.8	26.3	New York, N. Y.	Tacahano, Chile	3,519	9,158	6,176	
Essequibo	28	6.05	28	7.25	28	14.32	29	0.17	American...	Panama-Pacific Line	536.4	80.3	26.0	New York, N. Y.	San Francisco, Cal.	3,188	25,264	18,170	
Virginia	25	13.10	28	7.45	28	15.15	29	14.45	American...	United Fruit Co.	336.7	41.9	17.5	Cristobal, C. Z.	San Francisco, Cal.	3,697	2,329	2,329	
Suriname	27	6.20	28	7.05	28	15.12	28	16.45	Dutch...	L. Smit & Co.	151.3	29.0	15.0	Rotterdam, Holland	Liquique, Chile...		573	195	
Gale Zee	26	6.08	28	8.20	28	15.41	29	1.20	British...	Furres, Withly & Co.	435.0	60.6	18.10	Glasgow, Scotland	Vancouver, B. C.	1,220	9,633	6,998	
Pacific	27	20.07	28	8.30	28	16.15	28	17.20	American...	Refined Oil Co.	416.9	56.2	20.0	Chester, Pa.	Los Angeles, Calif.		6,728	4,806	
Baldhill	28	6.35	28	9.30	28	17.12	28	18.45	American...	Munson, McCor'k Line.	401.0	53.2	19.0	Wilmington, Del.	Seattle, Wash.	3,900	7,082	5,167	
Chas. R.	16	15.45	28	11.50	28	18.32	28	20.00	British...	Pacific Steam Nav. Co.	216.0	34.0	17.0	Cristobal, C. Z.	Champerico, Guat.	1,099	1,273	706	
McCormick	26	12.30	28	11.50	28	19.18	29	00.07	Colombian...	National Navigation Co.	107.2	22.0	8.9	Cristobal, C. Z.	Buenaventura, Col.	91	238	163	
Acaulna	28	16.00	28	20.00	29	9.35	29	10.44	American...	Calmar S. S. Corp.	384.0	51.0	21.2	Baltimore, Md.	Seattle, Wash.	5,309	6,327	4,433	
Oakmar	28	18.45	29	6.05	29	13.22	29	14.45	Dutch...	Royal Neth. S. S. Co.	200.0	33.0	12.0	Cristobal, C. Z.	Guayaquil Ecuador	141	1,183	742	
Barat	29	5.20	29	7.30	29	15.11	29	15.45	British...	Silver Line, Ltd	425.0	38.6	19.0	Boston, Mass.	Shanghai, China.	4,878	8,228	6,039	
Willybeech	29	5.30	29	9.55	29	17.41	29	19.13	Japanese...	Kawasaki Kisen Kaisha	400.0	53.0	26.2	New York, N. Y.	Yawata, Japan.	6,435	1,451	4,541	
Silver Maru	29	10.55	29	11.10	29	18.20	30	00.07	Norwegian...	Standard Shipping Co.	408.3	53.0	20.0	Rouen, France	Talara, Peru.		6,474	4,321	
Mathew	29	11.50	29	12.20	29	19.50	29	21.15	American...	Luckenbach Line	524.3	57.7	24.6	New Orleans, La.	Tacoma, Wash.	5,937			
Luckenbach	28	16.35	29	13.20	29	21.58	29	22.35	American...	Ore S. S. Corp.	449.0	72.0	23.11	Baltimore, Md.	Crus Grande, Chile		14,355	4,635	
Lebore	29	17.38	29	19.10	30	10.05	30	11.08	Japanese...	Shunmura K. K.	409.0	54.0	25.0	Tampa, Fla.	Osaka, Japan.	5,737			
Taigen Maru																			
Gen. Wm. G.																			
Graham																			
				</															

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

19	3.52	23	6.20	13	13.45	23	23.15	British.....	Royal Mail S. S. Co.	485.4	62.3	29.2	Victoria, B. C.....	Rotterdam, Holl'd.	General.....	8,400	10,802	7,595
22	20.45	23	6.48	23	14.50	23	14.50	American.....	Nelson S. S. Co.	380.0	53.2	24.2	Tacoma, Wash.....	Baltimore, Md.....	Copper, lumber.....	6,278	5,654	4,123
23	2.00	23	7.25	23	15.35	23	15.35	Norwegian.....	Bolin & Sorensen.	350.0	56.1	26.0	Vancouver, B. C.....	Baltimore, Md.....	Wheat.....	8,915	5,224	3,812
23	6.30	23	8.09	23	16.50	23	16.50	American.....	The Texas Co.	416.8	56.1	28.0	Los Angeles, Calif.....	Port Arthur, Tex.....	Gas oil.....	6,803	6,782	4,964
23	5.48	23	9.20	23	18.15	24	15.13	American.....	U. S. Navy.....	401.0	54.0	20.0	Bremont, Wash.....	New York, N. Y.....	General.....	3,021		
23	8.25	23	9.04	23	18.45	24	00.45	French.....	French Line.....	445.2	56.3	21.0	Noumea, N. Cal'd.....	Dunkirk, France.....	General.....	3,616	7,543	5,364
23	8.30	23	10.10	23	19.15			American.....	Panama Mail S. S. Co.	296.1	45.9	20.0	Punkarenas, C. R.....	Cristobal, C. Z.....	(*)	1,592	3,048	2,603
23	17.15	23	18.16	24	11.50	24	13.20	British.....	Hogarth S. S. Co.	340.3	48.7	21.0	Manila, P. I.....	New York, N. Y.....	Sugar.....	5,150	3,940	2,793
23	18.00	23	18.46	24	11.05	25	20.10	French.....	French Line.....	388.7	54.1	18.0	Iquique, Chile.....	Havre, France.....	Nitrates, general.....	3,304	6,394	4,464
23	13.55	24	6.11	24	12.45	24	17.05	American.....	Grace Line.....	466.0	64.0	26.0	Talcahuano, Chile.....	New York, N. Y.....	General.....	4,477	10,687	6,633
23	17.45	24	6.52	24	13.55	24	13.55	British.....	Anglo-Mexican Pet. Co.	413.0	53.4	25.0	Los Angeles, Calif.....	Land's End.....	Gasoline.....	7,388	5,957	4,069
24	00.15	24	7.05	24	15.30	24	15.30	American.....	Cities Service Trans. Co.	431.0	59.2	26.0	Los Angeles, Calif.....	New York, N. Y.....	Gasoline.....	9,626	8,093	5,347

¹² Motor ship. ¹³ For orders. ¹⁴ Coffee, logs, hides, and cotton
¹⁵ Tanker.

Coffee, logs, hides, and cotton

13 For orders.

12 Motor ship.

1 Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Taleralite ¹	22	14.30	24	7.36	24	16.22	24	16.22	24	16.22	24	Telara, Peru.	Halifax, N. S.	Crude petroleum	3,900	2,631	1,570
Port Pirie	23	20.20	24	7.54	24	17.20	24	17.20	24	17.20	24	Vancouver, N. Z.	London, England.	General	5,824	9,381	6,915
Robin Adair	24	2.30	24	8.31	24	17.40	24	17.40	24	17.40	24	Vancouver, B. C.	Newport News, Va.	(¹⁶)	7,270	7,491	5,529
Virginian	24	7.10	24	8.52	24	18.10	24	18.10	24	18.10	24	Portland, Oreg.	Boston, Mass.	General, lumber	8,665	10,491	7,601
Barbara Cates.	24	10.00	24	11.28	24	18.55	24	18.55	24	18.55	24	Raymond, Wash.	Philadelphia, Pa.	Lumber	7,239	6,604	4,852
Mississippi	23	11.00	24	11.49	24	20.05	26	6.05	French.	410.0	52.4	Valparaiso, Chile.	Havre, France.	(¹⁷)	7,715	7,156	4,984
Calmar	24	10.45	24	12.13	24	20.10	24	20.10	American.	384.6	51.2	Seattle, Wash.	Baltimore, Md.	Copper, lumber.	7,344	6,347	4,453
Commander																	
McCauley			24		24												
Suriname	24	17.22	25	6.30	25	13.10			American.	336.7	41.1	Balboa, C. Z.	Gatun Lake, C. Z.	Ballast.	1,177	3,667	2,329
Wisconsin	24	19.00	25	6.32	25	14.35	26	5.50	French.	470.4	61.2	San Francisco, Cal.	Cristobal, C. Z.	General, coffee.	8,667	10,259	7,020
Peninsylvania	24	9.35	25	7.10	25	15.30	25	16.00	American.	586.4	80.3	Vancouver, B. C.	Havre, France.	General.	7,800	25,262	18,194
San Julian	24	22.35	25	8.19	25	16.35	26	16.35	American.	468.5	58.5	San Francisco, Cal.	New York, N. Y.	General.	9,775	8,400	6,162
Castlemoor	25	2.50	25	8.41	25	18.15	25	19.05	British.	420.0	54.0	Seattle, Wash.	Philadelphia, Pa.	Lumber, copper.	10,200	6,624	4,685
Hakutatsu												Cruz Grande, Chile	Baltimore, Md.	Iron ore.			
Maru	25	8.45	25	9.52	25	19.05	25	21.10	Japanese.	411.5	55.6	Bangkok, Siam.	Santiago, Cuba.	Rice.	8,405	7,064	5,175
Atago Maru	24	20.30	25	12.55	25	21.30	26	6.22	Japanese.	440.2	57.0	Manila, P. I.	New York, N. Y.	General.	10,106	8,158	5,676
Santa Cecilia	25	15.35	25	16.18	26	10.45	26	11.05	American.	404.6	53.9	Longview, Wash.	Baltimore, Md.	Lumber.	6,150	6,745	4,562
Cauca	25	17.45	25	18.33	26	12.20	26		Colombian.	107.0	29.9	Buenaventura, Col.	Cristobal, C. Z.	(¹⁸)	287	238	163
J.W. Van Dyke	25	21.20	26	6.02	26	13.40	26	13.40	Colombian.	365.0	51.0	Los Angeles, Calif.	Philadelphia, Pa.	Casinghead gas.	7,230	5,174	3,528
Pacific	25	20.45	26	6.40	26	14.55	26	14.55	American.	399.0	56.2	Seattle, Wash.	Baltimore, Md.	(¹⁹)	8,236	6,517	4,723
Denialder	25	23.00	26	6.39	26				British.	400.0	51.8	Vancouver, B. C.	Rotterdam, Holl'd.	(²⁰)	6,178	5,419	3,995
Pacific Ranger	25	23.50	26	8.09	26	17.30	26	17.30	British.	436.4	63.0	Vancouver, B. C.	Glasgow, Scotland.	General.	7,704	9,725	6,942
Lica Maersk	26	00.25	26	8.40	26	18.45	26	18.45	Danish.	308.7	43.9	Hollo, P. I.	Providence, R. I.	Sugar, lumber.	3,550	3,361	2,562
Susan V.																	
Lukenbach.	26	2.55	26	8.55	26	18.15	26	18.15	American.	434.3	57.7	Seattle, Wash.	Boston, Mass.	General.	7,900	7,947	5,688
San Domingo	26	7.15	26	10.00	26	19.35	26	19.35	American.	376.4	52.3	Seattle, Wash.	Baltimore, Md.	General.	5,505	5,455	3,902
Baralt	26	6.50	26	9.45	26	18.45			Dutch.	233.0	33.1	Guayaquil, Ecuador	Cristobal, C. Z.	(²¹)	325	1,183	742
Henry D.																	
Whitton	26	12.05	26	12.55	26	20.10	26	20.10	American.	356.0	51.6	Tacoma, Wash.	New York, N. Y.	Lumber.	5,500		
Orbita	26	16.45	27	6.15	27	14.25	28	1.35	British.	550.3	67.3	Talcahuano, Chile.	Liverpool, England.	General.	4,938	16,844	11,731
Scottish																	
Heather	26	17.40	27	6.40	27	15.02	27	15.02	British.	442.0	57.0	Los Angeles, Calif.	Lands End ²²	Kerosene.	9,536	7,570	4,835
Westmoreland	26	17.45	27	7.03	27	16.00	27	16.00	British.	473.0	60.1	Lyttelton, N. Z.	Glasgow, Scotland.	General.	7,464	10,423	7,456
Jersey City	26	22.45	27	7.58	27	17.50	27	21.55	British.	411.8	55.0	Vancouver, B. C.	Gibraltar ²³	Wheat.	8,500	6,952	5,005
Moton	27	3.50	27	8.20	27	18.45	27	18.45	American.	425.8	57.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,200	7,484	5,212
New Jersey	27	9.00	27	10.40	27	20.05	27	20.05	American.	416.8	56.1	Los Angeles, Calif.	Norfolk, Va.	Gasoline.	7,561	6,925	5,014
Bodegraven	27	9.35	27	11.00	27	19.05	29	12.05	Dutch.	400.9	58.6	Corral, Chile.	Hamburg, Germany	General.	3,308	7,834	6,018

¹ Tanker. ¹⁹ Motor ship. ²⁰ Spalter, lumber, and pulp. ²¹ Nitrates, cotton, and general. ²² General, coffee, machinery, gold, and mail. ²³ Cocoa, coffee, and tagua.

Almelo	27	3 05	27	12 11	27	19 50	27	22 25	Dutch	Royal Neth. S. S. Co.	447.4	62.7	26.0	Talcahuano, Chile.	Rotterdam, Holld.	General	9,167	9,655	6,849
Almelo	27	6 20	27	12 17	27	21 13	28	22 35	American	Panama Mail S. S. Co.	380.0	48.7	23.0	San Francisco, Cal.	New York, N. Y.	Coffee, gen. mds.	3,965	6,015	4,281
Almelo	27	00 35	27	14 39	27	21 22	28	00 55	Norwegian	Fred Olsen & Co.	435.9	56.2	25.2	Vancouver, B. C.	Oslo, Norway	General	6,452	7,063	5,837
Almelo	27	22 25	28	6 27	28	14 18	28	14 18	Norwegian	Wetzel Larsen & Co.	441.6	57.4	27.4	Los Angeles, Calif.	Lands bygd	Gasoline	10,201	7,916	5,268
Almelo	27	15 48	28	7 00	28	15 28	28	15 28	American	Charles Nelson & Co.	324.0	46.2	23.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general	3,700	3,983	2,631
Almelo	27	20 15	28	7 12	28	16 35	28	15 35	American	Redwood Lbr.	386.8	52.2	22.0	Portland, Ore.	Mobile, Ala.	General	5,444	5,732	4,131
Almelo	28	6 30	28	7 37	28	16 50	28	16 50	American	Amer-Hawaiian Line	404.6	53.9	26.0	San Francisco, Cal.	Boston, Mass.	General	7,077	9,777	4,761
Almelo	28	6 50	28	10 42	28	18 23	28	18 23	American	Standard Transp. Co.	430.0	58.2	27.0	San Francisco, Cal.	New York, N. Y.	Gas oil	10,457	7,348	5,164
Almelo	28	5 40	28	6 35	28	13 00	29	14 40	British	British Admiralty	476.0	46.0	17.0	Los Angeles, Calif.	Kingston, Jamaica	Cruiser	Disp.	7,896	5,550
Almelo	28	5 40	28	6 35	28	13 00	29	14 40	British	British Admiralty	476.0	46.0	17.0	Los Angeles, Calif.	Kingston, Jamaica	Cruiser	Disp.	7,896	5,550
Almelo	28	5 40	28	6 35	28	13 00	29	14 40	British	British Admiralty	476.0	46.0	17.0	Los Angeles, Calif.	Kingston, Jamaica	Cruiser	Disp.	7,896	5,550
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Almelo	28	5 40	28	6 35	28	13 00	29	14 40	British	British Admiralty	476.0	46.0	17.0	Los Angeles, Calif.	Kingston, Jamaica	Cruiser	Disp.	7,896	5,550</

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL,

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	Port—
March 23.	Toledo	United Fruit Co.	Port Limon, C. R.	March 23.	Inapaquina ²³	United Fruit Co.	Colon, R. P.
March 23.	Mayari	United Fruit Co.	New York via wayports.	March 23.	Anachucuna ²³	United Fruit Co.	Colon, R. P.
March 23.	Caledonia	Cunard Line.	New York via wayports.	March 23.	Annetta I. ²¹	A. Tagarapulos	Colon, R. P.
March 23.	Inapaquina ²³	United Fruit Co.	Colon, R. P.	March 23.	Orinoco	Hamburg-American Line	Hamburg via wayports.
March 23.	Anachucuna ²³	United Fruit Co.	Colon, R. P.	March 23.	Toledo	United Fruit Co.	New York via Habana.
March 23.	Annetta I. ²¹	A. Tagarapulos	Colon, R. P.	March 23.	Mayari	United Fruit Co.	New York via Kingston.
March 23.	Veendam	Holland-American Line	New York via wayports.	March 24.	Heredia	United Fruit Co.	New Orleans and waypts.
March 24.	Veendam	Standard Oil Co.	Aruba, D. W. I.	March 24.	Caledonia	Cunard Line	New York via wayports.
March 24.	Creole Jefe	Pan American Airways.	Tela via wayports.	March 25.	Veendam	Holland-American Line	New York via waypts.
March 24.	No. 9664 ²⁴	Leyland S. S. Line	Port Limon, C. R.	March 25.	Creole Jefe	Standard Oil Co.	Aruba, D. W. I.
March 25.	Ninian	Munson S. S. Line	Tampa, Florida.	March 25.	No. 9688 ²⁴	Pan American Airways.	Curacao via wayports.
March 25.	Bresund	United Fruit Co.	Puerto Colombia.	March 25.	No. 300-N ²⁴	Pan American Airways.	Tela via wayports.
March 26.	Iriona	Panama R. R. S. S. Line	New York via Haiti.	March 26.	Iriona	United Fruit Co.	Guayaquil via wayports.
March 26.	Ancon	Elders & Fyffes, Ltd.	Avonmouth via wayports.	March 26.	Carare	Elders & Fyffes Line	Bocas, R. P.
March 26.	Carare	United Fruit Co.	New York via Habana.	March 26.	No. 9664 ²⁴	Pan American Airways.	Avonmouth via wayports.
March 26.	Calamares	United Fruit Co.	New York via Kingston.	March 27.	Santa Maria	United Fruit Co.	Tela v'a wayports.
March 26.	Santa Maria	United Fruit Co.	Barranquilla via waypts.	March 27.	Castilla	United Fruit Co.	New York via wayports.
March 26.	Cordoba C-40 ²⁴	Scadta Airplane Co.	New Orleans via waypts.	March 27.	Calamares	United Fruit Co.	Puerto Colombia.
March 26.	Castilla	United Fruit Co.	Hamburg via wayports.	March 27.	Ninian	Leyland S. S. Line	Port Limon, C. R.
March 26.	Kiel	Hamburg-American Line	Tela via wayports.	March 28.	Kiel	Scadta Airplane Co.	Liverpool via wayports.
March 27.	No. 9688 ²⁴	Pan American Airways.	Curacao via wayports.	March 28.	Cordoba C-40 ²⁴	G. I. Bryan	Barranquilla via waypts.
March 27.	No. 309-N ²⁴	Pan American Airways.	Colon, R. P.	March 28.	Pearl Marie ²⁵	Munson S. S. Line	Bluffsfield via Colon.
March 27.	Annetta I. ²¹	A. Tagarapulos	Colon, R. P.	March 28.	Bresund	Standard Fruit & S. S. Co.	Habana, Cuba.
March 27.	Anachucuna ²³	United Fruit Co.	Colon, R. P.	March 28.	Atlantida	Standard Fruit & S. S. Co.	New Orleans and waypts.
March 27.	G. I. Bryan	Scadta Airplane Co.	New Orleans via Habana	March 29.	Kiel	Hamburg-American Line	Amsterdam.

* Other than ships passing through the Canal.

²³ Motor boat.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 28.....	Iriona.....	United Fruit Co.	Bocas, R. P.	March 29.....	Iriona.....	United Fruit Co.	New Orleans and waypts.
March 28.....	Cundinamarca C-33 ²⁶	Seadta Airplane Co.	Buenaventura via waypts.	March 29.....	Maravi.....	United Fruit Co.	New York via Kingston.
March 28.....	308-H ²⁶	B. F. Goodrich Rubber Co.	Miami via wayports.	March 29.....	Nitonian.....	Leyland S. S. Line	Port Limon, C. R.
March 28.....	No. 300-N ²⁶	Pan American Airways	Talara via wayports.	March 29.....	Cundinamarca C-33 ²⁶	Seadta Airplane Co.	Buenaventura via waypts.
March 28.....	Nitonian.....	Leyland S. S. Line.	Liverpool via wayports.				
March 29.....	Maravi.....	United Fruit Co.	New York via wayports.				
March 29.....	No. 9664 ²⁶	Pan American Airways	Tela via wayports.				
PORT OF BALBOA.							
²⁶ Air mail carrier.							
March 24.....	Satanta ²⁷	Standard Transp. Co.	Los Angeles, California.	March 25.....	Satanta ²⁷	Standard Transp. Co.	Los Angeles, California.
March 24.....	Anyo Maru.....	Nippon Yusen Kaisha.	Valparaiso, Chile.	March 24.....	Anyo Maru.....	Nippon Yusen Kaisha.	Hongkong, China.
March 25.....	S. A. Perkins.....	Tacoma, Washington.	Panama Bay, R. P.	March 25.....	S. A. Perkins.....	James Griffith & Sons.	Santa Rosalia, Mexico.
March 28.....	Chiriqui ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 28.....	Chiriqui ²⁷	A. Valdez.....	Panama Bay, R. P.
March 28.....	Real ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 29.....	Real ²⁷	Hans Elliot.....	Panama Bay, R. P.
March 28.....	Sambu ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 29.....	Sambu ²⁷	Hans Elliot.....	Panama Bay, R. P.
March 28.....	A. B. Obarrio ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 29.....	A. B. Obarrio ²⁷	A. Valdez.....	Panama Bay, R. P.
March 28.....	Doa Hermanos ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 29.....	Doa Hermanos ²⁷	National Navigation Co.	Panama Bay, R. P.
March 28.....	El Sona ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 30.....	El Sona ²⁷	Hans Elliot.....	Panama Bay, R. P.
March 29.....	El Colon ²⁷	Panama Bay, R. P.	Panama Bay, R. P.	March 29.....	El Colon ²⁷	Hans Elliot.....	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁷ Motor schooner.

Wharfage, Pilotage, Etc., for Army and Naval Vessels.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *March 26, 1930.*

To all concerned:

Effective at once, the following exceptions will be made to the regular tariff regulations covering wharfage, pilotage, etc., in connection with the use of our terminal facilities by certain classes of vessels:

1. Vessels permanently attached to the Fifteenth Naval District, the Panama Canal Department of the U. S. Army, and the Special Service Squadron, as well as visiting naval vessels of the United States and of foreign nations, other than transports and supply ships, may have the free use of the wharves or mooring buoys of The Panama Canal and the Panama Railroad Company, under the conditions and with the exceptions stated below, by applying to the Port Captains of The Panama Canal who will consult with the Receiving and Forwarding Agent of the Panama Railroad Company in order that proper berths not interfering with commercial activities at and on the wharves may be assigned.

2. Vessels so assigned are expected to move immediately on request of the Port Captains or on request received by the Port Captains from the Receiving and Forwarding Agent of the Panama Railroad Company, when the berths to which they are assigned are required for commercial purposes. If the vessels are unable to move themselves, they will be moved by the Port Captains with Panama Canal equipment and charges made according to the tariff.

3. Naval supply ships and Army and Navy transports in Canal Zone waters will be considered as having the same status as commercial ships, in so far as charges for wharfage and other terminal facilities are concerned, except that when any United States naval vessel is docked in the area rented by the Navy on the north side of Pier 18, Balboa, no wharfage charge will be made.

4. No wharfage charge will be made when fuel oil is taken by vessels attached to the Fifteenth Naval District, the Special Service Squadron, and the Panama Canal Department of the U. S. Army. The regular charge, which at present is one-half of the full wharfage rate, will be applied against all other vessels taking fuel oil.

5. Any direct expense incurred by The Panama Canal or Panama Railroad Company by reason of any Army or Navy vessels of the United States or of foreign nations, including transports and supply ships, using the wharves as above outlined, such as removal of garbage, furnishing gangways, floating equipment used in assisting to dock or undock, handling lines, etc., will be charged against the vessel concerned, in accordance with the tariff in effect.

6. The Port Captains will make a monthly report to the Marine Superintendent, listing the names of the vessels which have been granted free wharfage, and other data in connection with the same, copies of which will be sent to the Auditor and the Receiving and Forwarding Agent.

7. Pilots will not be furnished to United States Navy tugs and mine sweepers unless their services are requested by the commanding officers, in which case pilotage will be charged.

8. Pilots will not be furnished to United States naval vessels between Cristobal Harbor and Coco Solo unless their services are requested by the commanding officers, in which case pilotage will be charged.

9. The foregoing is intended to clarify the provisions of this office's circulars of September 14, 1923, October 6, 1923, and July 14, 1928, which are hereby canceled.

H. BURGESS,
Governor.

Settlement and Earthquake Survey.

Following a seismic disturbance of intensity 6, occurring on the Isthmus on the evening of March 7, 1930, the Governor has charged the Office Engineer with the duty of making settlement and earthquake surveys of permanent structures in the Canal Zone, and of maintaining the record thereof. Annual inspections will be made during the month of March of each year, and after earthquake disturbances of intensity 5 or more.

New Oil Dock for Cristobal Proposed.

Designs and estimates are being prepared for the construction of a new oil dock at Cristobal to replace the existing wooden structure (dock 13) now used for berthing tank ships discharging fuel oil. The proposed new dock is to be of concrete, 600 feet in length, with an apron 30 feet in width through the entire length and wharf face, the latter to be used for handling case and other cargo. The wharf space, extending 300 feet in each direction from the center, is to be provided with timber pile clusters to give a total berthing space of 1,200 feet, permitting two tank ships to use the wharf simultaneously.

The foundations and substructure of the new wharf will be designed so it can be converted readily into a cargo wharf should such conversion be deemed advisable in the future. The location and design have been related to the entire wharf system from dock 10 to the existing oil wharf, to make certain that they will connect properly and fit in with dock structures to be built in the future.

Executive Order.

Licensing of Motor Vehicles in the Canal Zone, and other related matters.

By virtue of the act of Congress entitled "An act extending certain privileges of Canal employees to other officials on the Canal Zone and authorizing the President to make rules and regulations affecting health, sanitation, quarantine, taxation, public roads, self-propelled vehicles, and police powers on the Canal Zone, and for other purposes, including provision as to certain fees, money orders, and interest deposits," approved August 21, 1916 (39 Stat. 527), section 7 of Executive Order No. 3434 dated April 14, 1921, issued in conformity to such authority, is hereby amended to read as follows:

Except as to the requirements for payment of license fee provided in section 5, this order shall apply to and include all vehicles owned and operated by the United States Government, the Panama Railroad Co., and the Republic of Panama: *Provided, however,* that in the case of legations located in or accredited to the Republic of Panama or the Canal Zone, there may be issued without charge such official licenses for passenger automobiles as the Governor may authorize.

This order shall take effect from and after this date.

HERBERT HOOVER

THE WHITE HOUSE,
March 10, 1930.

[No. 5298]

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 29, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
San Mateo.....	United Fruit Co.....	March 21.....	March 22.....	.....	94
Mississippi.....	French Line.....	March 23.....	March 23.....	181	.....
Santa Barbara.....	Grace Line.....	March 23.....	March 24.....	2	.....
Sirius.....	U. S. Government.....	March 23.....	March 23.....	277	2
Suriname.....	United Fruit Co.....	March 24.....	March 25.....	71	.....
Anyo Maru.....	Nippon Yusen Kaisha.....	March 24.....	March 24.....	.....	15
Satanta.....	Standard Transp. Co.....	March 24.....	March 25.....	6,331	.....
Guatemala.....	Grace Line.....	March 25.....	March 26.....	36	9
S. A. Perkins.....	Jas. Griffith & Son.....	March 25.....	March 29.....	3,392	.....
Colombia.....	Panama Mail S. S. Co.....	March 27.....	March 27.....	105	.....
Almelo.....	Royal Neth. S. S. Co.....	March 27.....	March 27.....	110	.....
Plow City.....	Charles Nelson & Co.....	March 27.....	March 28.....	140	.....
Virginia.....	Panama-Pacific Line.....	March 28.....	March 28.....	.....	161
Suriname.....	United Fruit Co.....	March 28.....	March 29.....	.....	112
Tai Yin.....	Wilh. Wilhelmsen.....	March 29.....	March 29.....	1	.....

Addition of "Santa Clara" to Grace Line.

The *Santa Clara*, new electrically propelled passenger liner of the Grace Steamship Company, built for the west coast of South America trade, via the Canal, is scheduled to sail from New York on her maiden voyage April 25th on a 9-day schedule to Callao, Peru, and a 16-day schedule to Valparaiso, Chile. The vessel has an estimated capacity of approximately 170 passengers and 6,900 tons of freight. Her general dimensions are: 504 feet 8 inches over all length; 64 feet beam; 25 feet draft; and 16,000 tons displacement. Her speed is 18 knots.

With the introduction of the *Santa Clara* into service, the Grace Line will offer a fortnightly service from New York with the motor ships *Santa Barbara*, *Santa Maria*, and *Santa Clara*, with stops at Cristobal, Balboa, Talara, Callao, Mollendo, Arica, Tocopilla, Antofagasta, and Chanaral, for first-class passengers only; and a fortnightly service (alternating with the first-mentioned service with weekly sailings from New York) with the motor ships *Santa Inez*, *Santa Rita*, and the steamers *Santa Teresa*, and *Santa Elisa*, making stops at Cristobal, Balboa, Buenaventura, Guayaquil, Talara, Salaverry, Callao, Pisco, Mollendo, Arica, Iquique, Antofagasta, Chanaral, Coquimbo, Valparaiso, and San Antonio. The *Santa Inez* and *Santa Rita* carry first-class and intermediate passengers, and *Santa Teresa* and *Santa Elisa* first-class only.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending March 29, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cristobal	Panama R. R. S. S. Line		March 16		1,002
Cerigo	Hamburg-American Line		March 16		914
Seattle	Hamburg-American Line		March 16		397
Ulua	United Fruit Co.	March 16	March 16	50	79
Parismina	United Fruit Co.		March 17		303
Tela	United Fruit Co.	March 17	March 17	14	38
Crecle Jefe	Venezuelan Gulf Oil Co.	March 17	March 17	3,895	(*)
Acajutla	Pacific Steam Nav. Co.	March 17	March 17	1,120	
Aconcagua	Chilean Line	March 17	March 17	14	(*)
Rhodopis	Hamburg-American Line	March 17	March 18	101	16
Caldas	National Navigation Co.	March 17	March 22	94	57
Glamorganshire	Royal Mail S. P. Co.	March 18	March 18	7½	405
Orinoco	Hamburg-American Line	March 18	March 18	131	(*)
Heluan	Hamburg-American Line	March 18	March 19	44	967
Arana	Pacific Steam Nav. Co.	March 18	March 19	87	77
Scottish Castle	Anglo-Saxon Pet. Co.	March 18	March 20	9,559	(*)
Flandre	French Line	March 18	March 20	212	756
San Mateo	United Fruit Co.	March 18	March 21	1,502	(*)
Donau	North German Lloyd	March 19	March 19	(*)	386
Oreoma	Pacific Steam Nav. Co.	March 19	March 20	74	80
Irciona	United Fruit Co.	March 19	March 20	598	49
Cali	North German Lloyd	March 19	March 20	729	
Camden	United Fruit Co.	March 19	March 20	9,328	(*)
Zacapa	United Fruit Co.	March 19	March 20	994	74
Tolosa	United Fruit Co.	March 19	March 20	404	131
Santa Maria	Grace Line	March 20	March 20	40	166
Pearl Marie	R. Feuillebois	March 20	March 20	(*)	34
Herminius	Shaw, Savill & Albion	March 20	March 20	30	(*)
Breda	Royal Neth. S. S. Co.	March 20	March 21	216	152
Buenaventura	Panama R. R. S. S. Line	March 20	March 21	205	269
Guayaquil	Panama R. R. S. S. Line	March 20	March 22	1,605	(*)
Potter	American Pioneer Line	March 21	March 21	583	(*)
Salvador	Pacific Steam Nav. Co.		March 21		1,142
Escupe Fuego	P. Martinez		March 21		55
Nietheroy	Royal Mail S. P. Co.	March 21	March 21	67	175
Ninian	Leyland Line	March 21	March 22	409	(*)
Tela	United Fruit Co.	March 21	March 22	4½	18
Amapala	Standard Fruit S. S. Co.	March 21	March 22	133	298
Heredia	United Fruit Co.	March 22	March 22	313	

* No cargo discharged.

* No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Santa Inez.....	Grace Line.....	March 22.....		290	
Nosa Queen.....	N. O. & S. A. S. S. Co.	March 22.....		51	
Orinoco.....	Hamburg-American Line.	March 22.....		5	
Durazzo.....	Hamburg-American Line.	March 22.....		479	
Narenta.....	Royal Mail S. P. Co.	March 22.....		193	
Calí.....	North German Lloyd.		March 23.....		172
Santa Inez.....	Grace Line.....		March 23.....		61
Nosa Queen.....	N. O. & S. A. S. S. Co.		March 23.....		1,073
Orinoco.....	Hamburg-American Line.		March 23.....		574
Narenta.....	Royal Mail S. P. Co.		March 23.....		253
Mayari.....	United Fruit Co.	March 23.....	March 23.....	97	535
Lochkatrine.....	Royal Mail S. P. Co.	March 23.....	March 23.....	(¹)	214
Tolosa.....	United Fruit Co.	March 23.....	March 23.....	5	31
Gregalia.....	Donaldson Brothers.	March 23.....	March 24.....	(¹)	63
City of Panama.....	Panama Mail S. S. Co.	March 23.....		1,592	
Heredia.....	United Fruit Co.		March 24.....		283
Santa Barbara.....	Grace Line.....	March 24.....	March 24.....	75	(²)
Guatemala.....	Panama Mail S. S. Co.	March 24.....	March 25.....	1,110	272
Creole Jefe.....	Venezuelan-Gulf Oil Co.	March 24.....	March 25.....	3,890	(²)
Sonora.....	French Line.....	March 24.....	March 25.....	186	452
Mississippi.....	French Line.....	March 24.....	March 26.....	443	51
Atago Maru.....	Nippon Yusen Kaisha.	March 25.....	March 26.....	122	(²)
Wisconsin.....	French Line.....	March 25.....	March 26.....	123	(²)
Orazio.....	Italian Line.....	March 25.....	March 27.....	325	47
Suriname.....	United Fruit Co.	March 25.....	March 28.....	1,260	(²)
Ninian.....	Leyland S. S. Line.....	March 25.....	March 28.....	(¹)	489½
Brosund.....	Lykes Brothers.	March 25.....	March 28.....	3,851	(²)
Ancon.....	Panama R. R. S. S. Line.	March 26.....		3,062	
Carare.....	Elders & Fyffes, Ltd.	March 26.....	March 26.....	34½	(²)
Iriona.....	United Fruit Co.	March 26.....	March 26.....	72	90
Castilla.....	United Fruit Co.	March 26.....	March 27.....	1,004	42
Calanares.....	United Fruit Co.	March 26.....	March 27.....	278	98
Santa Marta.....	United Fruit Co.	March 26.....	March 27.....	371	187
Saint Joseph.....	French Line.....	March 26.....	March 27.....	95	190
Cauca.....	National Navigation Co.	March 26.....	March 28.....	326	91
Pacific Exporter.....	Furness, Withy & Co.	March 26.....	March 28.....	(¹)	387
Baralt.....	Royal Neth. S. S. Co.	March 26.....	March 29.....	330	141
Acajutla.....	Pacific Steam Nav. Co.		March 27.....		1,099
Orbita.....	Pacific Steam Nav. Co.	March 27.....	March 28.....	84	2
Esequeibo.....	Pacific Steam Nav. Co.	March 27.....	March 28.....	48	7
Adolf von Baeyer.....	Hamburg-American Line.	March 27.....	March 28.....	253	91
Colombia.....	Panama Mail S. S. Co.	March 27.....	March 28.....	1,703	173
Kiel.....	Hamburg-American Line.	March 27.....	March 28.....	(¹)	1,362
Bodegraven.....	Royal Neth. S. S. Co.	March 27.....	March 29.....	118	1,309
Laurits Swensson.....	Fred Olsen & Co.	March 27.....	March 29.....	(¹)	757
Pearl Marie.....	R. Feuillebois.	March 23.....	March 28.....	(¹)	38
Atlantida.....	Stand. Fruit & S. S. Co.	March 28.....	March 29.....	162	169
Iriona.....	United Fruit Co.	March 28.....	March 29.....	38	226
Nitonian.....	Leyland S. S. Line.	March 28.....	March 29.....	470	(²)
Maravi.....	United Fruit Co.	March 29.....	March 29.....	30	456½
Buenos Aires.....	Johnson S. S. Line.....	March 29.....	March 29.....	(¹)	342

¹ No cargo discharged² No cargo laded.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pan canal, Panama;" in the United States, "Pan canal, Washington."

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(a) For handling cargo from ship's side to storage place, the customary inward local charge of \$1 per ton.

(b) For delivery or reforwarding, customary outward local charge of \$1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(c) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers"). Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective April 1, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb	\$0.24
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.15
Metal, yellow.....	Lb	.26
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.13
Oil, marine engine.....	Gal.	.53
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.11
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., April 9, 1930.

No. 36.

Tanker Traffic Through the Panama Canal in March, 1930.

During the month of March, 1930, 87 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 443,904, on which tolls of \$393,587.27 were collected. Cargo amounted to 430,154 tons, which included 423,754 tons of mineral oils and 6,400 tons of coconut oil. In point of net tonnage, tanker traffic decreased 14.9 per cent under the same traffic for the corresponding month a year ago, and cargo tonnage decreased 19.1 per cent.

Tanker traffic comprised 16.9 per cent of the total commercial transits through the Canal during the month; made up 17.7 per cent of the total Panama Canal net tonnage; were the source of 17.4 per cent of the tolls collected; and carried 16.8 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of March, 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for March, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British.....	10	48,005	\$35,758.88	4,494
Chilean.....	1	2,083	1,499.76	.....
Danish.....	1	5,695	4,100.40	.....
Danzig.....	1	6,127	4,411.44	.....
French.....	1	6,907	5,019.75	.....
Norwegian.....	4	17,976	12,942.72	.....
United States.....	22	122,795	88,872.27	2,413
Totals, March, 1930.....	40	209,588	152,605.22	6,907
Totals, February, 1930.....	52	263,278	197,075.32	39,854
Totals, January, 1930.....	50	263,292	193,389.62	13,351
Totals, March, 1929.....	46	243,023	182,092.48	39,581
<i>Pacific to Atlantic.</i>				
British.....	13	52,732	56,725.80	99,535
Danzig.....	2	12,056	13,076.25	22,200
French.....	1	4,178	4,501.25	7,300
German.....	1	4,435	4,742.50	8,456
Norwegian.....	3	14,604	15,278.75	27,885
Swedish.....	1	4,497	4,792.50	8,431
United States.....	26	141,814	141,865.00	249,440
Totals, March, 1930.....	47	234,316	240,982.05	423,247
Totals, February, 1930.....	41	217,200	223,131.27	383,119
Totals, January, 1930.....	62	322,682	333,566.85	581,928
Totals, March, 1929.....	50	278,540	280,901.74	492,078

* Includes 6,400 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during March, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	21	113,481	\$82,166.19	2,413
United States to South America.....	1	4,326	3,114.72	.....
Canada to South America.....	2	11,455	8,247.60	.....
West Indies to United States.....	1	4,135	2,977.20	.....
West Indies to South America.....	1	3,326	3,590.00	4,494
Europe to United States.....	11	60,334	43,487.19	.....
Europe to South America.....	3	12,531	9,022.32	.....

PACIFIC TO ATLANTIC.

Trade routes.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo. ¹
United States intercoastal.....	23	127,193	\$127,135.00	224,879
United States to Europe.....	17	76,259	81,034.55	140,095
South America to United States.....	2	7,652	8,223.75	13,997
South America to Canada.....	2	6,884	7,668.75	15,676
South America to Europe.....	2	12,056	13,076.25	22,200
Philippine Islands to United States.....	1	4,303	3,843.75	6,400

¹ Coconut oil.

Of the tanker traffic passing through the Canal in March, 1930, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for March, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo. ¹
<i>To Los Angeles.</i>				
March, 1930.....	31	177,371	\$127,753.83	.....
February, 1930.....	39	195,925	143,213.92	9,252
January, 1930.....	42	226,591	164,917.56	1,140
March, 1929.....	33	181,815	130,979.85	.....
<i>From Los Angeles.</i>				
March, 1930.....	40	203,457	208,169.55	364,974
February, 1930.....	25	138,239	140,667.23	240,931
January, 1930.....	54	282,283	290,921.90	513,416
March, 1929.....	35	192,325	193,401.10	344,736

Traffic by Nationality for March, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of March, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for March, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	66	346,853	250,083	412,761	251,849	\$294,311.14	192,890
Chilean.....	2	6,755	5,341	11,246	5,927	5,791.01	1,849
Colombian.....	3	450	441	673	441	532.45	1,228
Danish.....	2	9,163	6,984	11,409	7,020	6,920.40	1,357
Danzig.....	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch.....	6	20,520	14,498	24,990	14,300	18,122.50	12,518
French.....	4	23,505	17,877	28,132	18,331	18,999.75	5,713
German.....	15	49,164	35,114	58,348	35,273	43,873.90	32,255

¹ Includes naval vessel of 1,173 displacement tons.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Italian.....	3	24,743	15,491	30,444	17,984	\$19,363.75	7,716
Japanese.....	9	41,633	33,902	52,349	33,890	42,181.25	61,063
Norwegian.....	14	69,352	46,603	77,507	46,778	51,947.72	54,725
Swedish.....	4	14,158	10,209	26,189	12,337	11,106.74	10,402
United States.....	119	588,807	448,883	729,086	445,395	509,485.05	362,270
Totals, March, 1930.....	248	1,201,280	890,694	1,472,073	894,532	1,027,047.10	741,986
Totals, March, 1929.....	267	1,269,820	962,148	1,586,095	968,099	1,095,635.11	841,941
Totals, March, 1928.....	289	1,315,708	1,014,987	1,644,988	1,017,251	1,129,332.95	743,747

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	1	4,103	4,156	5,142	3,697	\$4,923.60	6,259
British.....	2 67	364,129	273,972	452,714	277,052	344,897.05	418,256
Chilean.....	2	7,768	6,066	10,889	6,233	7,582.50	8,852
Colombian.....	3	450	441	673	441	546.65	645
Danish.....	3	10,431	8,410	12,318	8,437	10,512.50	16,629
Danzig.....	2	12,056	10,461	17,651	10,633	13,076.25	22,200
Dutch.....	6	28,003	15,833	28,904	17,312	21,041.25	29,617
French.....	9	48,105	36,031	59,823	36,165	45,038.75	62,172
German.....	15	53,272	36,498	61,614	36,895	45,622.50	61,836
Greek.....	1	4,482	3,346	5,600	3,333	4,182.50	5,000
Italian.....	2	13,579	10,545	19,094	10,518	13,181.25	19,173
Japanese.....	9	43,237	38,395	54,682	37,630	47,354.40	64,662
Norwegian.....	14	65,681	44,833	74,529	44,995	56,003.75	96,043
Panamanian.....	4	13,629	9,592	16,252	9,593	11,287.96	12,188
Swedish.....	6	29,442	20,928	53,130	25,740	26,160.00	72,246
United States.....	121	596,412	458,341	746,655	458,891	572,376.85	998,565
Yugoslav.....	2	9,827	7,350	11,731	7,350	9,187.50	15,900
Totals, March, 1930.....	267	1,304,579	989,078	1,631,435	994,954	1,232,955.26	1,816,252
Totals, March, 1929.....	269	1,298,141	1,092,808	1,644,118	1,008,895	1,248,230.44	1,901,827
Totals, March, 1928.....	253	1,125,369	875,286	1,420,460	875,940	1,094,037.62	1,684,915

* Includes naval vessel of 5,550 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	1	4,103	4,156	5,142	3,697	\$4,923.60	6,259
British.....	2 133	710,973	524,055	865,475	528,991	639,263.10	611,146
Chilean.....	4	14,523	11,407	22,135	12,169	13,373.51	10,701
Colombian.....	6	999	882	1,346	882	1,079.10	873
Danish.....	5	19,594	15,391	23,727	15,457	17,422.90	16,986
Danzig.....	3	18,183	15,729	26,623	15,040	17,487.60	22,200
Dutch.....	12	43,523	31,331	53,984	31,612	39,163.75	42,135
French.....	13	71,610	53,903	87,955	54,496	64,638.50	63,835
German.....	30	102,436	71,612	119,962	72,078	89,496.40	94,091
Greek.....	1	4,482	3,346	5,600	3,333	4,182.50	5,000
Italian.....	5	33,313	26,036	49,505	28,592	32,545.00	17,894
Japanese.....	18	84,920	72,297	107,641	71,529	89,535.65	125,725
Norwegian.....	28	135,033	91,406	132,027	91,773	107,951.47	159,768
Panamanian.....	4	13,629	9,592	16,252	9,593	11,287.96	12,188
Swedish.....	10	43,690	31,137	79,319	38,077	37,266.74	82,648
United States.....	240	1,185,219	997,204	1,475,741	974,194	1,081,341.90	1,271,539
Yugoslav.....	2	9,827	7,350	11,731	7,350	9,187.50	15,900
Totals, March, 1930.....	515	2,505,859	1,876,772	3,103,558	1,888,583	2,269,902.36	2,558,238
Totals, March, 1929.....	536	2,567,961	1,965,046	3,230,243	1,976,904	2,342,865.55	2,743,768
Totals, March, 1928.....	542	2,441,077	1,890,273	3,065,443	1,893,191	2,223,370.57	2,428,662

* Includes 2 naval vessels having a total displacement tonnage of 6,723 tons.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 5, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day	Hour	Day	Hour	Day	Hour	Day	Hour								Nature.	Tons.	Gross.	Net.
Neradan	29	21.15	30	6.20	30	15.05	30	16.20	American	Amer-Hawaiian Line	460.0	58.0	19.6	Boston, Mass.	Portland, Oreg.	General	2,918	6,829	4,627
Malayan	30	1.55	30	7.15	30	15.20	30	16.20	British	Prince Line, Ltd.	441.0	60.0	21.0	Newport News, Va.	Manila, P. I.	General	3,542	9,209	6,245
Tuscaloosa City	30	9.40	30	9.55	30	17.12	30	18.19	American	Isthmian S. S. Lines	424.2	56.2	22.0	New York, N. Y.	Tacoma, Wash.	Gen., steel, etc	7,107	7,611	5,450
Pacific Cedar	30	13.00	30	13.15	30	22.19	30	22.19	American	Dimon S. S. Corp.	389.6	54.7	22.0	New York, N. Y.	Los Angeles, Calif.	General	4,355	6,138	4,354
Manoia	30	15.09	30	19.35	31	9.34	31	19.45	British	Shaw, Savill & Albion	478.0	63.0	22.3	Cardiff, England	New Zealand	Ballast	1,633	7,895	
Durazzo	22	17.23	31	6.03	31	14.31	31	15.40	German	Hamburg-American Line	226.0	34.0	14.2	Cristobal, C. Z.	Guayaquil, Ecuador	General	863	1,633	1,041
Slemmestad	31	1.50	31	6.10	31	14.31	31	15.40	Norwegian	Fern Line	376.0	53.0	22.6	Houston, Texas	Shanghai, China	Scrap iron, oil	5,533	6,256	4,663
Miguel de	30	21.08	31	8.05	31	15.26	31	17.15	British	Wessel, Duval & Co.	388.4	53.0	18.8	Chester, Pa.	Valparaiso, Chile	General	1,120	5,274	3,664
Larrinaga	31	10.45	31	10.55	31	18.24	31	19.23	British	Shaw, Savill & Albion	477.0	63.0	21.4	London, England	Wellington, N. Z.	Ballast		11,110	7,894
Tille	31	19.17	31	6.00	31	13.04	1	18.00	Panamanian	American Banana Corp.	480.0	60.0	30.0	Cristobal, C. Z.	Gatun, C. Z.	(?)		2	
Rualme	31	15.00	1	6.19	1	14.06			American	N. Z. Shipping Co.	292.0	41.0	18.5	London, England	Auckland, N. Z.	General	5,990	11,433	8,469
Galveston	1	2.10	1	6.15	1	14.03	2	1.06	American	N. S. Navy	324.0	46.0	20.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	3,003	3,985	2,630
Buffalo Bridge	31	21.40	1	7.22	1	14.18	1	19.07	Norwegian	Nelson Line	450.0	61.0	19.0	Baltimore, Md.	Seattle, Wash.	General	2,807	8,163	5,452
Sydney	1	4.35	1	7.36	1	14.57	1	16.20	American	Anglo-Saxon Pet. Co.	416.8	56.1	19.0	Rouen, France	Los Angeles, Calif.	Ballast	9,521	12,045	9,378
Jefferson Myers	31	22.35	1	9.30	1	16.05	2	00.25	American	States S. S. Co.	416.8	56.1	19.0	Philadelphia, Pa.	Portland, Oreg.	General	6,784	4,913	
Virginia	31	22.35	1	9.30	1	16.05	2	00.25	American	Texas S. S. Co.	416.8	56.1	19.0	Wilmington, N. C.	Los Angeles, Calif.	General	6,784	4,913	
Huntingdon	31	10.12	1	10.30	1	18.03	1	23.45	British	Federal Steam Nav. Co.	520.0	64.0	31.4	Vancouver, B. C.	Seattle, Wash.	General	7,474	7,611	5,459
Steel Ranger	1	11.55	1	15.10	1	23.13	2	00.25	American	U. S. Steel Products Co.	424.0	56.0	25.0	Mobile, Ala.	Shanghai, China	Gen., cotton, etc			
Gen. G. W.	1	11.55	1	15.10	1	23.13	2	00.25	American	U. S. Steel Products Co.	424.0	56.0	25.0	Mobile, Ala.	Shanghai, China	Gen., cotton, etc			
Getty	1	6.05	2	6.10	2	13.22	2	14.45	American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	3,385	7,603	5,629
Ville de Verdun	30	23.50	2	6.10	2	13.22	2	14.45	French	Messageries Maritimes	411.0	53.0	25.5	Dunkirk, France	Noumea, N. C.	General	14,538	9,348	
Chilore	1	21.45	2	7.20	2	14.01	2	15.20	American	Ore S. S. Corp.	549.6	72.2	22.0	Norfolk, Va.	Cruz Grande, Chile	Ballast	7,944	5,408	
Sandar	1	21.45	2	7.20	2	14.01	2	15.20	Norwegian	Anglo-Saxon Pet. Co.	451.9	59.2	20.0	Falmouth, England	Los Angeles, Calif.	General	3,350	9,458	6,867
Paeora	2	2.45	2	7.30	2	15.01	2	19.15	British	Federal Steam Nav. Co.	479.7	63.2	22.0	New York, N. Y.	Fredericton, N. S.	General	2,938	7,079	5,028
Lowan	2	3.45	2	8.20	2	15.19	2	16.35	American	Amer-Hawaiian Line	407.7	53.7	19.0	Boston, Mass.	Seattle, Wash.	General	4,271	8,552	6,236
K. I.	2	6.30	2	9.35	2	16.20	2	17.20	American	Lukenbach Line	446.0	56.0	23.6	Boston, Mass.	Seattle, Wash.	General	4,271	8,552	6,236
Denver	2	1.00	3	6.06	3	13.15	3	16.20	American	U. S. Navy	292.0	44.0		Bluefields, N. C.	Balboa, C. Z.	Ballast	4,239	6,581	4,989
Santa Nilus	2	23.45	3	7.20	3	14.51	3	16.20	American	McCormick S. S. Co.	410.0	54.0	18.1	Rosario, Arg.	Victoria, B. C.	Gen., coffee, etc	2,754	5,557	4,325
West Elisa	2	23.45	3	7.20	3	14.51	3	16.20	American	Grace Line	360.0	51.7	24.3	New York, N. Y.	Tacahano, Chile	General	6,397	7,097	5,003
Nainbank	3	7.57	3	9.55	3	17.12	3	21.00	British	Andrew Weir & Co.	420.0	53.7	24.0	Tampa, Florida	Osaka, Japan	General	6,397	7,097	5,003
Sunol	3	11.08	3	11.20	3	18.27	3	21.00	American	Sun Oil Co.	480.6	66.0	22.7	Hamburg, Germany	Los Angeles, Calif.	Ballast	320	9,619	6,456
Chateau	3	3.45	3	12.15	3	19.00	4	14.25	American	U. S. Army	436.0	56.0	25.0	Brooklyn, N. Y.	Honolulu, T. H.	Army supplies			
Thierry	3	16.05	3	17.25	4	9.43	4	10.51	American	Standard Transp. Co.	467.6	62.7	19.0	Boston, Mass.	Los Angeles, Calif.	Ballast	1,440	8,500	6,140
Royal Arrow	3	17.15	3	19.00	4	11.29	4	12.40	British	Comth & Dom. Line	450.0	58.0	22.0	New York, N. Y.	Premantle, Aust. lia	General			
Port Curtis	3	17.15	3	19.00	4	11.29	4	12.40	British	Comth & Dom. Line	450.0	58.0	22.0	New York, N. Y.	Premantle, Aust. lia	General			

¹ Tanker. ² Motor ship. ³ Launch. ⁴ Cruiser. ⁵ Tug. ⁶ Transport. ⁷ Towing barge.

Societa ^s	3	6.45	3	8.25	3	16.25	American.	U. S. Navy.	149.3	30.0	Cristobal, C. Z.	Balboa, C. Z.	(?)
Barneveld	3	6.45	4	8.20	4	13.37	Dutch.	Royal Neth. S. S. Co.	416.0	53.3	Hamburg, Germany	Corral, Chile.	General.
Barrenardo ^s	3	16.30	4	6.05	4	13.37	American.	U. S. Navy.	324.0	40.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast.
Espartero	3	13.26	4	6.05	4	15.30	American.	United Fruit Co.	330.5	44.0	Cristobal, C. Z.	San Francisco, Cal.	Gen., coffee
Portland ^s	3	22.40	4	7.15	4	14.37	German.	Hamburg-America Line	442.0	61.0	Hamburg, Germany	Vancouver, B. C.	General.
President Adams	4	2.35	4	7.30	4	15.23	American.	Dollar Line.	502.0	62.0	New York, N. Y.	San Francisco, Cal.	General.
Huguenot ^t	4	1.00	4	8.45	4	16.13	American.	Richfield Oil Co.	474.1	56.2	New York, N. Y.	Los Angeles, Calif.	Ballast.
Havel ²	3	17.25	4	9.30	4	16.58	German.	North German Lloyd	434.3	61.1	Hamburg, Germany	Tacoma, Wash.	General.
Hadiotis	4	4.20	4	11.00	4	18.20	Greek.	Isthmian S. S. Lines	306.6	53.0	Philadelphia, Pa.	Corral, Chile.	General.
Jewell	4	16.10	4	16.50	5	9.45	American.	Argonaut S. S. Co.	400.0	54.2	Baltimore, Md.	Portland, Ore.	Steel, general.
Pont Reyes	4	17.40	4	19.40	5	9.45	American.	Swaynne & Hoyt.	324.0	46.2	New Orleans, La.	Seattle, Wash.	General.
New York ^o	4	21.25	5	6.05	5	16.21	American.	U. S. Navy.	505.0	106.0	Guantanamo, Cuba	Bremerton, Wash.	Ballast.
Vega ²	4	7.35	5	6.05	5	12.47	American.	U. S. Navy.	390.0	56.0	Quincy, Mass.	Mare Island, Calif.	General.
Orita	4	12.00	4	7.15	5	14.06	British.	Pacific Steam Nav. Co.	485.0	58.0	Liverpool, England	Valparaiso, Chile.	General.
Murta	4	7.15	5	7.45	5	17.45	German.	Roland Line.	449.0	58.0	Hamburg, Germany	Valparaiso, Chile.	General.
Abel-	4	18.08	5	8.45	5	16.12	British.	Anglo-Saxon Pet. Co.	475.0	63.0	New York, N. Y.	Los Angeles, Calif.	Ballast.
Vescount ^t	5	3.35	5	9.05	5	16.38	British.	Andrew Weir & Co.	429.0	53.9	Philadelphia, Pa.	Yawata, Japan.	General.
Oakbank ²	5	6.42	5	9.45	5	17.08	Japanese.	Kokusa Kisen Kaisha.	335.0	61.0	Philadelphia, Pa.	Yokohama, Japan.	General.
Belgium Maru	4	16.20	5	10.59	5	17.38	British.	Royal Mail S. P. Co.	485.6	52.2	Rotterdam, Holl'd	Portland, Ore.	General.
Lochgoil ²	4	21.10	5	12.35	5	19.25	Italian.	Nap. Libera Tristina.	493.0	55.0	Venice, Italy	Vancouver, B. C.	General.
Rialto ²	5	13.00	5	13.25	5	20.42	American.	Ford Motor Co.	261.0	43.0	Chester, Pa.	Portland, Ore.	Automobile parts
Oncida	4	23.35	5	14.40	5	21.33	Norwegian.	Fred Olsen & Co.	435.9	56.0	Oslo, Norway	Vancouver, B. C.	Gen., bananas.
Abraham Lincoln ²	5	13.31	5	14.40	5	22.09	American.	William S. S. Line.	415.1	56.0	Baltimore, Md.	Seattle, Wash.	General.
Willzipo	5	19.00	5	19.25	6	9.02	American.	Amer.-Hawaiian Line.	413.5	53.7	Boston, Mass.	Portland, Ore.	General.
Kentuckian	5	19.00	5	19.25	6	10.09	American.						General.

Tanker.	8 Gunboat.	9 Battleship.	10 Supply ship.	THROUGH THE CANAL—PACIFIC TO ATLANTIC.									
Lord Stratheona	25	7 55 33	6 15	30 14 00	30 16 05	British	Watts, Watts & Co.	455 0	58 0	26 0	Crux Grande, Chile	Baltimore, Md.	Iron ore.
Tanaron	30	3 35 30	6 50 30	14 40 31	4 15	British	Shaw, Savill & Albion.	518 9	63 2	26 0	Auckland, N. Z.	London, England.	Frozen, general.
Ontario	30	2 45 30	7 19 30	15 30 30	15 55	British	Imperial Oil Co., Ltd.	470 0	63 0	30 0	Talara, Peru	Hallifax, N. S.	Crude oil.
Pendople	30	1 30 30	8 15 30	20 02 30	20 02	Danzig	Tankschiff Rhoderca.	470 1	63 2	27 0	Talara, Peru	Hamburg, Germany	Gasoline.
Gen. W. M.													
Graham	30	8 30 30	8 30 30			American	U. S. Army.	160 2	32 0		Balboa, C. Z.	Cristobal, C. Z.	Frozen, general.
Kermack	29	21 30 30	8 50 30	16 57 30	16 57	British	Shaw, Savill & Albion.	483 0	64 2	26 0	Sydney, Australia.	Glasgow, Scotland	Sugar.
Leise Maersk	30	1 00 30	8 59 30	18 15 30	18 15	Danish	A. P. Moller.	302 2	44 2	23 0	Hilo, P. I.	North Hatteras, N. C.	General.
Pont Fernu.	30	7 00 30	9 14 30	18 22 30	18 22	American	Gulf-Pacific Line.	324 0	46 2	22 0	Portland, Oreg.	New Orleans, La.	
Lena													
Lukenbach.	30	7 53 30	9 40 30	17 08 30	20 00	American	Lukenbach Line.	425 0	53 8	27 0	Seattle, Wash.	Mobile, Ala.	General.
Torbes													
Hauptman.	30	9 25 30	10 34 30	18 38 30	18 38	American	Munson, McCork Line	409 8	54 2	27 0	San Francisco, Cal.	Baltimore, Md.	Lumber, general.
Firmore	30	10 25 30	12 00 30	21 23 30	21 23	American	Ore S. S. Corp.	449 1	57 2	31 0	Crux Grande, Chile	Baltimore, Md.	Iron ore.
Clydehead	30	7 50 30	12 45 30	20 25 30	20 25	British	Hunting & Sons	419 3	54 8	26 0	Los Angeles, Calif.	Elesmore Pt., Eng.	Gasoline.
Spreevald	30	15 03 31	6 21 31	13 25 31	14 55	German	Hamburg-American Line	399 4	54 2	23 0	Antofagasta, Chile.	Charleston, S. C.	Nitrates.
Gen. C. W.													
Gety		31	6 23 31	15 00		American	U. S. Army.	98 0	22 0		Balboa, C. Z.	Cristobal, C. Z.	

11 Motor boat.

12 Junior mine planter.

13 For orders.

14 Junior mine planter.

15 Tanker.

16 Mine planter.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Clear'd for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
San Macedonio ¹	30	17 00	31	6 45	31	15 00	31	16 45	British	Anglo-Mexican Pet. Co.	407 2	52 3	25 0	Los Angeles, Calif.	London, England	Gasoline	7,380	6,102	4,347
Galveston ¹²	31	7 15	31	16 09	1	6 10	American	6 10		U. S. Navy	292 0	44 0		Balboa, C. Z.	Cristobal, C. Z.	(22)	4,091	3,978	2,560
Nesa King	30	21 35	31	7 05	31	15 42	31	15 42	American	N. O. & S. A. S. Co.	324 0	46 2	23 0	Talcahuano, Chile	New Orleans, La.				
Commander McCauley	31		31		31				American	U. S. Navy	409 8	52 5	26 0	Balboa, C. Z.	Gatun Lake, C. Z.	Ballast	7,488	6,824	4,885
Texas	30	21 50	31	8 27	31	15 50	31	23 00	French	French Line	493 6	52 9	25 0	Portland, Oreg.	Le Havre, France	(21)	7,800	6,513	4,724
Enlie L. D.	31	3 00	31	8 48	31	18 15	1	60 40	French	Louis Dreyfus & Co.	493 6	52 9	25 0	Paquahuane, N. Cal.	New York, N. Y.	Chrom. ore	2,332	9,291	6,301
Ebro	31	8 10	31	9 25	31	17 13	31	21 25	British	Pacific Steam Nav. Co.	453 3	56 8	23 0	Talcahuano, Chile	New York, N. Y.	General	2,332	9,291	6,301
Rolling Stone ¹⁴	31	9 42	31	17 03	31	17 03	31	17 03	British	Robert Wilson	453 3	56 8	23 0	Balboa, C. Z.	Cristobal, C. Z.	Ballast	7,503	7,079	5,105
Carica Milica	31	3 15	31	9 51	31	18 13	31	18 13	Yugoslav	Bobrovski & Co.	425 0	56 1	23 0	Tocopilla, Chile	Alexandria, Egypt	Nitrates	7,951	10,772	7,581
Lechman ¹⁷	31	4 00	31	11 10	31	19 05	31	22 05	British	Royal Mail S. P. Co.	501 9	62 2	29 0	Vancouver, B. C.	Rotterdam, Holl'd	General	6,350	5,451	3,820
Pollara	31	4 00	31	11 16	31	19 38	31	19 38	Norwegian	Scand.-So. Pacific Co.	397 7	52 2	23 0	Valparaiso, Chile	Europe	General	7,253	7,611	5,450
Memphis City	31	1 45	31	12 13	31	20 40	31	23 40	American	Islandian S. S. Lines	424 2	53 2	26 0	N. West or, B. C.	Avonmouth, Eng.	(24)	2,698	5,534	3,868
Santa Cruz	31	15 30	31	17 11	31	23 23	1	15 30	American	Grace Line	384 0	50 2	19 0	Callao, Peru	New York, N. Y.	Lumber	7,125	6,755	4,873
San Bernardino	31	17 00	31	17 52	1	11 33	1	11 30	American	Quaker Line	410 5	54 2	25 0	Everett, Wash.	Philadelphia, Pa.	Gen., gasoline	925	3,083	2,373
Esparta	31	16 45	1	6 20	1	13 23	1	13 03	American	United Fruit Co.	330 6	44 6	19 0	San Francisco, Cal.	Cristobal, C. Z.	General, lumber	9,507	8,567	6,020
Panquico ¹⁸	1	5 00	1	7 15	1	15 00	1	15 00	American	Republic of Panama	125 6	23 5		Balboa, C. Z.	Batimore, Md.	Lumber	7,600	6,653	4,870
Missourian ¹⁷	1	5 00	1	7 15	1	15 00	1	15 00	American	Amer.-Hawaiian Line	433 1	59 1	27 0	Tacoma, Wash.	Halifax, N. S.	General	2,100	7,080	5,494
Swan ¹⁹	1	8 05	1	8 05	1		1		American	C. R. Ford	409 6	54 1	24 0	Balboa, C. Z.	Baltimore, Md.	General	10,000	7,942	5,627
Marian Otis Chandler	1	7 10	1	8 11	1	17 00	1	17 00	American	Arrow Line	409 6	54 1	24 0	Portland, Oreg.	Baltimore, Md.	Lumber	7,600	6,653	4,870
Canadian Constructor	1	7 45	1	9 13	1	17 15	1	19 55	British	Can. Nat. Steamships	430 0	56 0	19 0	Adelaide, Australia	Halifax, N. S.	General	2,100	7,080	5,494
Belcher ¹⁷	1	16 35	1	17 22	1	11 53	2	12 45	Norwegian	Moore & McCormick	414 4	67 1	28 0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	10,000	7,942	5,627
Canadian Challenger	1	17 30	2	6 14	2	13 30	2	13 30	British	Can. Nat. Steamships	400 0	52 2	15 0	Bluff, N. Z.	Halifax, N. S.	General	1,550	6,142	4,354
Cedar Branch	1	20 00	2	7 11	2	14 45	2	15 40	British	Nautilus S. S. Co.	390 0	51 0	22 0	Coronel, Chile	Liverpool, England	General	5,010	4,927	3,597
Manizales	2	4 00	2	8 11	2	16 05	2	16 05	German	Roland Line	216 5	32 9	14 0	Guayaquil, Ecuador	Cristobal, C. Z.	General	755	1,132	741
Seika ¹⁹	2	4 00	2	8 11	2	16 05	2	16 05	American	U. S. Navy	155 0	30 0		Balboa, C. Z.	Cristobal, C. Z.	General	1,550	6,142	4,354
Nevada ¹⁹	2	4 45	2	8 56	2	16 59	2	19 35	American	The Texas Co.	435 0	56 2	28 0	Balboa, C. Z.	Port Arthur, Tex.	Gas oil	10,119	7,425	5,202
Flomar	2	4 37	2	9 20	2	18 10	2	18 10	American	Calmar S. S. Corp.	410 5	54 2	22 0	Seattle, Wash.	Philadelphia, Pa.	Lumber	5,063	6,004	4,655
Argyllshire	3	3 25	3	6 58	3	14 20	3	19 30	British	Turnbull, Martin & Co.	526 2	61 4	25 0	Sydney, Australia	London, England	General	6,283	12,237	8,672
Sacramento ¹⁵	3	7 15	3	7 15	3	16 30	4	6 05	American	U. S. Navy	224 0	40 0		Balboa, C. Z.	Cristobal, C. Z.	Crude oil	2,750	2,325	1,467
Imperial	3	1 00	3	7 26	3	16 25	3	17 25	British	Imperial Oil Co., Ltd	249 5	43 0	21 0	Talara, Peru	Halifax, N. S.	General	208		
Noumea ¹⁶	2	21 50	3	7 37	3	15 30	4	4 35	American	U. S. Army	448 0	58 0	23 0	San Francisco, Cal.	New York, N. Y.	General	6,870	5,189	3,914
Treville	3	1 00	3	7 37	3	16 35	3	17 45	British	Hain S. S. Co.	369 9	51 0	23 0	Vancouver, B. C.	Piraeus, Greece	Wheat	5,000	6,597	4,752
Commercial Guide	3	6 00	3	8 25	3	17 25	3	17 55	American	Moore & McCormack	406 7	55 2	22 0	Manila, P. I.	North Hattaras ²¹	Sugar			

¹ Tanker.¹² For orders.¹³ Transport.¹⁴ Grain, copper, and nitrates.¹⁵ Tug, towing raft.¹⁶ Copper, lead, vanadium, balsa, and coffee.¹⁷ Motor ship.¹⁸ Revenue cutter.¹⁹ Wheat, lumber, copper, and coffee.²⁰ Cruiser.²¹ Nitrates, beans, and garlic.

Date	3	7.35	3	9.38	3	17.45	4	00.50	German	Hamburg-American Line	409.8	53.8	23.0	Valparaiso, Chile.	Hamburg Germany	6.803	7.141	5.468
India Arrow	3	2.00	3	11.28	3	18.45	3	18.45	American	Standard Transp. Co.	408.3	62.7	29.0	San Francisco, Cal.	Lands End, Eng.	11.363	10.084	7.388
Virgilio	3	8.30	3	12.10	3	19.50	5	12.25	Italian	Italian Line	502.7	61.8	24.0	Valparaiso, Chile.	Genoa, Italy	1.034	12.941	9.329
Courageous	3	5.00	3	14.02	3	22.10	4	1.25	American	Roosevelt S. S. Co., S. B.	408.6	56.0	27.0	Hongkong, China.	Baltimore, Md.	7.950	8.308	5.850
Champerico	3	14.30	3	19.45	4	11.05			British	Pacific Steam Nav. Co.	200.1	41.7	17.0	Champerico, Guat.	Cristobal, C. Z.	973	2,597	1,587
Horace	1	19.10	4	6.24	4	13.05	4	13.55	American	Luckenbach Line	445.0	58.0	27.0	Portland, Oreg.	Boston, Mass.	8,222	8,699	6,363
Lucenbach	3	19.10	4	6.34	4	14.50	5	13.55	Dutch	Holland-American Line	467.2	58.0	24.0	Vancouver, B. C.	Antwerp, Belgium	8,265	8,514	6,066
Baron Lovat	4	4.00	4	7.15	4	15.40	4	16.50	British	Hogarth Shipping Co.	342.1	48.6	21.0	Manila, P. I.	New Orleans, La.	5,200		
Caldas	4	1.15	4	7.11	4	17.10			Colombian	National Navigation Co.	121.0	21.1	11.0	Buenaventura, Col.	Cristobal, C. Z.	108	1,211	124
Clin	4	8.40	4	9.36	4	17.35	4	20.10	British	Cayser Irvine & Co.	424.2	55.8	25.0	Calcutta, India.	United Kingdom	8,051	7,094	5,331
Macwhirter	3	20.05	4	10.25	4	17.20	4	17.20	British	N. Z. Shipping Co.	525.0	61.4	25.0	Pt. Chalmers, N. Z.	Frozen, general	6,095	12,846	9,439
Rotorua	4	10.00	4	10.42	4	18.00	4	19.50	American	Amer-Hawaiian Line	404.6	53.9	27.0	Pt. Townsend, Wash.	London, England	7,002	6,756	4,775
Montanan	4	10.35	4	11.25	4	19.20	5	1.15	British	Pacific Steam Nav. Co.	203.0	43.0	15.0	Callao, Peru	Boston, Mass.	7,681	2,244	1,748
Alvarado	4	13.25	4	14.02	4	21.05	5	11.45	German	North German Lloyd	303.4	54.3	26.0	San Antonio, Chile	New York, N. Y.	7,847	6,355	4,631
Wido	4	16.10	5	6.24	5	13.20	5	22.05	German	North German Lloyd	308.4	54.3	17.0	Valparaiso, Chile	Bremen, Germany	2,178	6,583	4,626
Rapot	4	23.30	5	6.54	5	14.45	5	14.45	American	Williams S. S. Corp.	415.0	55.7	23.6	San Francisco, Cal.	Baltimore, Md.	5,671	7,750	5,805
Wilkeno	4	23.30	5	6.54	5	14.45	5	14.45	American	North German Lloyd	320.7	55.1	16.0	Champerico, Guat.	Hamburg Germany	827	4,822	3,272
Minden	5	16.15	5	17.56	6	16.05			German	Federal Steam Nav. Co.	580.0	64.2	24.0	Bluff, N. Z.	General	6,745	12,930	9,300
Cumberland	5	16.15	5	17.56	6	16.05			German	Federal Steam Nav. Co.	580.0	64.2	24.0	Bluff, N. Z.	Frozen	6,745	12,930	9,300

1 Tanker.

26 General, copra, copper, and molasses.

27 Coffee, skin, hides, wood, and bouillon.

28 Coffee and cyclinors.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date	Vessel	Line	From —	Date	Vessel	Line	For —
March 30	Mayan	Gulf-Caribbean S. S. Line	Tampa via wayports.	March 29	No. 9688 29	Pan American Airways	Tela via wayports.
March 30	Castilla	United Fruit Co.	Puerto Colombia.	March 30	Calamares	United Fruit Co.	New York via Habana.
March 30	Calamares	United Fruit Co.	Port Limon, C. R.	March 30	Ancon	Panama R. S. S. Line	New York via Haiti.
March 30	Cartago	United Fruit Co.	New Orleans via wayports.	March 30	308-H 29	B. F. Goodrich Rubber Co.	Miami via wayports.
March 30	No. 9688 29	Pan American Airways	Puntarenas via David.	March 31	Castilla	United Fruit Co.	Port Limon via Boes.]
March 31	Annetta 1 30	A. Tagarapulos	Colon, R. P.	March 31	Anacueña 30	United Fruit Co.	Colon, R. P.
March 31	Anacueña 30	United Fruit Co.	Colon, R. P.	March 31	Inapacina 30	United Fruit Co.	Colon, R. P.
March 31	Perou	United Fruit Co.	St. Nazaire via waypts.	March 31	Annetta 1 30	A. Tagarapulos	Colon, R. P.
March 31	Swiftlight	C. D. Mallory & Co.	Curacao, D. W. I.	April 1	Cartago	Pan American Airways	New Orleans via waypts.
March 31	Cordoba C-40 29	Seadita Airplane Co.	Barranquilla, Colombia.	April 1	No. 9684 29	Pan American Airways	Tela via wayports.
March 31	Tela	Pan American Airways	Tela via wayports.	April 1	Mayan	Gulf-Caribbean S. S. Line	Tampa via wayports.
April 1	No. 9688 29	Pan American Airways	Hamburg via wayports.	April 1	No. 309-N 29	Pan American Airways	Curacao via wayports.
April 1	Simon Bolivar	Royal Neth. S. S. Co.	Aruba, D. W. I.	April 1	No. 300-N 29	Pan American Airways	Guayaquil via wayports.
April 1	Standard Oil Co.	Standard Oil Co.	New York via wayports.	April 1	Simon Bolivar	Royal Neth. S. S. Co.	Port Limon, C. R.
April 2	Tela	United Fruit Co.	New Orleans, La.	April 2	Swiftlight	C. D. Mallory & Co.	Curacao, D. W. I.
April 2	Metapan	United Fruit Co.	New York via Kingston.	April 2	Perou	French Line	Havre via wayports.
April 2	Esfere 31	J. Garcia	Colon, R. P.	April 2	Greole Jefe	Standard Oil Co.	Maracaibo, Venezuela.
April 3	Swiftlight	Asiatic Petroleum Co.	Curacao, D. W. I.	April 2	No. 9688 29	Pan American Airways	Tela via wayports.
April 3	Rellane	Hamburg-American Line	New York via wayports.	April 3	Cordoba C-40 29	Seadita Airplane Co.	Barranquilla.
April 3	Manuel Arnus	Spanish Line	Barcelona via wayports.	April 3	Metapan	United Fruit Co.	New York via wayports.
April 3				April 3	Pastores	United Fruit Co.	Port Limon, C. R.

29 Air mail carrier.

30 Motor boat.

31 Schooner.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From —	Date.	Vessel.	Line.	For —
April 3.....	No. 309-N ³²	Pan American Airways	Curacao via wayports.	April 3.....	Reliance.....	Hamburg-American Line.	New York via wayports.
April 3.....	No. 9564 ³²	Pan American Airways	Tela via wayports.	April 4.....	Tela.....	United Fruit Co.	Puerto Colombia.
April 4.....	Amapala.....	Standard Fruit & S. S. Co.	New Orleans via Habana.	April 4.....	Scit Eagle.....	Asiatic Petroleum Co.	Curacao, D. W. I.
April 4.....	Castilla.....	United Fruit Co.	Port Limon, C. R.	April 5.....	Cundinamarca C-33 ³²	Scandia Airplane Co.	Buenaventura via waypts.
April 4.....	Simon Bolivar.....	Royal Neth. S. S. Co.	Port Limon, C. R.	April 5.....	Amapala.....	Standard Fruit & S. S. Co.	New Orleans and waypts.
April 4.....	Cundinamarca C-33 ³²	Scandia Airplane Co.	Buenaventura via waypts.	April 5.....	Castilla.....	United Fruit Co.	New Orleans and waypts.
April 4.....	Manaculi.....	United Fruit Co.	New York via wayports.	April 5.....	Estere ³⁵	J. Garcia.....	Colon, R. P.
April 4.....	No. 309-N ³²	Pan American Airways	Guayaquil via wayports.	April 5.....	Nitonian.....	Leyland S. S. Line.	Liverpool via wayports.
April 5.....	Nitonian.....	Pan American Airways	Port Limon.	April 5.....	Simon Bolivar.....	Royal Neth. S. S. Co.	Amsterdam via waypts.
April 5.....	Parismina.....	Hamburg-American Line.	Tampico via wayports.	April 5.....	Pearl Marie ³³	G. I. Bryan.....	Bluefields, Nicaragua.
April 5.....	Tela.....	United Fruit Co.	New Orleans via Habana.	April 5.....	Manaculi.....	United Fruit Co.	New York via Kingston.
April 5.....	No. 9888 ³²	Pan American Airways	Tela via wayports.	April 5.....	Tenotonia.....	Hamburg-American Line.	Puerto Colombia.
April 5.....	Pearl Marie ³³	G. I. Bryan.....	Colon, R. P.	April 5.....	Annetta I. ³⁴	A. Tagarapulos.....	Colon, R. P.
April 5.....	Annetta I ³⁴	A. Tagarapulos.....	Colon, R. P.				

³² Air mail carrier. ³³ Motor schooner. ³⁴ Motor boat. ³⁵ Schooner. PORT OF BALBOA.

April 3.....	Real ³⁶	Hans Elliot.....	Panama Bay, R. P.	April 4.....	Real ³⁶	Hans Elliot.....	Panama Bay, R. P.
April 4.....	Dos Hermanos ³⁶	A. Valdez.....	Panama Bay, R. P.	April 4.....	Dos Hermanos ³⁶	A. Valdez.....	Panama Bay, R. P.

* Other than ships passing through the Canal.

³⁶ Motor schooner.

Commercial Traffic Through the Panama Canal in March, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of March, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for March, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States.....	80	417,165	315,184	509,704	313,163	\$363,194.09	262,841
East coast of United States to west coast of South America:							
British.....	7	27,624	22,138	37,069	22,707	25,089.44	8,976
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	1,849
Danish.....	1	3,468	2,256	3,718	2,307	2,820.00	357
Swedish.....	1	4,496	3,743	15,337	4,385	3,237.12	.....
United States.....	15	61,135	49,043	84,885	48,989	48,665.13	17,819
Totals.....	25	101,395	80,613	148,319	82,364	84,102.94	29,001
East coast of United States to Far East:							
British.....	8	43,068	25,852	43,082	25,867	32,315.00	48,688
Japanese.....	9	41,683	33,902	52,349	33,890	42,181.25	61,063
Norwegian.....	2	11,738	6,499	11,009	6,603	8,123.75	8,140
United States.....	6	26,231	19,262	30,915	19,076	24,056.10	34,794
Totals.....	25	122,720	85,515	137,355	85,436	106,676.10	152,685
Europe to west coast of South America:							
British.....	5	29,386	23,267	38,263	23,553	29,083.75	19,612
Chilean.....	1	2,083	1,908	3,936	1,951	1,499.76	.....
Danzig.....	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch.....	3	10,770	7,713	13,210	7,269	9,641.25	8,782
French.....	1	4,187	3,353	5,505	3,366	4,191.25	3,289
German.....	4	20,001	15,680	24,783	15,453	19,600.00	17,634
Italian.....	2	18,702	10,399	23,887	13,529	12,998.75	5,317
Norwegian.....	3	12,832	9,401	15,781	9,459	10,177.37	12,596
Totals.....	20	104,088	76,980	133,804	79,587	91,603.57	67,230
Europe to west coast of Canada:							
British.....	6	31,844	26,353	41,162	25,464	32,941.25	8,250
Dutch.....	1	8,266	6,197	10,220	6,385	7,746.25	3,517
French.....	2	12,411	7,831	13,510	8,233	9,788.75	2,424
German.....	3	19,964	12,790	21,899	13,185	15,987.50	9,893
Italian.....	1	6,041	5,092	7,057	4,455	6,365.00	2,399
Norwegian.....	3	16,972	11,157	18,087	11,241	13,946.25	17,117
Totals.....	16	100,498	69,420	111,935	68,963	86,775.00	43,600
Europe to west coast of United States:							
British.....	5	25,047	20,068	33,234	19,894	18,033.84	.....
Danish.....	1	5,695	4,728	7,691	4,713	4,100.40	.....
French.....	1	6,907	6,693	9,117	6,732	5,019.75	.....
Norwegian.....	3	14,564	10,940	18,289	10,820	10,303.15	5,675
Swedish.....	2	8,916	5,866	9,816	7,370	7,332.50	10,402
United States.....	3	18,160	14,756	23,975	14,737	13,075.20	.....
Totals.....	15	79,289	63,051	102,122	64,266	57,864.84	16,077
Cristobal to west coast of South America:							
Colombian.....	3	450	441	673	441	532.45	228
Dutch.....	2	1,484	588	1,560	646	735.00	219
German.....	6	5,230	3,395	6,523	3,506	4,243.75	2,241
Swedish.....	1	746	600	1,036	582	537.12	.....
Totals.....	12	7,910	5,024	9,792	5,175	6,048.32	2,688

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British.....	7	48,153	31,534	59,458	31,806	\$39,417.50	26,322
Norwegian.....	1	4,284	2,597	4,333	2,494	3,133.75	7,178
United States.....	2	10,286	7,493	12,065	7,505	9,366.25	5,904
Totals.....	10	62,723	41,534	66,856	41,805	51,917.50	39,404
Europe to Australasia:							
British.....	10	68,272	50,422	80,889	50,699	61,333.39	35,892
Cristobal to west coast of United States:							
United States.....	6	14,001	11,402	19,066	11,324	11,632.58	605
East coast of United States to Philippine Islands:							
British.....	4	23,988	13,647	25,071	14,207	17,058.75	18,637
United States.....	1	5,911	4,477	5,816	3,567	5,596.25	6,830
Totals.....	5	29,899	18,124	30,887	17,774	22,655.00	25,467
West Indies to west coast of United States:							
British.....	1	4,114	3,049	4,963	3,040	3,811.25	6,464
Norwegian.....	2	8,962	6,099	10,008	6,161	6,263.45	4,019
Totals.....	3	13,076	9,148	14,971	9,201	10,074.70	10,483
Cristobal to west coast of Central America:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	3,491
Foreign vessels in ballast— United States inter- coastal:							
British.....	2	8,846	7,550	12,546	7,372	6,369.12	.....
East coast of Canada to west coast of South America:							
British.....	2	11,455	10,184	19,067	11,037	8,247.60	.....
East coast of Canada to Australasia:							
British.....	2	8,636	6,649	10,951	6,699	8,311.25	8,477
Europe to Far East:							
British.....	1	830	608	936	504	760.00	777
German.....	1	697	634	978	582	836.40	767
Totals.....	2	1,527	1,292	1,914	1,086	1,596.40	1,544
Around the World:							
United States.....	2	18,461	12,538	20,997	12,538	15,672.50	9,521
East coast of United States to west coast of Canada:							
United States.....	1	5,811	5,765	7,590	5,764	6,973.20	9,350
East coast of United States to Hawaii:							
United States.....	1	2,119	1,989	2,873	1,658	2,372.50	3,462
Canadian intercoastal:							
British.....	1	4,186	3,322	5,439	3,336	4,152.50	2,900
East coast of South America to west coast of United States:							
United States.....	1	5,030	3,514	5,515	3,511	4,392.50	3,795
West Indies to west coast of Central America:							
British.....	1	.....	.....	.....	.....	586.50	.....
West Indies to west coast of South America:							
British.....	1	3,326	2,872	4,800	2,949	3,590.00	4,494
West Indies to Australasia:							
United States.....	1	4,497	3,551	5,635	3,563	4,433.75	7,349
Europe to west coast of Central America:							
German.....	1	3,272	2,565	4,165	2,547	3,206.25	1,720
Grand totals, March, 1930....	248	1,201,289	890,694	1,472,073	894,532	1,027,047.10	741,986
Grand totals, March, 1929....	267	1,269,820	962,143	1,586,095	968,099	1,095,635.11	841,941
Grand totals, March, 1928....	289	1,315,708	1,014,987	1,644,983	1,017,251	1,129,332.95	743,747

* Naval vessel of 1,173 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States.....	78	419,682	318,699	515,323	319,590	\$398,373.75	609,854
West coast of South America to east coast of United States:							
British.....	12	52,624	41,122	69,297	42,123	51,402.50	79,946
Chilean.....	2	7,768	6,066	10,889	6,233	7,582.50	8,852
German.....	2	9,976	6,013	10,181	6,009	7,516.25	12,198
Greek.....	1	4,482	3,346	5,600	3,333	4,182.50	8,000
Norwegian.....	1	1,676	928	1,733	968	1,160.00	2,822
Panamanian.....	1	4,897	4,014	6,386	4,067	5,017.50	8,950
Swedish.....	2	8,917	7,486	30,676	8,762	9,357.50	43,453
United States.....	18	71,423	59,141	103,162	59,236	73,390.35	161,517
Totals.....	39	161,763	123,116	237,924	130,731	159,609.10	325,738
West coast of Canada to Europe:							
British.....	14	80,007	58,793	94,834	58,877	73,491.25	111,123
Dutch.....	1	7,551	5,776	9,399	5,814	7,220.00	9,968
French.....	3	19,506	13,061	22,625	13,442	16,326.25	26,266
German.....	2	14,042	9,452	15,806	9,694	11,815.00	17,453
Italian.....	1	6,054	5,031	7,061	4,460	6,238.75	8,850
Japanese.....	1	4,388	4,357	5,860	4,253	5,265.60	7,650
Norwegian.....	4	20,350	14,704	24,041	14,823	18,380.00	27,698
Swedish.....	2	10,521	6,187	10,602	7,985	7,733.75	13,035
United States.....	2	10,900	6,930	11,374	6,900	8,662.50	15,116
Totals.....	30	173,319	124,291	201,602	126,254	155,183.10	237,159
West coast of United States to Europe:							
British.....	12	54,388	44,302	71,127	42,171	55,034.55	91,122
Danish.....	1	5,663	5,188	6,913	5,218	6,485.00	9,079
French.....	2	9,063	7,823	12,640	7,564	9,773.75	14,780
German.....	1	4,435	3,794	6,339	3,657	4,742.50	8,456
Norwegian.....	4	18,834	14,940	24,704	14,767	18,675.00	35,143
Swedish.....	1	4,497	3,834	6,294	4,747	4,792.50	8,431
United States.....	2	10,313	8,709	14,274	8,741	10,836.25	18,161
Totals.....	23	107,193	88,590	142,321	86,865	110,394.55	185,172
Philippine Islands to east coast of United States:							
British.....	1	2,793	2,021	3,357	2,023	2,526.25	5,150
Danish.....	2	4,763	3,222	5,405	3,219	4,027.50	7,550
Japanese.....	5	23,875	22,030	30,921	21,522	27,191.30	38,092
Norwegian.....	3	15,866	8,989	15,193	9,057	11,236.25	20,073
Panamanian.....	1	6,955	3,998	7,044	3,983	4,997.50	3,238
United States.....	6	34,775	27,941	42,446	27,631	34,926.25	51,802
Totals.....	18	89,032	68,201	104,366	67,445	84,905.05	125,911
West coast of South America to Europe:							
British.....	6	47,462	35,673	60,452	37,330	45,531.25	32,014
Danzig.....	2	12,056	10,461	17,684	10,033	13,076.25	22,200
Dutch.....	3	18,968	10,469	18,035	10,852	13,086.25	18,848
French.....	2	9,448	7,197	11,458	7,167	8,996.25	10,710
German.....	3	14,823	11,160	18,100	11,222	13,959.00	16,628
Italian.....	1	7,516	5,514	12,003	6,053	6,832.50	1,323
Norwegian.....	1	3,820	2,333	3,886	2,335	2,916.25	6,301
Totals.....	19	114,033	82,807	141,613	84,997	103,508.75	108,029
Australasia to Europe:							
British.....	12	97,541	68,257	112,732	70,122	85,321.25	64,905
French.....	1	5,364	4,237	7,139	4,335	5,358.75	3,616
Totals.....	13	102,905	72,544	119,871	74,457	90,680.00	68,521
West coast of South America to Cristobal:							
Colombian.....	3	450	441	673	441	546.65	645
Dutch.....	2	1,484	583	1,569	646	735.00	801
German.....	5	4,532	2,777	5,450	2,890	3,471.25	3,265
United States.....	1	55	67	98	67	50.25	.....
Totals.....	11	6,521	3,873	7,791	4,044	4,803.15	4,711

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of United States to Cristobal:							
United States.....	6	14,343	10,540	17,823	10,450	\$13,175.00	8,398
West coast of Canada to east coast United States:							
Japanese.....	1	5,030	4,340	5,712	4,359	5,425.00	7,871
United States.....	3	13,032	10,144	16,266	10,119	12,680.00	17,642
Totals.....	4	18,062	14,484	21,978	14,478	18,105.00	25,513
Australasia to east coast of Canada:							
British.....	3	12,749	9,837	16,158	9,842	12,296.25	4,444
Australasia to east coast of United States:							
French.....	1	4,724	3,633	5,961	3,657	4,578.75	7,300
United States.....	1	4,910	3,589	5,645	3,463	4,486.25	6,022
Totals.....	2	9,634	7,252	11,606	7,120	9,065.00	13,822
Far East to east coast of United States:							
Japanese.....	1	4,769	3,511	5,652	3,451	4,388.75	2,644
United States.....	1	5,233	3,833	6,204	3,851	4,797.50	6,498
Totals.....	2	10,002	7,349	11,856	7,302	9,186.25	9,142
West coast of United States to east coast South America:							
United States.....	2	10,016	7,215	11,388	7,211	9,018.75	11,189
Canadian intercoastal:							
British.....	2	8,267	6,546	10,896	6,717	8,182.50	11,921
West coast of South America to east coast of Canada:							
British.....	2	6,848	6,135	11,563	6,538	7,668.75	15,676
West coast of Central America to Cristobal:							
British.....	2	1,441	1,286	2,298	1,304	1,607.50	1,955
West coast of Central America to Europe:							
German.....	2	5,464	3,302	5,698	3,333	4,127.50	3,836
Hawaiian Islands to Europe:							
Belgian.....	1	4,103	4,156	5,142	3,607	4,923.60	6,259
Swedish.....	1	5,507	3,421	5,558	4,246	4,276.25	7,327
Totals.....	2	9,610	7,577	10,700	7,853	9,199.85	13,586
West coast of South America to Egypt:							
Yugoslav.....	2	9,827	7,350	11,731	7,350	9,187.50	15,900
West coast of Central America to east coast of United States:							
Panamanian.....	1	1,748	1,565	2,802	1,522	1,258.56	.....
Hawaiian Islands to east coast of United States:							
United States.....	1	1,730	1,528	2,647	1,542	1,910.00	3,370
West coast of Canada to east coast South America:							
Norwegian.....	1	5,135	2,909	4,963	3,045	3,636.25	4,000
West coast of South America to West Indies:							
British.....	2	.....	.....	.....	.....	2,775.00	.....
Far East to West Indies:							
Japanese.....	1	5,175	4,067	6,537	4,048	5,083.75	8,405
Balboa to Cristobal:							
Panamanian.....	1	20	15	20	16	14.40	.....
Grand totals, March, 1930....	267	1,304,579	986,078	1,631,485	994,054	1,232,955.26	1,816,252
Grand totals, March, 1929....	269	1,298,141	1,002,898	1,644,148	1,008,805	1,248,230.44	1,901,827
Grand totals, March, 1928....	253	1,125,369	875,286	1,420,460	875,940	1,094,037.62	1,684,915

* Naval vessel of 5,550 displacement tons.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

United States Intercoastal Traffic by Commodities for March, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for March, 1930, and the totals for March, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements.....	706	175	881
Alfalfa.....		471	471
Alfalfa meal.....		60	60
Ammonia.....	216		216
Asbestos.....	234		234
Asphalt.....	197	45	242
Automobiles.....	4,413	143	4,556
Automobile accessories.....	2,430	2	2,432
Bamboo.....		9	9
Bark:			
Cascara.....		18	18
Other.....		128	128
Beans.....	47	5,611	5,658
Borax.....		706	706
Bricks.....	93		93
Burlap.....	140	278	418
Calcium carbide.....	56		56
Camphor.....		50	50
Canned goods:			
Fish.....	367	10,649	11,016
Fruit.....	1,431	35,654	37,085
Meat.....	90	88	178
Milk.....		72	72
Soup.....	1,138		1,138
Vegetables.....	577	4,814	5,391
Miscellaneous.....	3,778	7,106	10,884
Carbon black.....	99		99
Celite filtercel.....	215	988	1,203
Charcoal.....	100		100
Chemicals.....	2,058	1,282	3,340
China and fire clay.....	309		309
Coal.....	2,770		2,770
Cocoa.....	182	102	284
Cocoanuts.....	39	229	268
Coffee.....	96	76	172
Cold storage:			
Cheese.....	22	88	110
Eggs.....		20	20
Fish.....	24	*	24
Lard.....	831		831
Confectionery.....	1,278		1,278
Cork.....	88		88
Cotton.....	685	3,762	4,447
Cottonseed oil cake.....		67	67
Cyanide.....	473		473
Drugs.....	1,180	12	1,192
Dyewoods.....	250		250
Earthenware.....	146	72	218
Eggs, dried.....		80	80
Explosives.....	282	327	609
Fertilizer.....	5	156	161
Flour.....		5,622	5,622
Fruit, dried.....	92	10,138	10,230
Fuller's earth.....	18		18
Furniture.....	846	130	976
General.....	58,368	7,658	66,026
Glass and glassware.....	2,743	260	3,003
Glue.....	31	100	131
Granite.....	29		29
Gum.....		13	13
Hair.....	82	75	157
Hardwoods.....	476	121	597
Hay.....		15	15
Hemp.....		524	524
Hops.....		124	124
Infusorial earth.....		18	18

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Ink.....	45		45
Jute.....	31	43	74
Lard substitute.....	2,175		2,175
Lime.....	35		35
Linoleum.....	640		640
Liquors.....	38	9	47
Lumber.....	725	209,466	210,191
Malt.....	277		277
Manufactured goods:			
Iron and steel.....	102,181	1,091	103,272
Machinery.....	3,509	823	4,332
Railroad material.....	10,575		10,575
Tinplate.....	15,414		15,414
Textiles.....	1,638	347	1,985
Miscellaneous.....	5,610	1,774	7,384
Marble.....	145		145
Matchos.....	206		206
Metals:			
Antimony.....		797	797
Copper.....	50	11,950	12,000
Iron.....	1,727		1,727
Lead.....		2,384	2,384
Scrap.....	137	1,019	1,156
Tin.....		75	75
Zinc.....		587	587
Other.....	18	56	74
Milk, powdered.....		391	391
Molasses.....	341		341
Nuts.....		507	507
Oats.....	271		271
Oils:			
Coconut.....		12	12
Cottonseed.....	16		16
Crude.....	39		39
Gas oil, fuel oil.....		57,940	57,940
Gasoline, benzine, naphtha.....		157,619	157,619
Kerosene.....		6,224	6,224
Linseed.....	700		700
Lubricating and greases.....	6,830	2,689	9,519
Olive.....	51		51
Vegetable.....	574	83	657
Wood.....		195	195
Other.....		70	70
Orcs:			
Chrome.....	42		42
Copper.....	1,000		1,000
Magnesite.....		1,592	1,592
Manganese.....		100	100
Other.....	25	515	540
Paint.....	873	59	932
Paper.....	5,549	12,501	18,050
Paper pulp.....	40	9,628	9,668
Peanuts.....	602	899	1,501
Phosphates.....	1,831		1,831
Porcelain.....	29	503	532
Rags.....	67	193	259
Rice.....	662	150	812
Rope.....	150	187	337
Rosin.....	536		536
Rubber, manufactured.....	447	80	533
Salt.....	180		180
Seeds:			
Canary.....	25		25
Grass.....	16		16
Hemp.....		132	132
Other.....		210	210
Shells.....	1,402		1,402
Silk.....		665	665
Skins and hides.....		1,978	1,978
Slag.....	1,291		1,291
Slate.....	326		326
Soap.....	1,405	327	1,732
Soda.....	369		369
Soda ash.....	1,305		1,305
Soda, bicarbonate.....	158		158
Soda, caustic.....	63		63
Starch.....	36		36
Sugar.....		11,262	11,262
Sulphur.....	9,633		9,633
Syrup.....	251		251
Talc.....		143	143
Tallow.....		320	320
Tar.....	24		24
Tea.....		25	25
Tobacco.....	1,814	66	1,880

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Toys.....	107	129	236
Turpentine.....	14	.....	14
Vegetables.....	.....	708	708
Waste.....	118	361	479
Wax.....	72	46	118
Wheat.....	.....	678	678
Wine.....	71	230	301
Wool.....	25	3,328	3,353
Zinc oxide.....	110	.....	110
Totals, March, 1930.....	274,396	601,300	875,696
Totals, March, 1929.....	282,344	620,659	903,003
Totals, March, 1928.....	260,212	479,572	739,784

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Cristobal.....	April 1.....	April 6.....	April 9.....	April 13.....	April 16.....	April 21.
Ancon.....	April 15.....	April 20.....	April 23.....	April 27.....	April 30.....	May 5.
Cristobal.....	April 29.....	May 4.....	May 7.....	May 11.....	May 14.....	May 19.
Ancon.....	May 13.....	May 18.....	May 21.....	May 25.....	May 28.....	June 2.
Cristobal.....	May 27.....	June 1.....	June 4.....	June 8.....	June 11.....	June 16.
Ancon.....	June 10.....	June 15.....	June 18.....	June 22.....	June 25.....	June 30.
Cristobal.....	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.
Ancon.....	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
Cristobal.....	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
Ancon.....	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
Cristobal.....	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
Ancon.....	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.
Cristobal.....	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
Ancon.....	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
Cristobal.....	October 15.....	October 20.....	October 23.....	October 27.....	October 31.....	November 5.
Ancon.....	October 23.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.
Cristobal.....	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
Ancon.....	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
Cristobal.....	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
Ancon.....	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

¹ Effective April 30, steamers sail daylight saving time.

² Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4. p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(a) For handling cargo from ship's side to storage place, the customary inward local charge of \$1 per ton.

(b) For delivery or reforwarding, customary outward local charge of \$1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(c) For storage, 3 cents per day per ton of 2,000 pounds or $1\frac{1}{2}$ cents per ton of 40 cubic feet, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers"). Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2.....	\$8.00	\$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic.....		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds.....	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds.....	11.00	14.00

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., April 16, 1930. No. 37.

New United States Cruiser at Balboa.

The new United States cruiser *Pensacola*, the first of a series of eight 10,000-ton cruisers to be completed under the agreement of the Washington Naval Conference of 1922, arrived at Cristobal on April 8. She immediately transited the Canal and moored in Balboa basin. She will remain in Isthmian waters until April 21. The new cruiser recently commissioned, is on her "shakedown" cruise, and after leaving Balboa will sail for Callao, Peru, and other South American ports. She will return to the United States, via the Canal, during the latter part of May to join the Scouting Fleet.

Pamphlet on "Lines to the Panama Canal."

A revised edition of the pamphlet, "Lines to the Panama Canal," corrected to March 1, 1930, has been issued by The Panama Canal and is being distributed to steamship agents on the Isthmus, steamship lines using the Canal, tourist agents, and travel bureaus. Others interested may obtain copies by application to The Panama Canal, Washington, D. C., or Balboa Heights, C. Z. The scope of the pamphlet was outlined in THE PANAMA CANAL RECORD of January 15, 1930.

Supplement No. 15.—Tariff No. 9.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 11, 1930.

(Superseding Supplement No. 13, dated July 12, 1929.)

ITEM 45.—RIGHT OF BASIN.

(Effective May 1, 1930.)

1. Any craft of over ten (10) Panama Canal gross tons, anchoring or tying up and remaining in Canal Zone waters, inactive, for a period of more than thirty (30) consecutive days at any location where the regular mooring or wharfage charges published in this tariff are not applicable, will be subject to a right-of-basin charge. No charge will be made if the craft is removed from Canal Zone waters within thirty (30) days, but if it remains in Canal Zone waters for more than thirty (30) days, the charge will be made for all time from the time of arrival in Canal Zone waters.

2. For private or commercial self-propelling and/or seagoing craft (including sailing vessels), the charge will be per Panama Canal gross ton per day or fraction thereof.....\$0.005

3. For all other craft not in the foregoing class, such as houseboats, lighters, barges, and similar floating equipment, the charge will be per Panama Canal gross ton per day or fraction thereof..... .005
but not exceeding, per vessel per day or fraction thereof..... .20

4. The Marine Superintendent of The Panama Canal shall determine the status of the craft and the charge applicable thereto.

5. Bills against craft in Canal Zone waters north of Gamboa will be prepared by the Port Captain, Cristobal.

6. Bills against craft in Canal Zone waters south of Gamboa will be prepared by the Port Captain, Balboa.

H. BURGESS,
Governor, The Panama Canal.
President, Panama Railroad Company.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 12, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Karnak.	5	16.10	6	5.55	6	13.01	6	14.05	German	Hamburg-American Line	439.6	55.1	19.10	Hamburg, Germany	Valparaiso, Chile.	General	2,870	5,373
Edwin	5	20.35	6	6.05	6	14.17	6	15.25	American	Arrow Line	410.0	54.2	17.11	Jacksonville, Fla.	Portland, Oreg.	General	2,980	4,932
Christenson.	5	20.35	6	7.20	6	14.52	6	16.20	American	Redwood Line	379.9	60.5	22.4	Lake Charles, La.	Seattle, Wash.	General	5,046	8,667
Delight	5	23.05	6	7.30	6	15.31	6	16.55	Panama	Barber S. S. Line	400.0	53.0	23.9	New York, N. Y.	Shanghai, China.	General	5,069	8,666
Tai Ping Yang	5	17.20	6	8.35	6	17.07	6	18.10	German	Hamburg-American Line	363.0	52.0	15.8	Hammer, Germany	Champerio, Gust.	General	1,340	4,219
Antiochia	6	00.15	6	9.20	6	17.40	6	18.48	American	Standard Transp. Co.	467.6	52.7	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast	9,698	8,862
Sylvan Arrow	6	2.49	6	10.25	6	18.05	6	19.15	British	Anglo-Lena, Oilfields	407.4	52.2	20.0	Cristobal, Pa.	La Libertad, Ecuador	Ballast	6,046	4,326
El Cervo	2	16.05	6	10.55	6	18.56	6	20.11	German	Roland Line	216.5	32.9	12.0	Cristobal, C. Z.	Guayaquil, Ecuador	General	306	1,132
Manizales	6	13.30	6	13.40	6	20.35	7	00.45	American	Kiech S. S. Lines	424.2	56.2	25.0	Philadelphia, Pa.	Honolulu, T. H.	General, steel	8,030	7,611
Steel Navigator	6	16.30	6	17.00	7	9.56	7	11.04	American	Kiechofer Container	333.8	48.0	21.0	Philadelphia, Pa.	Los Angeles, Calif.	()	3,880	4,554
Matran	6	22.20	7	6.20	7	13.56	7	18.30	American	Isthmian S. S. Lines	425.0	56.0	24.6	Baltimore, Md.	Vancouver, B. C.	Steel, general	7,663	7,611
Knoxville City	7	5.05	7	6.35	7	14.37	7	15.40	American	Standard Oil Co.	468.3	62.7	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast	9,841	6,946
Empire Arrow																		
Nicoline																		
Maersk	7	6.00	7	7.30	7	14.59	7	15.09	Danish	Isbrandtsen Moller	374.0	52.3	22.10	Philadelphia, Pa.	Manila, P. I.	General	5,974	5,928
Alamar	7	3.15	7	8.15	7	15.35	7	16.45	American	Calmar Line	399.7	56.2	28.0	Baltimore, Md.	Seattle, Wash.	Steel, general	8,554	7,381
Santa Eulalia	7	12.25	7	13.10	7	20.20	8	00.46	American	Isthmian S. S. Lines	251.0	43.0	24.6	Baltimore, Md.	Port Allen, T. H.	General	3,250	3,823
Rosewhale	7	6.35	7	14.25	7	22.09	7	23.24	British	R. S. Dalgleish & Co.	303.0	43.0	21.0	Cardiff, England	Puntarenas, C. R.	Patent fuel	2,500	2,968
Canadian																		
Conqueror	7	12.05	7	15.30	7	22.50	8	00.03	British	Can. Nat. Steamships	400.0	52.0	23.2	Halifax, N. S.	Dunedin, N. Z.	General	5,005	5,954
Van	7	15.25	7	15.40	7	23.50	8	00.54	Belgium	Cie. Int. de Com. & Arm.	460.0	53.2	27.2	Cardiff, England	Antofagasta, Chile	Patent fuel	7,400	8,068
Nordanger	7	19.20	7	19.35	8	9.04	8	10.27	Norwegian	Standard Transp. Co.	470.0	60.0	27.0	Beaumont, Texas	Shanghai, China	Kerosene	11,039	9,425
Pensacola	8	5.35	8	6.16	8	14.15	8	15.05	American	U. S. Navy	530.0	69.0	19.8	Guantanamo, Cuba	Valparaiso, Chile	Ballast	6,441	9,037
City of Roubaix	7	20.40	8	6.06	8	15.09	8	16.11	British	Ellerman & Bucknall	456.1	58.5	20.6	Baltimore, Md.	Dairen, China	General	7,441	6,517
Duworth	7	21.25	8	7.15	8	15.55	8	17.25	American	Tidewater Oil Co.	435.0	56.0	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast	1,684	7,601
Tisnaren	7	00.35	8	7.30	8	17.00	8	18.09	Swedish	Transatlantic S. S. Co.	436.0	56.0	18.0	Göteborg, Sweden	Adelaide, Australia	General, timber	1,179	5,346
El Salvador	7	11.40	8	10.10	8	17.37	9	17.25	American	Panama Mail S. S. Co.	360.2	51.6	22.0	New York, N. Y.	San Francisco, Cal.	Coffee, general	3,045	5,710
Pacific	8	6.20	8	10.20	8	18.33	8	17.50	American	Nelson Line	380.0	53.2	19.0	Charleston, S. C.	Seattle, Wash.	General	5,653	4,122
Pioneer	8	8.20	8	11.30	8	19.35	8	20.57	British	Furness, Withy & Co.	435.0	60.1	18.5	Glasgow, Scotland	Vancouver, B. C.	General	1,427	9,630
Nosa Chief	7	12.45	8	12.55	8	20.40	8	21.56	American	N. O. & S. A. S. Line	299.4	72.2	20.10	New Orleans, La.	Tacahmano, Chile	General	2,114	3,256
Matore	8	7.45	8	14.31	8	21.25	8	22.40	American	Ore S. S. Corp.	550.3	49.0	22.0	Baltimore, Md.	Cruz Grande, Chile	Ballast	15,551	4,297
Harvard	8	13.15	8	13.15	8	20.25	8	20.25	American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Bahon, C. Z.	Ballast	6,977	5,183
Harvester	8	15.05	9	6.21	9	17.20			American	Texas S. S. Co.	432.0	56.1	18.0	Providence, R. I.	Los Angeles, Calif.	Ballast	6,977	5,183
Lillian																		
Lukenbach	8	17.32	9	6.25	9	17.55			American	Lukenbach Line	449.0	60.2	23.0	Boston, Mass.	Seattle, Wash.	General	4,200	9,294
Californian	8	17.45	9	7.25	9	18.30			American	Amer-Hawaiian Line	445.0	59.8	19.2	Boston, Mass.	San Francisco, Cal.	General	2,901	8,597
San Vincente	9	00.50	9	7.35	9	22.34			American	Quaker Line	410.5	54.3	18.0	Wilmington, Del.	Seattle, Wash.	General, coal	3,295	6,572

1 Tanker. 2 Motor ship. 3 Cruiser. 4 Mine sweep. 5 Cardboard containers.

Archer	9	8.40	9	8.50	9	19.35	American	Roosevelt S. S. Co., S. B.	457.0	56.0	29.0	Shanghai, China...	Gen., kerosene.	9.344	8.315
Aconcagua	8	21.15	9	9.30	9	22.34	Chilean	Cia. Sud. Amer. de Vap.	422.8	56.2	25.0	Valparaiso, Chile.	General	2.910	7.764
City of Panama	23	19.15	9	11.47	10		American	Panama Mail S. S. Co.	296.1	45.0	17.8	San Francisco, Cal.	General	2.000	3.848
Walter A. Luckenbach	9	12.30	9	12.50	9	21.25	American	Luckenbach Line	446.5	56.1	30.6	Tacoma, Wash.	General	8.359	8.785
Levant Arrow	9	13.10	9	13.40	9	22.30	American	Standard Transp. Co.	468.0	62.7	21.0	Los Angeles, Calif.	Ballast	6.567	
Wyoming	9	1.15	9	15.25	9	22.05	French	French Line	470.3	61.2	22.6	Vancouver, B. C.	General	1.887	10.476
Pueblo	10	1.05	10	6.20	10	14.36	American	Richfield Oil Co.	340.0	49.0	22.0	Los Angeles, Calif.	Ballast	4.613	2.996
Bauta	10	3.20	10	6.20	10	14.54	Norwegian	Grace Line	270.0	38.1	18.0	Callao, Peru	Coal	2.194	1.909
Tamahuia	10	3.25	10	7.30	10	15.30	American	Richfield Oil Co.	500.0	71.2	30.6	Los Angeles, Calif.	Ballast	11.667	8.545
Caldas	4	17.10	10	10.10	10	17.29	Colombian	National Navigation Co.	116.0	21.0	8.7	Buenaventura, Col.	General	51	211
Capt. Edward P. Nones	10	6.30	10	14.38			American	U. S. Army	101.0	23.5		Balboa, C. Z.	Ballast		
Steelers	10	15.00	11	6.00	11	13.37	American	Ore S. S. Corp.	550.3	72.2	22.6	Cruz Grande, Chile	Ballast	15.551	4.297
Canadian Highlander	10	16.00	11	6.04	11	13.49	British	Can. Nat. Steamships	400.0	52.0	20.0	Adelaide, Australia	General	3.275	6.192
Pennsylvania	11	6.00	11	7.20	11	16.02	American	Panama-Pacific Line	586.4	80.3	27.0	San Francisco, Cal.	General	3.256	25.262
San Zotic	11	00.05	11	7.35	11	16.53	British	Anglo-Mexican Pet. Co.	400.2	52.0	27.0	Valparaiso, Chile	Fuel oil	7.665	6.032
Cal	9	19.05	11	9.15	11	17.55	German	Roland Line	216.5	32.9	11.8	Buenaventura, Col.	General	130	1.103
Vancouver	11	4.15	11	8.45	11	17.40	British	Imperial Oil Co.	510.0	68.2	20.6	Talara, Peru	Ballast	11.573	7.711
Matroca	10	23.20	11	10.45	11	19.12	British	Shaw, Savill & Albion	500.0	63.0	30.7	London, England	General	5.000	13.550
Silverbelle	11	12.35	11	13.05	11	19.35	British	S. & J. Thompson & Co.	425.0	58.3	20.6	Auckland, N. Z.	General	4.580	8.218
Tongking	11	10.50	11	13.52	11	20.50	Danish	East Asiatic Co.	410.0	55.2	22.2	Manila, P. I.	General	6.065	7.013
Williamson	11	12.35	11	14.51	11	22.45	American	E. B. de Golia	292.0	46.0	21.5	Vancouver, B. C.	General	6.065	7.013
Niagara	11	11.35	11	17.00			American	U. S. Navy	243.0	36.0	19.0	San Francisco, Cal.	Lubricating oil	300	
La Perla	8	15.30	12	5.58	12	13.15	American	United Fruit Co.	325.0	48.0	19.0	Balboa, C. Z.	Ballast	198	4.033
Port Sydney	11	21.35	12	6.20	12	13.38	British	Com'lth & Dom. Line	501.0	63.0	25.0	San Francisco, Cal.	Ballast	11.842	8.808
Liberator	12	2.40	12	7.35	12	16.31	American	Amer.-Gulf Orient Line	410.0	56.0	28.0	New Zealand	General, cotton	8,256	8,204
Sidney M. Hauptman	12	6.35	12	7.35	12	14.15	American	Munson, McCork' Line	401.0	53.2	20.0	Tacoma, Wash.	Steel, general	4,072	7,082
Herbert F. Whiton	12	7.20	12	8.30	12	16.44	American	Union Sulphur Co.	409.0	54.2	24.1	Tacoma, Wash.	Sulphur	7,150	6,581
Samuel Q. Brown	12	4.55	12	9.52	12	17.15	American	Tidewater Oil Co.	424.4	58.0	21.3	Los Angeles, Calif.	Ballast	7,333	5,183
City of Christiansa	12	8.30	12	10.30	12	17.45	British	Hall Line, Ltd.	380.0	53.0	23.0	Valparaiso, Chile	General	3,382	6,440
Elaine L. D.	12	2.30	12	10.55	12	19.00	French	Louis Dreyfus & Co.	346.0	51.0	23.10	Sydneay, Australia	Patent fuel	5,511	4,822
Pacific Oak	12	14.45	12	14.50	12	21.19	American	Dimon S. S. Corp.	409.7	54.2	20.0	Seattle, Wash.	General	3,801	6,087
Kinderdyk	11	17.00	12	14.55	12	22.05	Dutch	Holland-American Line	469.4	58.4	20.9	Rotterdam, Holland	General	2,375	8,515
Port Campbell	12	14.50	12	16.00	12	22.45	British	Com'lth & Dom. Line	480.0	62.0	25.0	Vancouver, B. C.	General	2,375	8,515
Gen. Wm. M. Graham			12	11.30	12	19.06	American	U. S. Army	156.0	32.0		Brisbane, Australia	General, case oil.	870	10,746
								Cristobal, C. Z.				Balboa, C. Z.	Ballast		

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[illegible]

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Water draft.			Nature.	Tons.	Gross.	Net.
Glenmor ¹¹	6	7 50	6	11 20	6	18 30	6	19 25	British	W. Runciman & Co.	375.0	52 6	25 0	Vancouver, B. C.	Greece	Wheat.	7,315	6,051	4,638
Corinto	5	20 10	6	11 52	6	19 30	6	19 30	American	Panama Mail S. S. Co.	261.1	49 0	17 0	San Francisco, Cal.	Cristobal, C. Z.	(11)	1,709	2,352	1,549
China Arrow	6	13 45	6	14 28	6	21 50	6	21 50	American	Standard Transp. Co.	468.3	62 7	28 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	13,600	10,084	7,388
Saint Louis	6	13 55	6	14 52	6	22 20	6	22 20	French	French Line	414.75	50 2	14 0	Valparaiso, Chile	Havre, France	General.	6,600	5,857	4,166
Unicoi ¹¹	27	10 20	6	16 44	7	13 40	7	13 00	American	Roosevelt S. S. Co., S. B.	401.9	54 2	23 0	Whalla, Australia.	Baltimore, Md.	Iron ore, wood.	5,839	7,037	5,327
Honduras	6	14 45	6	17 26	7	12 45	8	7 00	French	French Line	388.0	52 0	20 0	Callao, Peru	Havre, France.	(14)	3,000	6,020	4,312
Wm. B. Preston	6	6 00	7	6 26	7	13 20			American	U. S. Navy.	310.0	31 0	12 0	San Diego, Calif.	Guantanamo, Cuba			Disp.	1,308
Hulbert, 342 ¹²	6	6 00	7	6 20	7	13 30			American	U. S. Navy.	310.0	31 0	12 0	San Diego, Calif.	Guantanamo, Cuba			Disp.	1,308
Noa, 343 ¹²	6	6 00	7	6 11	7	13 25			American	U. S. Navy.	310.0	31 0	12 0	San Diego, Calif.	Guantanamo, Cuba			Disp.	1,308
Oil Pioneer ¹¹	6	19 35	7	6 49	7	14 40			British	Riofield Oil Co.	409.4	53 5	27 0	Los Angeles, Calif.	London, England	Gasoline.	7,619	6,010	4,094
Trave ¹¹	6	16 40	7	7 11	7	14 55			German	North German Lloyd	407.0	60 4	27 3	Vancouver, B. C.	Antwerp, Belgium	(15)	9,040	9,904	7,006
San Francisco ¹¹	7	7 00	7	8 16	7	17 00			German	Hamburg-American Line	432.3	69 1	25 6	Vancouver, B. C.	Hamburg, Germany	General.	7,008	8,454	6,344
Nordlys	6	18 20	7	8 45	7	20 40			Danish	Wessel, Duval & Co.	362.0	51 3	23 9	Antofagasta, Chile	Charleston, S. C.	Nitrates	6,250	4,932	3,468
Heffron	6	18 35	7	9 21	7	20 05			American	Heffron S. S. Co.	440.0	56 0	28 0	Longview, Wash.	Baltimore, Md.	Lumber	9,500	8,312	6,097
Maibriton	7	6 30	7	9 42	7	19 15			British	R. Chapman & Son.	410.7	55 5	29 6	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	10,100	8,823	4,797
Santa Teresa.	7	13 45	7	14 35	7	21 35			American	Grace Line	300.2	51 6		Chanaral, Chile	New York, N. Y.	(16)	3,931	5,726	4,086
Democracy	7	14 50	7	15 47	8	11 17			American	Charles Nelson & Co.	377.0	52 0	24 8	Seattle, Wash.	Baltimore, Md.	Copper, lumber.	6,000	5,434	4,004
Trevanack	7	17 25	7	18 14	8	12 10			British	Hain S. S. Co.	488.0	52 3	24 6	Taltal, Chile	Alexandria, Egypt	Nitrates	7,700	5,801	4,076
California	7	12 41	8	6 15	8	14 00			American	Panama-Pacific Line	574.4	80 3	30 1	San Francisco, Cal.	New York, N. Y.	General	6,250	24,506	17,565
La Perla	7	15 00	8	6 43	8	15 30			American	United Fruit Co.	325.2	48 1	22 0	San Francisco, Cal.	Cristobal, C. Z.	General	1,208	4,033	2,981
Cauca ¹¹	8	12 45	8	6 43	8	15 20			Colombian	National Navigation Co.	107.2	22 9	11 5	Buenaventura, Col.	Cristobal, C. Z.	Coffee	281	238	183
Alberregent	7	14 55	8	6 57	8	16 25			British	British Molesters Co.	475.0	63 0	26 3	Los Angeles, Calif.	Lands End, Eng.	Gasoline	10,930	9,340	6,227
Leme ¹¹	7	18 05	8	8 10	8	17 55			Italian	Nav-Libera Tristina	450.0	57 0	28 2	Vancouver, B. C.	Trieste, Italy	General	9,154	8,805	6,497
Zerba	7	19 00	8	8 10	8	19 20			British	Zhal S. S. Co.	400.4	52 3	24 7	Tecoma, Wash.	Wilmington, N. C.	Nitrates	7,650		
San Simeon.	7	20 00	8	9 27	8	18 45			American	States S. S. Co.	410.5	54 3	24 6	Olympia, Wash.	Wilmington, Del.	Lumber	6,829	6,573	4,916
Victoria	7	22 15	8	9 53	8	19 05			Danish	Orient S. S. Co.	384.7	54 4	27 0	Vancouver, B. C.	Glasgow, Scotland	Lumber, general	7,332		
Cragness	7	23 50	8	10 18	8	20 15			British	Reardon Smith Line	411.5	55 0	24 0	Vancouver, B. C.	Lisbon, Portugal	Wheat	7,750	7,022	5,250
Harmodious	8	4 50	8	10 29	8	21 10			British	I. F. G. Lines	399.5	52 3	25 0	Tecopilla, Chile	Charleston, S. C.	Nitrates	7,300		
Annie	8	6 45	8	11 18	8	20 30			Swedish	Johnson Line	392.2	52 6	25 0	Vancouver, B. C.	Stockholm, Swed.	Wheat, general	5,628	6,667	4,920
Borga ¹¹	8	5 00	8	12 25	8	22 10			Norwegian	Fred Olsen & Co.	362.4	51 4	25 0	Vancouver, B. C.	Hull, England	Wheat, general	7,250	5,242	3,706
F. J.																			
Luckenbach.	8	6 05	8	13 05	8	22 25			American	Luckenbach Line	446.0	56 1	28 0	Portland, Ore.	Boston, Mass.	General, lumber	7,176	8,508	6,179
Alaskan.	8	8 45	8	14 35	8	22 45			American	Amer-Hawaiian Line	415.0	53 7	26 0	Portland, Ore.	Boston, Mass.	General	7,101	7,380	5,339
Amerikland ¹¹	8	14 15	8	15 41	9	13 05			Swedish	Ore S. S. Corp.	561.0	72 0	33 6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,800	11,560	4,496
Fort Armstrong	8	13 34	8	16 35	9	13 45			American	Charles Nelson & Co.	324.0	46 2	21 0	Seattle, Wash.	Baltimore, Md.	Lumber, general	2,248	3,984	2,628
Santa Isabel	8	19 00	9	6 18	9	13 55			American	American & Cuban Line	251.0	43 6	20 6	Hilo, T. H.	New York, N. Y.	Sugar	3,370	2,823	1,740
Lucric.	8	15 10	9	7 02	9	15 55			British	Andrew Weir & Co.	412.0	55 5	26 0	Whalla, Australia.	Baltimore, Md.	Iron stone.	8,443	6,913	4,866

¹¹ Motor ship.¹² Destroyer.¹³ Coffee, logs, and general.¹⁴ Copper, nitrates, and grain.¹⁵ Lumber, grain, fruit, and general.¹⁶ Copper, lead, vanadium, and general.

Ship	From	Date	Line	Vessel	From	Date	Vessel	Line	For
Britta	9 5.50	9 7.35	9 16.20	9 16.20	Caucasian Oil Co.	407.8	54.7 25.9	Les Angeles, Calif.	Gasoline.
Kosmos	8 21.00	9 8.57	9 17.55	9 17.55	A. Jone.	554.1	77.2 82.3	Wellington, N. Z.	Whale oil.
Cape Cornwall	9 6.45	9 9.09	9 19.35	9 20.50	Lytle Shipping Co.	405.3	54.0 25.0	Vancouver, B. C.	Lumber, wheat.
Cal.	9 1.30	9 10.38	9 19.25	9 20.10	Roland Line	216.5	32.9 14.10	Guayaquil, Ecuador	General.
Pacific Spruce.	9 11.10	9 11.58	9 21.10	9 20.10	Damon S. S. Corp.	410.5	54.0 25.6	Philadelphia, Pa.	Lumber.
Ecuador	9 8.15	9 14.25	9 21.10	9 20.10	Panama Mail S. S. Co.	380.6	48.7 22.5	San Francisco, Cal.	General.
Empress of Australia	9 7.25	10 6.33	10 14.35	10 19.00	Can.-Pacific Line	589.9	75.2 28.0	New York, N. Y.	Ballast.
William H. Doherty	9 18.25	10 7.38	10 15.30	10 15.30	Pan.-Amer. Pet. & Tr. Co.	435.0	56.2 27.0	Los Angeles, Calif.	Gasoline.
Sir James Clark	9 15.10	10 8.17	10 16.05	10 16.05	Syverud, Ormes	470.2	58.4 25.0	Steward Is., N. Z.	Whale oil.
R. D. Leonard	10 1.40	10 8.59	10 17.25	10 20.50	Atlantic Refining Co.	265.9	39.2 20.0	Los Angeles, Calif.	Gas oil
Cerigo	10 10.30	10 11.19	10 19.00	14 9.55	Hamburg-American Line	227.2	34.0 15.0	Guayaquil, Ecuador	(*)
Modavia	9 2.45	10 13.25	10 20.10	20.20	Donaldson Bros.	385.2	53.7 26.0	Victoria, B. C.	(*)
Solana	10 19.00	11 6.10	11 13.45	11 13.45	Associated Oil Co.	419.6	56.5 26.0	San Francisco, Cal.	(*)
West Cape	11 00.10	11 7.39	11 15.31	11 15.30	McCormick S. S. Co.	409.5	54.2 24.0	Vancouver, B. C.	Lumber, general.
Oroya	11 5.30	11 8.12	11 17.09	12 1.45	Pacific Steam Nav. Co.	525.3	62.8 25.0	Coronel, Chile.	General.
Capt. Edward P. Nones	11 9.04	11 20.15	11 20.15	11 20.15	U. S. Army	101.0	23.0	Balboa, C. Z.	
Peltore	11 9.25	11 10.11	11 19.55	11 19.55	Ore S. S. Corp.	449.1	57.2 30.0	Orizaba, C. Z.	
Georgian	11 11.50	11 12.45	11 20.30	11 20.30	Amer.-Hawaiian Line	434.3	57.7 23.0	Baltimore, Md.	General.
Uffington Court	11 11.40	11 13.10	11 21.00	11 21.45	Haldin & Phillips, Ltd.	405.1	55.5 29.0	Boston, Mass.	(*)
Portbridge	11 12.00	11 14.06	11 22.20	12 00.25	Crosby Son & Co.	390.0	54.8 25.0	Bremen, Germany	Lumber
Gaisha	11 18.15	11 19.14	12 1.05	12 11.05	Knut Knutsen	375.8	51.4 21.0	New York, N. Y.	General.
Sun	11 16.40	12 6.02	12 14.25	12 14.25	Sun Oil Co.	480.6	66.0 29.0	Stockholm, Swed.	Gasoline.
Washington	11 21.00	12 7.15	12 15.25	12 17.35	The Texas Co.	425.8	57.0 26.0	Chacter, Pa.	Gasoline.
Constance Chandler	12 2.30	12 8.26	12 16.55	12 16.55	Arrow Line	409.6	54.2 18.0	Los Angeles, Calif.	Gasoline.
Tanker.	12 2.30	12 8.26	12 16.55	12 16.55	Arrow Line	409.6	54.2 18.0	San Francisco, Cal.	General.

21 Gasoline and lubricating oil.

22 Grain, lumber, and general.

23 Coffee, cocoa, ivory nuts, hides, and Panama hats.

24 Mine planter.

25 Whaler.

26 Wheat, cotton, and canned fish.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date	Vessel	Line	From	Date	Vessel	Line	For
April 6	Pastores	United Fruit Co.	Port Limon, C. R.	April 6	Anachucma	United Fruit Co.	Colon, R. P.
April 6	Inapachuma	United Fruit Co.	Colon, R. P.	April 6	Inapachuma	United Fruit Co.	Colon, R. P.
April 6	Ulua	United Fruit Co.	Colon, R. P.	April 6	Manuel Armas	Spanish Line	Barcelona via wayports.
April 7	Ulua	Pan American Airways	New York via Habana.	April 6	Pastores	United Fruit Co.	New York via Habana.
April 7	Cordoba C-40	Scadta Airplane Co.	Tela via wayports.	April 6	Panama	United Fruit Co.	New Orleans and waypts.
April 7	Cordoba C-40	Scadta Airplane Co.	Barranquilla via waypts.	April 6	No. 300-N	Pan American Airways	Guaymout via wayports.
April 8	Gaisha	Hamburg-American Line	Hamburg via wayports.	April 9	Cavina	Elders & Fyffes, Ltd.	Avonmouth via wayports.
April 8	Tela	United Fruit Co.	Cartagena, Colombia.	April 9	Ulua	United Fruit Co.	Port Limon, C. R.
April 8	Cavina	Elders & Fyffes Line	Avonmouth via waypts.	April 9	Gaisha	Hamburg-American Line	Livingston and wayports.
April 9	Cristobal	Panama R. R. S. S. Line	New York via Haiti	April 8	No. 9885	Pan American Airways	Tela via wayports.
April 9	Sixadla	United Fruit Co.	New York via Kingston.	April 8	No. 300-N	Pan American Airways	Guaymout via wayports.
April 9	Irona	United Fruit Co.	New Orleans, La.	April 8	No. 300-N	Pan American Airways	Guaymout via wayports.

* Other than ships passing through the Canal.

27 Motor boat.

28 Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.							
* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 9	Impeco ²⁵ .	Colon Import & Export Co.	Colon, R. P.	April 9	Tela	United Fruit Co.	Bocas, R. P.
April 10	Carmania ²⁵ .	R. Feuillebois	Colon, R. P.	April 10	Sixaola	United Fruit Co.	New York via wayports.
April 10	No. 309-N ²⁶ .	Pan American Airways.	Ciracao via wayports.	April 10	Carmania ²⁵ .	R. Feuillebois	Bluefields, Nicaragua.
April 10	No. 9685 ²⁶ .	Pan American Airways.	Tela via wayports.	April 10	No. 9664 ²⁶ .	Pan American Airways.	Tela via wayports.
April 11	Atlantida	Standard Fruit & S. S. Co.	New Orleans via Habana.	April 11	Cordoba C-40 ²⁶ .	Scadta Airplane Co.	Colombian ports.
April 11	Tela	United Fruit Co.	Bocas, R. P.	April 11	Annetta I. ²⁷ .	A. Tagaropulos	Colon, R. P.
April 11	Helder	Royal Neth. S. S. Co.	Amsterdam via waypts.	April 11	Anachucuna ²⁷ .	United Fruit Co.	Colon, R. P.
April 11	No. 300-N ²⁶ .	Pan American Airways.	Guayaquil via wayports.	April 11	Iriona	United Fruit Co.	Colombian ports.
April 11	Anachucuna ²⁷ .	United Fruit Co.	Colon, R. P.	April 12	Tela	United Fruit Co.	New Orleans and waypts.
April 11	Annetta I. ²⁷ .	A. Tagaropulos	Colon, R. P.	April 12	Atlantida	Standard Fruit & S. S. Co.	New Orleans and waypts.
April 12	Camden	United Fruit Co.	Ciracao, D. W. I.	April 12	No. 9088 ²⁶ .	Pan American Airways.	Tela via wayports.
April 12	Heredia	United Fruit Co.	New Orleans via Habana.	April 12	Helder	Royal Neth. S. S. Co.	Havre.
April 12	Tactician	Leyland S. S. Line.	Liverpool via wayports.				
April 12	No. 9664 ²⁶ .	Pan American Airways.	Tela Via wayports.				
²⁵ Motor schooner.			PORT OF BALBOA.				
²⁶ Air mail carrier.			²⁷ Motor boat.				
April 7	El Sona ²⁸ .	National Navigation Co.	Panama Bay, R. P.	April 7	El Sona ²⁸ .	National Navigation Co.	Panama Bay, R. P.
April 10	Radio ²⁸ .	National Navigation Co.	Panama Bay, R. P.	April 10	Radio ²⁸ .	National Navigation Co.	Panama Bay, R. P.
April 11	Amereca ²⁸ .	National Navigation Co.	Panama Bay, R. P.	April 11	Amereca ²⁸ .	National Navigation Co.	Panama Bay, R. P.
April 11	A. B. Obarrio ²⁸ .	Hans Elliot	Panama Bay, R. P.	April 11	A. B. Obarrio ²⁸ .	Hans Elliot	Panama Bay, R. P.
April 11	El Colon ²⁸ .	A. Valdez	Panama Bay, R. P.	April 11	El Colon ²⁸ .	A. Valdez	Panama Bay, R. P.
April 11	Sambu ²⁸ .	Hans Elliot	Panama Bay, R. P.	April 11	Sambu ²⁸ .	Hans Elliot	Panama Bay, R. P.
April 11	Dos Hermanos ²⁸ .	A. Valdez	Panama Bay, R. P.	April 12	Dos Hermanos ²⁸ .	A. Valdez	Panama Bay, R. P.
April 11	Rio Nozaro ²⁹ .	Hans T. Lau	Pantarens, C. R.	April 12	Rio Nozaro ²⁹ .	Hans T. Lau	Pantarens, C. R.
April 11	Real ²⁸ .	Hans Elliot	Panama Bay, R. P.	April 12	Real ²⁸ .	Hans Elliot	Panama Bay, R. P.
²⁸ Motor schooner.			²⁹ Motor ship.				
			* Other than ships passing through the Canal.				

* Other than ships passing through the Canal.

²⁸ Motor schooner. ²⁹ Motor ship.

Cargo Through Canal During March, 1930.

On pages 538 and 539 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in March, 1930. This cargo, segregated according to direction, as compared with March, 1929, and the differences, is shown in the following tabulation:

	March, 1930.	March, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	741,986	841,941	—99,955
Pacific to Atlantic.....	1,816,252	1,901,827	—85,575
Totals.....	2,558,238	2,743,768	—185,530

It will be noted from the above that the Atlantic to Pacific tonnage decreased 99,955 tons as compared with March, 1929, and that from the Pacific to Atlantic 85,575 tons, making a total decrease of cargo tonnage in both directions of 185,530 tons. The heavy decrease was accounted for by curtailment in shipments of several important commodities as indicated under "Principal commodities."

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Seventy and seven-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 21.7 per cent in Europe. Tonnage from the United States decreased 44,266 tons, or 7.7 per cent as compared with March, 1929, while the proportion to the total in March, 1930, was somewhat higher. Little difference was registered in the amount originating in Europe—160,656 tons in 1930 as compared with 162,120 tons in 1929, a decrease of 1,464 tons, or 0.9 per cent—although the percentage of the whole was slightly higher in March of this year.

Destination.—Forty-five and eight-tenths per cent of the Pacific-bound tonnage was destined to the United States; 23.9 per cent to Asia; 13.9 per cent to South America; and 12.3 per cent to Australasia. Cargo tonnage to all these areas, with the exception of the United States, declined as compared with March, 1929, in actual tonnage as follows: To Asia, 11,932 tons, or 6.3 per cent; to South America, 19,849 tons, or 16.1 per cent; and to Australasia, 42,220 tons, or 31.6 per cent. In point of the relation of cargo destined to the aforementioned areas to the total tonnage in this direction, that to South America and Australasia decreased, while that to Asia showed a slight gain. While making a heavy increase in its relation to the total cargo, the increase in actual tonnage to the United States was only slightly over a thousand tons.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 48.8 per cent came from the United States; 25.9 per cent from South America; 11.2 per cent from Canada; 7.9 per cent from Asia; and 4.8 per cent from Australasia. As compared with the corresponding month a year ago, tonnage from the United States decreased slightly—less than a thousand tons—while the percentage of the total was somewhat higher in March, 1930. On account of the greatly lessened nitrate shipments, cargo tonnage from South America decreased 103,251 tons, or 18 per cent, and also showed a greatly reduced percentage in its relation to

the total cargo. Tonnage from Canada and Australasia showed proportionate as well as decreases in actual tonnage in the amounts of 47,347 tons, or 18.9 per cent, and 20,139 tons, or 18.8 per cent, respectively, as compared with March, 1929. On account of heavy sugar shipments from the Philippine area, cargo tonnage from Asia increased 81,443 tons, or 131.6 per cent—also showing a heavy increase in its proportion to the total Atlantic-bound cargo movement.

Destination.—Segregated according to destination, 61.0 per cent of the cargo in this direction went to the United States, and 33.4 per cent to Europe. Tonnage to the United States increased in its proportion to the total tonnage in this direction over March, 1929, and also showed an increase in actual tonnage of 51,232 tons, or 4.8 per cent. That to Europe showed a decrease in its relation to the total cargo as well as an actual decrease of 170,004 tons, or 21.9 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 89 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 11 per cent consists, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for March, 1930, or March, 1929, are listed in the following tabulation, showing differences:

Commodity.	March, 1930.	March, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	10,959	12,103	-1,144
Automobiles.....	19,549	26,012	-6,463
Cement.....	19,507	18,103	+1,404
Coal and coke.....	11,654	7,312	+4,342
Cotton.....	19,930	27,243	-7,313
Flour.....	2,670	23,845	-21,175
Manufactured goods:			
Iron and steel.....	170,591	195,726	-25,135
Machinery.....	13,817	18,880	-5,063
Railroad material.....	14,842	23,565	-8,723
Textiles.....	6,943	11,815	-4,872
Tinplate.....	31,016	24,258	+6,758
Miscellaneous.....	12,556	19,370	-6,814
Metal, scrap.....	20,551	3,940	+16,611
Oils, mineral.....	50,935	89,506	-38,571
Paper.....	17,335	16,851	+484
Phosphates.....	33,905	28,214	+5,691
Silversand.....	11,050	.....	+11,050
Slag.....	15,322	1,731	+13,591
Sugar.....	18,290	14,140	+4,150
Sulphur.....	14,303	14,756	-453

The above 20 commodity groups comprise 69.5 per cent of the cargo moving from the Atlantic to the Pacific during March, 1930. As will be noted 9 of the items increased and 11 decreased as compared with March, 1929. Flour, iron and steel, and mineral oils showed heavy decreases, while the heaviest gains were in scrap metal, silversand, and slag.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of March, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month in 1929 are listed below:

Commodity.	March, 1930.	March, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Asphalt.....	2,078	13,962	-11,884
Barley.....	21,662	25,022	-3,360
Beans.....	9,847	10,155	-308
Canned goods (fish, fruit, vegetables, etc.).....	83,061	78,075	+4,986
Coffee.....	23,039	20,784	+2,255
Cold storage (food products).....	44,077	42,281	+1,796
Cotton.....	7,008	11,838	-4,830
Fruit, dried.....	15,297	23,850	-8,553
Fruit, fresh.....	14,142	28,747	-14,605
Lumber.....	300,515	224,594	+75,921
Metals, various.....	64,122	55,171	+8,951
Nitrates.....	147,762	257,832	-110,070
Oils, mineral.....	420,040	434,493	-64,453
Ores, principally iron.....	230,446	171,834	+58,612
Paper.....	13,851	3,398	+10,453
Paper pulp.....	10,736	5,137	+5,599
Rice.....	12,506	10,852	+1,654
Sugar.....	118,316	59,657	+58,659
Wheat.....	150,034	224,405	-74,371
Wool.....	16,592	24,173	-7,581

The above 20 commodity groups comprise 93.9 per cent of the cargo moving from the Pacific to the Atlantic during March, 1930. Ten of the items show increases and 10 decreases. Lumber, ores, and sugar registered the greatest increases, while nitrates, wheat, and mineral oils decreased heavily.

(Continued on next page.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending April 12, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Esparta.....	United Fruit Co.....	March 31.....	April 1.....	59	.....
Champerico.....	Pacific Steam Nav. Co.....	April 3.....	April 3.....	66	.....
Courageous.....	U. S. Shipping Board.....	April 3.....	April 3.....	181	.....
Chateau Thierry.....	U. S. Government.....	April 3.....	April 4.....	635	155
Barneveld.....	Royal Neth. S. S. Co.....	April 4.....	April 4.....	183	.....
Rapot.....	North German Lloyd.....	April 4.....	April 5.....	62	.....
Vega.....	U. S. Government.....	April 5.....	April 6.....	8	6
Corinto.....	Panama Mail S. S. Co.....	April 5.....	April 6.....	7	.....
Abraham Lincoln.....	Fred Olsen & Co.....	April 5.....	April 6.....	1,055	.....
La Perla.....	United Fruit Co.....	April 7.....	April 8.....	59	.....
El Salvador.....	Panama Mail S. S. Co.....	April 8.....	April 9.....	156	1
City of Panama.....	Panama Mail S. S. Co.....	April 9.....	April 9.....	.....	1
Ecuador.....	Panama Mail S. S. Co.....	April 9.....	April 9.....	65	1
Caldas.....	National Navigation Co.....	April 10.....	April 10.....	.....	4
Pennsylvania.....	Panama-Pacific Line.....	April 11.....	April 11.....	.....	197

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, March, 1930.—Continued from page 537.
(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.					SOUTH AMERICA.					AUSTRALASIA.			ASIA.					Grand totals.	Per cent of total cargo.					
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.²	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.¹	Total, South America.	Australia.	New Zealand.	Australasia.¹	Total, Australasia.	Philippine Islands.	China.			Japan.	Far East.²	Total, Asia.		
NORTH AMERICA:																									
UNITED STATES—																									
North Atlantic ports.....	210,370	701,171		438,661	221,486	13,067	628	411	5,963	2,497	22,566	19,053	5,867			24,920	14,838	20,576	36,562	11,332	83,308	352,280	47.4		
South Atlantic ports.....	4,270			59,756						363	302	3,898	12,243			12,243	350	1,138	16,211	720	18,419	22,689	3.1		
Gulf ports.....	59,756																								
Totals, United States.....	274,396	701,171		438,661	285,512	15,738	1,035	566	6,326	2,799	26,464	31,296	5,867			37,163	16,467	33,786	89,673	35,714	175,640	524,779	70.7		
East coast of Canada.....		2,900				2,900								8,477		8,477						11,377	1.5		
East coast of Central America.....														2,250		2,250						2,250	0.3		
Cristobal, C. Z.².....	3,237	103,968				7,215	1,865	1,892	963	925	1,726	7,371		7,349		7,349						14,586	2.0		
West Indies.....	10,526	45				10,571	25	4,494				4,519										22,439	3.0		
Totals, North America.....	288,159	3,656,679		438,661	306,192	17,628	2,927	6,023	7,251	4,525	38,354	33,546	21,693			55,239	16,467	33,786	89,673	35,714	175,640	575,431	77.5		
EUROPE:																									
British Isles.....	1,226	4,113				5,339	5,342		20	1,825	9,185	16,372		18,783		18,783						40,494	5.5		
Belgium.....	25,612	3,392	406			29,410	7,223	650	60	2,199	3,882	14,014		17,109		17,109						777	8.2		
France.....	1,108	584	292			1,984	1,611	30	80	81	79	1,881										3,865	0.5		
Germany.....	4,695			58		4,753	2,802	86	256	1,605	614	5,363										10,116	1.4		
Holland.....	2,985	66				3,051	1,698			28	303	2,029										5,847	0.8		
Italy.....	2,086	450	28			2,564	58			10	5,172	5,240										7,804	1.1		
Norway and Sweden.....	135	88				223	5,195				3,688	8,883										9,106	1.2		
Spain and Portugal.....				1,567		1,567	16			8	48	72										1,639	0.2		
Europe.....	8,569	916		59		9,544	2,798	54	467	620	6,992	10,931										20,475	2.8		
Totals, Europe.....	46,416	9,609	726	1,684		58,435	26,743	820	883	6,376	29,963	64,785		35,892		35,892						1,544	1,544	160,656	21.7
East coast of South America.....	5,720	36				5,756		143				143											5,899	0.8	
Grand totals.....	340,295	13,301,645	1,727	8,661	370,389	44,371	3,890	6,906	13,627	34,488	103,292	33,546	57,585			91,131	16,467	35,330	89,673	35,714	177,184	741,986	100.0		
Per cent of total cargo:																									
March, 1930.....	45.8	1.8	0.9	0.2	1.2	49.9	6.0	0.5	0.9	1.8	4.7	13.9	4.5	7.8		12.3	2.2	4.8	12.1	4.8	23.9	100.0	.....		
March, 1929.....	40.3	3.5	3.0	0.1	0.2	47.1	6.4	1.4	0.4	2.2	4.2	14.6	6.0	8.9	1.0	15.9	2.3	6.1	11.3	2.7	22.4	100.0	.....		
March, 1928.....	44.7	1.7	2.5	0.2	1.5	50.6	6.5	1.3	0.3	2.4	4.1	14.6	8.1	7.6	0.8	16.5	2.3	4.9	8.1	3.0	18.3	100.0	.....		

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, March, 1930.

(Figures represent tons of 2,240 pounds.)

From—	North America.										Europe.										Grand totals.	Per cent of total cargo.						
	UNITED STATES.					Central America.					West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.			Spain and Portugal.	Europe. ¹	Total, Europe.	East coast of South America.	Egypt.	Africa.
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Central America.	Cristobal, C. Z. ²																					
NORTH AMERICA:																												
W. coast of U. S.	567,772	2,264,312	264	601,300	1,072	2,184	9,728	614,284	142,135	182,305	14,401	22,493	9,660	582	1,294	5,317	62,935	264,304	8,669	887,339	48.8							
W. coast of Can.	24,976	3	3	24,979	11,921	37	6,857	43,794	52,612	615,203	10,252	2,338	6,874	65	10,231	72,573	157,573	1,752	203,119	11.2								
W. coast of C. A.	197			197		10,213	184	10,594	983				546	1,723	216	2,631	3,000	2,196	10,312	20,906	1.1							
Hawaiian Islands		3,519		3,519				3,519								257			1,240	4,759	0.3							
Totals.	592,945	2,264,347	786	629,995	11,921	1,072	12,434	617,699	672,191	195,730	3,797	4,318	25,199	26,554	16,750	647	14,413	8,317	137,704	433,429	10,421							
SOUTH AMERICA:																												
Chile	254,127	23,550	22	300,242		83	1,718	302,043	15,647	1,763			2,282	6,691	786	735	673	69	39,537	68,183	915,900							
Colombia	1,452			1,452		3,616		5,068					14					18	32									
Ecuador	15,108			15,108		1,901		17,009	51				30	38		347		20	3,217	3,733								
Peru	7,480			7,480	15,676		50	23,206	3,904	159	304			312,193	35	200		11,660	28,458									
W. coast of S. A.	65			65		32		97	4,592	1,307								396	6,295	6,392	0.4							
Totals.	278,232	23,550	22	324,347	15,676	5,682	1,718	347,423	24,194	1,922	1,611	2,329	18,922	821	1,282	673	89	54,888	106,701	915,900								
AUSTRALASIA:																												
Australia	8,686			8,686	500			9,186					5,000						5,000									
New Zealand	2,607			2,607	758			3,365	57,798										57,798									
Australasia	7,800			7,800				7,800					3,616						3,616									
Totals.	19,093			19,093	1,258		22	20,373	57,798				8,616						66,414									
ASIA:																												
Philippine Is.	99,413	24,815		124,228				124,228																				
China	4,363	95		4,458		295	287	5,040																				
Japan	3,556	1,088		4,644		28	8,405	13,077																				
Far East	964			964				964																				
Totals.	108,296	25,998		134,294		323	8,692	143,309																				
Grand totals	998,566	25,814	83,349	1,107,729	28,855	1,072	18,461	27,179	1,183,296	277,722	5,719	9,929	36,144	45,476	17,571	1,929	15,086	8,406	192,562	606,544	10,430	15,900	821,816	252,100				
Per cent of total cargo:																												
March, 1930.	55.0	1.4	4.6	61.0	1.5	0.1	1.0	1.5	65.1	15.3	0.3	0.3	2.0	2.5	1.0	0.1	0.8	0.5	10.6	33.4	0.6	0.9						
March, 1929.	48.1	3.2	4.2	55.5	1.5		1.2	0.8	59.0	17.9	0.9		0.9	4.1	1.6		1.3	0.4	13.9	41.0								
March, 1928.	43.1	6.2	4.5	53.8	0.2	0.6	2.5	1.0	58.1	18.9	0.8	0.4	1.3	5.2	3.0	0.4	0.8		10.7	41.5	0.4							

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending April 5, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ancon	Panama R. R. S. S. Line.		March 30.		931
Vernon City	Reardon Smith Line, Ltd.	March 30.	March 30.	301	(*)
Calamares.	United Fruit Co.	March 30.	March 30.	29	9
Cartago.	United Fruit Co.	March 30.	March 31.	580	231
Castilla.	United Fruit Co.	March 30.	March 31.	23	17
Mayan.	Gulf-Caribbean S. S. Line.	March 30.	April 1.	1,293	(*)
Durazzo.	Hamburg-American Line.		March 31.		564
Texas.	French Line.	March 31.	March 31.	10	(*)
Ebro.	Pacific Steam Nav. Co.	March 31.	March 31.	23	15.
Lochmonar.	Royal Mail S. P. Co.	March 31.	March 31.	(*)	36.
Santa Cruz.	Grace Line.	March 31.	April 1.	479	(*)
Swiftlight.	C. D. Mallory & Co.	March 31.	April 1.	12,110	(*)
Perou.	French Line.	March 31.	April 2.	59	222
Simon Bolivar.	Royal Neth. S. S. Co.	April 1.	April 1.	7	23
Croole Jefe.	Venezuelan Gulf Oil Co.	April 1.	April 2.	3,944	(*)
Esparta.	United Fruit Co.	April 1.	April 4.	1,037	126
Manizales.	North German Lloyd	April 2.		894	
Tela.	United Fruit Co.	April 2.	April 3.	530	5
Estere.	J. Garcia.	April 2.	April 3.	(*)	7
Pastores.	United Fruit Co.	April 2.	April 3.	622	57
Metapan.	United Fruit Co.	April 2.	April 3.	667	126.
Santa Elisa.	Grace Line.	April 2.	April 3.	114	150
Courageous.	Roosevelt S. S. Co., S. B.	April 3.	April 4.	148	(*)
Swiftagle.	C. D. Mallory & Co.	April 3.	April 4.	11,700	(*)
Barneveld.	Royal Neth. S. S. Co.	April 3.	April 4.	203	128
Emil Kirdorf.	Hamburg-American Line.	April 3.	April 4.	264	11
Havel.	North German Lloyd	April 3.	April 4.	1	323
Manuel Arnus.	Spanish Line.	April 3.	April 5.	162	672
Virgilio.	Italian Line.	April 3.	April 5.	51	1,731
Lochgail.	Royal Mail S. P. Co.	April 4.	April 5.	34	3
Orita.	Pacific Steam Nav. Co.	April 4.	April 5.	61	239
Alvarado.	Pacific Steam Nav. Co.	April 4.	April 5.	203	36
Champerico.	Pacific Steam Nav. Co.	April 4.		913	
Manaquei.	United Fruit Co.	April 4.	April 5.	71	913
Abraham Lincoln.	Fred Olsen & Co.	April 4.	April 5.	285	218
Rialto.	Nav. Libera-Triestina.	April 4.	April 5.	166	(*)
Caldas.	National Navigation Co.	April 4.		218	
Murla.	North German Lloyd	April 4.	April 5.	170	151
Wido.	North German Lloyd	April 4.	April 5.	23	132
Amapala.	Standard Fruit S. S. Co.	April 4.	April 5.	103	147
Castilla.	United Fruit Co.	April 4.	April 5.	44	158
Eemdijk.	Holland-American Line.	April 4.	April 5.	(*)	336
Simon Bolivar.	Royal Neth. S. S. Co.	April 4.	April 5.	7	492
Parismina.	United Fruit Co.	April 5.		82	
Pearl Marie.	R. Feuillebois.	April 5.	April 5.	(*)	29
Teutonia.	Hamburg-American Line.	April 5.	April 5.	23	226
Antiochia.	Hamburg-American Line.	April 5.		105	
Rapot.	North German Lloyd	April 5.	April 5.	192	42
Karnok.	Hamburg-American Line.	April 5.		235	
Minden.	North German Lloyd	April 5.		27	
Nitonian.	Leyland S. S. Line.	April 5.	April 5.	(*)	88

* No cargo discharged.

* No cargo laded.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

A ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., April 23, 1930. No. 38.

Canal Traffic During First Fifteen Days of April.

During the first 15 days of April, 240 commercial vessels and 4 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,117,023.51, and on the launches \$20.25, or a total tolls collection of \$1,117,043.76.

The daily average of transits of commercial vessels was 16.00, and the average tolls collection \$74,468.23, as compared with an average of 16.33 transits and \$72,140.15 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,654.26, as compared with \$4,416.74 for the first 15 days of March.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 9½ months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 9½ months of the fiscal years 1929 and 1928:

	Total for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April (first 15 days).....	240	1,117,023.51	16.00	74,468.23
Total, first 9½ months of fiscal year 1930.....	4,979	21,697,257.39	17.23	75,077.02
Total, first 9½ months of fiscal year 1929.....	5,131	21,611,394.20	17.75	74,779.91
Total, first 9½ months of fiscal year 1928.....	5,201	21,705,385.64	17.93	74,846.15

As compared with the first 9½ months of the fiscal year 1929, the corresponding period this year has had 152 fewer transits and \$85,863.19 more tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 17, 1930.

No. 686.

Colombia, west coast, Buenaventura, entrance buoy extinguished. The master of the steamship *Santa Rita* reports that the flashing white entrance buoy No. 1, in Buenaventura River entrance, Colombia, was extinguished on the night of April 16, 1930.

Approximate position: Lat. 3° 46' 40" N., Long. 77° 19' 05" W.

H. BURGESS,
Governor.

CANAL WORK IN MARCH, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of March, 1930.

BALBOA HEIGHTS, C. Z., April 14, 1930.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of March, 1930:

NUMBER OF TRANSITS.

During the month 515 commercial vessels and 7 small nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 47 vessels belonging to the United States Government and 1 transit of a Panamanian Government vessel on which no tolls were collected, making a total of 570 transits for the month, or a daily average of 18.39.

Tolls on 515 commercial vessels amounted to \$2,260,002.36, and on the launches to \$42.06, a total of \$2,260,044.42, or a daily average on all traffic of \$72,904.66.

While the traffic in March exceeded that in the preceding month in both transits and tolls, the daily average number of commercial transits in March (16.61) is the lowest for any month in the current fiscal year, and the daily average tolls collection (\$72,903.30) is the lowest for any month since July, 1929. As compared with March, 1929, the traffic in March, 1930, showed a decrease of 21 transits and \$83,863.19 in tolls.

A review of Canal traffic for the first nine months of the current fiscal year in comparison with the same period last year shows a decrease of 107 in the number of commercial transits, although the aggregate net tonnage of vessels, Panama Canal measurement, tolls, and tons of cargo carried this year exceeds slightly those of last year. This is accounted for by an increase in the average size of vessels serving the Canal and the relatively fewer number of transits in ballast as compared with the first nine months of 1929.

The trade routes on which most of the reduction in transits occurred were those between Europe and the west coast of North America, and between Europe and the west coast of South America. The former trade has in recent years ranked second only to the United States intercoastal in volume of shipping through the Canal. Substantial increases were noted in the United States intercoastal trade, and between United States and Far East, east coast United States and South America, and Europe and Australasia.

The total numbers of craft of all kinds transiting the Canal during the month of March, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	March, 1930.	March, 1929.	March, 1928.
Commercial vessels.....	515	536	542
Launches (under 20 tons).....	7	15	13
Noncommercial vessels:			
United States Government.....	47	96	62
Panamanian Government.....	1	1	3
Vessels for repairs.....		3	4
Total.....	570	651	624

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North- bound.	South- bound.	Total.
Gatun.....	4	3	7
Pedro Miguel.....	19	20	39
Miraflores.....	21	21	42
Total.....	44	44	83

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year, 1930, to the end of March, 1930, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1923-9	1929-30	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,109,083.19	\$2,259,582.37
August....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September..	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November...	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,895.94
December..	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
January....	603	531	2,771,280	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
February...	522	491	2,423,530	2,369,255	2,550,498	2,377,900	2,211,961.20	2,131,386.12
March.....	536	515	2,567,961	2,505,859	2,743,768	2,558,238	2,343,865.55	2,260,002.36
Total....	4,846	4,739	22,500,282	22,724,648	22,982,497	23,164,653	20,421,937.10	20,580,233.88

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for March, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the calendar year 1929:

	March, 1930.	March, 1929.	March, 1928.	Average per month for calendar year 1929..
Number of vessels.....	515	536	542	536
Panama Canal net tonnage.....	2,505,859	2,567,961	2,441,077	2,529,432
United States net tonnage.....	1,876,772	1,965,046	1,890,273	1,928,223
Registered gross tonnage.....	3,103,558	3,230,243	3,065,448	3,171,832
Registered net tonnage.....	1,838,586	1,976,904	1,893,191	1,936,803
Tolls.....	\$2,260,002.36	\$2,343,865.55	\$2,223,370.57	\$2,299,392.99
Tons of cargo carried.....	2,558,238	2,743,768	2,428,662	2,620,874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	March, 1930.	March, 1929.	March, 1928.	
Number of transits.....	16.61	17.29	17.48	17.62
Panama Canal net tonnage.....	80,834	82,837	78,745	83,159
Tolls.....	\$72,903.30	\$75,608.57	\$71,721.63	\$75,596.48
Tons of cargo carried.....	82,524	88,503	78,344	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of March, 1930, as compared with March, 1929, and 1928, are shown in the following tabulation:

	Average per vessel.		
	March, 1930.	March, 1929.	March, 1928.
Panama Canal net tonnage.....	4,866	4,791	4,503
United States net tonnage.....	3,644	3,666	3,483
Registered gross tonnage.....	6,026	6,026	5,655
Registered net tonnage.....	3,667	3,688	3,493
Tolls.....	\$4,388.35	\$4,372.88	\$4,102.16
Tons of cargo (including vessels in ballast).....	4,967	5,119	4,481
Tons of cargo (laden vessels only).....	5,672	5,991	5,583

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.924 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.724 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of March, 1930, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$4,923.60	\$4,103.00		\$820.60
British.....	639,208.19	683,894.10	\$44,685.91	
Chilean.....	13,373.51	13,689.80	316.29	
Colombian.....	1,079.10	900.00		179.10
Danish.....	17,432.90	17,316.00		116.90
Danzig.....	17,487.69	15,732.20		1,755.49
Dutch.....	39,163.75	48,445.00	9,281.25	
French.....	64,038.50	68,847.20	4,808.70	
German.....	89,496.40	102,436.00	12,939.60	
Greek.....	4,182.50	4,482.00	299.50	
Italian.....	32,545.00	38,313.00	5,768.00	
Japanese.....	89,535.65	84,920.00		4,615.65
Norwegian.....	107,951.47	127,842.60	19,891.13	
Panamanian.....	11,287.96	12,912.80	1,624.84	
Swedish.....	37,266.74	41,503.20	4,236.46	
United States.....	1,081,841.90	1,118,405.40	36,563.50	
Yugoslav.....	9,187.50	9,827.00	639.50	
Total.....	2,260,002.36	2,393,569.30	141,054.68	7,487.74
Net increase for all traffic.....			133,566.94	

* Includes \$3,361.50 collected for naval vessel at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$31,837.16
United States foreign trade.....	5,012.72
United States—Canal Zone trade.....	286.38
Net increase.....	36,563.50

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in March, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian.....		1.53	1.53
British.....	.71	1.15	.96
Chilean.....	.40	1.14	.86
Colombian.....	.51	1.43	.97
Danish.....	.10	1.59	1.22
Danzig.....		1.83	1.83
Dutch.....	.62	1.06	.87
French.....	.34	1.31	1.06
German.....	.66	1.16	.92
Greek.....		1.78	1.78
Italian.....	.31	.75	.47
Japanese.....	1.47	1.50	1.48
Norwegian.....	1.06	1.46	1.29
Panamanian.....		1.03	1.03
Swedish.....	1.17	2.45	2.15
United States.....	.86	1.53	1.35
Yugoslav.....		1.62	1.62
Averages, March, 1930.....	.81	1.39	1.15
Averages, March, 1929.....	.93	1.48	1.25
Averages, March, 1928.....	.87	1.50	1.23

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of March is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	2	4,630	\$4,988.75	47	234,316	\$240,982.05
Ballast.....	38	204,958	147,616.47			
General cargo ships:						
Laden.....	186	909,812	813,961.35	215	1,067,973	937,465.50
Ballast.....	18	80,061	58,637.51	1	1,748	1,258.56
Noncargo-carrying ships:						
Naval.....	1		586.50	1		2,775.00
Tugs.....	1	195	86.25			
Yachts.....	2	1,624	1,170.27	3	542	474.15
Total.....	248	1,201,280	1,027,047.10	267	1,304,579	1,232,955.26
Method of propulsion:						
Steam.....	190	901,152	793,826.69	214	1,031,446	985,332.61
Motor.....	58	300,128	233,220.41	53	273,133	247,622.65
Total.....	248	1,201,280	1,027,047.10	267	1,304,579	1,232,955.26

Of the 404 steam-driven vessels, 297 were oil burning, 99 coal burning, and 8 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of March, 1930. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft carriers.....				2	57,499	\$28,749.50
Auxiliary vessels.....				1	3,336	4,170.00
Battleships.....				6	193,800	96,900.00
Cargo ships.....				1	3,454	4,144.80
Cruisers.....	2	16,400	\$8,200.00	1	3,200	1,600.00
Destroyers.....				5	6,075	3,037.50
Hospital ships.....				1	4,037	5,046.25
Mine sweepers.....	1	950	475.00	6	4,750	2,375.00
Store ships.....				1	3,913	4,891.25
Submarines.....				3	6,750	3,375.00
Submarine tenders.....				1	3,908	4,885.00
Tankers.....				1	4,860	6,075.00
U. S. Army vessels:						
Launches.....	5	50	37.50	2	20	15.00
Mine planters.....	2	2,416	1,208.00	1	1,208	604.00
Transports.....	1	3,908	4,885.00	2	7,816	9,770.00
Tugs.....	1	46	34.50	1	46	34.50
Total, U. S. Government.....	12		14,840.00	35		175,672.80
Panamanian Government vessels:						
Transports.....	1	101	72.72			
Total.....	13		14,912.72	35		175,672.80

¹ Indicates displacement tonnage.

² Indicates Panama Canal net tonnage.

³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of March, 1930, carried cargo as follows: Atlantic to Pacific, 330 tons; Pacific to Atlantic, 7,114 tons; total, 7,444 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of March, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	4	35	\$26.73
Pacific to Atlantic.....	3	21	15.33
Total.....	7	56	42.06

STATEMENT OF TERMINAL OPERATIONS.

The details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of March, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	151,371	49,986	201,357
Local cargo shipped..... tons..	7,041	823	7,864
Transit cargo arriving..... tons..	2,535,898	2,546,343	5,082,246
Transit cargo clearing..... tons..	2,566,644	2,542,607	5,109,251
Cargo received for transshipment..... tons..	36,075	304	36,379
Cargo transhipped..... tons..	37,511	481	37,992
"Canal Zone for orders" cargo:			
Number of receipts issued.....	86	32	118
Number of releases issued.....	585	259	844
Tons received.....	2,668	579	3,247
Tons withdrawn.....	2,504	645	3,149
Packages received.....	8,971	11,157	20,128
Packages withdrawn.....	12,027	3,358	15,385
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	64	4	68
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	26,036	150	26,186
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	106	23	134
Panama Railroad Company..... tons..	6		6
U. S. Army, including vessels..... tons..	246	10	256
Individuals and Companies..... tons..	171		171
Transferred to Navy..... tons..	188		188
Total sales and issues..... tons..	26,753	188	26,941
Coal on hand March, 1, 1930..... tons..			
Coal on hand April 1, 1930..... tons..	58,284		58,284
Coal received during the month..... tons..	95,834		95,834
Coal received from Navy..... tons..	64,303		64,303
		188	188
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls..	5,849.45	20,975.49	26,824.94
Panama Railroad Company..... bbls..	802.35		802.35
U. S. Army and Navy..... bbls..	850.80	98.85	949.65
Individuals and companies..... bbls..		143.72	143.72
Total sales and issues..... bbls..	7,502.60	21,218.06	28,720.66
Fuel oil on hand, April 1, 1930..... bbls..			
Diesel oil issued and sold during March..... bbls..	36,280.65	26,703.95	62,984.60
Diesel oil on hand April 1, 1930..... bbls..	411.00	1,561.80	1,972.80
Miscellaneous transfers..... bbls..	14,545.97	24,752.37	39,298.34
Gasoline and kerosene pumped for The Panama Canal..... bbls..		38.30	38.30
Gasoline pumped for individuals and companies..... bbls..	4,763.41	4,536.01	9,299.42
Oil pumped for individuals and companies..... bbls..	1,017.79	6,945.80	7,963.59
Oil pumped for U. S. Navy..... bbls..	605,986.90	569,586.85	1,175,573.75
	71,458.60	32,137.50	103,596.10
Total fuel oil, gasoline and kerosene handled..... bbls..	691,140.30	636,024.32	1,327,164.62
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	18	4	22
Measured for Panama Canal net tonnage.....	4		4
Remeasured for Panama Canal net tonnage.....	15	2	17
Panama Canal net tonnage corrected.....	2	5	7
U. S. equivalent tonnage corrected.....	6	10	16
Services of harbor equipment:			
Tugs, total operating hours.....	498½	382½	881½
Launches, total operating hours.....	1,568	1,586	3,154

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc:			
Tug revenue.....	\$15,967.50	\$12,343.75	\$28,311.25
Pilotage.....	21,112.00	8,494.00	29,606.00
Seamen.....	11,392.00	12,372.00	23,764.00
Launch service.....	2,338.00	2,993.00	5,331.00
Wharfage.....	18,438.81	5,946.50	24,385.31
Ships measured.....	160.00		160.00
Miscellaneous.....	1,365.63	335.00	1,700.63
Ships repaired at Panama Canal shops:			
Commercial.....	53	11	64
U. S. Army and Navy.....	10	4	14
Panama Canal equipment.....	3	11	14
Total.....	66	26	92
Vessels dry-docked:			
Commercial.....	5		5
U. S. Army and Navy.....		1	1
Panama Canal equipment.....	1	3	4
Total.....	6	4	10
Clearances issued.....	347	246	593
Bills of health issued.....	396	268	664

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal.....	612	3,971,250	2,556,981	530	3,205,423	1,965,092
Vessels entering port but not transiting Canal.....	91	526,709	308,180	10	59,586	36,992
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	125	789,985	479,447	107	625,799	379,299
<i>Ships clearing.</i>						
All vessels, including those transiting Canal.....	627	4,073,225	2,630,209	560	3,542,644	2,295,669
Vessels clearing port but not transiting Canal.....	98	584,706	357,799	12	91,703	69,031
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	127	797,824	482,518	105	616,535	373,525

AIRCRAFT ENTERING AND CLEARING.

During the month of March, 1930, 33 commercial airplanes entered and cleared from Cristobal, and 10 at Balboa.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,282	1,120	2,402	113	466	579
From Pacific ports.....	239	141	380	351	253	604
Total disembarking.....	1,521	1,261	2,782	464	719	1,183
Embarking:						
For Atlantic ports.....	1,605	1,099	2,704	165	258	423
For Pacific ports.....	190	155	345	304	241	545
Total embarking.....	1,795	1,254	3,049	469	499	968
Remaining on board:						
From Atlantic to Pacific ports.....	1,121	1,680	2,801	1,198	1,369	2,567
From Pacific to Atlantic ports.....	2,323	2,040	4,363	2,397	1,923	4,320
From Atlantic to Atlantic ports.....	4,236	185	4,421			
From Pacific to Pacific ports.....				61	446	507
Total remaining on board.....	7,680	3,905	11,585	3,656	3,738	7,394
Total arriving.....	9,201	5,166	14,367	4,120	4,457	8,577
Total departing.....	9,475	5,159	14,634	4,125	4,237	8,362

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	248	52	20.9
Pacific to Atlantic.....	267	76	28.4
Total.....	515	128	24.8

In addition to the aforesaid, 73 passenger-carrying vessels called at the port of Cristobal and 4 at Balboa without transiting the Canal, making a total of 205 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of March, 1930:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Total.
Sales at Cristobal to:						
Commercial vessels.....	\$2,499.58	\$14,580.20	\$35,109.39	\$282.96	\$8,215.16	\$60,687.29
Government vessels.....	605.75	3,375.38	17,809.27	36.43	4,354.30	26,181.13
P. R. R. vessels.....		88.14	1,163.48	608.83	28.11	1,888.56
Total sales, March, 1930....	3,105.33	18,043.72	54,082.14	928.22	12,597.57	88,756.98
Total sales, March, 1929....	3,614.90	17,718.48	48,640.74	862.62	11,471.96	82,308.70
Total sales, March, 1928....	2,513.68	11,962.23	45,446.42	1,263.79	9,228.11	70,414.23
Sales at Balboa to:						
Commercial vessels.....	710.71	8,926.95	12,057.37	972.89	4,696.78	27,364.70
Government vessels.....	457.42	2,436.91	16,629.35	628.66	3,584.63	23,736.97
P. R. R. vessels.....	5.85	2.88	60.18	44.80	.....	113.71
Total sales, March, 1930....	1,173.98	11,366.74	28,746.90	1,646.35	8,281.41	51,215.38
Total sales, March, 1929....	3,759.63	21,403.75	56,252.67	1,110.91	9,884.59	92,411.55
Total sales, March, 1928....	2,013.69	16,620.51	50,207.09	1,341.08	5,505.43	75,687.80

The aggregate sales to Government vessels during the month was \$49,918.10; to Panama Railroad vessels, \$2,002.27; and to other commercial vessels, \$88,051.99, making the total sales to all vessels, \$139,972.36.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of March, 1930, as compared with the corresponding month in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. *					
	North.	South.	Total.	North.	South.	Total.	Mar., 1930.	Mar., 1929.	Mar., 1928.
Gatun.....	258	229	487	21	3	24	511	539	525
Pedro Miguel.....	259	240	499	23	12	35	534	530	567
Miraflores.....	249	232	481	23	7	30	511	512	557
Number of vessels put through locks.									
Gatun.....	267	248	515	57	20	77	592	671	646
Pedro Miguel.....	267	248	515	61	31	92	607	713	701
Miraflores.....	267	248	515	63	32	95	610	714	691

* Includes miscellaneous toll-paying craft under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	53	48	48
Panama Canal equipment.....	7	39	42
Launches under 20 tons.....	11	4	4
Panamanian Government vessels.....	1	1	1

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in March, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,313,000,000	1,222,310,000	1,305,480,000
Leakage.....	40,000,000	9,000,000	20,000,000
Maintenance.....	10,910,000		
Total, March, 1930.....	1,363,910,000	1,231,310,000	1,325,480,000
Total, February, 1930.....	1,323,760,000	1,043,460,000	1,053,700,000
Total, March, 1929.....	1,239,910,000	1,496,020,000	1,516,240,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of March, 1930, are shown in comparative form, in the following tabulation:

	March.		March—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	476	559	1,625	382	726
Maximum momentary discharge for the month.....	622	3,653	19,400		
Gatun Lake watershed, total yield.....	578	1,281	1,792	493	1,082
Gatun Lake watershed, net yield.....	-329	293	823	-402	98
Draft on Gatun Lake for lockages and power.....	2,416	1,757	2,740	1,148	1,985

* March 31, 1910.

* March, 1914, not included.

The discharge of the Chagres River at Alhajuela was 34 per cent below the 29-year average, or 476 c. f. s., compared with an average of 726 c. f. s. The maximum momentary discharge for the month was 622 c. f. s. at elevation 91.77 feet on the 15th, and the minimum was 370 c. f. s. at elevation 91.34 feet on the 31st. The maximum monthly discharge on record for the month of March is 1,625 c. f. s. in 1910, and the minimum 382 c. f. s. in 1912. The maximum momentary discharge on record for March is 19,400 c. f. s. at elevation 99.40 feet on March 31, 1910.

The total yield of the Gatun Lake watershed for March was 47 per cent below the 17-year average, or 578 c. f. s., compared with an average of 1,082 c. f. s. Maximum and minimum total yields for March are 1,792 c. f. s. in 1915 and 493 c. f. s. in 1926. The lake varied in elevation from 84.90 feet on the 1st to 83.16 feet on the 31st, averaged 84.01 feet, and ended at elevation 83.20 feet.

Miraflores Lake varied between elevation 54.33 feet on the 6th and 52.64 feet on the 31st, averaged 53.65, and ended at elevation 53.04 feet.

SEISMOLOGY.

Three seismic disturbances were recorded during the month, on the 3d, 4th, and 7th. The disturbance on the 7th was felt generally over the Canal Zone and the Republic of Panama. It was of intensity VI with its epicenter about 60 miles from Balboa Heights in a general northeasterly direction.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,257,200 kilowatt hours, and the computed water consumption was 3,923,118,182 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 652,400 kilowatt hours, and the fuel oil consumption was 1,238.19 barrels. An average load of 2,500 kilowatts was carried from March 21st until the end of the month for dry season water conservation.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 23 vessels during the month. There were 341 work orders issued during the month, as compared with 288 issued during the previous month.

MECHANICAL DIVISION.

During the month of March, 1930, miscellaneous repairs were made on 66 vessels at Cristobal and 26 at Balboa. Six vessels were dry-docked at Cristobal and 4 at Balboa. Work was carried forward on the United States Navy's drag boats *N-7* and *N-8*,

and the submarine *S-20*. Emergency repairs were made on the U. S. S. *California*. Work was completed and carried forward on several pieces of equipment of The Panama Canal, the United States Army and Navy, and commercial steamship lines.

MUNICIPAL ENGINEERING DIVISION.

The concrete work on the new Madden Road, which extends from Summit to the site of Madden Dam, was continued throughout March. During the month 15,482 lineal feet of pavement were laid, and the abutments and arch ring for the 80-foot bridge over the Chilibrillo River were completed. At the end of the month approximately 80 per cent of the work on this project had been completed.

Work was carried forward on several improvement projects on the cities of Colon and Panama, and in the Canal Zone. In connection with the paving of South Avenue and 18th Street in Panama, 807 feet of concrete curb were laid and 1,162 square yards of concrete street were constructed.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 812,281,000 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during the month with an average movement of 1.0 foot toward the Canal between station 1777-00 and 1794-00 W. The reference points over this slide showed no movement.

There was a surface movement at Southwest La Pita slide during the month. A dredge worked four days at this slide between stations 1671-00 and 1675-00 W., removing 5,900 cubic yards of material.

On the first of the month, a movement occurred at West Whitehouse slide between stations 1615-00 and 1619-00 W., the break extending to the east bank of the Camacho diversion which is 285 feet west of the west prism line at this point. The toe of the berm gave away between the stations above mentioned, and in the push two large boulders were carried 60 feet into the channel from the west prism line, one having 36 feet and the other 35 feet of water over them. These were buoyed during the dredging operation to safeguard shipping. A dredge was immediately moved to this slide and worked from the 1st to 21st of the month removing 69,450 cubic yards of material.

There was no interference with shipping on account of slides during the month.

The total excavation during March, 1930, was 532,780 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Gaillard Cut—			
West Whitehouse slide.....	6,950	62,500	69,450
Southwest La Pita slide.....	600	5,300	5,900
East and West Culebra slides.....	6,650	15,550	22,200
Maintenance.....	200	550	750
Pacific entrance—			
Project No. 1.....	136,100	94,800	230,900
Maintenance.....	132,400	2,000	134,400
Plant excavation:			
Chagres River gravel service.....	64,660	.....	64,660
Dredging sand at Chame.....	4,520	.....	4,520
Total.....	352,080	180,700	532,780

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. One thousand three hundred and sixty-six trips were made, and 127 Panama Canal, 267 U. S. Army, and 6,565 other vehicles, a total of 6,959, were ferried across the Canal.

MADDEN DAM PROJECT.

A new alignment for the dam, known as site 6-B, was staked out and a trench dug on the center line, extending to the hill top on the west side and thence to the right and over the Dike Ridge. Tunnel work at the dam abutments was temporarily held up as a consequence of the detailed study of the dam alignment, but has now been resumed.

Various computations and sketches for spillway were made, estimated concrete quantities for a dam at site No. 6 were checked, sections compared, study of cement handling facilities continued, and data were collected on cost of Stoney gates. Well log sheets were traced and checked, water pressure and seepage test plotted, sink hole

and other data plotted on maps, field sheets traced, and progress maps were kept up.

A mass curve of discharges at Alhajuela, duration curves of monthly and daily discharges at the same point, all for a 24-year period, were drawn; reservoir capacity curves for Gatun and Madden Lakes were plotted; and a cross-section drawn of the Chagres River near Vigia. Progress was made on transmission line layout, tower location, mechanical and electrical line calculations, and on location and layout of the Summit switching station. Work on determination of natural flood storage above Alhajuela was continued. A report of hydroelectric surveys, with suggestions relative to hydroelectric work in the Zone, was submitted.

Two thousand eight hundred and thirty-six lineal feet of drilling was performed during March.

SCHOOLS.

A party of educational experts from the Institute of Educational Research of Teachers' College of Columbia University, headed by Dr. N. L. Engelhardt, arrived on the Isthmus on March 26th for the purpose of making a technical survey of the Canal Zone schools. The survey was authorized with the view of making a complete and thorough-going survey of the public schools system of the Canal Zone, which is to include the measurement of the achievements of the children; a study of the classification and progress of school children in all departments, with suggestions for the improvement of the children in the school system; a study of the administration of the schools; a study of the present educational organization, with recommendations with respect to any needed reorganization of the school system or additional facilities; a complete survey of the present school buildings; a school building program with estimates of the need for school buildings during the period of the next fifteen years, and recommendations with respect to the use of the buildings already erected and the general location of the new buildings to be constructed; and an analysis of the present school costs and the additional costs involved in any reorganization and on account of the building program.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children occupying Panama Canal quarters on March 31, 1930, was 22,552, composed of 7,903 Americans, 2,884 of whom were men, 2,345 women, and 2,674 children; 251 Europeans, 99 of whom were men, 38 women, and 114 children; 14,398 West Indians, 4,244 of whom were men, 2,630 women, and 7,524 children. The total number of persons in quarters on March 31, 1929, was 21,659.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of March 19, 1930, with a comparison of the working force for the preceding month and for March, 1929:

	As of March 19, 1930.			Total employees.	
	Gold.	Silver.	Total.	February, 1930.	March, 1929.
Operation and Maintenance:					
Office.....	57	94	151	195	104
Electrical.....	158	218	376	390	349
Municipal Engineering.....	80	799	879	842	2,000
Lock Operation.....	238	743	981	983	1,413
Dredging.....	199	1,054	1,253	1,282	1,165
Madden Project.....	91	1,104	1,195	1,203	.....
Mechanical.....	514	898	1,412	1,429	1,232
Marine.....	207	758	965	842	856
Fortifications.....	28	385	413	469	488
Total.....	1,572	6,053	7,625	7,635	7,607
Supply Department:					
Quartermaster.....	222	2,132	2,355	2,377	2,125
Commissary.....	223	1,355	1,558	1,565	1,504
Cattle Industry—Plantations.....	2	114	116	116	163
Hotel Tivoli.....	10	119	129	130	126
Hotel Washington.....	9	109	118	119	118
Transportation.....	73	260	333	331	289
Total.....	540	4,069	4,609	4,638	4,325
Accounting Department.....	205	6	211	211	201
Health Department.....	283	870	1,153	1,156	1,076
Executive Department.....	527	324	851	846	813
Total.....	1,015	1,200	2,215	2,213	2,090

	As of March 19, 1930.			Total employees.	
	Gold.	Silver.	Total.	February, 1930.	March, 1929.
Panama Railroad Company:					
Superintendent.....	49	316	365	339	312
Transportation.....	62	124	186	189	196
Receiving and Forwarding Agency.....	92	1,296	1,388	1,523	1,836
Coaling Stations.....	43	300	343	365	384
Total.....	246	2,036	2,282	2,416	2,728
Grand total, March, 1930.....	3,373	13,358	16,731		
Grand total, February, 1930.....	3,355	13,547		16,902	
Grand total, March, 1929.....	3,202	13,548			16,750

Additions to the gold force on the Isthmus in March were as follows: Employed in the United States, 18; reemployed in the United States, 3; employed on the Isthmus, 13; reemployed on the Isthmus, 9; total, 43. Separations from the gold force totaled 44, as follows: Resigned, 30; discharged, 14. At the end of the month there were on file 475 application from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 149 deaths occurred during the month of March, 1930, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 13.53 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 21; organic diseases of the heart, 19; pneumonia (broncho and lobar), 19; nephritis (acute and chronic), 14; and diarrhea and enteritis, 11. There were 6 deaths from syphilis, 6 from cancer, and 1 each from whooping cough and meningococcus meningitis. There were 24 deaths among nonresidents. These are not included in the above statistics.

There were 329 live births, and 19 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 31.60. Deaths among children under 1 year of age numbered 34, giving an infant mortality rate based on the number of live births reported, of 103.34.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during March, 1930, was 78, of whom 25 were employees (2 white, 23 colored), 5 were families of employees (2 white, 3 colored), 10 were Canal Zone agriculturists, 15 were other civilian nonemployees, and 23 were Army and Navy personnel.

There was 1 death from malaria among residents, the child of a colored employee, living on a farm near Gamboa.

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$441,640.16, of which \$425,121.14 was for the Department of Operation and Maintenance and \$16,519.02 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$45,732.19.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of February, 1930, as compared with February, 1929, with the figures for the first eight months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit the figures for the month of March at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	February, 1930.	February, 1929.	To end of February.	
			This year.	Last year.
Tolls.....	\$2,131,391.37	\$2,212,156.08	\$18,320,164.72	\$18,076,488.31
Other receipts.....	336,534.82	319,427.53	2,885,781.08	2,639,843.89
Total transit revenues.....	2,467,926.19	2,531,583.61	21,205,945.80	20,716,332.20
Total transit expenses.....	1,081,237.90	1,082,417.78	8,772,752.26	8,514,379.88
Net transit revenues.....	1,386,688.29	1,449,165.83	12,433,193.54	12,201,952.32
Three per cent capital charge....	623,502.66	616,523.36	4,968,809.80	4,927,806.06
Transit surplus.....	763,185.63	832,642.47	7,464,383.74	7,274,146.26
Business revenues.....	1,948,250.19	1,542,945.79	13,202,533.50	11,220,929.10
Business expenses.....	1,855,610.31	1,421,301.17	12,475,766.84	10,526,481.03
Net revenues.....	92,639.88	121,644.62	726,766.66	694,448.07
Three per cent capital charge.....	62,967.84	61,164.61	526,569.47	512,648.70
Business surplus.....	29,672.04	60,480.01	200,197.19	181,799.37
Combined revenues.....	4,105,700.39	4,074,529.40	31,768,729.46	31,937,261.30
Combined expenses.....	2,626,372.22	2,503,718.95	18,608,769.26	19,040,860.91
Net revenues.....	1,479,328.17	1,570,810.45	13,159,960.20	12,896,400.39
Three per cent capital charge.....	686,470.50	677,687.97	5,495,379.27	5,440,454.76
Combined surplus.....	792,857.67	893,122.48	7,664,580.93	7,455,945.63

Respectfully,

H. BURGESS,
Governor.**Notice to Mariners.**THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 23, 1930.

No. 691.

Costa Rica, Nicoya Gulf, Puntarenas, buoys established. The following is quoted from Notice to Mariners, Washington, D. C., February 1, 1930:

The second officer of the American steamer *West Ivis* reports under date of January 5, 1930, that the following buoys have been established in Puntarenas:

- (a) A red nun buoy about 557 yards 164° from the red light on the wharf.
 (b) A buoy about 893 yards 232° from the red light on the wharf.
 Vessels must not anchor between these buoys owing to the existence of cables.
 (c) A mooring buoy about 164 yards 135° from the red light on the wharf.

H. BURGESS,
Governor.**Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending April 19, 1930.**

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Tongking.....	East Asiatic Co.....	April 11.....	April 12.....	120	11
La Perla.....	United Fruit Co.....	April 12.....	April 12.....	.....	6
Rio Nozara.....	Hans Teashim Lau.....	April 12.....	April 13.....	162	.....
La Placentia.....	Union Oil Co.....	April 13.....	April 14.....	11,886	31
Swiftarrow.....	C. D. Mallory & Co.....	April 13.....	April 15.....	11,000	.....
Trontolite.....	Imperial Oil Co., Ltd.....	April 14.....	April 16.....	10,000	.....
San Jose.....	United Fruit Co.....	April 14.....	April 15.....	60	.....
Frost.....	Hans Ericson.....	April 16.....	April 16.....	350	.....
Laguna.....	Pacific Steam Navigation Co.....	April 16.....	April 16.....	.....	50

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, April 19, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Nehaskan.....	13	3.55	13	6.25	13	13.15	American	Amer.-Hawaiian Line.	471.1	59.1	18.4	Boston, Mass.	Portland, Oreg.	General	3,231	9,032	6,638
Royal Prince.....	13	8.25	13	8.45	13	15.18	British	Furness, Withy & Co.	450.0	58.0	23.0	New York, N. Y.	Manila, P. I.	General	4,848	8,594	6,089
Eagle.....	13	14.00	13	14.15	13	21.05	American	Standard Oil Co.	410.0	56.0	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast	8,201	8,201	6,226
Pomona.....	14	1.50	14	6.15	14	13.38	American	Isthmian S. S. Lines	440.0	56.0	23.0	Baltimore, Md.	Seattle, Wash.	General, steel	7,312	8,324	6,036
Capt. Edward P. Nones ²	14	.....	14	6.20	14	16.10	American	U. S. Army	101.0	23.5	.....	Cristobal, C. Z.	Paraiso, C. Z.	(s)	.....	.....	.....
El Lobo ¹	14	4.40	14	7.20	14	14.45	British	C. T. Bowering & Co.	385.2	51.0	17.2	Philadelphia, Pa.	La Libertad, Ecua.	Ballast	.....	4,851	3,326
Cerigo.....	10	19.00	14	9.55	14	16.54	German	Hamburg-American Line	227.2	34.4	13.4	Cristobal, C. Z.	Guayaquil, Ecuador	General	150	1,572	1,011
Calgarotte ¹	14	13.15	14	13.25	14	20.46	British	Imperial Oil Co.	521.5	70.4	24.0	Baltimore, Md.	Talara, Peru	Ballast	.....	12,389	7,717
Major Pullen ⁴	14	7.40	14	7.40	14	9.48	American	U. S. Army	.....	.....	.....	Cristobal, C. Z.	Gatun, C. Z.	Ballast	.....	.....	.....
Sveaparl ³	14	16.25	14	17.35	15	9.48	Swedish	South Pacific Line	378.0	51.0	24.0	Antwerp, Belgium	Corral, Chile	General	7,003	5,448	3,967
Horota.....	14	2.50	15	6.15	15	15.08	British	N. Z. Shipping Co.	511.0	64.0	31.0	London, England	Lyttelton, N. Z.	General	6,740	12,628	8,763
Manila Maru.....	14	19.20	15	6.15	15	15.29	Japanese	Osaka Shosen Kaisha	475.0	61.0	23.0	Buenos Aires, Arg.	Kobe, Japan	Cotton, hides	2,414	10,075	7,282
Svealand ³	14	21.50	15	7.25	15	16.35	Swedish	Ore S. Corp.	561.0	72.2	23.0	Sparrows Pt., Md.	Cruz Grande, Chile	Ballast	.....	15,425	4,421
Monique ¹	14	23.05	15	7.38	15	16.00	French	Desmarais Freres	425.8	56.7	20.1	Rotterdam, Holland	Los Angeles, Calif.	Ballast	.....	7,106	5,068
Meton ¹	15	00.40	15	8.30	15	16.47	American	Tidewater Oil Co.	425.8	57.0	20.0	Baltimore, Md.	Los Angeles, Calif.	Ballast	.....	7,484	5,212
San Felipe.....	15	5.55	15	10.00	15	17.31	American	States S. S. Co.	409.0	54.0	18.0	Wilmington, Del.	Seattle, Wash.	General, steel	2,440	6,821	4,927
Jane Maersk ¹	15	7.05	15	10.00	15	20.41	Danish	Anglo-Saxon Pet. Co.	456.8	59.7	17.6	Falmouth, Eng.	Los Angeles, Calif.	Ballast	.....	8,102	5,623
Christenson.....	15	9.00	15	11.20	15	19.04	American	Christenson S. S. Co.	409.0	54.2	20.0	Jacksonville, Fla.	Tacoma, Wash.	General	2,640	6,615	4,966
Devon.....	15	6.55	15	12.35	15	21.23	British	Federal Steam Nav. Co.	473.0	59.0	29.0	Glasgow, Scotland	Brisbane, Australia	General	4,098	9,951	6,801
Point Gorda.....	15	12.20	15	14.00	15	21.34	American	Gulf-Pacific Line	324.0	46.2	22.0	Corpus Christi, Tex.	Seattle, Wash.	General, lumber	3,761	3,984	2,643
Jula.....	15	18.05	15	19.20	16	12.08	American	Luckenbach Line	436.0	57.0	22.0	New York, N. Y.	Seattle, Wash.	General	3,558	8,543	6,402
Cid.....	10	23.35	16	6.15	16	14.56	British	Pacific Steam Nav. Co.	264.8	41.2	16.2	New York, N. Y.	Callao, Peru	General	.....	2,746	1,626
Manhattan.....	15	20.30	16	6.30	16	15.59	American	Redwood Line	387.0	50.0	25.6	New Orleans, La.	Seattle, Wash.	General	7,099	5,696	4,125
Island.....	15	6.15	16	6.05	16	15.47	British	Pacific Steam Nav. Co.	420.5	54.2	27.5	Hull, England	Corral, Chile	General	7,537	7,139	4,640
Laguna ²	15	6.15	16	6.05	16	15.47	British	Pacific Steam Nav. Co.	420.5	54.2	27.5	Hull, England	Corral, Chile	General	7,537	7,139	4,640
Sage Brush.....	16	2.15	16	7.25	16	16.43	American	Shepard S. S. Co.	409.7	54.2	20.0	Boston, Mass.	Seattle, Wash.	General, steel	4,500	6,692	4,754
Panaman.....	16	1.45	16	7.35	16	17.07	American	Amer.-Hawaiian Line	407.0	53.7	20.0	New York, N. Y.	Seattle, Wash.	General	2,480	7,098	5,065
Cambridge.....	16	6.15	16	9.45	16	17.57	British	N. Z. Shipping Co.	524.0	68.0	27.0	Sydney, England	Pt. Chalmers, N. Z.	General	8,062	12,458	8,584
Aladdin ¹	16	9.05	16	10.15	16	18.28	American	Standard Transp. Co.	435.6	56.2	18.6	New York, N. Y.	Los Angeles, Calif.	Ballast	.....	7,408	5,112
West.....	16	12.05	16	12.10	16	19.45	American	Roosevelt S. S. Co., S. B.	409.0	54.0	21.0	New York, N. Y.	Adelaide, Australia	General	1,555	6,644	4,910
Loonassuk.....	16	10.40	16	14.35	16	21.20	American	Grace Line	466.0	64.0	23.10	New York, N. Y.	San Antonio, Chile	General	2,906	10,687	6,633
Santa Barbara.....	17	1.45	17	6.25	17	13.22	American	Williams S. S. Line	386.6	52.2	15.10	Batimore, Md.	Tacoma, Wash.	General	1,898	5,684	4,070
Willfar.....	17	2.10	17	6.30	17	14.04	American	McCormick S. S. Co.	410.5	54.3	19.0	Damante, Arg.	San Francisco, Cal.	Office, etc.	3,512	6,583	5,014
West Notus.....	17	2.10	17	6.30	17	14.04	American	McCormick S. S. Co.	410.5	54.3	19.0	Damante, Arg.	San Francisco, Cal.	Office, etc.	3,512	6,583	5,014
Birkenhead ¹	17	1.15	17	7.25	17	14.41	American	H. A. Staffer	425.0	57.2	22.3	Wilhelmshaven	Estero Bay, Calif.	Ballast	.....	7,502	5,042

¹ Towing barge No. 48.

² Launch.

³ Motor ship.

⁴ Tug.

⁵ Tanker.

	17	8 55	17	9 15	17	16 33	17	18 05	American	Calmar S. S. Corp.	410.5	54.3	23.0	Baltimore, Md.	Seattle, Wash.	Steel, gen., autos	6,933	6,567	4,909
Texmar	17	9 50	17	10 00	17	17 29	17	18 40	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.4	Baltimore, Md.	Kobe, Japan	Cotton, general	7,707	8,015	5,716
Tateano Maru	8	15 30	17	11 05	17	18 04	17	21 48	Colombian	National Navigation Co.	107.0	52.1	8.6	Cristobal, C. Z.	Buenaventura, Col.	General	60	238	163
Tofuku Maru	17	11 00	17	11 05	17	18 04	17	19 25	Japanese	K. Suzuki	385.0	51.0	26.0	Beaumont, Tex.	Kobe, Japan	Cotton, scrap iron	6,647	5,919	4,400
Arizona	16	18 50	17	12 13	17	18 53	17	19 50	French	French Line	424.0	54.8	20.5	Harve, France	Vancouver, B. C.	General	1,618	7,351	5,189
Marsodak	17	13 15	17	13 45	17	21 33	17	23 07	American	Nelson Line	324.0	46.2	18.0	Baltimore, Md.	Tacoma, Wash.	Gen., pipe, slag	2,790	3,984	2,628
Brinsinger	17	2 20	17	14 00	17	21 33	17	21 48	Norwegian	Westfal, Larsen & Co.	398.0	54.9	15.8	Buenos Aires, Arg.	Vancouver, B. C.	General	1,230	6,853	5,246
Capt. Edward P. Nones									American	U. S. Army	101.0	23.5		Cristobal, C. Z.	Pedro Miguel, C. Z.	Ballast			
Ida Knudsen	17	18 40	17	19 10	18	11 46	18	16 10	Norwegian	Lautro Nitrate Co.	466.0	62.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,159	6,248
Geo. H. Jones	18	2 50	18	6 25	18	13 05	18	14 14	American	Standard Shipping Co.	429.3	59.2	21.6	New York, N. Y.	Los Angeles, Calif.	Ballast		7,689	5,667
President									American	Dollar Line	502.0	62.2	28.0	New York, N. Y.	San Francisco, Cal.	General	2,000	12,618	9,251
Harrison	18	5 40	18	7 10	18	14 20	18	21 35	American	U. S. Army	43.60	58.2	23.6	New York, N. Y.	San Francisco, Cal.	General	461		
Somme	18	7 25	18	8 25	18	15 20	19	00 18	American										
Cities Service									American	Richfield Oil Co.	430.0	59.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		8,093	5,347
Oklahoma	18	13 40	18	13 55	18	20 32	18	23 06	American	Fern Line	377.6	54.0	23.10	Galveston, Tex.	Melbourne, Aus. lia	Sulphur	7,155	6,081	4,538
Fernhill	18	16 48	18	17 35	19	10 24	19	15 55	Norwegian	United Fruit Co.	330.0	44.6	18.7	Cristobal, C. Z.	San Francisco, Cal.	General	209	3,675	2,359
San Jose	15	14 15	19	6 14	19	15 29	19	16 45	American	Royal Neth. S. S. Co.	200.0	33.0	11.2	Cristobal, C. Z.	Guayaquil, Ecuador	General	43	1,193	742
Barak	16	19 45	19	6 00	19	15 36	19	16 45	Dutch	Holland-American Line	485.0	62.0	20.8	Rotterdam, Holland	Vancouver, B. C.	General	2,288	10,738	7,619
Drechtidijk	18	10 15	19	6 04	19	15 36	19	16 45	Swedish	Johanson Line	426.0	56.2	21.4	Göteborg, Sweden	San Francisco, Cal.	General, coffee	5,678	7,400	5,533
Balboa	18	15 35	19	7 10	19	16 17	19	22 18	American	Kellogg S. S. Co.	390.0	54.0	16.0	New York, N. Y.	Los Angeles, Calif.	Ballast	6,205	4,284	
Ruth Kellogg	19	8 35	19	8 45	19	17 38	19	18 55	American	Hanley S. S. Co.	440.0	56.0	27.0	Baltimore, Md.	Portland, Oreg.	General	6,836	8,310	6,005
Hanley	19	8 35	19	8 45	19	17 38	19	18 55	British	Pacific Steam Nav. Co.	290.0	41.7	18.2	Cristobal, C. Z.	Champerteo, Guat.	General	6,951	2,597	1,587
Champerteo	4	11 00	19	9 45	19	17 07	19	18 19	Japanese	Osaka Shosen Kaisha	407.3	50.10	25.6	Philadelphia, Pa.	Moji, Japan	General	6,490	6,538	4,769
Havana Maru	19	10 50	19	11 10	19	18 18	19	19 42	Japanese	United Fruit Co.	283.4	42.1	19.0	Port Limon, C. R.	P. Armuelles, R. P.	Cresosoted ties	1,200	2,578	1,795
Viberg	19	15 25	19	15 35	19	21 58	19	23 43	Danish	F. & W. Ritson	400.0	51.0	23.6	Liverpool, England	Valparaiso, Chile	General	5,500	5,208	3,578
Hazel Branch	19	15 40	19	15 45	19	22 45	20	00 02	British										
Arizona	19	15 30	19	15 45	20	9 34	20	10 45	American	Amer-Hawaiian Line	434.3	57.7	18.0	Boston, Mass.	Portland, Oreg.	General	3,126	7,983	5,916

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

W. S. Rheem	12	14 30	13	6 00	13	14 15	13	18 35	American	Standard Oil Co. of Cal.	500.0	68.2	29.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	14,038	11,324	7,895
Portmar	13	11 05	13	6 41	13	14 40	13	14 40	American	Calmar S. S. Corp.	409.8	54.2	24.0	Olympia, Wash.	Philadelphia, Pa.	Lumber	7,210	6,581	4,795
Juan Sebastian de Eleano	11	5 15	13	10 11	13	17 30	13	17 30	Spanish	Spanish Government	269.6	28.6	7.0	Guayaquil, Ecuador	Habana, Cuba	Iron ore	8,150	6,199	4,513
Eir	13	10 25	13	11 13	13	19 00	13	20 00	Norwegian	Moore & McCormack	400.0	53.0	28.0	Cruz Grande, Chile	Baltimore, Md.	Lumber	2,760	3,984	2,612
Point Montara	13	13 00	13	13 34	13	20 10	13	20 10	American	Gulf Pacific Line	324.0	46.2	20.0	Portland, Oreg.	New Orleans, La.	Lumber, general	2,760	3,984	2,612
Canadian	13	17 00	13	18 19	14	12 35	14	16 45	British	Can. Nat. Steamships	400.4	52.3	24.0	Vancouver, B. C.	Montreal, Canada	General	6,261	5,879	4,121
Ranger	13	16 50	13	18 30	14	11 40	14	23 40	Dutch	Royal Neth. S. S. Co.	447.2	62.6	22.0	Corral, Chile	Hamburg Germany	General	6,418	9,505	6,644
Alkmaar	13	19 30	14	6 32	14	14 00	14	17 10	Chilean	Can. Sud. Amer. de Vap.	422.8	56.2	26.0	Talcahuano, Chile	New York, N. Y.	General	4,008	7,764	4,672
Teno	13	19 30	14	7 00	14	14 55	14	14 55	British	C. I. Bowring & Co.	407.4	52.2	23.0	La Libertad, Ecuia.	Philadelphia, Pa.	Crude oil	7,900	6,046	4,326
El Cierro	13	18 50	14	7 17	14	17 30	14	19 00	Norwegian	Bruusgaard Line	389.8	54.1	23.0	Vancouver, B. C.	Rotterdam, Holland	General	7,100	5,680	4,220
Herakles	13	18 50	14	7 17	14	17 30	14	19 00	Norwegian	Bruusgaard Line	389.8	54.1	23.0	Vancouver, B. C.	Rotterdam, Holland	General	7,100	5,680	4,220
Paul	13	21 50	14	7 43	14	15 25	14	15 25	American	Luckenbach Line	471.1	59.2	22.0	Portland, Oreg.	Mobile, Ala.	General, lumber	4,674	9,027	6,539
W. S. Rheem	13	21 50	14	8 14	14	17 25	14	17 25	British	Reardon Smith Line	411.7	54.5	25.0	Vancouver, B. C.	Manchester, Eng.	General	8,500	9,505	5,133
Welsh City	13	21 50	14	8 14	14	17 25	14	17 25	British	Reardon Smith Line	411.7	54.5	25.0	Vancouver, B. C.	Manchester, Eng.	General	8,500	9,505	5,133
Oil Trader	14	6 45	14	8 29	14	18 10	14	22 38	British	British Oil Ship. Co.	410.0	53.5	25.0	San Francisco, Cal.	Lands End, Eng.	Gasoline	7,920	5,928	3,919
Atlantic Sun	14	2 30	14	9 13	14	18 30	14	18 30	American	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Fla.	Gasoline	9,219	7,567	5,283
Training ship.	14	2 30	14	9 13	14	18 30	14	18 30	American	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Fla.	Gasoline	9,219	7,567	5,283
Tanker.	14	2 30	14	9 13	14	18 30	14	18 30	American	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Fla.	Gasoline	9,219	7,567	5,283

Training ship.

Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Casiana ¹	14	10.00	14	10.58	14	19.20	14	19.20	American	U. S. Tankship Corp.	390.0	54.0	28.0	Hilo, Hawaii.	Mobile, Ala.	Molasses	7,825	4,286
Hegra.....	14	12.55	14	14.02	14	21.05	14	21.05	American	Hegra S. S. Co.	440.0	56.0	29.0	N. Westminster, B. C.	Baltimore, Md.	Lumber	10,000	6,205
R. J. Hanna ¹	14	13.00	14	14.09	14	21.25	14	21.25	American	Standard Oil Co. of Cal.	435.0	56.2	29.0	San Francisco, Cal.	Philadelphia, Pa.	(*)	8,400	7,639
Sithonia.....	14	18.20	14	19.10	15	12.20	15	14.15	British	H. M. Thomson	420.3	56.1	26.0	Vancouver, B. C.	Lisbon, Portugal.	Wheat	7,700	6,753
San Jose.....	14	14.35	15	6.24	15	14.15			American	United Fruit Co.	330.0	44.6	19.0	San Francisco, Cal.	Cristobal, C. Z.	(*)	835	2,359
Benjamin	15	00.30	15	6.55	15	15.35	15	15.35	American	Standard Shipping Co.	411.6	53.2	26.0	Los Angeles, Calif.	Hull, England	Gasoline	7,754	6,228
Mamilius.....	14	22.18	15	7.19	15	17.10	15	21.50	British	Shaw, Savill & Albion.	477.0	63.1	25.0	Napier, N. Z.	London, England	General	4,761	11,588
Guayaquil.....	14	23.00	15	8.06	15	18.07			American	Panama R. S. S. Line	251.0	43.6	17.0	Guayaquil, Ecuador	New York, N. Y.	General	1,445	2,874
Salvador.....	15	5.45	15	8.23	15	18.10			British	Pacific Steam Nav. Co.	215.0	33.5	15.0	San Jose de Guat.	Cristobal, C. Z.	(*)	712	1,270
Mexican.....	15	7.40	15	9.10	15	18.00	15	18.00	American	Amer-Hawaiian Line.	472.3	57.2	27.0	Portland, Oreg.	Boston, Mass.	General	8,980	9,258
Swift Arrow ¹	13	10.25	15	9.20	15	18.55	15	18.55	American	C. D. Mallory & Co.	444.0	60.2	28.0	San Francisco, Cal.	Aruba, D. W. I.	Gas and fuel oil.	8,473	6,160
Willi ¹	15	8.15	15	10.14	15	21.12	16	3.20	Norwegian	G. M. Sornoe	411.6	53.4	26.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	7,298	6,201
Harry	15	1.00	15	10.52	15	19.30	15	19.30	American	Luckenbach Line.	448.9	60.2	29.0	Portland, Oreg.	Boston, Mass.	Lumber, general.	7,386	9,262
Luckenbach.....	15	16.35	15	17.20	16	11.25	16	14.15	Japanese	Kokusai Kisen Kaisha.	425.0	53.6	27.0	Itoilo, P. I.	Ad. coast pts., U. S.	Sugar	9,100	6,798
Yaye Maru.....	15	16.55	15	18.13	16	12.00	16	12.00	British	Inter. Petroleum Co.	566.7	65.6	33.0	Talara, Peru.	New York, N. Y.	Crude oil	20,000	16,780
Stillman ¹	15	20.00	16	6.23	16	15.00	16	15.00	Norwegian	Rasmussen & Konow	540.8	56.6	31.0	Wellington, N. Z.	New York, N. Y.	Whale oil	12,500	15,017
C. A. Larsen ¹	15	8.45	16	6.47	16	15.50	16	15.50	British	Imperial Oil Co., Ltd.	469.2	63.1	28.0	Cabo Blanco, Peru.	Halifax, N. S.	Crude oil	12,000	9,328
Reginotte ¹	16	4.00	16	7.26	16	16.45	16	19.30	American	Standard Oil Co. of Cal.	513.5	63.2	30.0	Los Angeles, Calif.	United Kingdom.	Gasoline	16,000	11,719
California ¹	15	20.10	16	7.48	16	18.58	16	23.10	American	Richfield Oil Co.	430.0	59.2	27.0	Los Angeles, Calif.	Ellesmere, Eng.	Gasoline	8,942	7,494
Larry Delany ¹	16	2.07	16	8.11	16	17.50	16	17.50	American	N. O. & S. A. S. Co.	324.0	46.0	17.0	Iquique, Chile.	New Orleans, La.	(*)	2,985	3,983
Nosa Prince.....	15	13.10	16	8.23	16	17.50	16	17.50	American	Ford Motor Co.	250.5	45.8	20.4	March Field, Oreg.	New York, N. Y.	Lumber	1,800	2,676
Lake Benbow.....	16	4.00	16	8.57	16	19.14	17	1.20	Danish	East Asiatic Co., Ltd.	425.3	55.2	29.0	Vancouver, B. C.	Copenhagen, Den.	(*)	9,170	7,407
Peru ¹	16	7.20	16	9.19	16	19.45			Dutch	Royal Neth. S. S. Co.	200.0	33.0	13.5	Guayaquil, Ecuador	Cristobal, C. Z.	(*)	623	1,182
Baralt.....	16	7.30	16	9.28	16	19.50			German	Roland Line	216.5	32.9	12.4	Buenaventura, Col.	Cristobal, C. Z.	(*)	413	1,105
Cal.....	16	12.10	16	12.50	16	20.05			British	Royal Mail S. P. Co.	405.0	58.0	28.0	Vancouver, B. C.	Rotterdam, Holland	Coffee.	7,500	8,878
Nebraska.....	16	15.00	16	15.50	16	23.50	17	00.55	British	Sir R. Ropner & Co.	460.1	53.5	24.0	Victoria, B. C.	English Bay, Can.	General, wheat.	6,000	5,876
Ullapool.....	17	2.00	17	7.04	17	14.20	17	14.20	Norwegian	Fred Olsen & Co.	425.5	55.2	30.0	Vancouver, B. C.	Hull, England	Wheat, general.	9,481	7,593
Theodore.....	17	9.45	17	10.27	17	18.05	17	19.50	British	Sir W. R. Smith & Sons	400.0	52.4	25.3	Cruz Grande, Chile	Baltimore, Md.	Iron ore	7,500	5,694
Bradvon.....	17	10.00	17	10.39	17	18.25	17	18.25	American	States S. S. Co.	336.8	52.2	23.0	Seattle, Wash.	Baltimore, Md.	General, lumber.	5,700	5,719
San Gabriel.....	17	10.20	17	11.10	17	19.45	17	19.45	British	R. Chapman & Son	409.6	54.0	27.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	8,500	5,756
Amertown.....	17	16.00	17	17.51	18	13.20	18	13.20	American	Ore S. S. Corp.	550.3	72.2	35.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,161	15,476
Bethore.....	18	1.00	18	6.43	18	13.50	18	13.50	American	Standard Oil Co. of Cal.	425.0	57.2	28.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,370	7,481
S. C. T.....																		4,975
Dodd ¹																		

¹ Tanker.² General, coffee, and gasoline.³ Lumber, barley, and general.⁴ Coffee, cacao, and tagua.⁵ Motor ship.⁶ Nitrate, beans, and garlic.

Peninsularian.	18	2 00	18	8 39	18	15 25	18	15 25	Amer.-Hawaiian Line	407.7	53.7	26.3	Seattle, Wash.	Boston, Mass.	6,989	7,107	5,041
Santa Rita ¹⁵ .	18	00.15	18	10.01	18	16.35	19	00.10	Graec Line.	370.9	53.2	21.0	Valparaiso, Chile.	New York, N. Y.	3,038	6,254	4,099
Herman Franch.	18	8.50	18	10.15	18	18.10	18	18.10	United Sulphur Co.	356.0	51.0	27.0	Westport, Oreg.	Poughkeepsie, N. Y.	5,400	5,340	2,950
Aspir.	18	1.30	18	14.25	18	20.40	19	13.15	North German Lloyd	393.2	54.4	19.0	San Antonio, Chile.	Bremen, Germany.	3,713	6,542	4,532
Bonington	18	11.55	18	19.08	19	11.10	19	11.10	Haldin & Phillips, Ltd.	420.0	56.0	25.0	Whylla, Australia.	Baltimore, Md.	8,496	7,042	5,208
Court ¹⁵ .	18	20.00	18	21.09	19	13.40	20	9.45	French Line.	448.8	53.2	27.0	Vancouver, B. C.	Le Havre, France.	9,010	7,678	5,563
Arkansas	17	18.30	19	6.34	19	16.30	19	16.30	U. S. Navy.	624.0	97.3	34.0	Los Angeles, Calif.	Guantanamo, Cuba	5,423	5,629	4,239
Colorado ¹⁶ .	19	5.50	19	6.48	19	15.00	19	17.35	Wm. Thomson Co.	429.0	54.0	22.0	Pt. Pirie, Australia.	Swansea, Wales.	5,423	5,629	4,239
Benvenue.	19	6.05	19	13.13	19	19.50			U. S. Army.	390.0	54.2	17.0	San Francisco, Cal.	New York, N. Y.	7,222	5,549	3,955
Kenowis.	19	16.00	19	16.57	20	11.30	20	11.30	Chile S. S. Co.	391.8	51.3	24.4	Los Angeles, Calif.	New York, N. Y.	7,222	5,549	3,955
Chiloff	19	16.00	19	16.57	20	11.30	20	11.30	Chile S. S. Co.	391.8	51.3	24.4	Los Angeles, Calif.	New York, N. Y.	7,222	5,549	3,955

¹⁷ Tanker.

¹⁵ Motor ship.

¹⁴ Battleship.

¹³ Copper, lead, and coffee.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 13.	Anaethuna ¹⁸ .	United Fruit Co.	Colon, R. P.	April 13.	Anaethuna ¹⁸ .	United Fruit Co.	Colon, R. P.
April 13.	Annetta I. ¹⁸ .	A. Tagaropoulos	Colon, R. P.	April 13.	Annetta I. ¹⁸ .	A. Tagaropoulos	Colon, R. P.
April 13.	Maebhi.	United Fruit Co.	New York via wayports.	April 13.	Maebhi.	United Fruit Co.	Santa Maria & Curacao.
April 13.	Ulua.	United Fruit Co.	Port Limon, C. R.	April 13.	Ulua.	United Fruit Co.	New York via Habana.
April 13.	Crynsan.	Royal Neth. S. S. Co.	Hamburg via wayports.	April 13.	Cristobal.	Panama R. R. S. S. Line.	New York via Haiti.
April 14.	No. 9688 ¹⁹ .	Pan American Airways.	Tela via wayports.	April 13.	Maebhi.	United Fruit Co.	New Orleans and wayp ts.
April 14.	Tolca.	United Fruit Co.	New York via Habana.	April 14.	Heredia.	United Fruit Co.	Port Limon, C. R.
April 14.	Darien C-35 ¹⁹ .	Scadta Airplane Co.	Barraquilla via wayp ts.	April 14.	Pearl Marie ²⁰ .	Royal Neth. S. S. Co.	Bluefields, Nicaragua.
April 14.	G. I. Bryan.	French Line.	Havre via wayports.	April 14.	Tactician.	G. I. Bryan.	Palo Alto, Cuba.
April 15.	Pellerin de la Touche.	Cuban Government.	Port Limon, C. R.	April 15.	No. 9685 ¹⁹ .	Pan American Airways.	Tela via wayports.
April 15.	V-311 ¹⁸ .	J. W. Miller.	Bocas, R. P.	April 15.	No. 309-N ¹⁹ .	Pan American Airways.	Curacao via wayports.
April 15.	Atlas.	Royal Neth. S. S. Co.	Maracaibo, Venezuela.	April 15.	No. 945-M ¹⁹ .	United Fruit Co.	Guayaquil via wayports.
April 15.	Eseupe Fuego ²⁰ .	Conolly & Martinez.	Bluefields, Nicaragua.	April 16.	Tolca.	United Fruit Co.	Port Limon, C. R.
April 16.	Magdalena.	United Fruit Co.	Puerto Colombia.	April 16.	Magdalena.	Hamburg-American Line.	Port Limon, C. R.
April 16.	Zacapa.	Hamburg via wayports.	Hamburg via wayports.	April 17.	Zacapa.	United Fruit Co.	New York via wayports.
April 16.	Castilla.	United Fruit Co.	New Orleans, La.	April 17.	Patricia ²¹ .	Cuban Government.	Puerto Colombia.
April 17.	Crynsan.	Royal Neth. S. S. Co.	Port Limon, C. R.	April 17.	Pellerin de la Touche.	French Line.	Havana, Cuba.
April 17.	Brazos.	U. S. Navy.	Port Arthur, Texas.	April 17.	Darien C-35 ¹⁹ .	Scadta Airplane Co.	Havre via wayports.
April 17.	No. 309-N ¹⁹ .	Pan American Airways.	Curacao via wayports.	April 18.	Brazos.	U. S. Navy.	Colombian ports.
April 17.	No. 9685 ¹⁹ .	Pan American Airways.	Tela via wayports.	April 18.	Eseupe Fuego ²⁰ .	Conolly & Martinez.	Guantanamo, Cuba.
April 18.	Amapala.	Stand. Fruit & S. S. Co.	New Orleans via Habana.	April 18.	Crynsan.	Royal Neth. S. S. Co.	Bluefields and wayports.
April 18.	Magdalena.	Hamburg-American Line.	Port Limon, C. R.	April 19.	Mayari.	United Fruit Co.	Amsterdam via wayports.
April 18.	Pasajero ²⁰ .	Pan American Airways.	Guayaquil and wayports.	April 19.	Pasajero ²⁰ .	United Fruit Co.	New Orleans & wayp ts.
April 19.	Cartago.	Gough Brothers.	New York via wayports.	April 19.	Pasajero ²⁰ .	Gough Brothers.	New York via wayports.
April 19.	United Fruit Co.	United Fruit Co.	Port Limon, C. R.				Port Limon, C. R.
April 19.	No. 9688 ¹⁹ .	Pan American Airways.	Tela via wayports.				

¹⁸ Motor boat.

¹⁹ Air mail carrier.

²⁰ Motor schooner.

²¹ Gunboat.

* Other than ships passing through the Canal.

(Continued on page 560, column 2.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending April 19, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Manizales	North German Lloyd		April 6.		306½
Antiochia	Hamburg-American Line		April 6.		58½
Karnok	Hamburg-American Line		April 6.		49
Pastores	United Fruit Co.	April 6.	April 6.	14	42
Saint Louis	French Line	April 6.	April 7.	219	115
Corinto	Panama Mail S. S. Co.	April 6.		1,664	
Parismina	United Fruit Co.		April 7.		165
El Salvador	Panama Mail S. S. Co.	April 7.	April 8.	590	190
Ncsa Chief	N. O. & S. A. S. S. Co.	April 7.	April 8.	106	225½
Trave	North German Lloyd	April 7.	April 8.	(¹)	406
Santa Teresa	Grace Line	April 7.	April 8.	22	40
Honduras	French Line	April 7.	April 8.	122	(²)
Ulua	United Fruit Co.	April 7.	April 9.	359	63
San Francisco	Hamburg-American Line	April 7.	April 9.	25	550
Borja	Fred Olsen & Co.	April 8.	April 9.	(¹)	198
Galicia	Hamburg-American Line	April 8.	April 9.	126	8
Annie Johnson	Johnson Line	April 8.	April 9.	(¹)	136
Aeonagua	Chilean Line	April 8.	April 9.	(¹)	10
Tela	United Fruit Co.	April 8.	April 9.	(¹)	71
Cauca	National Navigation Co.	April 8.		281	
Leme	Nav. Libera-Triestina	April 8.	April 9.	(¹)	484
La Perla	United Fruit Co.	April 8.	April 12.	1,178	194
Cristobal	Panama R. R. S. S. Line	April 9.		5,027	
City of Panama	Panama Mail S. S. Co.		April 9.		1,412
Wyoming	French Line	April 9.	April 9.	86	186
Sixola	United Fruit Co.	April 9.	April 10.	281	60
Iriona	United Fruit Co.	April 9.	April 10.	1,111	14
Cali	North German Lloyd	April 9.	April 11.	725	118
Ecuador	Panama Mail S. S. Co.	April 9.	April 11.	1,494	444
Carmania	R. Feuillebois	April 10.	April 10.	(¹)	33½
Caldas	National Navigation Co.		April 10.		51
Cerigo	Hamburg-American Line	April 10.		1,014	
Cid	Pacific Steam Nav. Co.	April 10.		7	
Minden	North German Lloyd		April 11.	1	507
Oroya	Pacific Steam Nav. Co.	April 11.	April 11.	1	137
Atlantida	Stand. Fruit & S. S. Co.	April 11.	April 12.	118	180
Tongking	Danish East Asiatic Co.	April 11.	April 11.	112	(²)
Tela	United Fruit Co.	April 11.	April 12.	168	184
Helder	Royal Neth. S. S. Co.	April 11.	April 12.	853	
Kinderdijk	Holland-American Line	April 11.	April 12.	253	310
Tactician	Leyland S. S. Line	April 12.		448	
Camden	United Fruit Co.	April 12.		7,300	
Heredia	United Fruit Co.	April 12.		237	
Cristobal	Panama R. R. S. S. Line		April 13.		1,562
Ulua	United Fruit Co.	April 13.	April 13.	19	2
Maeabi	United Fruit Co.	April 13.	April 13.	139	704
Crijnsen	Royal Neth. S. S. Co.	April 13.	April 14.	15	11
Sveajarl	Stockholm S. S. Co.	April 14.	April 14.	3	(²)
Alkmaar	Royal Neth. S. S. Co.	April 14.	April 14.	242	151
Teno	Chilean Line	April 14.	April 14.	26½	(²)
Pearl Marie	R. Feuillebois	April 14.	April 14.	(¹)	18½
Heredia	United Fruit Co.		April 14.		209
Cerigo	Hamburg-American Line		April 14.		198
Tolosa	United Fruit Co.	April 14.	April 16.	602	16
Laguna	Pacific Steam Nav. Co.	April 15.	April 16.	337	79
Guayaquil	Panama R. R. S. S. Line	April 15.	April 17.	193	534
Pellerin de la Touche	French Line	April 15.	April 17.	132	278
Escupe Fuego	P. Martinez	April 15.	April 19.	½	52½
Salvador	Pacific Steam Nav. Co.	April 15.		712	
San Jose	United Fruit Co.	April 15.	April 19.	997	385
Santa Barbara	Grace Line	April 16.	April 16.	40	(²)
Magdalena	Hamburg-American Line	April 16.	April 16.	109	(²)
Peru	Danish East Asiatic Line	April 16.	April 16.	(¹)	66
Cid	Pacific Steam Nav. Co.		April 16.		396
Zaeapa	United Fruit Co.	April 16.	April 17.	513	61
Cali	North German Lloyd	April 16.		417	
Castilla	United Fruit Co.	April 16.	April 17.	821	4
Arizona	French Line	April 16.	April 17.	7½	133
Nebraska	Pacific Steam Nav. Co.	April 16.	April 17.	(¹)	171
Baralt	Royal Neth. S. S. Co.	April 16.	April 19.	630	44
Iriona	United Fruit Co.	April 16.	April 19.	67	167
Brimanger	Westfal, Larsen & Co.	April 17.	April 17.	122	(²)
Cauca	National Navigation Co.		April 17.		52
Crijnsen	Royal Neth. S. S. Co.	April 17.	April 19.	7	674
Santa Rita	Grace Line	April 18.	April 18.	292	20
Buenaventura	Panama R. R. S. S. Line	April 18.		1,182	
Amapala	Standard Fruit & S. S. Co.	April 18.	April 19.	54	164
Balboa	Johnson S. S. Line	April 18.	April 19.	252	202
Drechtijk	Holland-American Line	April 19.	April 19.	42	33

* No cargo discharged.

* No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Magdalena.....	Hamburg-American Line.....	April 18.....		38	
Ansgr.....	North German Lloyd.....	April 18.....	April 19.....	192	308
Cartago.....	United Fruit Co.....	April 19.....		2	
Mayari.....	United Fruit Co.....	April 19.....	April 19.....	14	590
Georgie.....	French Line.....	April 19.....		127	
Arkansas.....	French Line.....	April 19.....		346	
Champerico.....	Pacific Steam Nav. Co.....		April 19.....		952

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective April 23, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.24
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.14
Metal, yellow.....	Lb.	.26
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.23
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.13
Oil, marine engine.....	Gal.	.53
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.11
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.20 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 557.

PORT OF BALBOA.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 13.....	La Placencia ²	Union Oil Co. of Calif.	Los Angeles, Calif.	April 14.....	La Placencia ¹	Union Oil Co. of Calif.	Los Angeles, Calif.
April 14.....	Trontolite ²	Imperial Oil Co., Ltd.	Los Angeles, Calif.	April 16.....	Trontolite ¹	Imperial Oil Co., Ltd.	Los Angeles, Calif.
April 16.....	Frost ²	West India Oil Co.	Talara, Peru.	April 16.....	West India Oil Co.	West India Oil Co.	San Jose de Guatemala.
April 18.....	Rakuyo Maru.....	Nippon Yusen Kaisha	Hongkong, China.	April 18.....	Rakuyo Maru.....	Nippon Yusen Kaisha	Valparaiso, Chile
April 19.....	Real ²	Hans Elliot	Panama Bay, R. P.	April 20.....	Real ¹	Hans Elliot	Panama Bay, R. P.

² Motor schooner.

² Motor ship.

¹ Tanker

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., April 30, 1930.

No. 39.

New Record for Daily Tonnage, Tolls, and Tons of Cargo in One Direction, and for Cargo in Both Directions.

A new high record for aggregate net tonnage, Panama Canal measurement, tolls, and tons of cargo carried, for traffic in one direction in one day was established on April 22, 1930, when 18 commercial vessels with an aggregate net tonnage, Panama Canal measurement, of 116,618, paying tolls of \$104,687.50, and carrying cargo amounting to 149,894 tons, passed through the Canal from the Pacific to the Atlantic.

The traffic comprising this record is given below:

Vessel.	Line.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Virginia.....	Panama-Pacific Line.....	18,170	\$15,210.00	4,568
Chilore.....	Ore S. S. Corp.....	9,348	10,492.50	20,000
Calgarolite.....	Imperial Oil Co.....	7,717	8,142.50	16,000
Matakana.....	Shaw, Savill & Albion.....	7,884	6,230.00	6,507
Dixie Arrow.....	Standard Transportation Co.....	7,140	6,215.00	11,214
Standard Arrow.....	Standard Transportation Co.....	6,783	5,985.00	12,388
Knute Nelson.....	Fred Olsen & Co.....	5,854	5,846.25	8,651
Tokiwa Maru.....	Nippon Yusen Kaisha.....	5,346	5,451.25	7,873
Pacific Reliance.....	Furness, Withy & Co.....	6,967	5,083.75	8,115
Robert Luckenbach.....	Luckenbach Line.....	6,375	4,998.75	6,889
Columbian.....	American-Hawaiian Line.....	4,450	4,685.00	5,512
Sulairia.....	Donaldson Line.....	5,429	4,395.00	7,828
Charles Christenson.....	Arrow Line.....	4,915	4,388.75	6,338
Canadian Importer.....	Canadian National Steamships.....	4,186	4,152.50	6,318
Arizona.....	The Texas Co.....	3,757	3,893.75	5,884
Quebec City.....	Reardon Smith Line.....	5,406	3,626.25	7,350
Rio Diamante.....	Thomson S. S. Co.....	4,583	3,527.50	7,700
Saramacca.....	United Fruit Co.....	2,308	2,363.75	759
Total.....		116,618	104,687.50	149,894

The previous record for aggregate net tonnage, Panama Canal measurement passing through the Canal in one direction in one day, was established December 8, 1928, when 22 vessels of 103,531 net tons were passed through from the Atlantic to the Pacific. The former high mark for tolls on traffic in one direction in one day was set on February 25, 1930, by traffic from the Pacific to the Atlantic (16 vessels), upon which was levied the sum of \$92,056.48. The previous high mark for cargo tonnage in one direction in a day was established on May 2, 1924, when 133,757 tons were passed through from the Pacific to the Atlantic.

In addition of the records established above, the total cargo in both directions on April 22, 1930, 174,247 tons, sets a new high mark for cargo through the Canal in both directions in one day, exceeding the previous mark of 163,202 tons established on January 14, 1924, by 11,045 tons.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 26, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Buenaventura.	18	17.55	20	6.12	20	15.06	20	16.10	American.	Panama R. R. S. S. Line	251.0	43.0	17.6	New York, N. Y.	Guayaquil, Ecuador	General.	958	2,873	1,776
Princess Elizabeth.	19	17.40	20	6.05	20	15.04	29	16.10	British	Can.-Pacific Railway	353.3	52.0	18.6	Glasgow, Scotland.	Victoria, B. C.	Ballast.		5,598	3,815
Santoro.	19	1.20	20	7.05	20	15.10	20	16.10	American.	Ore S. S. Corp.	449.1	57.0	19.4	Norfolk, Va.	Cruz Grande, Chile	Ballast.		7,808	5,139
Aras.	19	22.10	20	11.00	20	16.30	23	18.35	American.	C. S. Howard	147.0	26.0	9.0	Miami, Fla.	Galapagos Island	Ballast.		452	211
Cal.	16	19.50	20	13.00	20	20.25	20	21.45	German.	Roland Line.	216.5	32.9	13.0	Cristobal, C. Z.	Guayaquil, Ecuador	General.	56	1,105	698
Georgie.	19	14.05	21	6.05	21	15.12	21	16.35	French.	French Line.	410.0	52.0	21.0	Havre, France.	Corral, Chile	General.	3,049	6,830	4,932
S-15.			21	6.05	21	16.09	22	9.00	American.	U. S. Navy.	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-16.			21	6.00	21	16.09	22	9.00	American.	U. S. Navy.	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Capt. Edward P. Nones.			21	6.15	21	14.50			American.	U. S. Army	101.0	23.5		Cristobal, C. Z.	Pedro Miguel, C. Z.	(?)			
Henri.	20	17.00	21	7.00	21	15.45	21	16.50	French.	Le Coq S. S. Co.	400.5	51.2	22.4	Rouen, France.	Los Angeles, Calif.	Ballast.	5,930	4,178	
Desmarais.	21	00.05	21	7.20	21	16.15	21	17.35	American.	Isthmian S. S. Lines	251.0	43.6	24.6	Philadelphia, Pa.	Kahului, T. H.	Gen., tinplate.	2,670	2,823	1,740
Santa Veronica.	21	00.45	21	8.25	21	16.57	21	21.30	German.	Atlantic Tank Roadrei	412.0	55.0	17.0	Liverpool, England	Los Angeles, Calif.	Ballast.	6,585	4,435	
Bucaya.	21	2.05	21	8.30	21	17.17	21	18.20	American.	Isthmian S. S. Lines	424.0	56.0	23.0	Baltimore, Md.	Vancouver, B. C.	General.	6,397	7,611	5,497
Steel Worker.	21	7.30	21	9.50	21	18.04	21	19.27	Japanese.	Yamashita Shipping Co.	410.0	54.0	23.0	New York, N. Y.	Seikoahin, Japan.	Phosphates	7,229	6,532	5,030
Yoshu Maru.	21	12.30	21	12.55	21	20.25	21	21.45	Japanese.	Shimomura K. Kaisha	376.0	51.0	25.6	Tampa, Fla.	Kobe, Japan.	Phosphates	7,072	6,161	4,117
Taijin Maru.	21	14.55	22	6.10	22	17.00	22	18.45	Chilean.	Chilean Line.	350.0	51.0	21.7	Liverpool, England	Valparaiso, Chile	Coal, general.	2,000	5,103	3,528
Bio Bio.	21	18.20	22	8.25	22	17.35			Belgian.	Bernuth & Lembrake	440.8	57.0	26.0	Amsterdam, Holland	Valparaiso, Chile	Cresote	8,830	7,615	4,976
Labrad.	22	9.15	22	9.30	22	18.13	22	19.30	American.	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass.	Tacoma, Wash.	General.	2,377	7,103	4,991
Ohioan.	22	9.15	22	9.40	22	18.54	23	10.35	American.	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-11.	20	21.35	22	9.40	22	18.54	23	10.35	American.	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-12.	20	21.35	22	9.55	22	18.52	23	17.30	American.	Panama Mail S. S. Co.	380.0	48.7	23.7	New York, N. Y.	San Francisco, Cal.	General, coffee.	1,638	6,015	4,281
Colombia.	20	9.15	22	11.15	22	20.50	23	22.20	Norwegian.	Anglo-Mexican Pet. Co.	275.7	40.2	19.0	Tampico, Mexico	Valparaiso, Chile	Asphalt	2,500	2,492	1,676
Fjorden.	20	11.35	22	11.45	22	19.50	23	20.04	British.	Moore Line, Ltd.	375.0	52.6	24.6	St. Kitts, B. W. I.	Vancouver, B. C.	Sugar	7,008	6,051	4,612
Northmoor.	22	7.05	23	6.05	23	13.11	23	14.06	German.	North German Lloyd	428.0	54.6	23.6	Hamburg, Germany	Valparaiso, Chile	General.	4,517	6,720	4,744
Gothingen.	22	13.30	23	6.05	23	13.17			American.	U. S. Navy	310.0	31.0		Norfolk, Va.	Balboa, C. Z.	Ballast.			
Loce, 69.	22	13.30	23	6.05	23	13.17			American.	U. S. Navy	310.0	31.0		Norfolk, Va.	Balboa, C. Z.	Ballast.			
Capt. Edward P. Nones.	22	13.45	23	7.15	23	14.28	23	15.45	American.	U. S. Army	101.0	23.5		Cristobal, C. Z.	Pedro Miguel, C. Z.	(?)			
Bronny.	22	13.45	23	7.15	23	14.28	23	15.45	Norwegian.	Canadian Transp. Co.	380.5	54.6	25.0	Antwerp, Belgium	Los Angeles, Calif.	Silver sand.	7,900	6,447	4,757
Dorothy.	22	22.10	23	7.35	23	15.23	23	16.50	American.	Luckenbach Line.	448.9	60.2	21.0	Boston, Mass.	Seattle, Wash.	General.	5,000	9,294	6,861
Charles Nelson.	23	00.15	23	8.30	23	15.43	23	17.00	American.	Nelson Line.	380.4	53.0	21.0	New York, N. Y.	Seattle, Wash.	Slag, general.	5,441	5,659	4,138
Archangel.	23	6.50	23	10.05	23	17.18	23	20.20	Greek.	S. Livranes Co.	400.5	52.1	23.6	London, England	Valparaiso, Chile	Cement.	6,657	5,724	4,292
Hendonhall.	23	7.00	23	10.45	23	18.17	23	19.34	British.	Inter. Freightage Co.	309.6	53.0	26.6	New York, N. Y.	Corral, Chile	General.	7,560	5,852	4,112
Santa Inez.	23	5.15	23	11.05	23	17.51	24	1.25	American.	Grace Line.	370.0	53.0	22.0	New York, N. Y.	Talcahuano, Chile	General.	2,554	6,255	4,016
Willmote.	23	7.15	23	12.15	23	19.23	23	20.50	American.	Dimon S. S. Corp.	390.0	54.2	22.0	Norfolk, Va.	Los Angeles, Calif.	General.	4,915	6,162	4,433

Towing barge.

Tug.

Motor ship.

Destroyer.

Tug.

Submarine.

Yacht.

Tanker.

Tanker.	3	9.00	23	13.15	23	20.38	23	21.55	American.	States S. S. Co.	410.5	54.2	18.0	Philadelphia, Pa.	Tacoma, Wash.	General.	3,325	6,	55	4,895
San Marcos	23	9.00	23	13.15	23	20.38	23	21.55	American.	States S. S. Co.	410.5	54.2	18.0	Philadelphia, Pa.	Tacoma, Wash.	General.	3,325	6,	55	4,895
Florence	23	12.50	23	14.30	23	21.25	23	22.46	American.	Lukenbach Line	401.0	52.0	21.0	Houston, Texas	Tacoma, Wash.	General.	5,532	6,002	4,621	
Lockenbach	23	2.50	24	6.10	24	13.39	24	15.15	British.	Cape York M. S. Co.	425.0	56.0	17.0	Antwerp, Belgium	Los Angeles, Calif.	Silver sand.	2,950	6,813	4,838	
Cape Horn	24	7.15	24	7.20	24	14.29	24	22.30	British.	Donaldson Line	399.0	51.0	24.0	Glasgow, Scotland	Vancouver, B. C.	General.	3,036	5,831	4,341	
Parthenia	24	8.00	24	8.20	24	15.26	24	17.35	American.	Crown Zellenbach Co.	356.0	51.6	24.0	Galveston, Texas	Tacoma, Wash.	Sulphur.	5,423	5,367	2,925	
Henry D.	23	23.25	24	9.25	24	16.17	24	17.50	French.	Cie. Aux. de Nav.	389.9	53.0	16.6	Rouen, France	Los Angeles, Calif.	Ballast.	5,426	3,645		
Pallas	24	10.20	24	10.30	24	18.02	25	4.35	British.	N. Z. Shipping Co.	531.0	70.0	28.0	Wellington, N. Z.	Wellington, N. Z.	General.	6,350	18,206	13,500	
Rangtata	24	5.20	24	13.32	24	20.25	24	21.30	German.	North German Lloyd	473.0	61.0	21.5	Bremen, Germany	Vancouver, B. C.	General.	3,703	9,335	6,844	
Saale	24	4.15	24	14.22	24	21.45	25	12.35	German.	Hamburg-American Line	399.0	54.0	26.0	Hamburg, Germany	Valparaiso, Chile.	General.	6,224	6,571	4,607	
Schwarzwald	24	4.10	25	6.10	25	13.29	25	15.20	British.	Ellerman Hall Line	433.0	57.0	25.0	New York, N. Y.	Auckland, N. Z.	General.	3,056	8,607	6,774	
City of Osaka	24	21.00	25	6.10	25	14.20	25	15.45	American.	Sun Oil Co.	480.0	66.0	22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	9,607	6,548		
Chester Sun	25	6.00	25	7.15	25	14.57	26	2.15	American.	Panama-Pacific Line	574.0	80.3	26.5	New York, N. Y.	San Francisco, Cal.	General.	3,220	24,067	17,565	
Prince	24	23.58	25	7.25	25	15.52	25	17.25	British.	Interocean S. S. Corp.	400.0	54.0	24.7	Tampa, Fla.	Kobe, Japan.	General.	7,579	9,077	5,383	
Rupert City	25	5.40	25	8.35	25	16.31	25	20.00	American.	Calmar S. S. Corp.	450.0	57.0	24.8	Baltimore, Md.	Seattle, Wash.	Steel, general.	7,449	7,956	4,866	
Cubore	25	16.55	25	17.15	26	8.58	26	13.50	Norwegian.	Knut Knutson	375.0	51.0	24.0	Oslo, Norway	Corral, Chile.	General.	6,621	5,456	3,797	
Indra	25	16.55	25	17.15	26	8.58	26	13.50	Norwegian.	Knut Knutson	375.0	51.0	24.0	Oslo, Norway	Corral, Chile.	General.	6,621	5,456	3,797	
Gen. G. W.	25	16.55	25	17.15	26	8.58	26	13.50	Norwegian.	Knut Knutson	375.0	51.0	24.0	Oslo, Norway	Corral, Chile.	General.	6,621	5,456	3,797	
Getty	25	16.55	25	17.15	26	8.58	26	13.50	Norwegian.	Knut Knutson	375.0	51.0	24.0	Oslo, Norway	Corral, Chile.	General.	6,621	5,456	3,797	
Saranauca	22	18.58	26	6.03	26	13.10	26	15.15	American.	U. S. Army	89.0	22.0		Cristobal, C. Z.	Bahoa, C. Z.	Ballast.	3,668	2,308		
Point San Pablo	25	19.10	26	6.13	26	13.15	26	14.40	American.	United Fruit Co.	336.7	42.0	17.8	Cristobal, C. Z.	San Francisco, Cal.	Ballast.	2,509	3,394	2,591	
Muncaster	25	23.15	26	6.25	26	13.29	26	14.40	British.	Gulf-Pacific Line	324.0	46.2	19.0	New Orleans, La.	Vancouver, B. C.	General.	2,509	3,394	2,591	
Castle	25	23.15	26	6.25	26	13.29	26	14.40	British.	James Chambers & Co.	428.0	56.0	26.2	New York, N. Y.	Cebu, P. I.	Gen., case oil.	6,612	7,596	5,159	
Gen. M. H.	25	22.15	26	7.15	26	14.41	26	15.55	American.	Arrow Line	402.0	53.0	18.6	Jacksonville, Fla.	Seattle, Wash.	Coal, general.	3,800	6,575	4,912	
Sherman	26	3.15	26	7.25	26	15.38	26	16.50	American.	Redwood Line	381.0	52.0	22.0	Houston, Texas	Tacoma, Wash.	General.	7,099	5,732	4,131	
Abdon	26	5.00	26	8.15	26	15.50	26	16.50	British.	Kerr S. S. Co.	425.6	58.3	24.0	New York, N. Y.	Manila, P. I.	General.	6,593	8,216	6,037	
Silvermaple	26	5.50	26	8.15	26	15.50	26	16.50	British.	Kerr S. S. Co.	425.6	58.3	24.0	New York, N. Y.	Manila, P. I.	General.	6,593	8,216	6,037	
Amerikaland	26	5.55	26	8.15	26	15.50	26	16.50	British.	Kerr S. S. Co.	425.6	58.3	24.0	New York, N. Y.	Manila, P. I.	General.	6,593	8,216	6,037	
Chesaw City	26	5.55	26	8.15	26	15.50	26	16.50	British.	Kerr S. S. Co.	425.6	58.3	24.0	New York, N. Y.	Manila, P. I.	General.	6,593	8,216	6,037	
Minnesaw	26	9.00	26	9.55	26	17.23	26	18.25	American.	Isthmian S. S. Lines	395.5	55.0	28.7	Baltimore, Md.	Cruz Grande, Chile	Ballast.	15,560	4,496		
Minnesota	26	9.00	26	9.55	26	17.23	26	18.25	American.	Isthmian S. S. Lines	395.5	55.0	28.7	Baltimore, Md.	Cruz Grande, Chile	Ballast.	15,560	4,496		
Lake Farley	26	11.45	26	12.05	26	19.39	27	3.28	British.	John G. Olson	407.0	53.7	19.0	Boston, Mass.	Hongkong, China	Steel, general.	8,385	7,322	5,024	
Port Huron	26	12.00	26	13.45	26	20.43	26	22.00	American.	Comth & Dom. Line	477.2	63.6	23.0	Liverpool, England	Portland, Oreg.	General.	2,750	2,737	1,664	
China Arrow	26	12.00	26	13.45	26	20.43	26	22.00	American.	Standard Transp. Co.	468.3	62.7	18.0	Providence, R. I.	Viadvent k, U. S. R.	Steel products.	2,750	2,737	1,664	
Manizales	23	16.05	26	14.50	26	21.56	26	23.30	German.	North German Lloyd	216.6	32.9	12.0	Cristobal, C. Z.	Pt. Chalmers, N. Z.	General.	5,548	10,720	7,692	
Cayuco, 4944	23	16.05	26	14.50	26	21.56	26	23.30	German.	North German Lloyd	216.6	32.9	12.0	Cristobal, C. Z.	Guayaquil, Ecuador	Ballast.	10,084	7,388		
										E. Hernandez				Cristobal, C. Z.	Gatun, C. Z.	General.	250	1,132	741	
																(*)			2	

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

* Non-documentary. ** Not stated.

* Tanker.

Lebore.....	20	4.20	20	6.04	20	17.05	20	17.05	American.....	Ore S. S. Corp.....	549.6	72.2	35.4	Cruz Grande, Chile	Baltimore, Md.....	Iron ore.....	20,000	14,325	4,635
Illinois.....	20	3.00	20	6.48	20	15.15	20	15.15	American.....	The Texas Co.....	416.8	56.1	25.0	Los Angeles, Calif.	Pt. Arthur, Texas.....	Gasoline.....	7,567	6,945	5,032
Oakland ¹⁰	19	17.36	20	7.10	20	15.05	20	18.15	German.....	Hamburg-American Line	451.3	59.3	26.0	Vancouver, B. C.....	Hamburg, Germany.....	General.....	6,767	8,510	6,387
Aejutla.....	19	23.45	20	7.52	20	17.10	20	17.10	British.....	Pacific Steam Nav. Co.	216.0	34.0	17.0	Champerico, Guat.....	Crisobal, C. Z.....	(¹¹).....	1,041	1,273	706
Malechase.....	20	1.00	20	8.13	20	17.10	20	17.10	American.....	Mallory Transp. Lines	333.8	48.0	23.0	Noquian, Wash.....	Poughkeepsie, N. Y.....	Lumber.....	4,800	4,176	2,897
Peter Kerr.....	20	2.30	20	8.58	20	17.50	20	17.50	American.....	Quaker Line.....	415.0	55.7	28.0	Portland, Oreg.....	Philadelphia, Pa.....	Lumber, copper.....	8,575	7,704	5,696
Lancaster.....	20	2.30	20	9.02	20	18.20	20	18.20	American.....	Argonaut S. S. Co.....	434.3	57.7	26.0	Seattle, Wash.....	Baltimore, Md.....	(¹²).....	8,938	7,935	5,841
Atlantic.....	20	3.20	20	9.55	20	19.10	20	19.10	American.....	Argonaut S. S. Co.....	410.5	54.1	24.0	West Port, Oreg.....	Baltimore, Md.....	Lumber.....	7,300	6,507	4,917
Panama.....	20	4.02	20	10.22	20	19.30	20	19.30	American.....	Calmar S. S. Corp.....	385.3	51.2	23.0	Seattle, Wash.....	Baltimore, Md.....	Copper, lumber.....	5,261	6,224	4,465
Kuma Maru.....	20	5.00	20	10.40	20	20.25	21	1.05	Japanese.....	Nippon Yusen Kaisha.....	405.0	53.0	27.0	Iloilo, P. I.....	New York, N. Y.....	General.....	8,331	6,962	4,967

¹⁰ Motor ship.

¹¹ Coffee, hides, and honey.

¹² Lumber, pulp, paper, and ore.

Tanker.

¹⁰ Motor ship. ¹¹ Coffee, hides, and honey.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Maria ¹³	20	18.00	21	6.26	21	13.10	21	16.45	American	Grace Line	466.0	64.0	25.0	Talcahuano, Chile.	New York, N. Y.	(14)	4,755.10	626	6,680
Paul Shoup ¹	20	3.37	21	6.49	21	15.00	22	8.15	American	Associated Oil Co.	424.4	58.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	7,900	7,333	5,182
Vancouver ¹³	21	5.00	21	7.15	21	15.55	21	15.55	British	Imperial Oil Co., Ltd.	510.2	68.2	31.0	Cabo Blanco, Peru.	Montreal, Canada.	Crude oil	15,624.11	572	7,096
American Star	20	23.55	21	7.30	21	16.20	21	16.20	American	Charles Nelson & Co.	386.8	52.2	23.4	Seattle, Wash.	New York, N. Y.	Lumber, general	6,308	5,699	4,167
Seaboard	21	8.00	21	8.55	21	17.00	21	17.00	American	Redwood Line, Inc.	386.8	52.2	21.0	Portland, Oreg.	Mobile, Ala.	Lumber	4,896	5,708	4,138
Greylock	21	9.40	21	10.21	21	18.10	21	18.10	American	Sea Shipping Co.	430.7	54.3	27.0	Seattle, Wash.	N. Bedford, Mass.	Lumber	7,125	7,945	5,698
El Lobo ¹³	21	10.05	21	11.01	21	18.45	21	18.45	British	C. T. Bowring & Co.	385.2	51.0	24.0	La Libertad, Peru.	Philadelphia, Pa.	Crude oil	6,137	4,851	3,326
Vincennes ¹³	21	7.50	21	12.05	21	19.20	21	20.20	British	W. Runciman & Co.	375.0	52.6	26.0	Portland, Oreg.	Cobh, Ireland.	Wheat	7,400	6,099	4,691
Somerset	21	6.00	21	13.15	21	19.45	21	19.45	British	Federal Steam Nav. Co.	460.6	62.8	28.0	Wellington, N. Z.	London, England.	Frozen, general	5,163.10	550	7,993
Virginia	21	11.45	22	6.13	22	13.10	22	14.00	American	Panama-Pacific Line	586.4	80.3	28.0	San Francisco, Cal.	New York, N. Y.	General	4,568.25	254	18,170
Calore	22	1.35	22	6.24	22	16.45	22	15.45	American	Ore S. S. Corp.	549.6	72.2	35.0	Sugar Grande, Chile	New York, N. Y.	Iron ore	20,000.14	538	9,348
Calgarolite ¹³	21	19.15	22	7.39	22	15.55	22	17.05	British	Imperial Oil Co., Ltd.	521.5	70.4	31.0	Talara, Peru.	Montreal, Canada.	Crude oil	16,000.12	339	7,717
Arizona ¹	22	1.20	22	8.19	22	16.40	22	16.40	American	The Texas Co.	391.8	51.3	23.0	Los Angeles, Calif.	Pt. Arthur, Tex.	Gasoline	5,884	5,552	3,757
Arrow ¹	21	19.00	22	8.43	22	17.05	22	17.05	American	Standard Transp. Co.	467.6	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	12,388	9,698	6,783
Dixie Arrow ¹	21	20.00	22	8.50	22	17.45	22	17.45	American	Standard Transp. Co.	468.3	62.7	27.0	Los Angeles, Calif.	Boston, Mass.	Gasoline	11,214	9,744	7,440
Columbian	21	21.58	22	9.12	22	18.05	22	18.05	American	Amer.-Hawaiian Line	420.2	53.9	25.0	Portland, Oreg.	Boston, Mass.	General	5,512	6,760	4,450
Saramacca	21	15.50	22	9.26	22	18.58	22	18.58	American	United Fruit Co.	336.7	42.0	19.5	San Francisco, Cal.	Cristobal, C. Z.	General	759	3,668	2,308
Reliance ¹³	22	2.35	22	10.01	22	19.50	22	19.50	British	Furness, Withy & Co.	435.9	60.2	27.1	Vancouver, B. C.	Glasgow, Scotland.	General	8,115	9,644	6,967
Krute Nelson	22	8.15	22	10.40	22	20.40	23	14.52	Norwegian	Fred Olsen & Co.	435.9	56.2	28.3	Vancouver, B. C.	Oslo, Norway	General, wheat	8,651	8,016	5,854
Matkana	22	8.20	22	11.12	22	22.00	23	1.50	British	Shaw, Savill & Albion	476.6	63.6	25.0	Pt. Chalmers, N. Z.	Glasgow, Scotland.	Frozen, general	6,507.12	216	7,884
Grant	22	9.45	22	11.26	22	19.30	23	1.00	American	U. S. Army	508.0	55.0	26.0	Manila, P. I.	New York, N. Y.	(15)	309	.....	.....
Robert	22	9.35	22	12.11	22	21.25	23	21.25	American	Lukenbach Line	445.0	58.0	26.0	Portland, Oreg.	Boston, Mass.	Lumber, general	8,389	8,695	6,375
Quebec City	22	11.20	22	12.27	22	21.25	23	1.25	British	Reardon Smith Line	400.5	54.3	25.0	Vancouver, B. C.	Three Rivers, Que.	Lumber	7,350	7,004	5,406
Charles	22	11.30	22	12.59	22	22.35	22	22.35	American	Arrow Line	409.7	54.2	24.0	Seattle, Wash.	New York, N. Y.	Lumber	6,338	6,693	4,915
Christenson	22	1.10	22	13.42	22	23.50	23	9.00	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Ilolo, P. I.	New York, N. Y.	General	7,873	7,657	5,346
Tokuwa Maru	22	1.15	22	14.42	22	23.55	23	5.45	British	Donaldson Line	445.0	56.0	27.0	Vancouver, B. C.	Glasgow, Scotland.	General	7,828	7,827	5,429
Sulairia	22	1.15	22	14.42	22	23.55	23	5.45	British	Donaldson Line	445.0	56.0	27.0	Vancouver, B. C.	Glasgow, Scotland.	General	7,828	7,827	5,429
Canadian	22	17.00	22	17.41	23	11.50	23	14.05	British	Can. Nat. Steamships	400.0	52.4	24.0	Vancouver, B. C.	Montreal, Canada.	Lumber, general	6,286	5,891	4,186
Importer	22	17.20	22	18.13	23	12.35	23	13.55	British	Thompson S. S. Co.	400.0	56.0	25.0	Portland, Oreg.	Cobh, Ireland.	Wheat	7,700	6,359	4,583
Rio Diamante	22	17.40	23	6.26	23	14.40	23	14.40	Swedish	W. L. Comyn & Co.	350.0	50.6	24.0	Vancouver, B. C.	St. Nazaire, France	Lumber	3,980	4,917	3,528
Falsterbo ¹³	22	17.40	23	7.26	23	15.55	23	15.55	Swedish	Axel Brostrom & Son	350.0	50.6	25.0	Talcahuano, Chile.	St. Nazaire, France	Lumber	6,000	4,952	3,532
Fermia ¹³	22	21.40	23	7.26	23	15.55	23	15.55	Swedish	Axel Brostrom & Son	350.0	50.6	25.0	Talcahuano, Chile.	St. Nazaire, France	Lumber	6,000	4,952	3,532
Manizales	23	4.30	23	7.30	23	16.05	.....	.....	German	Holland-American	216.5	32.9	13.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	650	1,132	741
Grootendijk	22	22.30	23	7.51	23	18.10	.....	.....	Dutch	Roland Line	450.0	58.2	29.0	Vancouver, B. C.	Antwerp, Belgium	General	8,960	8,730	5,860
Grootendijk	22	22.30	23	7.51	23	18.10	.....	.....	Dutch	Roland Line	450.0	58.2	29.0	Vancouver, B. C.	Antwerp, Belgium	General	8,960	8,730	5,860
Oreoma	23	5.15	23	8.25	23	17.20	24	2.50	British	Pacific Steam Nav. Co.	511.6	62.0	27.0	Talcahuano, Chile.	Liverpool, England	General	5,590.12	417	8,305
Bennekom	23	11.00	23	12.09	23	18.58	.....	.....	Dutch	Royal Neth. S. S. Co.	449.7	58.2	19.4	Quimbo, Chile.	Hamburg, Germany	General	4,147	7,849	5,806

¹³ Motor ship.¹⁴ Copper, vanadium, cotton, etc.¹⁵ Army stores and equipment.¹⁶ Copper, tin, osts, hides, and skins.¹⁷ Tanker.

22	15.00	23	12.54	23	19.10	23	19.10	American.	Vincent Astor	251.6	41.6	17.0	Galapagos Island.	New York, N. Y.	2,384	1,566
23	16.55	23	17.50	24	11.00	24	11.00	Norwegian.	Westall, Larsen & Co.	398.0	54.7	24.0	Los Angeles, Calif.	Buenos Aires, Arg.	5,824	6,854
23	19.10	24	6.27	24	13.10	24	14.40	American.	Roosevelt S. S. Co., S.B.	395.5	55.0	23.1	Whyalla, Australia.	Baltimore, Md.	5,900	7,209
24	6.00	24	6.35	24	13.10			American.	U. S. Army.	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.	881	5,822
								French.	French Line.	413.0	52.5	17.0	Talcahuano, Chile.	Havre, France.		4,122
24	10.15	24	11.05	24	17.30	24	17.30	American.	Argonaut S. S. Line.	404.6	53.9	26.0	Everett, Wash.	Baltimore, Md.	5,850	6,755
24	7.00	24	11.40	24	18.45	24	18.45	Norwegian.	Anglo-Saxon Pet. Co.	450.8	61.0	26.0	Los Angeles, Calif.	Land's End, Eng.	10,052	8,108
								American.	U. S. Army.	101.0	23.0		Balboa, C. Z.	Cristobal, C. Z.	4,170	11,911
24	00.25	24	12.19	24	20.00	24	20.00	British.	N. Z. Shipping Co.	485.0	62.3	24.0	Wellington, N. Z.	London, England.	3,481	6,063
24	10.30	25	6.24	25	13.05	26	3.09	American.	Panama Mail S. S. Co.	380.0	48.7	23.0	San Francisco, Cal.	New York, N. Y.		4,353
24	12.25	25	6.38	25	14.10	25	14.10	British.	Tankers, Ltd.	426.5	56.9	26.0	Los Angeles, Calif.	Land's End, Eng.	8,277	7,149
24	22.30	25	7.14	25	15.05	26	00.05	Italian.	Nav. Libera-Tristina.	436.6	55.4	27.0	Vancouver, B. C.	Venice, Italy.	8,236	6,046
25	4.35	25	8.04	25	15.20	25	15.20	American.	McConnick S. S. Co.	410.5	54.2	26.0	Portland, Ore.	Buenos Aires, Arg.	6,054	7,753
24	21.25	25	8.11	25	15.40	25	16.25	British.	Australind S. S. Co.	410.0	54.0	24.0	Apia, Samoa Is.	New York, N. Y.	7,950	6,903
25	4.45	25	9.00	25	17.10	25	20.10	Danish.	Isbrandtsen Moller Co.	285.6	42.2	19.0	Seattle, Wash.	Tampico, Mexico.	2,477	1,642
25	7.25	25	9.03	25	17.05			German.	Hamburg-American Line	227.5	34.4	15.0	Guayaquil, Ecuador.	Cristobal, C. Z.	1,107	1,631
25	6.15	25	9.31	25	17.00	25	17.00	American.	Amer-Hawaiian Line	407.7	53.7	26.5	Seattle, Wash.	Boston, Mass.	6,933	5,094
25	5.30	25	10.04	25	18.00	25	20.40	British.	Pacific Steam Nav. Co.	384.6	52.2	27.0	Talcahuano, Chile.	Hull, England.	6,748	5,656
25	10.30	25	12.00	25	19.35	25	19.35	Swedish.	Can-Amor. Ship. Co.	418.8	55.1	29.0	Vancouver, B. C.	Belfast, Ireland.	9,350	7,274
24	21.45	25	13.18	25	21.00	25	21.00	British.	Canadian Transp. Co.	450.0	56.0	24.0	Vancouver, B. C.	Montreal, Canada.	7,550	7,999
25	15.10	25	15.59	25	22.30			American.	Panama Mail S. S. Co.	296.1	45.9	18.0	San Francisco, Cal.	Cristobal, C. Z.	691	3,848
25	8.00	25	6.24	26	13.45	26	23.45	American.	U. S. Navy.	436.9	58.2	23.1	San Francisco, Cal.	Hampton Rds., Va.	1,005	2,606
26	4.15	26	7.16	26	14.55	26	14.55	British.	Macay & McIntyre	402.5	55.0	25.0	Manila, P. I.	Del. Breakwater	8,500	6,085
26	7.10	26	8.16	26	17.20	27	1.05	British.	Pacific Steam Nav. Co.	303.4	43.0	15.0	Pacasmayo, Peru.	New York, N. Y.	771	2,851
22	18.20	26	9.28	26	16.20	26	17.20	American.	Pennsylvania Ship. Co.	416.0	56.2	27.0	Los Angeles, Calif.	New York, N. Y.	9,240	6,728

¹⁹ Lumber, general, gasoline, and kerosene. ²⁰ Cocoa, coffee, hides, and wood. ²¹ Oats, barley, copper, cocoa, ivory nuts, cotton, and coffee, coffee, hemp, pearl, shell, gasoline, etc. ²² Cocoa, coffee, hides, and wood. ²³ For orders. ²⁴ All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

REPORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 20	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.	April 20	Inapaquina ²⁵ .	United Fruit Co.	Colon, R. P.
April 20	Anachucuma ²⁵ .	United Fruit Co.	Colon, R. P.	April 20	Anachucuma ²⁵ .	United Fruit Co.	Colon, R. P.
April 20	Annetta I. ²⁵ .	A. Tagaropoulos	Puerto Colombia.	April 20	Annetta I. ²⁵ .	A. Tagaropoulos	Colon, R. P.
April 20	Castilla.	United Fruit Co.	Port Limon, C. R.	April 20	Amapala.	Stand. Fruit & S. Co.	New Orleans & wayports.
April 20	Calamares.	April 20.	New Orleans & wayp'ts.	April 20	Magdalena.	Hamburg-American Line.	Hamburg via wayports.
April 20	Laila.	Gulf-Caribbean S. S. Line	New Orleans & wayp'ts.	April 20	Cartago.	United Fruit Co.	New York via Habana.
April 21	Maravi.	United Fruit Co.	April 21.	April 21	Maravi.	United Fruit Co.	New Orleans via wayp'ts.
April 21	Atlantian.	Legland S. S. Line.	Liverpool via wayports.	April 21	Castilla.	United Fruit Co.	Colombian ports.
April 21	No. 9688 ²⁶ .	Pan. American Airways	Tela via wayports.	April 21	No. 9688 ²⁶ .	United Fruit Co.	Port Limon via Bocas.
April 21	Cordoba C-40 ²⁶ .	Seadair Airplane Co.	Barranquilla via wayp'ts.	April 22.		Pan American Airways.	Tela.

²⁵ Motor boat. ²⁶ Air mail carrier.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 23.....	Ancon.....	Panama R. R. S. S. Line.	New York via Haiti.	April 22.....	No. 144-M ²⁷	Pan American Airways.	Curacao via wayports.
April 23.....	Arguani.....	Elders & Fyffes, Ltd.	Avonmouth via wayp'ts.	April 22.....	No. 945-M ²⁷	Pan American Airways.	Guayaquil via wayports.
April 23.....	Santa Marta.....	United Fruit Co.	New York via Kingston.	April 22.....	Lalla.....	Gulf-Caribbean S. S. Line.	New Orleans & wayp'ts.
April 23.....	Tela.....	United Fruit Co.	New Orleans.	April 23.....	Arguani.....	Elders & Fyffes, Ltd.	Avonmouth via wayp'ts.
April 24.....	No. 144-M ²⁷	Pan American Airways.	Curacao via wayports.	April 23.....	Impeco ²⁸	Colon Import & Export Co.	Colon, R. P.
April 24.....	No. 9688 ²⁷	Pan American Airways.	Tela via wayports.	April 24.....	No. 9664 ²⁷	Pan American Airways.	Tela via wayports.
April 24.....	Wauntia.....	Stand. Fruit & S. S. Co.	Puerto Cabezas.	April 24.....	Santa Marta.....	United Fruit Co.	New York via wayports.
April 25.....	Atlantida.....	Stand. Fruit & S. S. Co.	New Orleans via Bocas.	April 24.....	Atlantian.....	Leyland S. S. Line.	Liverpool via wayports.
April 25.....	No. 945-M ²⁷	Pan American Airways.	Port Limon via Bocas.	April 25.....	Cordoba C-40 ²⁷	United Fruit Co.	Colombian ports.
April 26.....	Maravi.....	Pan American Airways.	Guayaquil and wayports.	April 25.....	Wauntia.....	Stand. Fruit & S. S. Co.	San Blas, R. P.
April 26.....	Cuba.....	United Fruit Co.	New York via wayports.	April 26.....	Atlantida.....	Stand. Fruit & S. S. Co.	New Orleans & wayports.
April 26.....	Dora K. ²⁸	French Line.	St. Nazaire via wayp'ts.	April 26.....	Castilla.....	United Fruit Co.	New Orleans & wayports.
April 26.....	Parismina.....	A. L. Surgeon.	Colon, R. P.	April 26.....	Dora K. ²⁸	A. L. Surgeon.	Bluefields, Nicaragua.
April 26.....	No. 9664 ²⁷	United Fruit Co.	New Orleans via Habana.	April 26.....	Maravi.....	United Fruit Co.	New York via Kingston.
April 26.....		Pan American Airways.	Tela via wayports.				

²⁷ Air mail carrier. ²⁸ Motor schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 24.....	Cathwood ¹	Union Oil Co. of California.	Los Angeles, California.	April 25.....	Cathwood ¹	Union Oil Co. of California.	Los Angeles, California.
April 25.....	Sambu ²⁹	Panama Bay, R. P.	Panama Bay, R. P.	April 26.....	Sambu ²⁹	Hans Elliot.	Panama Bay, R. P.
April 25.....	Real ²⁹	Hans Elliot.	Panama Bay, R. P.	April 26.....	Real ²⁹	Hans Elliot.	Panama Bay, R. P.
April 25.....	Dos Hermanos ²⁹	Panama Bay, R. P.	Panama Bay, R. P.	April 25.....	Dos Hermanos ²⁹	A. Valdez.	Panama Bay, R. P.
April 25.....	América ²⁹	Panama Bay, R. P.	Panama Bay, R. P.	April 25.....	América ²⁹	Hans Elliot.	Panama Bay, R. P.
April 26.....	La Union ²⁹	Panama Bay, R. P.	Panama Bay, R. P.	April 26.....	La Union ²⁹	A. Valdez.	Panama Bay, R. P.

* Other than ships passing through the Canal.

¹ Tanker. ²⁹ Motor schooner.

New Liners to Enter Service of Navigazione Libera Triestina.

Recent press reports indicate that the Navigazione Libera Triestina, operator of a fleet of combination cargo and passenger ships in the trade between Europe and the Pacific coast of North America, is to augment its service with two large passenger liners. Each of the vessels to be added will be equipped to carry 200 passengers. They are to be operated at a speed of 15 knots, and will afford a 25-day service to Mediterranean ports via the Panama Canal.

The first vessels to be added, the former Cunard steamship *Albania*, now being reconditioned, will be renamed and placed in service in June, 1930. She is 523 feet in length, 64 feet beam, of 12,800 gross tons, and is driven by steam turbines. Details and specifications of the second vessel are not available at this time.

The ports served by the vessels of the line include Venice, Trieste, Spalato, Naples, Leghorn, Genoa, Marseilles, Barcelona, Valencia, Malaga, Las Palmas, Cristobal, Puntarenas, La Libertad, San Jose de Guatemala, Los Angeles, San Francisco, Portland, Seattle, and Vancouver.

The existing fleet of this line engaged in the aforementioned service is made up of the motor ships *Rialto*, *Fella*, *Cellina*, *Leme*, and *Feltre*.

Collier "Ulysses" to be Oil Tanker.

According to the *Pacific Marine Review*, the collier *Ulysses*, which was sold last year by The Panama Canal to the American Tankers Corporation, is being converted into a tank ship at the yards of the United Dry Docks, Inc., at Staten Island. Two longitudinal bulkheads 260 feet long and 8 athwartship bulkheads will be installed, giving the vessel 24 tanks with a total capacity of 110,000 barrels. When completed the *Ulysses* will represent an outlay of about \$1,000,000.

The *Ulysses* was built in 1915 by the Maryland Steel Company at Sparrows Point, Maryland, and was engaged prior to her retirement to Gatun Lake in 1925, in the transportation of coal from Norfolk to the Isthmus for the Panama Railroad Company. The vessel is 536 feet long, 65 feet beam, and has a deadweight capacity in excess of 14,000 tons.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending April 26, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cali	North German Lloyd		April 20		56½
Magdalena	Hamburg-American Line		April 20		1,027½
Oakland	Hamburg-American Line	April 20	April 20	29	(²)
Calamares	United Fruit Co.	April 20	April 20	6	77
Kuma Maru	Nippon Yusen Kaisha	April 20	April 21	100	(²)
Castilla	United Fruit Co.	April 20	April 21	(¹)	45
Laila	Gulf-Caribbean S. S. Line	April 20	April 22	1,066	(²)
Colombia	Panama Mail S. S. Co.	April 20	April 22	420	315
Acajutla	Pacific Steam Nav. Co.	April 20		1,041	
Cartago	United Fruit Co.		April 21		286
Santa Maria	Grace Line	April 21	April 21	54	72
Georgie	French Line		April 21		327
Maravi	United Fruit Co.	April 21	April 21	408	(²)
Paul Shoup	Associated Oil Co.	April 21	April 22	294	(²)
Atlantian	Leyland S. S. Line	April 21	April 24	529	284
Tokiwa Maru	Nippon Yusen Kaisha	April 22	April 23	107	(²)
Gottingen	North German Lloyd	April 22	April 23	98	257
Knute Nelson	Fred Olsen & Co.	April 22	April 23	(¹)	403
Saramacca	United Fruit Co.	April 22	April 26	1,047	(²)
Santa Inez	Grace Line	April 23	April 23	53	45
Ariguaní	Elders & Fyffes, Ltd.	April 23	April 23	1	10
Orcoma	Pacific Steam Nav. Co.	April 23	April 24	3	(²)
Bennekom	Royal Neth. S. S. Co.	April 23	April 24	3	393
Tela	United Fruit Co.	April 23	April 24	643	(²)
Manizales	North German Lloyd	April 23	April 26	649½	198½
Santa Marta	United Fruit Co.	April 23	April 24	426	167
Ancon	Panama R. R. S. S. Line	April 23		2,676	
Schwarzwald	Hamburg-American Line	April 24	April 24	180	358
Saale	North German Lloyd	April 24	April 24	(¹)	346
Waunta	Standard Fruit & S. S. Co.	April 24	April 25	½	(²)
Vermont	French Line	April 24	April 25	783	(²)
Lagarto	Pacific Steam Nav. Co.	April 25	April 25	5	(²)
Venezuela	Panama Mail S. S. Co.	April 25	April 26	978	194
Atlantida	Standard Fruit & S. S. Co.	April 25	April 26	47	202
Castilla	United Fruit Co.	April 25	April 26	27	44½
Durazzo	Hamburg-American Line	April 25		1,107	
Los Angeles	Hamburg-American Line	April 25		10	
Haarlem	Royal Neth. S. S. Co.	April 25		214	
City of San Francisco	Panama Mail S. S. Co.	April 25		700	
Feltre	Nav. Libera-Triestina	April 25	April 26	(³)	164
Nosa King	N. O. & S. A. S. S. Co.	April 26		297	
Parismina	United Fruit Co.	April 26		69	
Cuba	French Line	April 26		99	
Maravi	United Fruit Co.	April 26	April 26	655	648
Creole Buco	Venezuela Oil Co.	April 26		2,425	
Dora K.	R. Feuillebois	April 26	April 26	(¹)	28½
Ebro	Pacific Steam Nav. Co.	April 26		32	
Arana	Pacific Steam Nav. Co.	April 26		509	

¹ No cargo discharged.

² No cargo laded.

³ One package.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending April 26, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Kenowis	U. S. Government	April 18	April 19	1,188	64
Somrac	U. S. Government	April 18	April 18	54	5
Ansir	North German Lloyd	April 18	April 18		186
Rakuyo Maru	Nippon Yusen Kaisha	April 18	April 18	56	
San Jose	United Fruit Co.	April 19	April 19		24
Acajutla	Pacific Steam Nav. Co.	April 20	April 20	1	
Paul Shoup	Associated Oil Co.	April 20	April 21	884	
Santa Maria	Grace Line	April 20	April 21	4	
Saramacca	United Fruit Co.	April 21	April 22	50	
Colombia	Panama Mail S. S. Co.	April 22	April 23	63	1
Tokiwa Maru	Nippon Yusen Kaisha	April 22	April 22	207	
Venezuela	Panama Mail S. S. Co.	April 24	April 25	90	2
California	Panama-Pacific Line	April 25	April 25		184
Saramacca	United Fruit Co.	April 26	April 26		5

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., May 7, 1930.

No. 40.

Traffic Through the Panama Canal in April, 1930.

During the month of April, 1930, 489 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,232,763, and on the launches \$27.15, or a total tolls collection of \$2,232,790.15.

The daily average number of commercial transits for the month was 16.3, and the average tolls collection was \$74,425.43, as compared with an average of 16.61 transits and \$72,903.30 in tolls for the previous month, and an average of 18 transits and \$76,036.24 in tolls for April, 1929. The average amount of tolls paid by each of the commercial transits was \$4,565.98, as compared with \$4,388.35 for the month of March, 1930.

The daily average number of commercial transits in April, 1930, was the lowest since September, 1928, when the daily average was 16.23 transits. The average of tolls collected per vessel during the month of April, 1930, was the highest since December, 1925, when the average tolls per vessel amounted to \$4,571.20.

While the number of transits for the first 10 months of the current fiscal year is 158 fewer than the corresponding period last year, the amount of tolls collected is \$109,972.51 greater in the first 10 months of 1930, than in the corresponding period of the preceding year.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 10 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 10 months of the fiscal years 1929 and 1928:

	Total for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April.....	489	2,232,763.00	16.30	74,425.43
Total, first 10 months of fiscal year 1930.....	5,228	22,812,996.88	17.20	75,042.75
Total, first 10 months of fiscal year, 1929.....	5,386	22,703,024.37	17.72	74,681.00
Total, first 10 months of fiscal year, 1928.....	5,467	22,809,318.85	17.92	74,784.65

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, May 3, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.		Net.
Corinto.....	6	19-30	27	6-10	27	13-28	27	14-50	American...	Panama Mail S. S. Co.	261.0	40.0	15.0	Cristobal, C. Z.	San Francisco, Cal.	General.....	1,122	2,352	1,540
Oreole.....	26	13-45	27	6-08	27	13-14	27	14-50	Venezuelan.	West India Oil Co.	325.0	55.0	10-6	Maracaibo, Venez.	Balboa, C. Z.	Ballast.....	3,587	9,291	6,301
Bueno 1 2.....	26	14-20	27	6-03	27	13-39	27	14-50	British.....	Pacific Steam Nav. Co.	450.0	57.0	23.0	New York, N. Y.	Talcahuano, Chile.	General.....	4,091	8,452	6,644
Los Angeles 3.....	25	10-40	27	7-05	27	13-54	27	17-15	German....	Hamburg-AmericanLine	432.0	59.0	20.1	Hamburg, Germany	Vancouver, B. C.	General.....	4,827	4,759	3,660
Harlem.....	25	15-20	27	7-20	27	15-57	27	17-10	Dutch.....	Royal Neth. S. S. Co.	361.5	49.6	22.0	Hamburg, Germany	Corral, Chile.	General.....	4,991	5,275	3,769
Gudrun.....	26	19-30	27	8-25	27	17-55	27	23-07	Danish.....	Isbrandtsen Moller Co.	360.0	51.0	21.0	Savannah, Ga.	Saigon, China.	General.....	4,991	5,275	3,769
Maersk.....	27	5-40	27	8-30	27	16-35	28	7-40	American..	Malloy Transp. Line	344.8	53.1	23.0	Freeport, Texas	Los Angeles, Calif.	Sulphur.....	5,507	4,339	3,019
Malang.....	27	4-35	27	9-45	27	16-57	27	22-20	American..	Rosevelt S. S. Co., S. B.	395.5	55.0	21.0	New York, N. Y.	Fredericton, N. S.	General.....	1,919	7,329	5,233
Potter 3.....	26	14-15	27	14-00	27	21-05	27	23-07	American..	N. O. & S. A. S. S. Co.	324.0	46.2	21.3	New Orleans, La.	Talcahuano, Chile.	General.....	3,146	3,978	2,569
Nosa King.....	27	11-25	27	14-23	27	21-55	27	23-07	British.....	Shaw, Savill & Albion	500.8	63.2	23.7	London, England	Pt. Chalmers, N. Z.	General.....	2,350	12,083	8,508
Mahana.....	27	13-35	27	15-00	27	22-40	27	23-55	American..	U. S. Steel Prod. Co.	424.0	67.0	23.2	Mobile, Ala.	Yokohama, Japan.	General, steel	7,963	7,611	5,450
Selma City.....	27	13-30	28	6-05	28	14-28	28	15-40	British.....	Pacific Steam Nav. Co.	550.0	67.0	23.8	Liverpool, England	Oronsay, Chile.	General.....	5,300	17,146	12,015
Orduna.....	27	5-10	28	6-05	28	14-38	28	15-55	American..	Ore S. S. Corp.	453.0	57.2	21.3	Norfolk, Va.	Cruz Grande, Chile	Ballast.....	7,817	5,185	
Firmore.....	27	5-10	28	6-05	28	14-38	28	15-55	American..	Ore S. S. Corp.	453.0	57.2	21.3	Norfolk, Va.	Cruz Grande, Chile	Ballast.....	7,817	5,185	
Imperial Prince.....	27	23-05	28	7-10	28	15-09	28	16-35	British.....	Furness, Withy & Co.	450.5	53.0	24.1	New York, N. Y.	Manila, P. I.	General.....	5,375	8,594	6,091
Cape York 3.....	28	4-05	28	7-30	28	15-28	28	16-35	British.....	Cuban Sugar Refining	400.0	54.0	16.1	Cardenas, Cuba.	Los Angeles, Calif.	Sugar.....	3,500	6,927	4,802
Gargoyte 1.....	28	5-15	28	9-45	28	16-45	28	18-15	American..	Vacuum Oil Co.	425.0	57.0	22.7	New York, N. Y.	Estero Bay, Calif.	Ballast.....	7,510	4,989	
Ibllington.....	28	4-00	28	10-10	28	17-40	28	19-10	British.....	Andrew Weir & Co.	400.0	52.3	25.11	Pt. Tarata, Cuba	Auckland, N. Z.	Sugar.....	6,782	5,714	4,053
Court.....	27	6-15	29	6-05	29	12-44	29	14-11	American..	U. S. Army.	436.0	45.0	25.0	New York, N. Y.	Balboa, C. Z.	Army supplies	392		
St. Michael 4.....	28	23-45	29	6-20	29	13-39	30	4-15	British.....	Shaw, Savill & Albion	482.6	64.3	18.3	London, England	Bluff, N. Z.	Ballast.....	11,819	8,366	
Coptic 3.....	28	00-35	29	7-25	29	15-20	29	16-43	American..	Williams S. S. Line	376.4	52.3	16.0	Baltimore, Md.	Seattle, Wash.	General.....	1,924	5,455	3,903
San Domingo.....	29	5-15	29	7-35	29	17-34	29	23-58	American..	Isthmian S. S. Lines	402.0	54.0	23.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	8,069	6,936	5,024
Maine.....	29	7-10	29	8-15	29	18-25	29	19-30	American..	Amer-Hawaiian Line	491.5	53.2	20.0	Boston, Mass.	Seattle, Wash.	General.....	2,700	10,491	7,601
Virginian.....	29	7-10	29	8-15	29	18-25	29	19-30	American..	Kokusai Kisen Kaisha	385.0	51.0	26.1	Boston, Mass.	Yokohama, Japan	General.....	7,550	6,213	4,665
Glasgow Maru.....	29	7-30	29	8-40	29	20-28	29	21-50	Japanese..	Anglo-American Oil Co.	429.0	57.0	18.0	Savannah, Ga.	Yokohama, Japan	Scrap iron, etc.	7,012	5,022	
Seminole 1 3.....	29	8-20	29	9-45	29	21-26	30	7-46	British.....	Tidewater Oil Co.	419.5	56.3	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.....	600	7,060	5,025
Solana 1.....	29	8-40	29	10-15	29	22-15	29	23-30	American..	Colon Gen. Italiana	518.0	64.0	29.8	New York, N. Y.	San Francisco, Cal.	Lubricating oil	2,915	12,553	7,516
Colombo 3.....	28	7-00	29	11-05	29	19-32	29	20-47	Italian....	Colon Import & Ex. Co.	462.0	64.0	29.8	Genoa, Italy	Valparaiso, Chile.	General.....	600	7,060	5,025
Junata 5.....	28	12-50	29	6-00	29	19-39	29	20-47	American..	U. S. Navy	446.0	56.0	22.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast.....	2,915	12,553	7,516
Nitro 6.....	28	12-50	30	6-15	30	12-54	1	10-35	American..	U. S. Navy	462.0	60.0	26.3	Cristobal, C. Z.	Balboa, C. Z.	Ballast.....	3,085		3
Katrina.....	30	5-15	30	7-15	30	14-31	30	15-40	American..	Lukenbach Line	446.0	56.0	22.0	Boston, Mass.	Tacoma, Wash.	General.....	3,992	8,508	6,179
Lukenbach.....	30	5-15	30	7-15	30	14-31	30	15-40	American..	Lukenbach Line	446.0	56.0	22.0	Boston, Mass.	Tacoma, Wash.	General.....	3,992	8,508	6,179
S-10 7.....	30	9-30	30	9-30	30	15-20	30	17-09	American..	U. S. Navy	231.0	21.1		Cristobal, C. Z.	Balboa, C. Z.	Ballast.....			
Slijst 3.....	30	9-50	30	10-20	30	17-09	30	18-20	Norwegian.	Fern Line	376.0	54.0	20.6	New Orleans, La.	Shanghai, China.	Cotton.....	4,630	6,264	4,706
Larchbank 3.....	30	11-55	30	12-10	30	19-05	30	22-54	British.....	Bank Line	420.2	53.9	22.9	Tampa, Florida	Shanghai, China.	Cotton.....	5,825		
City of San Francisco 3.....	25	22-30	30	13-00	30	21-12	30	22-12	American..	Panama Mail S. S. Co.	296.0	45.0	15.0	Cristobal, C. Z.	San Francisco, Cal.	Ballast.....	3,848	2,606	

1 Tanker.
2 For dry-docking.
3 Motor ship.
4 Transport.
5 Launch.
6 Ammunition ship.
7 Submarine.
8 Phosphates autoclon.

* Tanker.

* For dry-docking.

* Motor ship.

* Transport.

* Launch.

* Ammunition ship.

* Submarine.

* Phosphates and cotton.

Santa Clara	30	5 00	30	13 40	30	20 30	1	1 25	American	Grace Line	483 3	63 9	26 0	New York, N. Y.	Valparaiso, Chile	2,961 11,416	7,163
Pow City	30	13 42	30	13 55	30	21 19	30	22 20	American	Sun Oil Co.	324 0	46 2	19 0	Baltimore, Md.	Tacoma, Wash.	3,100 3,983	2,631
Union	30	14 05	30	14 45	30	22 38	30	23 40	American	North German Lloyd	480 6	66 0	21 5	Chester, Pa.	Los Angeles, Calif.	9,620 6,476	
Union S	30		30		30	14 35			Panamanian	Anglo-Mexican Pet. Co.	401 3	55 0	26 10	Cristobal, C. Z.	Balboa, C. Z.	3	3
Santa Clara	30	22 30	1	6 15	1	14 24	1	15 40	British	Standard Transp. Co.	410 0	55 0	18 0	New York, N. Y.	Valparaiso, Chile	7,269 5,952	3,650
Union S	1	00 05	1	6 25	1	15 42	1	15 40	American	Chilean Government	366 0	50 0	17 0	Newcastle, Eng.	Los Angeles, Calif.	8,201 2,093	2,067
Tiger	30	19 40	1	7 25	1	15 42	1	17 38	Chilean	Sun Oil Co.	480 6	66 0	22 6	Stockholm, Sweden	Los Angeles, Calif.	9,600 6,553	
Marjo	30	1 05 5	1	7 25	1	16 11	1	17 20	American	R. W. James Co.	356 0	45 3	22 3	New York, N. Y.	Managallanes, Chile	3,344 4,421	3,063
Pacific Sun	1	6 05	1	8 10	1	16 35	1	18 00	Chilean	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z.		
Concor	1		1	9 10	1	17 10	1	18 30	American	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z.		
S-13	7		1	9 10	1	17 10	1	18 30	American	Hamburg-American Line	227 5	34 0	13 3	Cristobal, C. Z.	Guayaquil, Penua	319 1,633	1,041
S-17	7		1	9 54	1	17 12	1	18 25	German	U. S. Tankship Corp.	390 0	54 0	16 0	Mobile, Ala.	Hilo, Hawaii	6,205 2,286	2,486
Durazzo	25	17 05	1	11 10	1	18 08	1	19 19	American	Holland-American Line	485 0	62 0	20 10	Rotterdam, Holland	Vancouver, B. C.	2,296 10,786	7,551
Castana	1	10 58	1	12 05	1	19 12	1	22 05	Dutch	Nav. Libera-Triestina	430 0	55 0	17 4	Trieste, Italy	Vancouver, B. C.	2,318 7,784	6,035
Dindeldijk	1	8 20	1	12 05	1	19 12	1	22 05	Dutch	Nav. Libera-Triestina	430 0	55 0	17 4	Trieste, Italy	Vancouver, B. C.	2,318 7,784	6,035
Fella	1	00 40	1	13 32	1	20 06	1	21 10	Italian	Penn Line	382 7	53 4	21 6	Tampico, Mexico	Fremantle, Aust'lia	3,310 6,112	4,265
Farbank	1	04 40	1	19 50	1	20 34	1	20 13	Norwegian	Pacific Steam Nav. Co.	215 0	33 0	14 2	Cristobal, C. Z.	Champerico, Guatemala	452 1,270	735
Sulvan	15	18 10	2	5 55	2	12 59	2	14 20	British	Swenson Trading Co.	148 0	33 0	12 8	Copenhagen, Denmark	Seattle, Wash.	307 557	533
Kariss	30	9 05	2	6 25	2	13 56	2	16 00	Danish	Royal Neth. S. S. Co.	400 0	58 0	25 10	Hamburg, Germany	Corral, Chile	5,657 7,817	6,097
Boskoop	1	8 10	2	6 10	2	14 20	3	2 34	Dutch	Dollar Line	600 0	65 0	28 6	New York, N. Y.	San Francisco, Cal.	4,386 17,081	11,314
Johnson	2	5 40	2	7 25	2	14 59	2	22 21	American	Can-Amcr. Ship. Co.	411 5	54 1	22 6	Port Tampa, Fla.	Seikoshin, Japan	7,494 6,597	4,989
City of Victoria	2	8 35	2	8 35	2	16 35	2	20 15	British	Ore S. S. Corp.	449 0	57 2	20 3	Baltimore, Md.	Cruz Grande, Chile	7,808 5,139	5,139
Feltore	1	11 55	2	10 05	2	17 48	2	19 02	American	Standard Oil Co.	435 0	56 2	20 0	Philadelphia, Pa.	Supe, Peru	7,639 5,135	
Al. R. J. Hanna	2	5 30	2	10 50	2	18 17	2	23 31	British	Pacific Steam Nav. Co.	303 0	43 0	17 2	New York, N. Y.	San Francisco, Cal.	718 3,496	1,770
Alm. J. Hanna	2	2 05	2	14 55	2	22 30	2	23 30	American	United Fruit Co.	315 0	56 0	18 6	Cristobal, C. Z.	San Francisco, Cal.	3,496 2,141	2,141
San Mateo	29	18 30	3	6 06	3	12 42	3	14 05	American	The Texas S. S. Co.	431 0	56 0	20 2	Wilmington, N. C.	San Francisco, Cal.	6,932 5,115	5,115
San Mateo	2	16 20	3	6 15	3	13 28	3	15 40	American	Argonaut S. S. Co.	420 5	54 2	26 0	Valdingham, Md.	Portland, Ore	7,340 5,360	5,360
Aryan	2	23 45	3	7 25	3	14 32	3	16 15	American	Associated Oil Co.	431 0	59 2	21 6	Birmingham, Holland	San Francisco, Cal.	7,893 5,104	5,104
Sagadahoc	3	4 40	3	7 20	3	15 26	3	17 48	American	Arxel Molasses Co.	471 0	62 0	18 0	New Orleans, La	Los Angeles, Calif.	9,441 6,224	6,224
Baterton	3	6 40	3	8 10	3	16 14	3	17 55	Norwegian	Shell Oil Co.	430 0	54 1	25 0	London, England	Los Angeles, Calif.	7,877 6,340	5,014
Java	3	7 55	3	9 45	3	17 02	3	18 50	Swedish	Arxel Brostrom & Son.	435 0	56 0	18 0	Bristol, England	Los Angeles, Calif.	7,432 5,209	5,209
Sagaland	3	10 14	3	10 25	3	17 56	3	18 55	American	Shell Oil Co.	435 0	56 0	18 0	Bristol, England	Los Angeles, Calif.	7,432 5,209	5,209
Uacarbon	3	13 35	3	13 50	3	21 30	3	22 30	American	Amer-Hawalian Line	404 6	53 9	18 0	Boston, Mass	Portland, Ore	3,505 6,777	4,761

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[illegible]

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	To—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Marone.....	28	2 20	28	5 50	28	15 45	28	15 45	American.....	Ore S. S. Corp.	550.3	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.....	21,500	15,551	4,297
Essofino.....	28	3 10	28	8 58	28	13 40	28	19 05	British.....	Pacific Steam Nav. Co.	450.3	57.8	25.0	Talcahuano, Chile.	New York, N. Y.	General.....	3,135	9,153	6,176
Deildijk ¹⁴	28	9 10	28	9 10	28	16 40	28	19 35	Dutch.....	N. Pacific Coast Line.	490.0	64.0	30.0	Vancouver, B. C.	Rotterdam, Holland	General.....	9,407	11,724	8,266
Northumber-land.....	28	23 00	29	6 27	29	13 25	29	13 25	British.....	Federal Steam Nav. Co.	530.0	63.0	24.0	Dunedin, N. Z.	Liverpool, England	Frozen, general.	5,570	13,268	9,124
Orient City.....	29	23 00	29	6 53	29	15 05	29	15 05	British.....	Reardon Smith Line	396.5	53.5	26.0	Vancouver, B. C.	Gibraltar ¹⁷	Wheat.....	7,842	5,979	4,419
Orazio ¹⁴	29	2 20	29	7 26	29	15 00	1	9 00	Italian.....	Grovani, Cal'n. Deluca	505.9	61.1	24.3	Talcahuano, Chile.	Genoa, Italy.....	Tagua, iron, hides	1,206	12,977	9,373
Middlesex.....	29	1 00	29	7 52	29	15 45	29	15 45	British.....	N. Z. Shipping Co.	460.0	62.8	23.0	Napier, N. Z.	Hamburg, Germany	Frozen, general.	4,438	10,663	7,727
Lewis.....	29	2 30	29	8 16	29	16 10	29	16 10	American.....	Luckenbach Line.....	496.0	68.2	26.2	Portland, Ore.	Boston, Mass.	General, lumber.	8,174	11,487	8,762
Lukenbach.....	28	13 50	29	11 50	29	18 30	29	18 30	American.....	United Fruit Co.	315.2	44.2	21.0	San Francisco, Cal.	Cristobal, C. Z.	Gasoline.....	540	3,496	2,141
Kekeskee ¹⁴	29	11 45	29	12 37	29	19 35	29	21 15	American.....	Richfield Oil Co. of Cal.	391.8	51.3	25.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	5,574	573	195
Gelezee ¹⁴	29	13 10	29	14 05	29	21 10			Dutch.....	S. Smith Co.	151.3	29.0	12.0	Iquique, Chile.	Genoa, Italy.....	Ballast.....			
City of Vancouver.....	29	13 35	29	14 45	29	22 45	30	5 45	British.....	Can.-Amer. S. S. Co.	411.5	54.1	25.0	Grays Har., Wash.	Cork, Ireland.....	Lumber.....	7,200	6,614	4,995
Margaret.....	29	19 40	30	6 13	30	13 10	30	20 55	Swedish.....	Johnson Line.....	405.0	54.0	26.0	Vancouver, B. C.	Stockholm, Sweden	General.....	6,022	7,048	5,337
Port Caroline.....	29	14 15	30	6 32	30	14 10	30	18 40	British.....	Cunard Line.....	479.5	62.4	25.2	Auckland, N. Z.	London, England	Frozen, general.	6,120		
Alsaroka.....	29	16 00	30	7 13	30	15 00	30	15 00	American.....	McCormick S. S. Co.	409.6	54.1	24.4	Portland, Ore.	Baltimore, Md.	Lumber.....	6,956	6,627	4,993
Takeyo Maru.....	29	16 40	30	7 38	30	17 35	30	17 35	Japanese.....	Nippon Yusen Kaisha.	445.0	58.0	26.0	Manila, P. I.	New York, N. Y.	Fuel oil.....	9,916	7,972	5,686
Akera ¹⁴	29	18 35	30	8 09	30	20 45			Norwegian.....	Anglo-Saxon Pet. Co.	400.9	52.3	26.0	Los Angeles, Calif.	Aruba, D. W. I.	Fuel oil.....	6,758		
Patrick Henry.....	29	17 00	30	8 51	30	19 15	1	9 30	American.....	Tampa Inter-ocean Co.	439.6	60.2	26.0	Manila, P. I.	New Orleans, La.	General.....	9,735		
Kan Rafael.....	30	4 00	30	9 10	30	20 10	30	23 35	American.....	States S. S. Co.	410.0	54.4	25.0	Seattle, Wash.	Philadelphia, Pa.	Lumber.....	6,830	6,464	4,675
Kanaka.....	30	5 18	30	9 44	30	20 30	30	20 50	American.....	Amer.-Hawaiian Line.	404.6	53.9	26.0	San Francisco, Cal.	Boston, Mass.	General.....	6,703	6,779	4,921
Seattle.....	30	11 00	30	12 09	30	19 20			German.....	Hamburg-American Line.	461.5	61.0	27.0	Seattle, Wash.	Hamburg, Germany	General.....	6,740	9,267	6,834
Sylvan Arrow ¹⁴	30	11 15	30	12 50	30	21 20	30	21 20	American.....	Standard Transp. Co.	467.6	62.7	27.0	Los Angeles, Calif.	Providence, R. I.	Gasoline.....	11,354	9,698	6,862
Southern Princess.....	30	14 20	30	15 24	30	23 25	1	15 05	British.....	So. Whal'g & Seal'g Co.	530.0	66.6	30.0	Wellington, N. Z.	Pensacola, Fla.	Whale oil.....	10,238	14,458	11,380
Southern Barrier.....	30	14 35	30	15 33	30	23 30	1	15 05	British.....	So. Whal'g & Seal'g Co.	116.7	24.2	13.0	Dunedin, N. Z.	Middlesb'gh, Eng.	Ballast.....		264	69
Southern Sun.....	30	14 40	30	15 33	30	23 30	1	15 05	British.....	Lever Brothers.....	116.7	24.2	13.0	Pt. Chalmers, N.Z.	Middlesb'gh, Eng.	Ballast.....		264	69
Southern Cloud.....	30	14 25	30	15 46	30	23 30	1	15 05	British.....	So. Whal'g & Seal'g Co.	116.7	24.2	14.0	Pt. Chalmers, N.Z.	Middlesb'gh, Eng.	Ballast.....		264	69
Southern Sky.....	30	14 30	30	15 46	30	23 30	1	15 05	British.....	So. Whal'g & Seal'g Co.	116.7	24.2	13.0	Pt. Chalmers, N.Z.	Middlesb'gh, Eng.	Ballast.....		264	69
Edgar F.....	30	15 15	30	16 37	1	11 00			American.....	Luckenbach Line.....	425.0	57.3	26.0	Portland, Ore.	Mobile, Ala.	General.....	6,450	8,593	6,648
Renaisco.....	30	13 10	30	17 41	1	15 20	2	6 55	Italian.....	Cantieri Olivo Soc. An.	412.0	50.5	24.0	Iquique, Chile.	Genoa, Italy.....	Ballast.....		6,050	3,442
Stearline.....	30	22 30	1	6 17	1	17 40	1	17 40	American.....	Ore S. S. Corp.	550.3	72.2	35.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.....	22,146	15,551	4,297
St. Michael ¹⁶	30	11 00	1	6 40	1	15 55	2	11 00	American.....	U. S. Army.....	448.0	58.0	25.0	Bahoa, C. Z.	New York, N. Y.	Army general.			

¹⁴ Motor ship.¹⁵ Tug.¹⁶ Transport.¹⁷ For orders.¹⁸ General, gasoline, and explosives.¹⁹ Molasses, sugar, wood, oil, peanut oil, and merchandise.

S-12 ²⁶	1	7 22	American...	U. S. Navy	231.0	20.0	Balboa, C. Z.	Cristobal, C. Z.	8,330	6,512	4,665
S-16 ²⁶	1	16 40	American...	U. S. Navy	231.0	20.0	Balboa, C. Z.	Cristobal, C. Z.	12,574	9,846	6,946
Indian City...	1	7 22	British...	Reardon Smith Line	411.7	54.5	Los Angeles, Calif.	Manchester, Eng.	6,408	5,953	4,354
Empire Arrow	1	11 34	American...	Standard Transp. Co.	468.3	62.7	Los Angeles, Calif.	Suda Bay, Greece	3,872	12,821	9,507
Leikanger	1	10 25	American...	Westfal, Larsen & Co.	375.3	52.3	Vancouver, B. C.	London, England	9,342	7,394	5,099
Cornithie	1	20 55	Norwegian...	Shaw, Savill & Albion	500.3	63.3	Wellington, N. Z.	New York, N. Y.	7,700	5,471	3,846
Hugenot	2	6 12	British...	Richfield Oil Co. of Cal.	434.8	56.2	Los Angeles, Calif.	Norcross, U.S.R.	7,030	5,173	3,651
Polynia	1	22 30	American...	Robert Maclack & Co.	400.0	52.0	Iquique, Chile	Nitrates	7,334	7,473	5,536
Dungatnage...	2	7 55	Greek...	Moore & McCormack	384.9	52.0	Antofagasta, Chile	(*)	6,700	5,601	3,913
Robin	2	8 04	British...	Seas Shipping Co.	424.8	55.2	Tacoma, Wash.	Coconut oil	7,460	6,754	4,800
Goodfellow	2	1 25	American...	Kellogg S. S. Co., Inc.	391.8	51.3	Manila, P. I.	General	4,902	3,911	2,600
Romulus 1...	2	14 14	American...	Amer-Hawaiian Line	404.6	52.9	Seattle, Wash.	Nitrates, beans	2,288	238	163
Oregonian	2	14 40	American...	National Navigation Co.	118.0	21.1	Buenaventura, Col.	Gasoline	10,733	7,441	5,077
Caldas 14	2	15 35	Colombian...	N. O. & S. A. S. S. Co.	324.0	46.2	Iquique, Chile	General	6,509	5,743	3,988
Nosa Queen	2	16 45	Colombian...	National Navigation Co.	107.2	22.9	Buenaventura, Col.	Lumber, auto parts	3,150	2,656	1,621
Gaea 14	2	19 00	American...	U. S. Navy	224.0	40.0	Balboa, C. Z.	Passengers	33,999	30,079	
Sacramento 21	3	6 06	American...	U. S. Navy	231.0	20.0	Balboa, C. Z.				
S-10 ²⁶	3	6 22	American...	U. S. Navy	231.0	20.0	Balboa, C. Z.				
S-15 ²⁶	3	6 22	American...	U. S. Navy	231.0	20.0	Balboa, C. Z.				
Dilworth 1...	2	22 30	American...	Pennsylvania Ship. Co.	435.0	56.0	Los Angeles, Calif.				
Patagonia	3	2 50	American...	Lloyd Royal Belg.	400.0	52.3	Los Angeles, Calif.				
Onondaga	29	12 48	Belgian...	Ford Motor Co.	251.0	43.0	Vancouver, B. C.				
Columbus	3	6 30	German...	North German Lloyd	778.0	78.0	Aberdeen, Wash.				

¹ Tanker.

²⁰ Submarine.

²² Pulp, lumber, and scrap tin.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

POINT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 27	Tolca	United Fruit Co.	Port Limon, C. R.	April 27	Tolca	United Fruit Co.	New York via Habana.
April 27	No. 142-M ²³	Pan American Airways	Miami via wayports.	April 27	Ancon	Panama R. R. S. S. Line.	New York via Haiti.
April 27	Anacuena ²⁴	United Fruit Co.	Colon, R. P.	April 27	Parianina	United Fruit Co.	New Orleans & waypts.
April 27	Inapacuna ²⁴	United Fruit Co.	Colon, R. P.	April 28	No. 945-M ²³	Pan American Airways	Talara via wayports.
April 28	Annetta I ²⁴	A. Tagaropoulos	Colon, R. P.	April 28	No. 144-M ²³	Pan American Airways	Curacao via wayports.
April 28	Marques de Comillas	Spanish Line	Barcelona via wayports.	April 29	No. 9685 ²³	Pan American Airways	Tela via wayports.
April 28	Stuyvesant	Royal Neth S. S. Co.	Amsterdam via wayports	April 29	Cuba	French Line	Harve via wayports.
April 28	Pastores	United Fruit Co.	New York via Habana.	April 29	Waunia	Standard Fruit & S. S. Co.	New Orleans and waypts.
April 28	Standard Fruit	Standard Fruit & S. S. Co.	San Blas, R. P.	April 29	Stuyvesant	Royal Neth. S. S. Co.	Port Limon, C. R.
April 28	Cordoba C-40 ²³	Standard Airplane Co.	Barraquilla and waypts	April 30	Wawa	Standard Fruit & S. S. Co.	San Blas, R. P.
April 29	No. 9688 ²³	Pan American Airways	San Salvador via waypts	April 30	Pastores	United Fruit Co.	Port Limon, C. R.
April 29	Mallena	Malish S. S. Co.	Puerto Cabezas.	May 1	Metapan	Marques de Comillas	New Orleans via wayports.
April 29	Tela	United Fruit Co.	New York via Kingston.	May 1	Inapacuna ²⁴	Spanish Line	Barcelona via wayports.
April 30	Inapacuna ²⁴	United Fruit Co.	New Orleans, La.	May 1	Triona	United Fruit Co.	Colon, R. P.
April 30	No. 144-M ²³	United Fruit Co.	Colon, R. P.	May 2	No. 9664 ²³	Pan American Airways	Miami via wayports.
April 30	No. 945-M ²³	Pan American Airways	Curacao via wayports.	May 2	Atlas	Pan American Airways	Puerto Colombia.
April 30			Talara via wayports.	May 2		Royal Neth. S. S. Co.	Tela via wayports.
April 30				May 2			Curacao, D. W. I.

²³ Air mail carrier.

²⁴ Motor boat.

* Other than ships passing through the Canal.

(Continued on page 580, column 2.)

Tanker Traffic Through the Panama Canal in April, 1930.

During the month of April, 1930, 85 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 478,316, on which tolls of \$427,130.15 were paid. Cargo amounted to 484,326 tons, which included 438,008 tons of mineral oils, 8,830 tons of creosote, 30,238 tons of whale oil, and 7,250 tons of molasses. In point of net tonnage, tanker traffic increased 7.6 per cent over the same traffic for the corresponding month a year ago, and cargo tonnage increased 15.1 per cent.

Tanker traffic comprised 17.4 per cent of the total commercial transits through the Canal during the month; made up 19.3 per cent of the total Panama Canal net tonnage; were the source of 19.1 per cent of the tolls collected; and carried 19.7 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of April, 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the 2 preceding months and for April, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Belgian.....	1	4,976	\$5,710.00	² 8,830
British.....	7	38,339	29,067.75	7,665
French.....	3	12,891	9,281.52	.....
German.....	1	4,435	3,193.20	.....
Norwegian.....	3	18,198	15,430.25	11,059
United States.....	24	135,039	99,722.48	900
Total, April, 1930.....	39	213,878	162,405.20	28,454
Total, March, 1930.....	40	209,588	152,605.22	6,907
Total, February, 1930.....	52	263,278	197,075.32	39,854
Total, April, 1929.....	39	215,199	159,166.70	22,876
<i>Pacific to Atlantic.</i>				
British.....	12	69,877	72,338.75	² 125,396
Norwegian.....	5	31,228	31,660.00	³ 52,379
United States.....	29	163,333	160,726.20	⁴ 278,097
Total, April, 1930.....	46	264,438	264,724.95	455,872
Total, March, 1930.....	47	234,316	240,982.05	423,247
Total, February, 1930.....	41	217,200	223,131.27	383,119
Total, April, 1929.....	43	229,158	231,886.59	397,783

¹ Creosote.

² Includes 10,238 tons whale oil.

³ Includes 20,000 tons whale oil.

⁴ Includes 7,250 tons molasses.

The following tabulation shows the tanker traffic through the Canal during April, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	24	135,973	\$100,457.12	900
United States to South America.....	4	23,080	16,617.60	.....
United States to Far East.....	1	6,498	7,006.25	11,059
West Indies to South America.....	1	3,892	4,203.75	7,665
Europe to United States.....	9	44,435	34,120.48	⁵ 8,830

⁵ Creosote.

PACIFIC TO ATLANTIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	21	111,451	\$112,423.50	198,815
United States to West Indies	2	10,672	8,561.45	6,758
United States to Europe	13	74,643	75,220.00	132,400
South America to United States	3	17,537	19,132.50	34,037
South America to Canada	4	21,793	23,201.25	46,374
Hawaiian Islands to United States	1	4,286	3,841.25	67,250
Australasia to United States	1	11,380	9,527.50	710,238
Australasia to Europe	1	12,676	12,817.50	720,000

⁶ Molasses.⁷ Whale oil.

Of the tanker traffic passing through the Canal in April, 1930, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for April, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
April, 1930	29	160,376	\$116,391.53	300
March, 1930	31	177,371	127,753.83	.....
February, 1930	39	195,925	143,213.92	9,252
April, 1929	22	121,872	87,747.84	.....
<i>From Los Angeles.</i>				
April, 1930	33	181,662	182,359.75	321,197
March, 1930	40	203,457	208,169.55	364,974
February, 1930	25	138,239	140,667.23	240,931
April, 1929	27	149,491	150,532.45	258,776

Heavy Iron Ore Shipments Through Canal in March.

Shipments of Chilean iron ore through the Panama Canal during the month of March, 1930, totaled 201,292 tons, and were higher than shipments of this product through the Canal in any other month since its opening. With the exception of 14 tons, which was reported as destined to Europe, this ore went to the United States in vessels operated by one company.

In the fiscal years 1929 and 1928 the shipments of ores (principally iron) ranked fifth in point of tonnage among the various commodities passing from the Pacific to the Atlantic, while thus far this year it has taken fourth place, surpassing the item of wheat, which has declined considerably.

The first nine months of this year show shipments of iron ore exceeding by 343,729 tons and 367,816 tons, respectively, those in the corresponding period in the fiscal years 1928 and 1929. Comparison is presented in the following tabulation:

	Fiscal year. 1930.	Fiscal year. 1929.	Fiscal year. 1928.	Increase or decrease of 1930 over—	
				1929.	1928.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
July	156,738	124,800	94,169	+31,938 ⁷	+62,569
August	159,906	103,600 ¹	132,475 ⁷	+56,306 ⁷	+27,431
September	141,057	132,300	101,849 ⁷	+8,757 ⁷	+39,208
October	125,399	132,840	142,500 ⁷	—7,441 ⁷	—17,101
November	162,304	81,500	123,800 ⁷	+80,804 ⁷	+38,504
December	197,611	161,226	101,309 ⁷	+36,385 ⁷	+96,311
January	148,464	105,831	112,000	+42,633	+36,464
February	147,253	118,488	142,815	+28,765	+4,438
March	201,292	135,710	121,300	+65,582	+79,992
Total	1,440,024	1,096,295	1,072,208	+343,729	+367,816

Whale Factories Return.

The whale factory-tanker *Kosmos* transited the Canal on April 9, 1930, en route from Wellington, N. Z., to Sandefjord, Norway, with a cargo of 20,000 tons of whale oil in bulk, produced from whale operations in the Antarctic. The *Kosmos*, accompanied by an attendant fleet of 7 whale catchers, passed through the Canal on September 10, 1929, en route from Norway to Wellington, which was the base of the past season's operations. The vessel is 554 feet long, 77 feet beam, and of 17,801 gross tons, and is said to be one of the largest and most modern whale factories afloat.

The factory-tanker *Sir James Clark Ross*, which also passed through last September bound for the Antarctic, returned in April, transiting the 10th, en route from New Zealand to New York. This vessel carried 4,240 tons of whale oil.

The tanker *Southern Princess*, accompanied by 4 whale catchers, which had passed through the Canal southbound on September 25, 1929, made transit on April 30 on the return voyage, bound for Pensacola, Florida. The *Southern Princess* was loaded with 10,238 tons of whale oil.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 28, 1930.

No. 692.

OBSTRUCTION TO NAVIGATION.

Pacific Ocean, off Morro de Puercos, Panama. The following message was received through the Balboa radio station from the U. S. motor ship *Sunoil*:

On April 26, 1930, at 12.25 p. m. (E.S.T.), passed several spars apparently attached to submerged wreckage projecting 3 to 5 feet out of water.

Approximate position: Lat. 7° 8' N., long. 80° 39' W. *Dangerous to navigation.*

(Signed) LYALL, Master.

NOTE.—The position of this obstruction is close to and possibly the same as the one reported by the S. S. *Baldhill* on April 22, 1930. See Notice to Mariners No. 690.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 29, 1930.

No. 693.

Panama, Pacific entrance to Panama Canal, floating survey signals established. The Commanding Officer of the U. S. S. *Niagara* reports that 4 floating signals have been moored about 3 miles apart in an area approximately 5 miles to the eastward and northeastward of the Pacific entrance of the Panama Canal. These signals consist of tripods about 30 feet in height, dressed in canvas, and mounted on rafts 26 feet square. At the corners of each raft is a floater consisting of a gasoline drum. These signals will serve as triangulation stations for sounding boats during the survey of Panama Bay. They will be moved down the coast to the southeastward as the survey progresses, following the edge of the 3 fathom bank shown on H. O. Chart No. 1019.

Efforts will be made to illuminate these floating signals by lantern at night so far as practicable, but it is very probable that on many occasions it may not be possible to keep them illuminated.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., April 29, 1930.

No. 694.

Central America, Panama Canal, Atlantic approach, Isla Grande light, characteristic changed. On June 1, 1930, the red flash in the present characteristic of Isla Grande light will be changed to a white flash thus making the characteristic of this light 12 white flashes per minute.

New characteristic: Flashing white, period 5 seconds; flash 0.3 seconds, eclipse 4.7 seconds. Position: Latitude 9° 38' 22" N., longitude 79° 33' 38" W.

H. BURGESS,
Governor.

New "Santa Clara" Transits Canal.

The new turbo-electric steamship *Santa Clara* of the Grace Line arrived at Cristobal at 5 a. m., April 30, 1930, on the first leg of her maiden voyage in the trade between New York and west coast South American ports. The voyage from New York was made in the fast time of 4 days and 18 hours, the vessel having left New York at 11 a. m., April 25th. The *Santa Clara* transited the Canal on the afternoon of the 30th and, after docking for several hours at Balboa, sailed for Callao and other South American ports.

A description of the *Santa Clara* and the new services offered by the Grace Line was published in THE PANAMA CANAL RECORD of April 2, 1930.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending May 3, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Grootendijk.....	Holland-American Line.....		April 27.....		322
Ancon.....	Panama R. R. S. S. Line.....		April 27.....		1,283
Los Angeles.....	Hamburg-American Line.....		April 27.....		841
Haarlem.....	Royal Neth. S. S. Co.....		April 27.....		269
Ncsa King.....	N. O. & S. A. S. S. Co.....		April 27.....		591
Ebro.....	Pacific Steam Nav. Co.....		April 27.....		5
Arana.....	Pacific Steam Nav. Co.....		April 27.....		8
Corinto.....	Panama Mail S. S. Co.....		April 27.....		1,126
Tolosa.....	United Fruit Co.....	April 27.....	April 27.....	28	63
Orduna.....	Pacific Steam Nav. Co.....	April 27.....	April 28.....	124	143
Schwaben.....	North German Lloyd.....		April 28.....		443
Washington.....	French Line.....	April 28.....	April 28.....	206	(*)
Parismina.....	United Fruit Co.....		April 28.....		400
Delftdijk.....	Holland-American Line.....	April 28.....	April 28.....	(*)	40
Essequibo.....	Pacific Steam Nav. Co.....	April 28.....	April 28.....	5	(*)
Stuyvesant.....	Royal Neth. S. S. Co.....	April 28.....	April 29.....	22	27
Colombo.....	Italian Line.....	April 28.....	April 29.....	356	178
Pastores.....	United Fruit Co.....	April 28.....	April 30.....	588	38
Marques de Comillas.....	Spanish Line.....	April 28.....	May 1.....	299	478
Cuba.....	French Line.....		April 29.....		796
Orazio.....	Italian Line.....	April 29.....	May 1.....	92	1,211½
San Mateo.....	United Fruit Co.....	April 29.....	May 3.....	616	(*)
Mallemak.....	C. D. Mallory & Co.....	April 29.....	April 30.....	1,759	(*)
Santa Clara.....	Grace Line.....	April 30.....	April 30.....	42	100
Siljestad.....	A. F. Klaveness & Co.....	April 30.....	April 30.....	1½	(*)
Margaret Johnson.....	Johnson Line.....	April 30.....	April 30.....	(*)	261
Akera.....	Anglo-Saxon Pet. Co.....	April 30.....	May 2.....	6,578	(*)
Patrick Henry.....	Tampa Intercoast Co.....	April 30.....	May 1.....	431	(*)
Tela.....	United Fruit Co.....	April 30.....	May 3.....	20	66
Seattle.....	Hamburg-American Line.....	April 30.....	May 1.....	(*)	950
Metapan.....	United Fruit Co.....	April 30.....	May 1.....	845	124
Durazzo.....	Hamburg-American Line.....		May 1.....		320
Fella.....	Nav. Libera-Triestina.....	May 1.....	May 1.....	201	(*)
Dinteldijk.....	Holland-American Line.....	May 1.....	May 1.....	8	29
Boskoop.....	Royal Neth. S. S. Co.....	May 1.....	May 2.....	103	313
Irióna.....	United Fruit Co.....	May 1.....	May 2.....	922	43
Atlas.....	Royal Neth. S. S. Co.....		May 2.....		24
Stuyvesant.....	Royal Neth. S. S. Co.....	May 1.....	May 3.....	7	313
Almagro.....	Pacific Steam Nav. Co.....	May 2.....	May 2.....	165	336
Salvador.....	Pacific Steam Nav. Co.....		May 2.....		453
Amapala.....	Standard Fruit & S. S. Co.....	May 2.....	May 3.....	154	251
Cauca.....	National Navigation Co.....	May 3.....		288	
Caldas.....	National Navigation Co.....	May 3.....		263	
Galicía.....	Hamburg-American Line.....	May 3.....		27	
Horedia.....	United Fruit Co.....	May 3.....		144	
Winnipeg.....	French Line.....	May 3.....		155	
Nevisian.....	Leyland Line.....	May 3.....		596	

* No cargo discharged.

* No cargo laded.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 6, 1930.

No. 695.

Ecuador, Gulf of Guayaquil, Guayas River, light established. The following is quoted from Notice to Mariners No. 17, Washington, D. C., dated April 26, 1930:

Information has been received through the Department of State that on March 24, 1930, a group flashing white light showing 1 group of 2 flashes every 6 seconds, flash 0.3 second, eclipse 1.4 seconds, flash 0.3 second, eclipse 4 seconds, was established on the western shore of Mondragon Island, in the Guayas River.

Position: Latitude 2° 33' 40" S., longitude 79° 51' 41" W.

H. BURGESS,
Governor.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Cristobal.....	April 29.....	May 4.....	May 7.....	May 11.....	May 14.....	May 19.
Ancon.....	May 13.....	May 18.....	May 21.....	May 25.....	May 28.....	June 2.
Cristobal.....	May 27.....	June 1.....	June 4.....	June 8.....	June 11.....	June 16.
Ancon.....	June 10.....	June 15.....	June 18.....	June 22.....	June 25.....	June 30.
Cristobal.....	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.
Ancon.....	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
Cristobal.....	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
Ancon.....	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
Cristobal.....	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
Ancon.....	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.
Cristobal.....	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
Ancon.....	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
Cristobal.....	October 15.....	October 20.....	October 23.....	October 28.....	October 31.....	November 5.
Ancon.....	October 28.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.
Cristobal.....	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
Ancon.....	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
Cristobal.....	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
Ancon.....	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 45 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 4, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb	\$0.24
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.21
Gasoline, motor grade.....	Gal.	.14
Metal, yellow.....	Lb	.26
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.50
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.50
Oil, kerosene, in drums.....	Gal.	.13
Oil, marine engine.....	Gal.	.53
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.11
Grease, gear, chain and wire rope, lubricating.....	Lb.	.06
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, Semi-private, white male.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat patients.....	Tuesdays, Thursdays and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 4, Private rooms.....	Daily, same as Ward 2 (above).
Section "B:"	
Ward 5, Male, private rooms, American boys.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls.....	
Ward 7, White females, private rooms.....	
Ward 8, Obstetrical department, white females.....	
Nursery.....	No visitors permitted in nursery.
Section "C:"	
Ward 9, Colored, male.....	Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 10, White foreign, male.....	
Ward 11, Colored, male (surgical).....	
Ward 12, Colored, male (medical).....	
Ward 13, Colored, male, G. U.....	Tuesdays, Thursdays, Saturdays, Sundays, and holidays, 2.30 to 4.30 p. m.
Ward 14, White, male, G. U.....	
Section "D:"	
Ward 15, American, male (surgical).....	Tuesdays, Thursdays, Saturdays, Sundays and holidays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.
Ward 16, American, male (medical).....	
Ward 17, Colored children.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3.00 p. m.
Ward 18, White children.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 19, Colored, female (medical).....	Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 20, Colored, female, surgical, obstetrical.....	
Isolation section.....	No visitors permitted except to visit tuberculosis patients Thursdays, Sundays and holidays, 1.30 to 3.00 p. m.

Permission to visit outside of visiting hours may be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., May 14, 1930.

No. 41.

Commercial Radio Service.

The Tropical Radio Telegraph Company opened a station in Panama City on May 1, 1930. The company announces that it affords fast, accurate, dependable, continuous service between Panama and all parts of the world. Its published schedule of rates indicates that the charges both for full rate and deferred service are for most places approximately the same as those quoted by the All-America Cables, Inc., and published in THE PANAMA CANAL RECORD of March 19, 1930, under the heading, "Telegraphic Communication."

The radio service was inaugurated by an exchange of messages between the President of Panama and the President of the United States.

Whale Struck by Ship.

The tanker *Meton* which transited the Canal on May 11th on the way from Los Angeles to Bayonne with a cargo of 9,200 tons of gasoline, reported that the ship had struck a large whale on May 9th in latitude 8° 52' N., longitude 85° 13' W., which is off the west coast of Costa Rica, and that the whale, which was left floating on the surface badly injured, might become a menace to navigation. This information was incorporated in Panama Canal "Notice to Mariners" No. 700.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 10, 1930.

No. 699.

Panama Canal, Balboa harbor, spar buoys discontinued. Black spar buoy No. 11 and red spar buoy No. 12 in Balboa harbor have been temporarily discontinued, May 8, 1930, due to dredging operations. These buoys will be reestablished as soon as practicable.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 10, 1930.

No. 700.

OBSTRUCTION TO NAVIGATION.

Pacific Ocean, off coast of Central America. The following message was received by the Hydrographic Office through the Balboa Radio Station:

May 9, 1930, 11.56 a. m., in latitude 8° 52' N., longitude 85° 13' W., S. S. *Meton* struck a large whale which was left floating on the surface, badly injured. This will possibly become a menace to navigation.
(Signed.) MASTER, S. S. *Meton*.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 10, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Illinois ¹	4	4 30	4	6 10	4	13 00	4	14 10	American	The Texas S. S. Co.	416.8	56.1	18.2	Pt. Arthur, Tex.	Los Angeles, Calif.	Ballast.	6,945	5,032	
El Cervo	4	7 30	4	7 45	4	14 35	4	16 03	British	Anglo-Ecu. Oilfields.	407.4	52.2	18.2	Philadelphia, Pa.	La Libertad, Ecu.	Ballast.	6,046	4,326	
Vernar.	4	8 30	4	9 25	4	16 18	4	20 08	American	Garson S. S. Line	410.0	54.0	22.0	Baltimore, Md.	Seattle, Wash.	Steel, general.	5,900	6,585	4,791
Bolton Castle.	4	10 10	4	10 25	4	18 13	4	19 35	British	Carmen Iron & Steel Co.	424.0	53.0	27.6	Baltimore, Md.	Yawata, Japan.	Scrap iron.	7,083	6,537	4,837
Princess Joan.	4	8 55	4	11 50	4	18 10	4	19 16	British	Can.-Pacific Railway.	353.0	52.0	17.3	Glasgow, Scotland.	Victoria, B. C.	Ballast.	5,598	3,815	
S-14 ²	4	8 55	4	14 15	4	20 55	5	8 41	American	U. S. Navy.	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Canadian Victor	4	17 30	4	20 30	5	9 58	5	11 05	British	Can.-Nat. Steamships	400.0	52.0	20.10	Hallifax, N. S.	Brisbane, Australia	General.	3,258	5,956	4,172
Winnipeg	3	16 15	5	6 00	5	13 14	5	14 15	French	French Line	472.0	59.0	22.2	Havre, France	Vancouver, B. C.	General.	1,993	288	101
El Paracuano ²	5	6 05	5	6 05	5	13 32	7	10 20	Panamanian	Panamanian Gov't.	125.0	23.0		Colon, R. P.	Balboa, C. Z.	Ballast.			
Pacific Fir	5	00 20	5	7 10	5	14 32	5	15 45	American	Dixon S. S. Line.	410.6	54.0	18.0	Philadelphia, Pa.	Seattle, Wash.	General.	3,566	6,624	4,883
Chifuku Maru.	5	5 30	5	7 20	5	15 04	5	17 45	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.3	Boston, Mass.	Yawata, Japan.	(S)	6,945	5,919	4,400
Pacific																			
President ⁴	5	7 55	5	8 15	5	15 28	5	21 15	British	Furness, Withy & Co.	450.4	60.6	20.0	Glasgow, Scotland.	Vancouver, B. C.	General.	819	10,086	7,226
Australia ⁴	5	8 00	5	9 10	5	15 55	5	17 08	American	The Texas S. S. Co.	509.7	70.3	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.		12,514	8,427
Hilda																			
Knudsen ¹	5	9 35	5	10 10	5	17 04	5	20 10	Norwegian	Anglo-Mexican Oil Co.	470.0	62.0	19.0	Bilbao, Spain	Los Angeles, Calif.	Ballast.	9,474	6,489	
Robin Gray.	5	11 30	5	11 48	5	18 38	5	20 58	American	Ishmian S. S. Lines	424.8	55.2	26.0	Baltimore, Md.	Vancouver, B. C.	Steel, general.	7,623	7,472	5,542
Apple Branch.	5	11 25	5	12 07	5	19 37	5	21 01	British	F. & W. Ritson	376.0	51.0	21.0	Liverpool, England	Valparaiso, Chile	General.	4,826	5,112	3,511
Barbara Cates.	5	13 50	5	14 00	5	20 27	5	21 34	American	Sudden & Christenson.	409.0	54.2	18.0	New York, N. Y.	Seattle, Wash.	General.	2,843	6,604	4,852
Hayo Maru.	5	11 50	5	14 55	5	22 35	6	00 35	Japanese	Toyo Kisen Kaisha	400.0	53.0	27.0	Philadelphia, Pa.	Yokohama, Japan.	General.	6,876	6,186	4,446
West Cactus.	5	15 30	5	15 40	5	23 04	6	00 19	American	McCormick S. S. Co.	410.5	54.0	19.5	Rosario, Argentine.	Vancouver, B. C.	General.	2,847	6,225	5,046
Swiflight ¹	4	16 10	5	17 45	6	10 13	6	11 21	American	C. D. Mallory & Co.	464.0	60.2	18.2	Curacao, D. W. I.	Los Angeles, Calif.	Ballast.	8,473	6,050	
Lena																			
Luckenbach.	5	18 08	5	18 30	6	11 34	6	12 35	American	Luckenbach Line.	425.0	53.7	27.6	Houston, Tex.	Seattle, Wash.	General.	7,480	7,217	5,295
Montevideo																			
Maru ⁴	5	13 37	6	6 10	6	15 45	6	16 45	Japanese	Osaka Shosen Kaisha.	430.0	56.0	19.6	Buenos Aires, Arg.	Yokohama, Japan.	Gen., cotton.	2,214	7,875	5,821
S. C. T. Dodd ²	6	7 10	6	7 25	6	16 12	6	18 01	American	Standard Oil Co.	425.0	57.2	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast.		7,481	4,975
Hakutaru																			
Maru	6	11 50	6	12 00	6	19 49	6	21 10	Japanese	Tatsuma Shokai	411.5	55.0	23.11	Boca Grande, Fla.	Osaka, Japan	Phosphate rock.	6,574	7,064	5,175
Sutherland.	6	12 10	6	12 30	6	20 43	6	22 04	American	Nelson Line.	380.0	53.2	18.0	New York, N. Y.	Seattle, Wash.	General, steel.	2,307	5,654	4,123
Quebec	6	12 35	6	13 10	6	20 55	6	23 42	British	Com'lth & Dom. Line.	385.0	52.0	19.0	New York, N. Y.	Auckland, N. Z.	General.	2,249	5,138	3,673
Munmystic	6	13 35	6	13 55	6	21 25	6	23 06	American	Munson, McCork Line.	400.0	54.0	22.0	Baltimore, Md.	Tacoma, Wash.	General.	5,798	6,623	4,668
Missourian ⁴	6	13 55	6	14 20	6	22 14	6	23 42	American	Amer.-Hawaii Line.	445.0	59.8	19.0	Boston, Mass.	Seattle, Wash.	General.	2,735	8,567	6,020
Ecuador	6	6 20	7	6 00	7	13 09	7	14 25	American	U. S. Navy.	380.5	48.7	21.0	New York, N. Y.	San Francisco, Cal.	General, coffee.	2,136	5,926	4,178
V-1 ²			7	6 00	7	13 10	7	14 25	American	Panama Mail S. S. Co.	341.0	27.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Ruhr ⁴	6	12 45	7	6 10	7	14 18	7	15 45	German	Hamburg-American Line	454.0	58.3	21.6	Hamburg, Germany	Valparaiso, Chile	General.	6,202	8,086	5,918
Lio ⁴	6	15 20	7	7 25	7	14 35	7	16 00	American	Standard Transp. Co.	431.0	59.0		New York, N. Y.	Los Angeles, Calif.	Ballast.		7,846	5,112

¹ Tanker.² Submarine.³ Transport.⁴ Motor ship.⁵ Scrap iron and cotton.

C. O.	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
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¹ Tanker. ² Mine sweeper. ³ Tug. ⁴ Launch. ⁵ Cruiser. ⁶ Steel, cement, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Salt water draft.		From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Draft.			Nature.	Tons.	
Kifuku Maru.	4	5 45	4	6 40	4	14 30	4	16 40	Japanese.	Kokusai Kisen Kaisha.	385.0	51 0	26 0	Manila, P. I.	New York, N. Y.	Sugar.	7,300	4,389
S-13 ¹¹ .	4	6 57	4	12 55	4	12 55	4	12 55	American.	U. S. Navy.	231.0	20 0		Balboa, C. Z.	Cristobal, C. Z.	Asphalt.	9,056	5,301
Lina L. D.	4	11 45	4	12 35	4	19 55	4	19 55	French.	Louis Dreyfus & Co.	470.0	54 0	28 4	San Francisco, Cal.	Bar, Italy.	Ballast.	3,464	2,068
Creole Bueno.	4	13 25	4	20 20	4	20 20	4	20 20	Venezuelan.	Venezuela Gulf Oil Co.	325.0	55 0	9 7	Balboa, C. Z.	Maracaibo, Venez.			
Pacific	4	13 00	4	14 00	4	21 10	4	21 10	American.	Dimon S. S. Corp.	409.7	54 2	24 2	Seattle, Wash.	Philadelphia, Pa.	Lumber, general.	7,471	6,630
Hemlock.	4	13 00	4	15 15	4	22 30	4	22 30	American.	Tampa Intercoastal Co.	431.3	57 7	28 0	Pulapandan, P. I.	New York, N. Y.	Sugar.	9,550	5,956
Radnor.	4	23 05	5	5 54	5	14 10	6	2 20	British.	Shaw, Savill & Albion.	477.5	63 1	25 0	N. Plymouth, N. Z.	London, England.	General, frozen.	7,700	11,018
Pakeha.	5	4 30	5	6 54	5	14 50	6	14 05	German.	North German Lloyd.	338.1	54 3	21 0	San Antonio, Chile.	Hamburg, Germany.	General.	3,585	6,573
Wiegand.	5	4 30	5	7 17	5	17 15	5	19 10	British.	Can. Nat. Steamships.	400.0	52 3	17 0	Auckland, N. Z.	Montreal, Canada.	General.	2,010	5,853
Explorer.	5	5 15	5	7 17	5	17 15	5	19 10	British.	Can. Nat. Steamships.	400.0	52 3	17 0	Auckland, N. Z.	Montreal, Canada.	General.	2,010	5,853
City of San Francisco ¹² .	5	3 56	5	8 50	5	16 05	5	18 50	American.	Panama Mail S. S. Co.	296.1	45 9	17 5	Buenaventura, Col.	Cristobal, C. Z.	Coffee, general.	1,365	3,848
Yorkmar.	5	6 25	5	9 00	5	18 50	5	18 50	American.	Calmar S. S. Corp.	409.8	54 2	26 0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	8,000	6,757
Societa ¹³ .	5	6 25	5	8 05	5	15 55	7	11 45	American.	U. S. Navy.	155.0	30 0		Balboa, C. Z.	Cristobal, C. Z.			
J. L.	5	9 05	5	10 05	5	19 25	5	19 25	American.	Luckenbach Line	448.9	60 2	26 0	Portland, Ore.	Boston, Mass.	General.	5,485	9,294
Swined.	5	9 15	5	10 25	5	20 30	5	22 45	American.	Charles Nelson & Co.	324.0	46 2	23 0	Seattle, Wash.	New York, N. Y.	Lumber, general.	4,340	3,983
Viborg.	5	9 20	5	11 01	5	20 05	5	21 00	Danish.	United Fruit Co.	283.4	42 1	14 0	Pro. Armutelles, R.P.	New Orleans, La.	Ballast.	2,578	1,795
Pennsylvania.	5	9 30	6	6 19	6	13 45	6	14 35	American.	Panama-Pacific Line.	586.4	80 3	30 0	San Francisco, Cal.	New York, N. Y.	Can goods, gen.	6,450	25,262
Harvester ¹ .	5	7 15	6	7 10	6	14 40	6	14 40	American.	The Texas Co.	416.8	56 1	25 0	Los Angeles, Calif.	Boston, Mass.	Gasoline.	7,503	6,977
Sweden ¹² .	6	6 30	6	7 17	6	18 05	6	18 05	Swedish.	Ore S. S. Corp.	561.1	72 2	35 0	Cruz Grande, Chile	New York, N. Y.	Iron ore.	22,146	15,424
Tamabua ¹ .	5	8 54	6	7 58	6	18 40	6	18 40	American.	Richfield Oil Co. of Calif.	500.0	71 2	29 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	16,000	11,667
Samuel Q.	6	7 15	6	8 12	6	19 05	6	19 05	American.	Tidewater Oil Co.	424.4	58 2	27 0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,263	7,333
Brown ¹ .	5	16 20	6	9 15	6	19 55	6	19 55	American.	United Fruit Co.	336.7	41 9	19 0	San Francisco, Cal.	Cristobal, C. Z.	Coffee, general.	920	3,667
Suriname.	5	19 45	6	9 44	6	19 55	7	10 40	Norwegian.	Skotland Line	376.6	48 7	27 0	Liqueur, Chile.	Cristobal, C. Z.	Nitrates.	2,329	3,838
Kari Skogland.	5	19 30	6	10 31	6	20 20	6	20 20	American.	American Mail Line.	419.5	56 5	30 0	Aberdeen, Wash.	New York, N. Y.	Lumber.	6,600	5,381
Montank.	5	21 35	6	10 44	6	21 40	6	20 20	American.	Chile S. S. Co.	411.5	54 1	24 1	Antofagasta, Chile.	Norfolk, Va.	Nitrates.	7,293	6,666
Chileop.	5	22 25	6	11 18	6	20 55	6	20 55	American.	Amer.-Hawaiian Line.	471.0	57 2	26 0	Portland, Ore.	Boston, Mass.	Nitrates.	8,066	6,609
Texas.	5	22 25	6	11 42	6	20 55	6	20 55	American.	Osaaka Shosen Kaisha.	400.0	54 5	17 0	Hongkong, China.	Boston, Mass.	General.	7,886	9,154
Hanaburg Maru.	6	6 45	6	12 34	6	22 45	6	22 45	Japanese.	Standard Transp. Co.	431.0	56 0	28 3	Los Angeles, Calif.	New York, N. Y.	General.	2,262	6,094
Eagle ¹ .	6	7 50	6	13 29	6	22 25	6	22 40	American.	U. S. Navy.	231.0	20 0		Balboa, C. Z.	Cristobal, C. Z.	Gas oil.	8,702	8,201
S-17 ¹¹ .	6	10 15	6	13 41	6	23 25	7	1 00	American.	Zinal S. S. Co.	370.9	51 4	26 0	Liqueur, Chile.	New York, N. Y.	Nitrates.	7,350	8,201
Zouave.	6	18 30	7	6 05	7	13 55	7	13 55	British.	Hamburg-American Line	363.4	52 0	14 0	Champerico, Guat.	Norovosisk, U.S.R.	Nitrates.	258	4,219
Antiochia.	6	18 30	7	6 05	7	13 55	7	13 55	German.	Royal Neth. S. S. Co.	262.9	33 1	10 0	Guayaquil, Ecuador	Cristobal, C. Z.	Coffee.	183	1,182
Baralt.	7	7 36	7	7 36	7	15 05	7	15 05	Dutch.	Roland Line.	236.5	32 9	13 3	Guayaquil, Ecuador	Cristobal, C. Z.	(¹¹)	685	1,105
Cal.	7	6 00	7	7 46	7	15 15	7	15 15	German.	Roland Line.	216.5	32 9	13 3	Guayaquil, Ecuador	Cristobal, C. Z.	General.	6,960	7,525
Rhodopis.	7	5 50	7	8 35	7	16 45	8	1 44	German.	Hamburg-American Line	435.5	53 2	27 0	Valparaiso, Chile.	Hamburg, Germany.	General.	6,960	7,525

¹¹ Tug, towing barge.¹² Motor ship.¹³ Submarine.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 5.....	Ulua.....	United Fruit Co.	New York via Habana.	May 5.....	No. 144-M ²³	Pan American Airways.....	Curacao via waypoints ¹
May 5.....	Darien C-35 ²³	Seadta Airplane Co.	Borraquilla and wayp'ts.	May 5.....	Nevisian.....	Leyland S. S. Line.....	New Orleans and wayp'ts.
May 5.....	Camden.....	United Fruit Co.	Curacao, D. W. I.	May 5.....	Iriona.....	United Fruit Co.....	Port Limon and Bocas.
May 6.....	Manaquí.....	United Fruit Co.	New York via waypoints.	May 6.....	Manaquí.....	United Fruit Co.....	New York via Kingston.
May 6.....	No. 9688 ²³	Pan American Airways.	San Salvador and wayp'ts.	May 6.....	Dora K. ²⁴	A. L. Surgeon.....	Bluefields, Nic. and Limon.
May 6.....	Cristobal.....	Panama R. R. S. S. Line.	Colon, R. P.	May 7.....	C. A. Canfield.....	Pan-American Pet. & Trans. Co.	Aruba, D. W. I.
May 7.....	Grunevald.....	Hamburg-American Line.	New York via Haiti.	May 7.....	Carare.....	Elders & Fyffes Line.....	Avonmouth via waypoints.
May 7.....	Carare.....	Hamburg-American Line.	Hamburg via waypoints.	May 7.....	Triton.....	Royal Netherlands S. S. Co.	Puerto Barrios.
May 7.....	Ulua.....	Elders & Fyffes Line.	Avonmouth via wayp'ts.	May 7.....	Grunevald.....	Hamburg-American Line.	Tampico via waypoints.
May 7.....	Sixola.....	United Fruit Co.	New York via Kingston.	May 7.....	Ulua.....	United Fruit Co.....	Port Limon, C. R.
May 7.....	Castilla.....	United Fruit Co.	New Orleans, La.	May 7.....	Camden.....	United Fruit Co.....	Port Limon, C. R.
May 7.....	Triton.....	Royal Netherlands S. S. Co.	Hamburg via waypoints.	May 8.....	No. 9775 ²³	Pan American Airways.....	Miami via waypoints.
May 7.....	Wawa.....	Standard Fruit & S. S. Co.	San Blas, R. P.	May 8.....	Sixola.....	United Fruit Co. & S. S. Co.	New York via waypoints.
May 7.....	No. 8817 ²³	Pan American Airways.	San Jose via waypoints.	May 8.....	Wawa.....	Standard Fruit & S. S. Co.	La Ceiba.
May 7.....	No. 144-M ²³	Pan American Airways.	Puerto Cabello via wayp'ts.	May 8.....	Pearl Marie ²⁶	G. I. Bryan.....	Bluefields, Nicaragua.
May 7.....	No. 300-N ²³	Pan American Airways.	Guayaquil and waypoints.	May 8.....	Castilla.....	United Fruit Co.....	Colombian ports.
May 8.....	Anachucuna ²⁵	United Fruit Co.	Colon, R. P.	May 8.....	Anachucuna ²⁵	United Fruit Co.....	Colon, R. P.
May 8.....	Annetta I. ²⁵	A. Tagaropulos.....	Colon, R. P.	May 8.....	Annetta I. ²⁵	A. Tagaropulos.....	Colon, R. P.
May 8.....	Pearl Marie ²⁶	Colon, R. P.	Colon, R. P.	May 8.....	No. 9688 ²³	Pan American Airways.....	Tela via waypoints.
May 8.....	No. 9664 ²³	Pan American Airways.	Tela via waypoints.	May 9.....	No. 9688 ²³	Seadta Airplane Co.....	Colombian ports.
May 9.....	Atlantida.....	Standard Fruit & S. S. Co.	New Orleans via Habana.	May 9.....	Darien C-35 ²³	U. S. Navy.....	San Juan via Guantanamo.
May 9.....	Iriona.....	United Fruit Co.	Port Limon, C. R.	May 9.....	Acacia ²⁷	United Fruit Co.....	Colon, R. P.
May 10.....	Macabi.....	United Fruit Co.	Cartagena	May 10.....	Anachucuna ²⁵	United Fruit Co.....	Colon, R. P.
May 10.....	Dramatist.....	T. & J. Harrison.....	Liverpool via waypoints.	May 10.....	Atlantida.....	Standard Fruit & S. S. Co.	New Orleans and wayp'ts.
May 10.....	Cartago.....	United Fruit Co.	New Orleans and Habana.	May 10.....	Iriona.....	United Fruit Co.....	New Orleans and wayp'ts.
May 10.....	Anachucuna ²⁵	United Fruit Co.	Colon, R. P.	May 10.....	Macabi.....	United Fruit Co.....	New York and waypoints.
May 10.....	Inapaquina ²⁵	United Fruit Co.	Colon, R. P.				

²³ Air mail carrier. ²⁴ Motor ship. ²⁵ Motor boat. ²⁶ Motor schooner. ²⁷ Lighthouse tender.

PORT OF BALBOA.

May 5.....	Montebello ¹	Union Oil Co.	Los Angeles, California.	May 6.....	Montebello ²	Union Oil Co.	Los Angeles, California.
May 8.....	La Placencia ¹	Union Oil Co.	Los Angeles, California.	May 9.....	La Placencia ¹	Union Oil Co.	Los Angeles, California.
May 9.....	Aras ²⁸	C. S. Howard.....	Galapagos Islands.	May 9.....	A. B. Obarrio ²⁹	Hans Elliot.	Panama Bay, R. P.
May 9.....	Real ²⁹	Hans Elliot.....	Panama Bay, R. P.	May 11.....	Real ²⁹	Hans Elliot.	Panama Bay, R. P.
May 9.....	La Union ²⁹	A. Valdez.....	Panama Bay, R. P.	May 10.....	La Union ²⁹	A. Valdez.....	Panama Bay, R. P.
May 9.....	Dos Hermanos ²⁹	A. Valdez.....	Panama Bay, R. P.	May 10.....	Dos Hermanos ²⁹	A. Valdez.....	Panama Bay, R. P.

²⁸ Motor ship, yacht. ²⁹ Motor schooner. * Other than ships passing through the Canal.

Traffic by Nationality for April, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of April, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for April, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	11,187	9,090	14,268	8,001	\$11,362.50	16,230
British.....	52	317,331	229,353	381,902	234,170	273,778.07	208,994
Chilean.....	2	8,233	5,619	11,480	6,417	7,023.75	4,910
Colombian.....	2	287	277	440	275	336.85	111
Danish.....	5	20,987	15,594	25,490	15,711	17,703.56	19,310
Dutch.....	5	24,061	16,367	27,012	16,557	20,458.75	13,849
French.....	8	38,948	30,425	49,524	29,629	33,161.82	15,450
German.....	15	58,073	39,854	66,976	40,205	48,268.20	36,057
Greek.....	2	8,391	5,356	8,735	5,325	6,695.00	13,745
Italian.....	2	13,541	10,570	19,101	10,556	13,212.50	5,183
Japanese.....	8	40,600	34,172	50,452	34,350	42,548.75	52,985
Norwegian.....	12	55,468	39,383	65,727	39,333	43,472.76	49,779
Panamanian.....	1	6,955	3,998	7,044	3,988	4,997.50	5,069
Swedish.....	5	23,763	17,456	47,083	21,352	18,882.74	14,365
United States.....	119	598,459	453,144	736,546	452,127	519,407.24	350,082
Total, April, 1930.....	240	1,226,284	910,658	1,511,780	917,996	1,061,309.99	806,119
Total, April, 1929.....	259	1,190,510	907,312	1,479,562	911,498	1,046,690.90	862,450
Total, April, 1928.....	271	1,194,004	912,709	1,500,455	916,718	1,031,935.91	742,388

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	74	381,736	281,228	475,614	287,166	\$351,535.00	476,460
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	4,009
Colombian.....	2	287	277	440	275	336.85	478
Danish.....	4	15,751	11,376	17,046	11,449	14,220.00	25,229
Dutch.....	7	33,579	24,474	40,268	24,267	30,592.50	37,665
French.....	5	25,638	19,018	31,118	19,217	23,772.50	21,409
German.....	16	60,773	42,418	70,703	42,657	53,022.50	66,255
Italian.....	5	34,681	23,150	44,529	26,093	27,973.24	19,746
Japanese.....	4	21,174	17,919	27,269	17,613	22,196.30	31,967
Norwegian.....	15	85,726	68,507	110,888	70,028	85,633.75	126,872
Panamanian.....	1	6,967	3,963	6,604	4,057	4,953.75	6,650
Spanish.....	1					1,691.50	
Swedish.....	6	27,025	18,492	40,542	23,041	23,115.00	54,780
United States.....	107	550,102	421,185	685,429	420,406	523,486.37	769,593
Yugoslav.....	1	4,701	3,706	5,948	3,783	4,632.50	9,550
Total, April, 1930.....	249	1,252,812	939,146	1,563,708	954,028	1,171,453.01	1,650,663
Total, April, 1929.....	281	1,297,666	992,295	1,647,803	1,005,880	1,234,396.37	1,857,218
Total, April, 1928.....	260	1,190,487	926,312	1,511,839	929,258	1,155,671.91	1,731,496

* Training ship of 3,383 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	2	11,187	9,090	14,268	8,001	\$11,362.50	16,230
British.....	126	699,067	510,581	857,516	521,336	625,313.07	685,454
Chilean.....	3	12,905	9,052	18,790	10,393	11,315.00	8,919
Colombian.....	4	574	554	880	550	673.70	589
Danish.....	9	36,738	26,970	42,536	27,160	31,923.56	44,539
Dutch.....	12	57,640	40,841	67,280	40,824	51,051.25	51,514
French.....	13	64,586	49,443	80,642	48,846	56,934.32	36,859

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
German.....	31	118,846	82,272	137,679	82,862	\$101,290.70	102,312
Greek.....	2	8,391	5,356	8,735	5,325	6,695.00	13,745
Italian.....	7	48,222	33,720	63,630	36,649	41,185.74	24,929
Japanese.....	12	61,774	52,091	77,721	51,963	64,745.05	84,952
Norwegian.....	27	141,194	107,890	176,615	109,361	129,106.51	176,651
Panamanian.....	2	13,922	7,961	13,648	8,045	9,951.25	11,719
Spanish.....	1					1,691.50	
Swedish.....	11	50,788	35,948	87,625	44,393	41,997.74	69,145
United States.....	226	1,148,561	874,329	1,421,975	872,533	1,042,893.61	1,119,675
Yugoslav.....	1	4,701	3,706	5,948	3,783	4,632.50	9,550
Total, April, 1930.....	489	2,479,096	1,849,804	3,127,365	1,872,024	2,232,763.00	2,456,782
Total, April, 1929.....	540	2,488,176	1,899,607	3,127,365	1,917,378	2,281,087.27	2,719,668
Total, April, 1928.....	531	2,384,491	1,839,021	3,012,294	1,845,976	2,187,607.82	2,473,884

* Training ship of 3,383 displacement tons.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending May 10, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
San Mateo.....	United Fruit Co.....	April 28.....	April 28.....	279.....	
Patrick Henry.....	U. S. Shipping Board.....	April 29.....	April 30.....	201.....	
St. Mihiel.....	U. S. Government.....	April 29.....	May 2.....	392.....	56
Taketoyo Maru.....	Nippon Yusen Kaisha.....	April 29.....	April 30.....	62.....	
Boskoop.....	Royal Netherlands S. S. Co.....	May 2.....	May 2.....	227.....	
President Johnson.....	Dollar Line.....	May 2.....	May 2.....		4
San Mateo.....	United Fruit Co.....	May 3.....	May 3.....		2
Montebello.....	Union Oil Co.....	May 5.....	May 6.....	11,400.....	
Suriname.....	United Fruit Co.....	May 5.....	May 6.....	159.....	
Ruhr.....	Hamburg-American Line.....	May 7.....	May 8.....	583.....	
Santa Teresa.....	Grace Line.....	May 7.....	May 7.....	6.....	
Ecuador.....	Panama Mail S. S. Co.....	May 7.....	May 7.....	36.....	2
Guatemala.....	Panama Mail S. S. Co.....	May 7.....	May 8.....	66.....	
Mayebashi Maru.....	Nippon Yusen Kaisha.....	May 7.....	May 7.....	74.....	
La Placencia.....	Union Oil Co.....	May 8.....	May 9.....	11,430.....	
Yomachichi.....	U. S. Shipping Board.....	May 8.....	May 9.....	209.....	
Castletown.....	Charles Nelson & Co.....	May 8.....	May 11.....	1,400.....	
Benjamin Franklin.....	Fred Olsen & Co.....	May 8.....	May 9.....	1,159.....	
Virginia.....	Panama-Pacific Line.....	May 9.....	May 9.....		163
Suriname.....	United Fruit Co.....	May 9.....	May 10.....		73

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature, Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9).....	1018	1020	1013	84.0
Balboa (dock 18).....	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., May 21, 1930.

No. 42.

Canal Traffic During First Fifteen Days of May.

During the first 15 days of May, 236 commercial vessels and 10 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,042,197.14, and on the launches \$97.05, or a total tolls collection of \$1,042,294.19.

The daily average of transits of commercial vessels was 15.73, and the average tolls collection \$69,479.81, as compared with an average of 16.00 transits and \$74,468.23 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was \$4,416.09, as compared with \$4,654.26 for the first 15 days of April.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 10½ months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 10½ months of the fiscal years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April.....	489	2,232,763.00	16.30	74,425.43
May (first 15 days).....	236	1,042,197.14	15.73	69,479.81
Total, first 10½ months of fiscal year, 1930.....	5,464	23,855,194.02	17.13	74,781.17
Total, first 10½ months of fiscal year, 1929.....	5,637	23,788,971.23	17.67	74,573.57
Total, first 10½ months of fiscal year, 1928.....	5,715	23,841,227.19	17.86	74,503.83

As compared with the first 10½ months of the fiscal year 1929, the corresponding period this year has had 173 fewer transits and \$66,222.79 more tolls.

Regulating Level of Gatun Lake.

A circular issued by the Engineer of Maintenance on May 16, 1930, states that the following schedule for maintaining Gatun Lake during the 1930 rainy season will be adhered to as closely as conditions permit:

The lake will be allowed to fill to elevation 85.50 before any water is wasted over the spillway. However, spilling for sanitary purposes or for exhibition will be permitted upon approval of the Chief of Surveys. The lake will be held between elevations 85.50 and 86.00 until October 1; filled to elevation 86.50 in October; and to elevation 87.00 after November 1, to be varied slightly according to water supply conditions. After spillage is begun, a variation of 0.50 foot from above elevations will be allowed to lessen the number of gate operations.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, May 17, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Tainui	10	16.50	11	6.12	11	13.59	British	Shaw, Savill & Albion.	477.8	61.1	27.9	London, England.	Wellington, N. Z.	General	5,088	10,657
Barat	7	15.05	11	6.05	11	14.01	Dutch	Royal Neth. S. S. Co.	200.0	33.0	11.6	Cristobal, C. Z.	Guayaquil, Ecuador	General	43	1,183
Ferrol	10	17.20	11	6.25	11	15.09	British	Aberdeen & Co. Ltd.	500.0	63.0	26.10	Glasgow, Scotland	Brisbane, Australia	General	2,582	11,811
Canadian	11	4.50	11	7.45	11	15.32	British	Can.-Nat. Steamships.	430.0	56.0	22.0	Halifax, N. S.	Bluff, N. Z.	General	5,070	7,680
Sea Thrush	11	6.20	11	8.40	11	15.57	American	Shepard S. S. Co.	410.0	54.2	17.0	Boston, Mass.	Seattle, Wash.	General	3,015	6,626
Calli	7	15.15	11	10.08	11	18.02	German	Roland Line.	216.5	32.9	11.2	Cristobal, C. Z.	Buenaventura, Col.	General	195	1,105
Cerigo	8	16.20	11	11.35	11	18.06	German	Hamburg-American Line	227.2	34.4	13.7	Cristobal, C. Z.	Guayaquil, Ecuador	General	134	1,572
Ben	11	19.35	12	6.10	12	14.10	American	F. Kariger	460.0	62.0	20.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	3	3
Vacoline	11	20.35	12	7.20	12	15.00	British	Vacuum Oil Co.	424.8	55.2	24.9	E. London, So. Af.	San Francisco, Cal.	Ballast	7,321	9,212
Robin Adair	12	7.40	12	8.20	12	16.32	American	Seas Shipping Co.	324.0	46.2	15.10	Baltimore, Md.	Tacoma, Wash.	Steel, general	7,321	7,470
Armstrong	12	3.15	12	10.05	12	17.35	British	Nelson Line.	475.0	63.0	20.0	Baltimore, Md.	Seattle, Wash.	General	1,078	3,984
Athelgard	12	12.25	12	14.05	12	20.55	British	United Molasses Co.	381.0	51.6	15.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast	9,621	6,347
Cedrus	12	12.25	12	14.05	12	20.55	Panamanian	Com'lth & Dom. Line.	381.0	51.6	15.0	New York, N. Y.	Fremantle, Australia	General	1,789	4,988
Clemens	12	12.25	12	14.05	12	20.55	Panamanian	Jose Perino	381.0	51.6	15.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	12	12
Onah Perino	12	12.25	12	14.05	12	20.55	Panamanian	Jose Perino	381.0	51.6	15.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	12	12
Santa Isabel	12	16.35	12	20.45	13	9.30	American	Isthmian S. S. Lines	251.0	43.0	25.10	Baltimore, Md.	Honolulu, T. H.	Triplate, general	3,316	8,283
Chilore	11	7.00	13	6.05	13	13.42	American	Ore S. S. Corp.	550.0	72.0	21.6	Norfolk, Va.	Cruz Grande, Chile	Ballast	14,538	9,348
Kent	12	17.15	13	6.43	13	14.50	British	Federal Steam Nav. Co.	460.0	62.8	27.3	Avonmouth, Eng.	Bluff, N. Z.	General	7,173	10,609
Cingalese	13	5.05	13	7.30	13	14.58	British	Prince Line, Ltd.	436.0	51.0	23.0	New York, N. Y.	Manila, P. I.	General	4,019	9,313
Constance	13	9.40	13	9.45	13	16.56	American	Arrow Line	409.6	54.2	17.0	Baltimore, Md.	Seattle, Wash.	General	3,880	6,621
Chandler	13	10.35	13	10.45	13	17.52	American	U. S. Army	490.0	55.0	25.0	New York, N. Y.	San Francisco, Cal.	Army supplies	2,031	4,891
Grant	13	11.05	13	11.50	13	18.42	American	Amer-Hawaiian Line.	415.0	53.7	19.9	Boston, Mass.	Seattle, Wash.	General	3,791	7,380
Alaskan	13	11.05	13	11.50	13	18.42	American	Amer-Hawaiian Line.	415.0	53.7	19.9	Boston, Mass.	Seattle, Wash.	General	3,791	7,380
Cristo	13	11.05	13	11.50	13	18.42	American	Amer-Hawaiian Line.	415.0	53.7	19.9	Boston, Mass.	Seattle, Wash.	General	3,791	7,380
Chirito	13	11.05	13	11.50	13	18.42	American	Amer-Hawaiian Line.	415.0	53.7	19.9	Boston, Mass.	Seattle, Wash.	General	3,791	7,380
Mandinga	13	11.05	13	11.50	13	18.42	American	Amer-Hawaiian Line.	415.0	53.7	19.9	Boston, Mass.	Seattle, Wash.	General	3,791	7,380
Barge No. 23	14	4.05	14	6.30	14	13.52	American	Stand. Fruit & S. S. Co.	368.0	53.7	23.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	6,317	5,413
Vinland	14	4.05	14	6.30	14	13.52	American	Stand. Fruit & S. S. Co.	368.0	53.7	23.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	6,317	5,413
Invincible	14	4.15	14	7.25	14	15.31	Norwegian	Stand.-So. Pacific Line.	440.0	56.0	27.5	Gothenburg, Swed.	Corral, Chile	General	9,899	8,329
Susan V.	14	4.15	14	7.25	14	15.31	American	Tampa Intercean Co.	440.0	56.0	27.5	New Orleans, La.	Manila, P. I.	General	9,899	8,329
Lukenbach	14	10.00	14	10.25	14	16.46	American	Lukenbach Line.	434.0	57.7	22.9	Boston, Mass.	Seattle, Wash.	General	4,304	7,947
Santa Maria	14	8.05	14	11.50	14	18.07	American	Grace Line	466.0	64.0	24.3	New York, N. Y.	Valparaiso, Chile	General	2,225	10,626
Storstad	14	11.45	14	11.55	14	20.05	Norwegian	Standard Shipping Co.	470.0	62.2	26.6	Aruba, D. W. I.	Valparaiso, Chile	Fuel oil	12,300	9,198
Gen. G. W.	13	15.40	14	9.30	14	16.46	American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	5,326	6,347
Calmar	14	15.20	14	19.40	15	8.53	American	Calmar S. S. Corp.	384.6	51.2	23.6	Baltimore, Md.	Seattle, Wash.	Steel, general	5,326	6,347

Tug.

s Transport.

4 Motor sailer.

3 Motor ship.

2 Launch.

1 Tanker.

Santa Cecilia.....	15	6.10	15	6.25	15	12.59	15	10.55	American.....	Argonaut S. S. Line.....	405.0	54.0	24.0	Baltimore, Md.....	Portland, Oreg.....	Steel, general.....	6,345	6,745	4,562
Sunol *.....	15	7.00	15	7.10	15	13.44	15	15.15	American.....	Sun Oil Co.....	480.6	66.0	23.0	Chester, Pa.....	Los Angeles, Calif.....	Ballast.....	9,619	6,456	
Annisson City.....	15	7.10	15	7.20	15	14.54	15	16.15	American.....	Isthmian S. S. Lines.....	424.2	56.2	26.5	Mobile, Ala.....	Vancouver, B. C.....	Steel.....	8,112	7,611	5,450
San Bernadino.....	15	8.35	15	8.50	15	15.30	15	16.35	American.....	States S. S. Line.....	410.0	50.0	16.0	Philadelphia, Pa.....	Seattle, Wash.....	General.....	2,541	6,755	4,873
M. F. Elliott *.....	15	11.15	15	11.25	15	17.48	15	19.18	American.....	Standard Shipping Co.....	425.0	57.2	21.6	New York, N. Y.....	Talara, Peru.....	Ballast.....	7,481	4,946	
Arinosa *.....	15	14.20	15	18.40	19	8.53	19	16.15	American.....	United Fruit Co.....	243.0	36.0	19.1	Cristobal, C. Z.....	Gatun, C. Z.....	Ballast.....	8		8
W. H. Libby *.....	15	19.30	16	6.10	16	14.06	16	15.35	American.....	U. S. Navy.....	462.0	80.2	20.6	New York, N. Y.....	Balboa, C. Z.....	Ballast.....	8,461	6,212	
Washington Maru.....	16	00.40	16	6.15	16	14.30	16	16.02	Japanese.....	Kokusa Kisen Kaisha.....	385.0	51.0	26.0	Newport News, Va.....	Kobe, Japan.....	Wheat, rosin.....	6,642	5,919	4,400
President Fillmore.....	16	6.00	16	7.30	16	14.54	17	00.05	American.....	Dollar Line.....	600.0	65.3	30.6	New York, N. Y.....	San Francisco, Cal.....	General.....	4,559	17,054	11,542
Pacific Spruce.....	16	00.45	16	7.20	16	15.23	16	16.40	American.....	Dimon S. S. Corp.....	409.0	54.0	21.0	New York, N. Y.....	Seattle, Wash.....	General.....	5,300	6,624	4,757
Acme *.....	16	4.30	16	8.20	16	17.50	16	17.50	American.....	Standard Transp. Co.....	435.0	56.0	27.0	Beaumont, Tex.....	Los Angeles, Calif.....	Batching oil.....	7,792	6,997	5,461
Leeds City.....	16	6.40	16	8.40	16	16.40	16	21.10	British.....	The Texas S. S. Co.....	400.0	54.0	24.2	Pt. Arthur, Tex.....	Shanghai, China.....	Case oil.....	120	1,332	741
Manizales.....	14	17.45	16	10.05	16	17.02	16	18.06	German.....	North German Lloyd.....	216.5	32.9	11.6	Cristobal, C. Z.....	Guayaquil, Ecuador.....	General.....	4,495	11,007	7,698
Donau.....	16	2.30	16	12.10	16	19.02	16	20.10	German.....	Royal Mail S. S. Co.....	424.4	64.3	23.7	Bremen, Germany.....	Vancouver, B. C.....	General.....	2,404	10,802	7,595
Lochkatrine *.....	15	9.35	16	13.20	16	20.10	16	23.45	British.....	Redwood Line.....	381.0	52.0	23.0	Rotterdam, Holland.....	Seattle, Wash.....	Sulphur, general.....	5,644	5,708	4,131
Dio.....	16	15.25	16	15.35	17	9.37	17	11.00	American.....	W. A. Souter & Co.....	440.0	54.0	25.0	New Orleans, La.....	Japan.....	Phosphate.....	7,840	6,692	5,094
Sheafholme *.....	17	6.20	17	6.30	17	13.59	17	18.40	British.....	Imperial Oil Co.....	406.0	57.5	20.0	Halifax, N. Z.....	Talara, Peru.....	Ballast.....	478	2,874	1,944
El Guay *.....	17	5.50	17	7.40	17	14.54	17	22.27	British.....	Panama R. R. S. S. Line.....	251.0	43.0	16.9	New York, N. Y.....	Guayaquil, Ecuador.....	General.....	3,701	4,385	3,195
Guayaquil.....	15	14.10	17	7.57	17	14.49	17	16.10	American.....	Richfield Oil Co.....	392.0	51.0	20.0	Baltimore, Md.....	Los Angeles, Calif.....	Ballast.....	4,959	7,533	5,413
Kekoskee.....	17	8.50	17	9.50	17	16.47	17	17.55	American.....	Royal Neth. S. S. Co.....	340.9	48.0	22.3	Hamburg, Germany.....	Corral, Chile.....	General.....	653	5,808	4,054
Ares.....	16	13.15	17	11.25	17	18.37	17	19.53	Dutch.....	Roland Line.....	429.0	55.0	23.2	New York, N. Y.....	Valparaiso, Chile.....	Explosives, gen'l.....			
Targis.....	14	18.00	17	14.20	17	22.05	18	13.25	German.....	DuPont de Nemours.....	400.0	52.0	14.0	New York, N. Y.....					
Queen Eleanor.....	17	18.07	17	18.30	18	9.02	18	10.30	British.....										

* Tanker.
* Launch.
* Motor ship.
* Survey ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Monique *.....	10	22.00	11	6.06	11	13.45	11	19.15	French.....	Cie Aux. de Navigation.....	425.8	56.7	28.0	Los Angeles, Calif.....	Blaye, France.....	Gasoline.....	8,980	7,106	5,068
Jane Maersk *.....	11	2.30	11	6.38	11	14.40	11	14.40	Danish.....	Anglo-Saxon Pet. Co.....	450.8	59.7	27.0	Los Angeles, Calif.....	Land's End, Eng.....	Gasoline.....	10,825	8,102	5,623
Stensly *.....	10	19.40	11	7.26	11	16.30	11	16.30	Danish.....	Motortramp, Ltd.....	367.7	50.5	25.0	Portland, Oreg.....	Rouen, France.....	Lumber.....	5,945	4,917	3,555
Champerico.....	11	5.00	11	7.40	11	14.55	11	16.25	British.....	Pacific Steam Nav. Co.....	301.0	41.7	16.0	Champerico, Guat.....	Cristobal, C. Z.....	Lumber *.....	563	2,597	1,587
Chetopa.....	11	6.10	11	7.52	11	16.25	11	18.45	American.....	Charles Nelson & Co.....	424.8	46.2	23.0	Seattle, Wash.....	Camden, N. J.....	Lumber, general.....	9,200	3,984	2,628
Melon *.....	11	10.25	11	11.25	11	18.45	11	18.45	American.....	Pennsylvania Ship. Co.....	325.0	57.0	26.0	Los Angeles, Calif.....	Bayonne, N. J.....	Gasoline.....	7,912	6,046	4,326
El Cervo *.....	11	13.15	11	14.55	11	22.00	12	00.45	British.....	C. T. Bowring & Co.....	407.4	52.2	26.0	La Libertad, Ecua.....	Philadelphia, Pa.....	Crude oil.....	8,109	6,425	4,068
Bencroft.....	11	13.35	11	14.40	11	23.10	11	23.05	British.....	Wm. Thomson & Co.....	420.0	54.0	27.0	Vancouver, B. C.....	Rotterdam, Holland.....	Grain, lumber.....	2,200	3,872	2,568
Castletown.....	8	14.20	11	15.14	11	23.10	12	16.50	American.....	Charles Nelson & Co.....	321.7	50.7	26.0	Mukiteo, Wash.....	Orange, Texas.....	Lumber.....	12,303	7,808	5,139
Santore.....	12	1.20	12	6.23	12	15.05	12	15.05	American.....	Ore S. S. Corp.....	449.1	57.2	30.0	Crux Grande, Chile.....	Baltimore, Md.....	Iron ore.....	7,421	5,373	
Kamak.....	12	6.30	12	6.49	12	14.00	12	15.05	German.....	Hamburg-American Line.....	439.6	55.7	12.0	Antofagasta, Chile.....	Hamburg, Germany.....	Ballast.....	6,032	3,892	
San Zofico *.....	12	5.50	12	7.47	12	15.55	12	17.20	British.....	Anglo-Mexican Oil Co.....	400.0	52.3	22.0	Valparaiso, Chile.....	Curaco, D. W. I.....	Ballast.....	4,602	7,764	4,705
Aconcagua.....	11	23.00	12	8.03	12	15.35	12	19.45	Chilean.....	Cia. Sud. Amer. de Vap.....	422.8	56.2	25.3	Valparaiso, Chile.....	New York, N. Y.....	Cruiser.....			
Rochester.....	12	8.42	12	8.42	12	17.35	13	10.10	American.....	U. S. Navy.....	384.0	64.9		Balboa, C. Z.....	New York, N. Y.....	General.....	4,130	3,984	2,612
Point Arena.....	12	8.45	12	9.24	12	17.25	12	17.25	American.....	Swayne & Hoyt.....	324.0	46.2	23.0	Vancouver, B. C.....	New Orleans, La.....				

* Coffee, hides, wood, and skins.
* Nitrate, copper, minerals, cotton, hides, and general.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam, water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.							Nature.	Tons.	
Miguel de Larrinaga.	12	10 30	12	11 15	12	18 25	British	Larrinaga & Co.	388.4	53.0	24.3	Baltimore, Md.	Iron ore.	7,500	3,664
Commander McCauley.			12		12		American.	U. S. Navy.				Gatun Lake, C. Z.	Launch.		
Canadian Miller.	12	14 45	12	16 14	12	23 35	British	Can. Nat. Steamships.	400.3	52.3	24.0	Vancouver, B. C.	Lumber, general.	6,066	5,892
Espartero.	12	16 50	13	6 19	13	14 00	American.	United Fruit Co.	330.6	44.6	19.0	Pt. Limon, C. R.	Gasoline, gen'l.	736	2,373
Panquiao ¹² .	13	6 19	13	13 50	13	13 50	Panamanian	Panamanian Gov't.	125.6	23.5		Balboa, C. Z.	General.	7,406	
Gregalia.	12	18 50	13	6 40	13	15 55	British	Donaldson Bros., Ltd.	425.0	56.0	27.1	Glasgow, Scotland			
Henry S.	13	3 40	13	6 56	13	15 45	American.	Argonaut S. S. Co.	404.6	53.9	27.0	Portland, Ore.	Lumber, general.	6,873	6,755
Grove.	13	6 30	13	8 04	13	16 00	American.	Amer.-Hawaiian Line.	460.0	52.8	25.0	Boston, Mass.	General.	6,171	6,829
Nevadan.	13	7 35	13	8 57	13	16 50	American.	Luckenbach Line.	446.0	56.1	27.0	Boston, Mass.	General, lumber.	6,528	6,236
K. I. Luckenbach.	13		13		13		American.	U. S. Army.	96.0	22.0		Cristobal, C. Z.			
Gen. G. W. Getty ¹² .	13	8 30	13	9 21	13	17 15	American.	Isthmian S. S. Lines.	425.0	56.2	25.0	Baltimore, Md.	Lumber.	7,500	7,611
Steel Zenada.	13	9 00	13	10 12	13	18 25	British.	Turner Brighman.	405.0	52.3	26.0	Leningrad, U.S.S.R.	Nitrate.	8,255	5,926
Mathew.	13	13 15	13	13 55	13	20 35	American.	Luckenbach Line.	434.3	57.0	24.0	Mobile, Ala.	General.	4,932	7,977
Wind Rush.	13	14 05	13	15 01	13	21 45	American.	Shepard S. S. Co.	410.0	54.2	25.0	Tacoma, Wash.	Lumber, general.	7,250	6,558
Victoria City.	13	17 50	14	6 31	14	15 20	British.	Sh. W. R. Smith & Sons.	400.4	54.2	25.0	Vancouver, B. C.	Wheat.	7,920	5,389
Zealandic ¹⁴ .	13	19 50	14	6 28	14	13 30	British.	Shaw, Savill & Albion.	482.6	64.2	25.0	Pt. Chalmers, N.Z.	General.	5,625	11,819
Svalder.	13	14 40	14	7 06	14	15 55	Norwegian.	Waage Thøgersen.	408.3	55.3	27.0	Los Angeles, Calif.	Gasoline.	8,663	6,466
Mundelta.	13	19 40	14	7 26	14	16 25	American.	Munson, McCork Line.	370.0	53.2	23.0	Providence, R. I.	Lumber, general.	5,535	5,068
Cities Service.	14	2 00	14	8 15	14	17 05	American.	Cities Service Trans. Co.	431.0	59.2	27.0	Los Angeles, Calif.	Gasoline.	9,646	8,093
Oklehona ¹ .	14	2 25	14	8 42	14	17 40	Japanese.	Kokusan Kisen Kaisha.	385.0	51.0	27.3	Baltimore, Md.	Sugar.	7,500	6,203
Aden Maru.	14	6 00	14	9 14	14	21 30	Norwegian.	Fern Line.	381.6	53.3	26.2	New York, N. Y.	General.	7,204	6,082
Stranstad ¹⁴ .	14	7 30	14	9 30	14	17 45	German.	Roland Line.	216.5	32.9	15.0	Cristobal, C. Z.	General.	922	1,132
Manzates.	14	8 00	14	10 05	14	18 40	Norwegian.	Brugsnaard Line.	415.3	54.7	25.0	Le Havre, France.	General.	7,620	7,296
Handicap ¹⁴ .	14	8 30	14	11 10	14	19 50	American.	Vacuum Oil Co.	425.0	57.2	27.0	Bremen, Germany.	Crude oil.	9,260	7,502
Birkenhead ¹ .	14	8 30	14	11 10	14	19 50	British.	Cian Line Steamers.	400.0	52.0	19.0	Wilmington, N. C.	Nitrate.	5,000	
Clan Kenneth.	14	9 40	14	11 30	14	20 05	British.	Pacific Steam Nav. Co.	450.0	58.0	29.0	Vancouver, B. C.	General.	8,013	8,874
Nichteroy.	14	10 40	14	12 36	14	21 10	British.	N. Z. Shipping Co.	531.0	70.2	29.0	Rotterdam, Holland.	Dairy, frozen.	6,366	18,197
Rangitiki ¹⁴ .	14	8 10	14	15 21	14	22 25	British.	Royal Mail S. P. Co.	430.2	58.3	28.0	Southampton, Eng.	General.	6,868	8,566
Nareita.	14	14 45	14	16 05	15	00 15	British.	Pacific Steam Nav. Co.	450.0	58.3	28.0	Antwerp, Belgium.	General.	8,868	6,559
Ballena.	15	3 30	15	5 58	15	13 00	British.	U. S. Navy.	400.0	52.3	24.0	London, England.	(*)	5,861	5,816
Nagara.	15	7 29	15	7 29	15	14 20	American.	U. S. Navy.	243.0	36.0		Cristobal, C. Z.	Survey ship.		

¹² Coffee, grain, cotton, etc.¹⁴ Motor ship.¹² Junior mine planter.¹² Revenue cutter.¹ Tanker.

	15	3 00	15	7 44	15	14 55	14	15 55	Norwegian.	William Hansen.	270.1	38.1	17.0	Guano Island.	Dublin, Ireland.	Guano.	2 300	1 906	1 180
Bouta.	15	10 25	15	11 11	15	17 45	15	19 30	American.	N. O. & S. A. S. Co.	299.4	45.0	20.5	Toconilla, Chile.	New Orleans, La.	Beans, nitrate.	2 909	3 256	2 010
Nasa Chief.	15	10 45	15	11 54	15	19 55	15	19 55	American.	Dimon S. S. Corp.	410.5	54.3	25.0	Seattle, Wash.	Philadelphia, Pa.	Lumber.	7 200	6 583	4 808
Pacific Pine.	15	10 45	15	11 54	15	19 55	15	19 55	American.	Ore S. S. Corp.	561.0	72.0	33.6	Cruz Grande, Chile.	Baltimore, Md.	Iron ore	21 800	15 560	4 496
Amerikaland	15	20 00	16	6 05	16	15 30	16	15 30	Swedish.	Ford Motor Co.	250.5	43.6	20.7	Grays Har., Wash.	Philadelphia, Pa.	(*)	3 000	2 692	1 808
Lake Gorin.	15	15 50	16	6 38	16	16 55	16	16 55	American.										
Canadian	15	20 30	16	7 25	16	16 25	16	16 25	British.	Can. Nat. Steamships.	430.0	56.2	20.0	Adelaide, Australia.	Montreal, Canada.	General.	2 551	7 680	5 518
Cruiser.	15	23 45	16	7 42	16	23 05	16	23 05	American.	Amer.-Hawaiian Line.	407.7	53.7	23.0	Seattle, Wash.	Boston, Mass.	General.	5 770	7 079	5 028
Iowan.	15	23 45	16	9 00	16	16 50			American.	U. S. Navy.	231.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
S-20	16	15 35	16	16 38	17	12 30	17	12 30	British.	International Pet. Co.	565.7	75.6	33.0	Talara, Peru.	New York, N. Y.	Crude oil.	20 000	16 436	9 642
C. O.	16	15 35	16	16 38	17	12 30	17	12 30	British.										
George	16	20 00	16	17 19	17	11 40	17	15 32	Norwegian.	Fred Olsen & Co.	425.3	55.3	26.1	Vancouver, B. C.	Antwerp, wayports	(*)	7 923	5 606	3 489
Washington	16	13 00	17	6 24	17	13 35	17	17 35	American.	U. S. Navy.	200.0			Valparaiso, Chile.	Baltimore, Md.	Iron ore	7 600	6 903	5 185
Pensacola	16	12 15	17	7 05	17	14 55			British.	W. A. Souter & Co.	400.0	53.5	24.0	Whyalla, Australia.	New York, N. Y.	General.	2 712	2 609	1 610
Titanian	16	17 40	17	7 06	17	15 05	18	00 08	American.	Panama R. S. S. Line	251.0	43.0	20.0	Guayaquil, Ecuador					
Buenaventura.	16	17 40	17	7 06	17	15 05	18	00 08	American.										
Henri	16	17 00	17	8 25	17	15 50	17	15 50	French.	Le Coq S. S. Co., Ltd.	400.5	51.2	26.0	Los Angeles, Calif.	Le Havre, France.	Benzine.	7 300	5 906	3 336
Desmarais	16	17 00	17	8 25	17	15 50	17	15 50	French.										
K. R.	17	4 00	17	8 54	17	16 05	17	16 05	American.	Standard Oil Co. of Cal.	440.0	58.2	27.6	Los Angeles, Calif.	Panama, N. J.	Gasoline.	9 320	7 251	4 425
Kingsbury	17	9 35	17	40 20	17	16 50	17	20 10	British.	F. L. Bowring	385.2	51.0	24.0	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil.	6 108	4 799	2 948
El Lobo										U. S. Army	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.	Army tug			
Gen. G. W.																			
Getly																			

¹ Trawler. ² Motor ship. ³ Submarine. ⁴ Cruiser. ⁵ Lumber and automobile parts. ⁶ Wheat, lumber, and grain.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 11.	Ulva.	United Fruit Co.	Port Limon, C. R.	May 11.	Dramatist.	T. & J. Harrison.	Demerara.
May 11.	No. 9688 ²¹ .	Pan American Airways.	Talara via wayports.	May 11.	No. 9685 ²¹ .	Pan American Airways.	San Salvador via wayp'ts
May 11.	No. 142-M ²¹ .	Pan American Airways.	Miami via wayports.	May 11.	Ulva.	United Fruit Co.	New York via Habana.
May 12.	Calanares.	United Fruit Co.	New York via Habana.	May 11.	Cristobal.	Panama R. R. S. S. Line.	New York via Haiti.
May 12.	Venezuela.	Royal Neth. S. S. Co.	Amsterdam via wayports.	May 11.	Cartago.	United Fruit Co.	New Orleans and wayp'ts.
May 12.	Cordoba C-40 ²¹ .	Seadta Airplane Co.	Barranquilla via wayp'ts.	May 12.	No. 300-N ²¹ .	Pan American Airways.	Guayaquil via wayports.
May 13.	Flandre.	French Line.	Havre via wayports.	May 13.	No. 9664 ²¹ .	Pan American Airways.	Tela via wayports.
May 13.	Castilla.	United Fruit Co.	Puerto Colombia.	May 13.	Venezuela.	Royal Neth. S. S. Co.	Port Limon, C. R.
May 13.	No. 9635 ²¹ .	Pan American Airways.	San Salvador via wayp'ts.	May 14.	Calanares.	United Fruit Co.	Port Limon, C. R.
May 14.	Midas.	Royal Neth. S. S. Co.	Curacao, D. W. I.	May 15.	No. 142-M ²¹ .	Pan American Airways.	Miami via wayports.
May 14.	Zacapa.	United Fruit Co.	New York via Kingston.	May 15.	Zacapa.	United Fruit Co.	New York via wayports.
May 14.	Tela.	United Fruit Co.	New Orleans, La.	May 15.	Tela.	United Fruit Co.	Puerto Colombia.
May 14.	No. 300-N ²¹ .	Pan American Airways.	Puerto Cabello & wayp'ts.	May 15.	Orinoco.	Hamburg-American Line.	Port Limon, C. R.
May 14.	Hamboco.	Hamburg-American Line.	Hamburg via wayports.	May 15.	Flandre.	French Line.	Havre via wayports.
May 14.	No. 300-N ²¹ .	Pan American Airways.	Guayaquil via wayports.	May 16.	Annetta I. ²³ .	A. Tagaropoulos.	Colon, R. P.
May 14.	Pasajero ²² .	Gough Brothers.	Belize and wayports.	May 16.	Anacahueta ²³ .	United Fruit Co.	Colon, R. P.
May 15.	Venezuela.	Royal Neth. S. S. Co.	Port Limon, C. R.	May 16.	Inapaquina ²³ .	United Fruit Co.	Colon, R. P.

* Other than ships passing through the Canal.

²¹ Air mail carrier. ²² Motor schooner. ²³ Motor boat.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 16.	Anapala.	Standard Fruit & S. S. Co.	New Orleans & Habana.	May 16.	Cordoba C-40 ²⁴ .	Scadta Airplane Co.	Colombian ports.
May 16.	No. 9664 ²⁴ .	Pan American Airways.	Tela via wayports.	May 16.	No. 9088 ²⁴ .	Pan American Airways.	Tela via wayports.
May 16.	Killrig.	Merritt, Chapman & Lindsay.	Kingston, Jamaica.	May 17.	Killrig.	Merritt, Chapman & Lindsay.	Kingston, Jamaica.
May 16.	Annetta I. ²⁵ .	A. Tagaropulos.	Colon, R. P.	May 17.	Catilla.	United Fruit Co.	New Orleans & wayports.
May 16.	Anachucuna ²⁵ .	United Fruit Co.	Colon, R. P.	May 17.	Anapala.	Standard Fruit & S. S. Co.	New Orleans & wayports.
May 16.	Inapacuna ²⁵ .	United Fruit Co.	Colon, R. P.	May 17.	Venezuela.	Royal Neth. S. S. Co.	Amsterdam via wayports.
May 17.	Dora K. ²⁶ .	A. L. Surgeon.	Colon, R. P.	May 17.	Mayari.	United Fruit Co.	New York via wayports.
May 17.	Mayari.	United Fruit Co.	New York & wayports.	May 17.	Pearl Marie ²⁷ .	G. I. Bryan.	Port Limon, C. R.
May 17.	Parismina.	United Fruit Co.	New Orleans via Habana.	May 17.	Pasajero ²⁷ .	Gough Brothers.	Bluefields, Nicaragua.
May 17.	Pearl Marie ²⁷ .	G. I. Bryan.	Colon, R. P.	May 17.	Dora K. ²⁶ .	A. L. Surgeon.	Bluefields, Nicaragua.
²⁴ Air mail carrier. ²⁵ Motor boat. ²⁶ Motor ship. ²⁷ Motor schooner.				PORT OF BALBOA.			
May 12.	George H. Jones ¹ .	Standard Shipping Co.	Los Angeles, Calif.	May 13.	George H. Jones ¹ .	Standard Shipping Co.	Talara, Peru.
May 11.	Real ²⁸ .	Hans Elliot.	Panama Bay, R. P.	May 13.	Aras ²⁹ .	Charles S. Howard.	San Diego, Calif.
May 16.	La Perla.	United Fruit Co.	San Francisco, Calif.	May 13.	Progress ³⁰ .	George W. Sands.	Los Angeles, Calif.
May 17.	Real ²⁸ .	Hans Elliot.	Panama Bay, R. P.	May 15.	Real ²⁸ .	Hans Elliot.	Panama Bay, R. P.
				May 17.	La Perla.	United Fruit Co.	San Francisco, Calif.
				May 17.	Real ²⁸ .	Hans Elliot.	Panama Bay, R. P.

* Other than ships passing through the Canal.

¹ Tanker. ²⁸ Motor schooner. ²⁹ Motor ship, yacht. ³⁰ Motor ship.

Immigration Restrictions, Panama.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 14, 1930.

TO STEAMSHIP AGENTS AND OTHERS CONCERNED:

1. The following procedure observed by the Immigration Officers of The Panama Canal in enforcing the immigration laws of the Republic of Panama, is published for the information of all concerned:

2. As used herein, the term "alien" refers to all persons other than citizens of the Republic of Panama; "restricted alien" refers to a Turk, Syrian, or a Negro whose original tongue is not Spanish; Chinese are also restricted aliens, but they are handled under special regulations by the customs service of The Panama Canal.

3. Aliens arriving at Canal Zone ports are divided into two classes: "Transit aliens" and "aliens destined for Panama."

4. *Transit aliens:*

(a) A transit alien is considered to be an alien who has in his possession at the time of his arrival a ticket or an order for a ticket to the country claimed as his destination. An alien who does not hold such a ticket or order, even though his passport may be properly visaed for the country of destination, is not considered as a transit passenger, but as one destined for Panama.

(b) A transit visa on a passport (except for restricted aliens) allows one to remain in Panama for a period not to exceed 30 days. An alien in transit, unless arriving and departing by the same vessel, is required to hold a transit visa for Panama. When a transit alien arrives without a Panamanian consular visa on his passport, and is not to depart on the same vessel, his passport is taken up by the Quarantine Officer and held subject to delivery to the proper Panamanian official; at Balboa the passports are held subject to delivery to the office of the Secretary of Foreign Relations; at Cristobal the passports are held subject to delivery at the office of the Port Captain of Colon. (It should be noted that Article 3 of Law 21 of 1928, provides that persons who came to the country as tourists are exempted from the payment of passport visa fees).

(c) The foregoing provisions regarding passport visas for transit aliens do not apply to citizens of the United States, Germany, or Holland, unless they come within the term "restricted alien." (Article 6, Law 6 of 1928).

(d) A restricted alien is detained either on board the vessel of arrival, or at Balboa Quarantine Station or some other satisfactory place, pending disposition directed by the proper Panamanian official, or until he leaves the Isthmus. Article 6 of Law 16 of 1927, provides that their stay may not exceed one month.

5. *Aliens destined for Panama:*

(a) An alien destined for Panama or returning to Panama, is required to have a Panamanian consular visa on his passport. If such a person arrives without this consular visa, his passport is taken up and handled as in paragraph 4(b). This action is necessary whether or not such alien holds a return permit issued by the Panamanian Government. (It should be understood that alien students destined to Panama, who prove their status by means of a certificate issued by the Department of Public Instruction of Panama, are exempted from payment of passport visa fees by Article 3 of Law 21 of 1928.)

(b) A restricted alien is detained either on board the vessel of arrival, or at Balboa Quarantine Station or some other satisfactory place, pending receipt of a request for his release from the proper Panamanian official. The passport of such an individual is taken up and held subject to delivery as described in paragraph 4(b) whether or not it is visaed.

(c) The procedure described in paragraphs (a) and (b) immediately preceding, does not apply to aliens who are connected with the operation of the Canal, such as employees of local branches of the United States Government and the Panama Railroad Company, and certain classes of persons residing in the Canal Zone and members of their families. Restricted aliens in this class, however, must be provided with "Certificates of Identity," form 414-I, issued by the Executive Office of The Panama Canal.

6. Immigration officers are instructed to exercise their best judgment in the disposition of cases not covered by the foregoing.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending May 17, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Esparta.....	United Fruit Co.....	May 12.....	May 13.....	99	
George H. Jones.....	Standard Shipping Co.....	May 12.....	May 13.....	10,328	
U. S. Grant.....	U. S. Government.....	May 13.....	May 14.....	105	153
Santa Maria.....	Grace Line.....	May 14.....	May 14.....	25	
President Fillmore.....	Dollar Line.....	May 16.....	May 16.....		7
La Perla.....	United Fruit Co.....	May 16.....	May 17.....	550	18

Commercial Traffic Through the Panama Canal in April, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of April, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for April, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	79	423,099	318,717	514,225	318,022	\$369,377.40	241,353
East coast of United States to west coast of South America:							
British	7	35,119	28,510	49,940	28,554	27,900.10	12,009
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,910
Greek	1	4,099	2,636	4,386	2,639	3,295.00	7,088
Norwegian	1	1,189	1,061	1,657	944	1,326.25	2,194
Swedish	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States	13	56,960	46,220	79,934	46,137	46,007.76	17,069
Total	25	110,989	89,379	173,903	91,012	89,281.85	41,270
East coast of United States to Far East:							
British	5	26,914	16,873	27,317	16,887	21,091.25	32,286
Danish	1	3,769	3,021	4,932	3,037	3,776.25	4,991
Japanese	7	33,308	28,248	41,006	28,431	35,143.75	50,571
Norwegian	2	11,204	8,099	13,598	8,019	10,123.75	15,639
Panamanian	1	6,955	3,998	7,044	3,988	4,997.50	5,069
United States	5	23,901	17,280	27,779	17,236	21,560.55	35,915
Total	21	106,051	77,519	121,676	77,598	96,693.05	144,521
Europe to west coast of South America:							
Belgian	1	6,211	4,522	7,130	4,013	5,652.50	7,400
British	4	26,794	21,460	36,008	22,462	26,825.00	22,592
Chilean	1	3,528	2,153	4,170	2,441	2,691.25	2,000
Dutch	2	9,640	5,431	9,243	5,630	6,788.75	8,833
French	2	8,176	7,410	10,816	7,112	9,166.55	8,560
German	4	20,102	14,572	23,803	14,609	18,215.00	17,978
Greek	1	4,292	2,720	4,349	2,686	3,400.00	6,657
Italian	1	7,516	5,514	12,003	6,058	6,892.50	2,915
Norwegian	1	3,797	3,039	5,041	3,101	3,798.75	6,621
Swedish	1	3,967	3,072	5,065	4,065	3,840.00	7,003
Total	18	94,023	69,893	117,628	72,177	87,270.30	90,559
Europe to west coast of Canada:							
British	4	22,705	15,212	26,291	16,084	18,906.80	8,376
Danish	1	5,317	4,219	6,645	4,244	5,273.75	6,065
Dutch	2	13,679	10,642	16,989	10,604	13,302.50	4,973
French	2	12,252	7,428	13,523	7,734	9,285.00	3,505
German	4	26,644	16,701	28,430	17,096	20,876.25	15,911
Italian	1	6,025	5,056	7,098	4,498	6,320.00	2,268
Norwegian	1	5,953	3,521	5,784	3,603	4,401.25	6,490
United States	1	5,450	3,465	5,687	3,450	4,331.25	7,663
Total	16	98,025	66,244	110,447	67,313	82,696.80	55,251
Europe to west coast of United States:							
Belgian	1	4,976	4,568	7,138	3,988	5,710.00	8,830
British	1	4,833	3,592	5,643	3,615	4,490.00	2,950
Danish	1	5,623	4,670	7,691	4,710	4,048.56	.....
French	3	12,891	11,244	18,178	10,381	9,281.52	.....
German	1	4,435	3,794	6,369	3,657	3,193.20	.....
Norwegian	3	15,617	11,985	20,002	11,970	11,381.70	7,900
Swedish	1	5,533	3,430	5,554	4,225	4,287.50	5,678
United States	3	16,681	13,962	22,591	13,886	12,010.32	.....
Total	14	70,594	57,245	93,166	56,432	54,402.80	25,358

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to Australasia:							
British.....	10	91,566	63,024	106,956	66,434	\$78,567.27	49,561
French.....	1	5,629	4,343	7,007	4,402	5,428.75	3,385
Swedish.....	1	5,346	3,468	5,788	4,300	4,335.00	1,684
Total.....	12	102,541	70,835	119,751	75,136	88,331.02	54,630
Cristobal to west coast of South America:							
Colombian.....	2	287	277	440	275	336.85	111
Dutch.....	1	742	294	780	323	367.50	43
German.....	5	3,889	2,980	5,268	3,034	3,725.00	828
United States.....	1	2,606	1,350	2,434	1,340	1,687.50	.....
Total.....	9	7,524	4,901	8,922	4,972	6,116.85	982
East coast of United States to Australasia:							
British.....	5	32,542	22,917	36,584	22,977	28,646.25	12,098
Norwegian.....	1	4,538	2,477	4,116	2,454	3,096.25	7,155
United States.....	2	10,143	7,427	11,849	7,314	9,283.75	3,474
Total.....	8	47,223	32,821	52,549	32,745	41,026.25	22,727
East coast of United States to Philippine Islands:							
British.....	5	29,413	20,053	32,239	19,683	25,066.25	28,338
Danish.....	1	4,483	2,495	4,194	2,532	3,118.75	7,054
United States.....	1	6,219	5,750	7,720	5,751	7,187.50	8,256
Total.....	7	40,115	28,298	44,153	27,966	35,372.50	43,648
Cristobal to west coast of United States:							
United States.....	6	13,453	10,802	17,913	10,793	12,747.46	3,169
Foreign vessels in ballast— United States inter- coastal:							
British.....	2	11,367	10,481	15,815	10,140	8,256.40	.....
Norwegian.....	1	6,248	5,324	8,913	5,275	4,498.56	.....
Total.....	3	17,615	15,805	24,728	15,415	12,744.96	.....
East coast of United States to Hawaiian Islands:							
United States.....	3	8,924	6,532	11,013	6,556	8,165.00	13,950
East coast of Canada to Australasia:							
British.....	3	15,342	11,999	19,834	12,157	14,998.75	12,378
East coast of South America to west coast of United States:							
Norwegian.....	1	5,246	2,949	4,883	2,999	3,686.25	1,230
United States.....	1	5,014	3,508	5,550	3,533	4,385.00	3,512
Total.....	2	10,260	6,457	10,433	6,532	8,071.25	4,742
Europe to west coast of Central America:							
British.....	1	1,785	1,588	2,554	1,408	1,985.00	2,500
German.....	1	3,003	1,807	3,106	1,809	2,258.75	1,340
Total.....	2	4,788	3,395	5,660	3,217	4,243.75	3,840
Around the world:							
United States.....	2	18,429	12,539	21,020	12,539	15,736.25	8,973
East coast of South America to Far East:							
Japanese.....	1	7,292	5,924	9,446	5,919	7,405.00	2,414
East coast of South America to west coast of Can- ada:							
United States.....	1	4,989	3,517	5,550	3,517	4,396.25	4,239
Cristobal to west coast of Central America:							
British.....	1	1,587	1,282	2,533	1,411	1,602.50	951
East coast of United States to west coast of Canada:							
United States.....	1	2,591	2,025	3,281	2,003	2,531.25	2,509
Central American intercoastal:							
Danish.....	1	1,795	1,189	2,028	1,188	1,486.25	1,209

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Central America to west coast of South America:							
Norwegian.....	1	1,676	928	1,733	968	\$1,160.00	2,500
West Indies to west coast of United States:							
British.....	1	4,802	3,120	5,027	3,117	3,900.00	3,500
West Indies to west coast of Canada:							
British.....	1	4,612	2,660	4,392	2,649	3,325.00	7,008
West Indies to west coast of South America:							
British.....	1	3,892	3,363	5,582	3,370	4,203.75	7,665
West Indies to Australasia:							
British.....	1	4,053	3,219	5,187	3,222	4,203.75	6,782
Grand total, April, 1930..	240	1,226,284	910,658	1,511,780	917,996	1,061,309.99	806,119
Grand total, April, 1929..	259	1,190,510	907,312	1,479,562	911,498	1,046,690.90	862,450
Grand total, April, 1928..	271	1,194,004	912,709	1,500,455	916,718	1,031,935.91	742,388

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	72	388,413	294,130	474,739	293,746	\$367,552.25	513,750
West coast of Canada to Europe:							
British.....	13	65,366	44,179	72,560	45,012	55,223.75	96,567
Danish.....	1	5,660	5,233	6,919	5,223	6,541.25	9,170
Dutch.....	3	20,192	16,244	26,240	16,352	20,305.00	26,632
French.....	2	13,038	8,728	14,622	8,965	10,910.00	17,234
German.....	4	26,480	17,425	29,307	17,806	21,781.25	33,527
Italian.....	2	12,538	9,997	15,181	9,583	12,496.25	17,438
Norwegian.....	4	19,417	14,825	23,745	14,910	18,531.25	30,868
United States.....	4	18,997	12,338	21,139	15,512	15,422.50	26,980
Total.....	33	181,688	128,969	209,713	133,363	161,211.25	258,416
West coast of South America to east coast of United States:							
British.....	11	48,153	39,878	68,240	41,217	49,847.50	79,487
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	4,009
Danish.....	1	3,468	2,256	3,718	2,307	2,820.00	6,250
Norwegian.....	2	9,540	7,818	12,662	7,818	9,772.50	18,150
Swedish.....	1	4,496	3,743	15,337	4,385	4,678.75	21,800
United States.....	11	48,718	40,222	70,466	40,210	49,525.72	110,441
Yugoslav.....	1	4,701	3,706	5,948	3,783	4,632.50	9,550
Total.....	28	123,748	101,056	183,881	103,696	125,568.22	249,687
West coast of United States to Europe:							
British.....	7	33,436	25,470	41,790	25,001	31,837.50	57,047
Danish.....	1	4,744	2,743	4,500	2,747	3,428.75	7,332
German.....	1	6,834	4,192	7,369	4,355	5,240.00	6,632
Norwegian.....	3	14,040	11,773	19,735	11,674	14,716.25	25,621
Swedish.....	1	3,532	2,411	4,066	3,144	3,013.75	6,000
United States.....	6	41,436	32,021	52,006	32,000	40,026.25	72,032
Total.....	19	104,022	78,610	129,466	78,921	98,262.50	174,664
West coast of South America to Europe:							
British.....	5	28,658	22,574	37,252	22,892	28,217.50	29,648
Dutch.....	3	12,645	7,936	13,248	7,592	9,920.00	10,410
French.....	3	12,600	10,290	16,496	10,252	12,862.50	4,175
German.....	4	19,257	14,739	23,441	14,359	18,423.75	20,493
Italian.....	3	22,143	13,153	29,348	16,510	15,476.99	2,308
Norwegian.....	1	3,925	3,118	5,113	3,125	3,897.50	3,753
Total.....	19	99,228	71,810	124,898	74,730	88,798.24	70,787
Australasia to Europe:							
British.....	15	89,660	65,893	106,404	66,599	82,366.25	61,298
Norwegian.....	1	12,676	10,254	17,801	11,789	12,817.50	20,000
Total.....	16	102,336	76,147	124,205	78,388	95,183.75	81,298

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Philippine Islands to east coast of United States:							
British.....	2	7,095	5,367	8,645	5,323	\$6,708.75	13,700
Japanese.....	4	21,174	17,919	27,269	17,613	22,196.30	31,967
Panamanian.....	1	6,967	3,963	6,604	4,057	4,953.75	6,650
United States.....	2	11,364	7,796	12,349	7,698	9,745.00	14,422
Total.....	9	46,600	35,045	54,867	34,691	43,608.80	66,739
West coast of South America to Cristobal:							
Colombian.....	2	287	277	440	275	336.85	478
Dutch.....	1	742	294	780	323	367.50	623
German.....	6	4,930	3,497	6,421	3,590	4,371.25	4,776
Total.....	9	5,959	4,068	7,641	4,188	5,075.60	5,877
Australasia to east coast of United States:							
British.....	4	26,609	17,865	28,702	17,807	22,331.25	35,457
Norwegian.....	2	16,484	14,506	21,470	14,496	18,132.50	17,040
United States.....	2	10,499	7,615	12,175	7,560	9,518.75	11,739
Total.....	8	53,592	39,986	62,347	39,863	49,982.50	64,236
West coast of United States to Cristobal:							
United States.....	7	15,597	12,769	21,139	12,670	15,908.20	6,580
West coast of South America to east coast of Canada:							
British.....	4	21,793	18,561	34,667	18,117	23,201.25	46,374
Canadian intercoastal:							
British.....	4	19,580	12,969	21,639	13,338	16,211.25	27,282
West coast of Canada to east coast of United States:							
British.....	1	4,627	3,172	5,140	3,156	3,965.00	7,450
United States.....	2	11,028	8,354	13,218	8,314	10,442.50	16,338
Total.....	3	15,655	11,526	18,358	11,470	14,407.50	23,788
West coast of Central America to Cristobal:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	2,749
West coast of United States to West Indies:							
Norwegian.....	1	4,512	3,301	5,277	3,211	4,126.25	6,758
United States.....	1	6,160	5,212	8,207	5,091	4,435.20	.....
Total.....	2	10,672	8,513	13,484	8,302	8,561.45	6,758
West coast of United States to east coast of South America:							
Norwegian.....	1	5,132	2,912	4,885	3,005	3,640.00	4,682
United States.....	1	5,011	3,623	5,880	3,643	4,528.75	5,560
Total.....	2	10,143	6,535	10,765	6,648	8,168.75	10,242
Australasia to east coast of Canada:							
British.....	2	9,848	7,676	12,617	7,743	9,595.00	3,640
Hawaiian Islands to east coast United States:							
United States.....	2	6,026	4,615	7,678	4,648	5,768.75	10,620
West coast of Central America to Europe:							
German.....	1	3,272	2,565	4,165	2,547	3,206.25	827
Around the world:							
British.....	1	14,476	8,136	21,861	12,292	10,170.00	.....
West coast of United States to east coast of Central America:							
Danish.....	1	1,879	1,144	1,909	1,172	1,430.00	2,477
West coast of South America to Egypt:							
British.....	1	4,076	3,199	5,270	3,197	3,998.75	7,700
Far East to Europe:							
British.....	1	5,331	3,721	5,996	2,757	4,651.25	8,051

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Far East to east coast of United States:							
United States.....	1	5,850	4,828	7,572	4,826	\$6,035.00	8,111
West coast of South America to West Indies:							
Spanish.....	1					1,691.50	
Grand total, April, 1930..	249	1,252,812	939,146	1,563,708	954,028	1,171,453.01	1,650,663
Grand total, April, 1929..	281	1,297,666	992,295	1,647,803	1,005,880	1,234,396.37	1,857,218
Grand total, April, 1928..	260	1,190,487	926,312	1,511,839	929,258	1,155,671.91	1,731,496

* Naval vessel of 3,333 displacement tons.

Observatory Being Erected at Miraflores

Construction of an observatory to house a 5-inch equatorial telescope, recently secured by The Panama Canal from the United States Navy, is in progress. The building is being erected on a small hill a short distance to the northwest of the Miraflores filtration plant, and will be a circular structure 14 feet in diameter, with 6-inch concrete wall. It will be topped with a mobile steel dome equipped to travel on a circular track, permitting the use of the telescope toward all points of the compass and facilitating the observation of celestial bodies in all parts of the heavens.

The observatory is being established through the efforts of the Canal Zone Astronomical Society, with the assistance of the Canal administration, and is to be used for the instruction of students of the Canal Zone high schools and for Panama Canal employees interested in or associated with astronomical societies. Ground was broken for the building on April 11, and it is expected that the work will be completed in June.

The position of the center point of the pier on which the telescope will rest is: Latitude 9° 00' 15" North; longitude, 79° 35' 51" West.

Air Mail Services.

Arriving at Cristobal on April 27, 1930, on a one-day flight from Habana via Puerto Cabezas, Nicaragua, and departing on May 1, on the return voyage to Miami, Col. Charles A. Lindbergh piloted a plane of the Pan American Airways, Inc., over this section in the opening of a 7-day service between New York and Montevideo, including 48-hour service between New York and Cristobal.

This express service is conducted once weekly in each direction. In addition, there are dispatches from Cristobal by planes leaving Tuesdays, Fridays, and Sundays. Connecting planes leave San Lorenzo, Honduras, on Wednesdays, Saturdays, and Mondays for Brownsville, Tex., and on Wednesdays and Saturdays for Miami, Fla. The Sunday dispatch from Cristobal is restricted to matter routed via Brownsville. Another service, operating weekly, connects Cristobal with Colombian and Venezuelan cities and Curacao.

The following is a summary of services from or to the Canal Zone at present:

EXPRESS SERVICE.

The express service between the Canal Zone and the United States is operated in conjunction with the New York-Montevideo 7-day service, and the latter is the only air service to the lower west coast of South America and Buenos Aires and Montevideo by way of the Canal Zone. This service is here summarized, first, as from Cristobal north and, second, between Cristobal and Montevideo.

The express service from Cristobal northbound leaves every Thursday. On those days no dispatches are made for points between Cristobal and Habana. The following is a schedule of times of arrival at representative cities of mails dispatched by the express service leaving Cristobal every Thursday:

Arrive at—		Arrive at—	
Habana.....	Friday, 2.00 p. m.	Birmingham.....	Saturday, 7.10 a. m.
Miami.....	Friday, 5.00 p. m.	New Orleans.....	Saturday, 11.00 a. m.
Atlanta.....	Friday, midnight	Houston.....	Saturday, 3.15 p. m.
Washington.....	Saturday, 7.20 a. m.	Dallas.....	Saturday, 7.15 p. m.
Philadelphia.....	Saturday, 8.40 a. m.	Minneapolis.....	Saturday, 6.55 p. m.
New York.....	Saturday, 9.30 a. m.	Omaha.....	Saturday, 12.40 p. m.
Boston.....	Saturday, 5.00 p. m.	Cheyenne.....	Saturday, 4.45 p. m.
Montreal.....	Saturday, 11.00 p. m.	Salt Lake City.....	Saturday, 9.30 p. m.
Nashville.....	Saturday, 2.25 a. m.	Denver.....	Sunday, 6.20 a. m.
Evansville.....	Saturday, 4.20 a. m.	Los Angeles.....	Sunday, 4.15 a. m.
St. Louis.....	Saturday, 6.15 a. m.	San Francisco.....	Sunday, 4.30 a. m.
Kansas City.....	Saturday, 10.10 a. m.	Portland.....	Sunday, 6.15 a. m.
Chicago.....	Saturday, 7.35 a. m.	Seattle.....	Sunday, 7.50 a. m.
Cleveland.....	Saturday, 4.20 p. m.	Butte, Mont.....	Sunday, 8.30 a. m.

MAIL FOR SOUTH AMERICA.

Under the new schedule of air mail service between Cristobal and South America (Route F. A. M. 9 to Montevideo, 4,577 miles), effective April 28, 1930, in connection with 7-day service between New York and Montevideo, mail planes leave Cristobal at 6.00 a. m. on Mondays, and arrive in Montevideo on Fridays, stopping en route at cities in Colombia, Ecuador, Peru, Chile, and Argentina. Northbound from Montivedeo, planes leave that city on Saturdays and arrive in Cristobal on Wednesdays, connecting with the express planes leaving Thursday mornings. Following is the schedule between Cristobal and Montevideo:

Southbound.	Weekly.	Northbound.
<i>Monday</i>		<i>Wednesday.</i>
6.00 a. m.	Lv. Cristobal, Canal Zone.....	Ar. 6.00 p. m.
11.00 a. m.	Ar. Buenaventura, Colombia.....	Lv. 12.50 p. m.
1.20 p. m.	Ar. Tumaco, Colombia.....	Lv. 10.30 a. m.
6.00 p. m.	Ar. St. Elena, Ecuador.....	Lv. 6.00 a. m.
<i>Tuesday.</i>		<i>Tuesday.</i>
6.00 a. m.	Lv. St. Elena, Ecuador.....	Ar. 6.00 p. m.
7.00 a. m.	Ar. Guayaquil, Ecuador.....	Lv. 5.00 p. m.
8.20 a. m.	Ar. Puerto Pizarro, Peru.....	Lv. 3.35 p. m.
10.00 a. m.	Ar. Talara, Peru.....	Lv. 2.25 p. m.
10.50 p. m.	Ar. Piura, Peru.....	Lv. 1.00 p. m.
12.30 a. m.	Ar. Pimentel, Peru.....	Lv. 11.35 a. m.
2.05 p. m.	Ar. Trujillo, Peru.....	Lv. 10.15 a. m.
5.50 p. m.	Ar. Lima, Peru.....	Lv. 7.00 a. m.
<i>Wednesday.</i>		<i>Monday.</i>
8.00 a. m.	Lv. Lima, Peru.....	Ar. 4.30 p. m.
12.05 p. m.	Ar. Camana, Peru.....	Lv. 12.25 p. m.
1.05 p. m.	Ar. Arequipa, Peru.....	Lv. 11.25 a. m.
2.20 p. m.	Ar. Mollendo, Peru.....	Lv. 10.20 a. m.
4.15 p. m.	Ar. Taena, Peru.....	Lv. 8.30 a. m.
5.05 p. m.	Ar. Arica, Chile.....	Lv. 8.00 a. m.
<i>Thursday.</i>		<i>Sunday.</i>
6.00 a. m.	Lv. Arica, Chile.....	Ar. 6.00 p. m.
9.30 a. m.	Ar. Antofagasta, Chile.....	Lv. 2.15 p. m.
3.15 p. m.	Ar. Ovalle, Chile.....	Lv. 8.30 a. m.
6.00 p. m.	Ar. Santiago, Chile.....	Lv. 6.00 a. m.
<i>Friday.</i>		<i>Saturday.</i>
8.00 a. m.	Lv. Santiago, Chile.....	Ar. 4.45 p. m.
9.45 a. m.	Ar. Mendoza, Argentina.....	Lv. 2.30 p. m.
4.00 p. m.	Ar. Buenos Aires, Argentina.....	Lv. 8.00 a. m.
6.00 p. m.	Ar. Montevideo, Uruguay.....	Lv. 6.00 a. m.

MAIL FOR UNITED STATES, VIA CENTRAL AMERICA.

In addition to the express service to and from the United States, as outlined above, there are slower services between Cristobal and Brownsville, Tex., and Cristobal and Miami.

The planes in the Cristobal-Brownsville, and Cristobal-Miami service afford a triweekly mail service each way between Cristobal and David, R. P., Costa Rica, Nicaragua, Honduras, Salvador, Guatemala, and Mexico, and a semiweekly service between Cristobal and east coast of Honduras, British Honduras, Yucatan, and Cuba. They operate under the following schedule:

Southbound.		Northbound.
<i>Daily.</i>		<i>Daily.</i>
8.15 a. m.	Lv. Brownsville, Tex. Ar.	1.15 p. m.
11.00 a. m.	Ar. Tampico, Mexico. Lv.	10.45 a. m.
11.30 a. m.	Lv. Tampico, Mexico. Ar.	10.15 a. m.
1.45 p. m.	Ar. Mexico City, Mexico. Lv.	7.45 a. m.
<i>Mon., Thur., Sat.</i>		<i>Wed., Fri., Mon.</i>
11.30 a. m.	Lv. Tampico, Mexico. Ar.	9.45 a. m.
1.55 p. m.	Ar. Vera Cruz (Tejeria), Mexico. Lv.	7.15 a. m.
<i>Tue., Fri., Sun.</i>		<i>Tue., Thur., Sun.</i>
8.00 a. m.	Lv. Vera Cruz (Tejeria), Mexico. Ar.	1.00 p. m.
10.00 a. m.	Ar. San Geronimo, Mexico. Lv.	11.15 a. m.
1.00 p. m.	Ar. Tapachula, Mexico. Lv.	8.30 a. m.
2.15 p. m.	Ar. Guatemala City, Guatemala. Lv.	7.00 a. m.
<i>Wed., Sat., Mon.</i>		<i>Wed., Sat., Mon.</i>
9.30 a. m.	Lv. Guatemala City, Guatemala. Ar.	4.15 p. m.
10.45 a. m.	Ar. San Salvador, El Salvador. Lv.	3.00 p. m.
1.15 p. m.	Ar. San Lorenzo, Republic of Honduras. Lv.	1.30 p. m.
<i>Tue., Fri.</i>		<i>Thur., Sun.</i>
7.00 a. m.	Lv. Miami, Fla. Ar.	4.20 p. m.
9.15 a. m.	Ar. Habana, Cuba. Lv.	2.05 p. m.
10.00 a. m.	Lv. Habana, Cuba. Ar.	1.35 p. m.
2.00 p. m.	Ar. Couzumel, Yucatan. Lv.	10.00 a. m.
5.00 p. m.	Ar. Belize, British Honduras. Lv.	7.00 a. m.
<i>Wed., Sat.</i>		<i>Wed., Sat.</i>
8.30 a. m.	Lv. Belize, British Honduras. Ar.	12.45 p. m.
10.30 a. m.	Ar. Tela, Republic of Honduras. Lv.	11.15 a. m.
1.15 p. m.	Ar. San Lorenzo, Republic of Honduras. Lv.	8.30 a. m.
1.45 p. m.	Lv. San Lorenzo, Republic of Honduras. Ar.	8.30 p. m.
3.15 p. m.	Ar. Managua, Nicaragua. Lv.	7.00 p. m.
<i>Thur., Sun., Tues.</i>		<i>Tue., Fri., Sun.</i>
7.00 a. m.	Lv. Managua, Nicaragua. Ar.	3.15 p. m.
9.00 a. m.	Ar. Puntarenas, Costa Rica. Lv.	1.15 p. m.
10.15 a. m.	Ar. San Jose, Costa Rica. Lv.	12.00 p. m.
11.30 a. m.	Ar. David, Panama. Lv.	10.45 a. m.
2.00 p. m.	Ar. Panama, Panama. Lv.	8.45 a. m.
3.00 p. m.	Ar. Cristobal, Canal Zone. Lv.	7.00 a. m.

Mail dispatched on the Sunday plane from Cristobal is restricted to that intended for Central America and for points in the United States west of the Mississippi. Mail for points east of the Mississippi is forwarded by steamer to Habana, thence by air to Miami and Atlanta, for New York, Chicago, etc.

For mail dispatched from Cristobal on Tuesdays and Fridays, via Miami, the following are the scheduled times of arrival at representative cities in the United States.

Mail leaving Cristobal on Tuesdays.		Mail leaving Cristobal on Fridays.	
Chicago.	7.35 a. m., Friday	Chicago.	7.35 a. m., Monday
New York.	9.30 a. m., Friday	New York.	9.30 a. m., Monday
New Orleans.	11.00 a. m., Friday	New Orleans.	11.00 a. m., Monday
San Francisco.	4.30 a. m., Saturday	San Francisco.	4.30 a. m., Tuesday
Los Angeles.	4.15 a. m., Saturday	Los Angeles.	4.15 a. m., Tuesday
Portland.	6.15 a. m., Saturday	Portland.	6.15 a. m., Tuesday

MAIL FOR EUROPE.

Mail for European ports, if forwarded by air on Tuesdays, will connect with the fast mail steamers sailing from New York on Saturdays, and if forwarded by air on Fridays will connect with the fast mail steamers sailing on Wednesdays.

MAIL FOR COLUMBIA, VENEZUELA, AND CURACAO.

In the Cristobal to Colombia-Venezuela-Curacao service (weekly, effective May 5, 1930), mail planes leave Cristobal to Puerto Cabello, via Cartagena, Barranquilla, Maracaibo, and Curacao, on Mondays, arriving at Puerto Cabello at noon the following day. Returning, planes leave Puerto Cabello on Tuesdays, arriving at Cristobal on Wednesdays. The schedule is as follows:

Eastbound.		Westbound.
<i>Monday.</i>		<i>Wednesday.</i>
7.30 a. m.	Lv. Cristobal.....	Ar. 3.30 p. m.
12.15 p. m.	Lv. Cartagena, Colombia.....	Lv. 12.30 p. m.
1.45 p. m.	Lv. Barranquilla, Colombia.....	Lv. 11.00 a. m.
5.00 p. m.	Ar. Maracaibo, Venezuela.....	Lv. 7.30 a. m.
<i>Tuesday.</i>		<i>Tuesday.</i>
7.00 a. m.	Lv. Maracaibo, Venezuela.....	Ar. 5.30 p. m.
10.30 a. m.	Lv. Curacao, D. W. I.....	Lv. 3.00 p. m.
12.00 noon	Ar. Puerto Cabello, Venezuela.....	Lv. 1.00 p. m.

POSTAGE RATES FOR AIR MAIL

The following rates are in effect covering matter intended for dispatch by air from the Canal Zone. The rates are based on each half ounce or fraction thereof:

Argentina.....	40 cents	Guatemala.....	20 cents
Bahamas.....	25 cents	Haiti.....	30 cents
Bolivia (via Peru).....	25 cents	Honduras.....	20 cents
Brazil (via Argentina).....	45 cents	Mexico.....	20 cents
British Honduras.....	20 cents	Nicaragua.....	20 cents
Chile.....	35 cents	Paraguay (via Uruguay).....	40 cents
Colombia.....	10 cents	Peru.....	25 cents
Costa Rica.....	10 cents	Porto Rico.....	25 cents
Cuba.....	20 cents	Salvador.....	20 cents
Curacao.....	15 cents	Venezuela.....	15 cents
David, Panama.....	7 cents	United States.....	20 cents
Dominican Republic.....	30 cents	Uruguay.....	40 cents
Ecuador.....	15 cents	Virgin Islands (U. S.).....	25 cents

* Air mail rate to David, Panama, is 5 cents per half ounce or fraction plus regular postage rate.

Letters intended for dispatch by air to the Windward or Leeward Islands, Trinidad, Guadeloupe, and Dutch Guiana may be accepted upon prepayment of the rate of 40 cents for each half ounce, or fraction, and will be forwarded via Miami.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending May 10, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Pastores	United Fruit Co.	May 4.	May 4.	13	197½
Galicia	Hamburg-American Line.		May 4.		510
Swiftlight	C. D. Mallory & Co.	May 4.	May 5.	11,977	(²)
C. A. Canfield	Huasteca Petroleum Co.	May 4.	May 7.	8,885	(²)
Heredia	United Fruit Co.		May 5.		281
Winnipeg	French Line.		May 5.		24
Irióna	United Fruit Co.	May 5.	May 5.	(¹)	37
Pakeha	Shaw, Savill & Albion.	May 5.	May 5.	17½	(²)
Wiegand	North German Lloyd.	May 5.	May 6.	752	35
Ulúa	United Fruit Co.	May 5.	May 7.	409	51
City of San Francisco	Panama Mail S. S. Co.	May 5.		1,365	
Camden	United Fruit Co.	May 5.	May 7.	6,205	(²)
Manauqui	United Fruit Co.	May 5.	May 6.	32	1,227
Ecuador	Panama Mail S. S. Co.	May 6.	May 7.	584	501
Ruhr	Hamburg-American Line.	May 6.	May 7.	25	72
Hamburg Maru.	Osaka Shosen Kaisha.	May 6.	May 7.	140	(²)
Suriname	United Fruit Co.	May 6.	May 9.	313	(²)
Nosa Prince	N. O. & S. A. S. S. Co.	May 6.	May 9.	125	560
Triton	Royal Netherlands S. S. Co.	May 7.	May 7.	(⁴)	(²)
Grunewald	Hamburg-American Line.	May 7.	May 7.	105	2
Cristobal	Panama R. R. S. S. Line.	May 7.		3,342	
Cali	North German Lloyd.	May 7.		685	
Mayebashi Maru.	Nippon Yusen Kaisha.	May 7.	May 7.	87	(²)
Barali	Royal Netherlands S. S. Co.	May 7.		181	
Santa Teresa	Grace Line.	May 7.	May 7.	74	86
Oropesa	Pacific Steam Nav. Co.	May 7.	May 8.	40	245
Moerdijk	Holland-American Line.	May 7.	May 8.	465	151
Rhodopis	Hamburg-American Line.	May 7.	May 8.	355	(²)
Wawa	Standard Fruit & S. S. Co.	May 7.	May 8.	7	(²)
Castilla	United Fruit Co.	May 7.	May 8.	832	59
Sixaola	United Fruit Co.	May 7.	May 8.	313	99
Westerwald	Hamburg-American Line.	May 7.	May 9.	120	170
Antiochia	Hamburg-American Line.	May 7.	May 10.	1	1,768
Caldas	National Navigation Co.		May 8.		71
Pearl Marie	R. Feuillebois.		May 8.		½
Australien	Danish-East Asiatic Co.	May 8.	May 8.	(¹)	69
Benjamin Franklin	Fred Olsen & Co.	May 8.	May 8.	284	221
Guatemala	Panama Mail S. S. Co.	May 8.	May 9.	1,206	670
Teno	Chilean Line.	May 8.	May 9.	(¹)	10
Cerigo	Hamburg-American Line.	May 8.		706	
Breda	Royal Netherlands S. S. Co.	May 8.	May 10.	70	431
Epoeca	Grace Line.	May 8.	May 10.	1,296	(¹)
Acajutla	Pacific Steam Navigation Co.		May 9.		1,038
Yomachiichi	Roosevelt Line.	May 9.	May 9.	179	(²)
Atlantida	Standard Fruit & S. S. Co.	May 9.	May 10.	208	231
Irióna	United Fruit Co.	May 9.	May 10.	20	496
Tacoma	Hamburg-American Line.	May 9.	May 10.	(¹)	260
Cauca	National Navigation Co.		May 10.		58
Cartago	United Fruit Co.	May 10.		222	
Santa Barbara	Grace Line.	May 10.		51	
Santa Elisa	Grace Line.	May 10.	May 10.	439	41
Macabi	United Fruit Co.	May 10.	May 10.	143	217
Dramatist	T. & J. Harrison.	May 10.		312	

¹ No cargo laded.

² No cargo discharged.

³ 2 packages.

⁴ 66 pounds.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

A ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., May 28, 1930.

No. 43.

Notices to Mariners.

OBSTRUCTION OFF MORRO DE PUERCOS, PANAMA.

Panama Canal Notice to Mariners No. 690, issued April 23, 1930, reported a submerged obstruction off Morro de Puercos, Panama, possibly the same obstruction as was reported in Notice to Mariners No. 692 of April 28, 1930, and published in THE PANAMA CANAL RECORD of May 7. Since receipt of the reports from the *Baldhill* and the *Sunoil*, which were broadcast in the notices referred to, there have been no further reports of vessels striking an obstruction in that vicinity. The report from the *Baldhill* is as follows:

April 22, 1930, at 9.38 G. C. T., approximate position, latitude 7° 13' 30" N., longitude 80° 18' 15" W., S. S. *Baldhill* drawing 26½ feet, struck a submerged obstruction which caused a jar that was quite noticeable and also caused the vessel to take water. *Dangerous to navigation.*

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 24, 1930.

No. 706.

Panama, Cristobal Harbor, shoals reported. The following is quoted from Hydrographic Office Notice to Mariners No. 20, of May 17, 1930:

A survey of the entrance to Cristobal Harbor by the Dredging Division of The Panama Canal on April 1, 1930, shows that shoaling has taken place just West of the Canal channel as follows:

- (1) A depth of 22½ feet about 1,000 yards 241° from the signal station on Pier 6.
- (2) A depth of 22½ feet about 125 yards north of above position.
- (3) A depth of 27½ feet about 1,075 yards 258° from the signal station on Pier 6 where 31 feet is charted.
- (4) A depth of 28½ feet about 1,000 yards 298° from the signal station on Pier 6 where 35 feet is charted.

The depths given above refer to mean low water.

H. BURGESS,
Governor.

Radio Reports on Passing Cape Mala.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., May 21, 1930.

To all steamship owners and agents:

On January 3, 1928, the below quoted notice was addressed to you from this office:

To facilitate the business of The Panama Canal and to shorten the time required by vessels for transiting, it is requested that masters be directed to notify the Port Captain, Balboa, of the time of passing Cape Mala and the speed being made good. The present requirements of giving 24 hours' notice remain in effect, but with the additional information requested above it is believed that more expeditious transiting may be accomplished.

In the mutual interest of shipping and The Panama Canal, the advisability of radio notification to the Port Captain, Balboa, is again being brought to your attention for the information of masters of new vessels who may not have received it, and for those who are apparently disregarding it, requesting more general compliance.

C. H. WOODWARD,
Marine Superintendent.

CANAL WORK IN APRIL, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of April, 1930.

BALBOA HEIGHTS, C. Z., May 17, 1930.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of April, 1930:

NUMBER OF TRANSITS.

During the month 489 commercial vessels and 7 small nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 43 vessels belonging to the United States Government, one transit of a Panamanian Government vessel, and one transit of a vessel solely for repairs, on which no tolls were collected, making a total of 541 transits for the month, or a daily average of 18.03.

Tolls on the 489 commercial vessels amounted to \$2,232,763, and on the launches to \$27.15, a total of \$2,232,790.15, or a daily average on all traffic of \$74,426.34.

Commercial traffic for the past month as compared with March, 1930, shows a decrease of 26 transits and \$27,239.36 in tolls, and in comparison with the traffic in April, 1929, a decrease of 51 transits and \$48,324.27 in tolls. Although traffic in the first 10 months of the current fiscal year has fallen off to the extent of 158 transits in comparison with the corresponding period last year, tolls collected have been slightly higher in the first 10 months of this year. As pointed out in my March report, this is accounted for by an increase in the average size of vessels using the Canal and the relatively fewer vessels in ballast transiting this year.

The total numbers of craft of all kinds transiting the Canal during the month of April, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	April, 1930.	April, 1929.	April, 1928.
Commercial vessels.....	489	540	531
Launches (under 20 tons).....	7	41	16
Noncommercial vessels:			
United States Government.....	43	40	58
Panamanian Government.....	1	3	.....
Vessels for repairs.....	1	3	3
Total.....	541	627	608

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North- bound.	South- bound.	Total.
Gatun.....	5	9	14
Pedro Miguel.....	14	15	29
Miraflores.....	15	15	30
Total.....	34	39	73

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year, 1930, to the end of April, 1930, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928-9	1929-30	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,109,083.19	\$2,259,582.37
August.....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September.....	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October.....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November.....	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,995.94
December.....	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
January.....	603	531	2,771,280	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
February.....	522	491	2,428,530	2,369,255	2,550,498	2,377,900	2,211,961.20	2,131,386.12
March.....	536	515	2,567,961	2,505,859	2,743,768	2,558,238	2,343,865.55	2,260,002.36
April.....	540	489	2,488,176	2,479,096	2,719,668	2,456,782	2,281,087.27	2,232,763.00
Total.....	5,386	5,223	24,983,458	25,203,744	25,702,165	25,621,435	22,703,024.37	22,812,996.88

¹ Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for April, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the calendar year 1929:

	April, 1930.	April, 1929.	April, 1928.	Average per month for calendar year 1929.
Number of vessels.....	489	540	531	536
Panama Canal net tonnage.....	2,479,096	2,488,176	2,384,491	2,529,432
United States net tonnage.....	1,849,804	1,899,607	1,839,021	1,928,223
Registered gross tonnage.....	3,075,488	3,127,365	3,012,294	3,171,832
Registered net tonnage.....	1,872,024	1,917,378	1,845,976	1,936,803
Tolls.....	\$2,232,763.00	\$2,281,037.27	\$2,187,607.82	\$2,299,392.99
Tons of cargo carried.....	2,456,782	2,719,668	2,473,834	2,620,874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	April, 1930.	April, 1929.	April, 1928.	
Number of transits.....	16.30	18.00	17.70	17.62
Panama Canal net tonnage.....	82,637	82,939	79,483	83,159
Tolls.....	\$74,425.43	\$76,036.24	\$72,914.55	\$75,596.48
Tons of cargo carried.....	81,893	90,655	82,463	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of April, 1930, as compared with April, 1929 and 1928, are shown in the following tabulation:

	Average per vessel.		
	April, 1930.	April, 1929.	April, 1928.
Panama Canal net tonnage.....	5,070	4,608	4,490
United States net tonnage.....	3,732	3,518	3,463
Registered gross tonnage.....	6,289	5,791	5,673
Registered net tonnage.....	3,828	3,551	3,476
Tolls.....	\$4,565.98	\$4,224.24	\$4,119.60
Tons of cargo (including vessels in ballast).....	5,024	5,036	4,696
Tons of cargo (laden vessels only).....	5,713	5,786	5,597

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per net ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels average \$0.922 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.719 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of April, 1930, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1.00 laden and \$0.60 ballast with no added charges for deck loads. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$11,362.50	\$11,187.00		\$175.50
British.....	625,313.07	680,305.40	\$54,992.33	
Chilean.....	11,315.00	12,905.00	1,590.00	
Colombian.....	673.70	574.00		99.70
Danish.....	31,923.56	34,488.80	2,565.24	
Dutch.....	51,051.25	57,562.00	6,510.75	
French.....	56,934.32	59,429.60	2,495.28	
German.....	101,290.70	117,072.00	15,781.30	
Greek.....	6,695.00	8,391.00	1,696.00	
Italian.....	41,185.74	46,845.20	5,659.46	
Japanese.....	64,745.05	61,774.00		2,971.05
Norwegian.....	129,106.51	134,350.89	5,244.29	
Panamanian.....	9,951.25	13,922.00	3,970.75	
Spanish.....	1,691.50	1,691.50		
Swedish.....	41,997.74	47,221.20	5,223.46	
United States.....	1,042,893.61	1,078,773.80	35,880.19	
Yugoslav.....	4,632.50	4,701.00	68.50	
Total.....	2,232,763.00	2,371,194.30	141,677.55	3,246.25
Net increase for all traffic.....			138,431.30	

* Collected for naval vessel at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$27,914.35
United States foreign trade.....	8,494.70
United States—Canal Zone trade.....	* 528.86
Net increase.....	35,880.19

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in April, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Belgian.....	1.45		1.45
British.....	.77	1.25	1.05
Chilean.....	.60	.86	.69
Colombian.....	.39	1.67	1.03
Danish.....	1.26	1.60	1.43
Dutch.....	.58	1.13	.90
French.....	.59	.84	.71
German.....	.67	1.09	.89
Greek.....	1.64		1.64
Italian.....	.38	.63	.56
Japanese.....	1.31	1.51	1.38
Norwegian.....	1.30	1.48	1.42
Panamanian.....	.73	.95	.84
Swedish.....	.97	2.03	1.65
United States.....	.81	1.42	1.15
Yugoslav.....		2.03	2.03
Averages, April, 1929.....	.84	1.33	1.11
Averages, April, 1928.....	.95	1.45	1.25
Averages, April, 1927.....	.89	1.45	1.23

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of April is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	5	22,721	\$24,710.00	45	258,278	\$260,289.75
Ballast.....	34	191,157	137,695.29	1	6,169	4,435.20
General cargo ships:						
Laden.....	186	941,219	847,767.15	194	968,419	891,074.55
Ballast.....	14	70,976	50,985.72	1	3,442	2,478.24
Noncargo-carrying ships:						
Naval.....				1		1,691.50
Passenger.....				1	14,476	10,170.06
Tugs.....				1	195	86.25
Whalers.....				4	276	100.00
Yachts.....	1	211	151.92	1	1,566	1,127.52
Total.....	240	1,226,284	1,061,309.99	249	1,252,812	1,171,453.01
Method of propulsion:						
Steam.....	178	887,090	785,120.28	196	969,968	917,669.64
Motor.....	62	339,194	276,189.71	52	282,844	252,091.87
Motor schooner.....				1		1,691.50
Total.....	240	1,226,284	1,061,309.99	249	1,252,812	1,171,453.01

Of the 374 steam-driven vessels, 277 were oil burning, 93 coal burning, and 4 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of April, 1930. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships.....	1	³ 4,405	\$5,506.25			
Battleships.....	1	¹ 27,000	13,500.00	1	¹ 32,600	\$16,300.00
Cruisers.....	3	¹ 16,400	8,200.00			
Destroyers.....				3	¹ 3,645	1,822.50
Gunboats.....	1	¹ 1,425	712.50	1	¹ 1,425	712.50
Mine layers.....	1	¹ 1,191	595.50			
Mine sweepers.....	1	² 950	475.00			
Submarines.....	5	² 4,336	2,168.00			
Supply ships.....	1	³ 3,434	4,292.50			
Survey ships.....	1	² 2,600	1,300.00			
Tugs.....	1	¹ 1,000	500.00	1	¹ 1,000	500.00
U. S. Army vessels:						
Launches.....	1	³ 10	7.50			
Mine planters.....	1	¹ 1,208	604.00			
Transports.....	3	³ 11,724	14,655.00	4	³ 16,469	20,586.25
Tugs.....	7	³ 776	582.00	5	³ 593	444.75
Total, U. S. Government.....	28		53,098.25	15		40,366.00
Panamanian Government vessels:						
Transports.....				1	² 101	72.72
Vessels for repairs:						
Tankers.....	1	³ 1,637	1,227.75			
Grand total.....	29		54,326.00	16		40,438.72

¹ Indicates displacement tonnage.

² Indicates Panama Canal net tonnage.

³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of April, 1930, carried cargo as follows: Atlantic to Pacific, 7,585 tons; Pacific to Atlantic, 1,692 tons; total, 9,550 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of April, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	5	14	\$11.40
Pacific to Atlantic.....	2	21	15.75
Total.....	7	35	27.15

STATEMENT OF TERMINAL OPERATIONS.

The details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of April, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons	88,780	51,345	140,125
Local cargo shipped..... tons	7,337	943	8,280
Transit cargo arriving..... tons	2,423,580	2,497,182	4,920,762
Transit cargo clearing..... tons	2,405,801	2,480,581	4,886,382
Cargo received for transshipment..... tons	33,781	338	34,119
Cargo transhipped..... tons	36,099	483	36,582
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	87	21	108
Number of releases issued.....	638	210	848
Tons received.....	2,672	415	3,087
Tons withdrawn.....	2,635	784	3,419
Packages received.....	9,544	4,090	13,634
Packages withdrawn.....	8,371	12,471	20,842
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Co.....	62	1	63
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Co..... tons	22,732	67	22,799
Coal issued, miscellaneous:			
Panama Canal departments..... tons	103	4	107
U. S. Army, including vessels..... tons	75	1	76
Individuals and companies..... tons	169		169
Transferred to Navy..... tons	72		72
Total sales and issues..... tons	23,151	72	23,223
Coal on hand, April 1, 1930..... tons	95,834		95,834
Coal on hand, May 1, 1930..... tons	95,382		95,382
Coal received during month..... tons	22,699		22,699
Coal received from Navy..... tons		72	72
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls.	2,685.37	24,346.85	27,032.22
Panama Railroad Company..... bbls.	1,710.88	466.77	2,177.65
U. S. Army and Navy..... bbls.		747.91	747.91
Individuals and companies..... bbls.		163.11	163.11
Total sales and issues..... bbls.	4,396.25	25,724.64	30,120.89
Fuel oil on hand May 1, 1930..... bbls.	31,896.78	7,374.43	39,271.21
Diesel oil issued and sold during April..... bbls.	427.76	2,130.48	2,558.24
Diesel oil on hand May 1, 1930..... bbls.	14,807.02	22,621.89	37,428.91
Miscellaneous transfers..... bbls.	7,559.48	3,157.88	10,717.36
Gasoline and kerosene pumped for The Panama Canal..... bbls.	5,268.37	11,169.12	16,437.49
Gasoline pumped for individuals and companies..... bbls.	703.61	17,804.43	18,508.04
Oil pumped for individuals and companies..... bbls.	563,339.76	475,003.10	1,038,342.86
Oil pumped for U. S. Navy..... bbls.	1,435.00	17,864.00	19,299.00
Total fuel oil, gasoline, and kerosene handled..... bbls.	583,130.23	552,853.65	1,135,983.88
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	15	4	19
Measured for Panama Canal net tonnage.....	4		4
Remeasured for Panama Canal net tonnage.....	11	1	12
Panama Canal net tonnage corrected.....	5	4	9
U. S. equivalent tonnage corrected.....	7	9	16
Services of harbor equipment:			
Tugs, total operating hours.....	408 $\frac{1}{2}$	294 $\frac{1}{2}$	703
Launches, total operating hours.....	1,302 $\frac{1}{2}$	1,528 $\frac{1}{2}$	2,831
Revenue from tug service, pilotage, etc:			
Tug revenue.....	\$13,441.25	\$10,205.90	\$23,647.15
Pilotage.....	19,813.00	8,710.00	28,523.00
Seamen.....	11,360.00	11,760.00	23,120.00
Launch service.....	1,680.00	3,150.00	4,830.00
Wharfage.....	18,418.58	5,648.12	24,066.70
Ships measured.....	55.00		55.00
Miscellaneous.....	917.45	558.50	1,475.95

	Cristobal.	Balboa.	Total.
Ships repaired at Panama Canal shops:			
Commercial.....	45	8	53
U. S. Army and Navy.....	5	7	12
Panama Canal equipment.....	3	11	14
Totals.....	53	26	79
Vessels dry-docked:			
Commercial.....	6		6
U. S. Army and Navy.....	3	2	5
Panama Canal equipment.....		3	3
Total.....	9	5	14
Clearances issued.....	304	251	555
Bills of health issued.....	312	258	570

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal.	598	3,556,357	2,188,928	524	3,292,171	2,043,665
Vessels entering port but not transiting Canal.	78	388,946	234,451	6	33,969	20,042
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	126	793,253	475,447	102	647,805	391,502
<i>Ships clearing.</i>						
All vessels, including those transiting Canal.	581	3,546,641	2,188,856	512	3,249,358	2,011,173
Vessels clearing port but not transiting Canal.	76	386,411	233,067	6	33,969	20,042
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	122	782,297	469,528	102	641,088	388,098

AIRCRAFT ENTERING AND CLEARING.

During the month of April, 1930, 39 commercial airplanes entered and cleared from Cristobal, and 4 at Balboa.

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,262	1,283	2,545	105	649	754
From Pacific ports.....	241	205	446	225	160	385
Total disembarking.....	1,503	1,488	2,991	330	809	1,139
Embarking:						
For Atlantic ports.....	1,334	1,002	2,336	90	58	148
For Pacific ports.....	205	103	308	260	260	520
Total embarking.....	1,539	1,105	2,644	350	318	668
Remaining on board:						
From Atlantic to Pacific ports.....	1,509	3,413	4,922	1,609	2,867	4,476
From Pacific to Atlantic ports.....	2,164	2,658	4,822	2,315	2,805	5,120
From Atlantic to Atlantic ports.....	949	170	1,119			
From Pacific to Pacific ports.....				22	415	437
Total remaining on board.....	4,622	6,241	10,863	3,946	6,087	10,033
Total arriving.....	6,125	7,729	13,854	4,276	6,896	11,172
Total departing.....	6,161	7,346	13,507	4,296	6,405	10,701

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	240	57	23.8
Pacific to Atlantic.....	249	69	27.7
Total.....	489	126	25.8

In addition to the aforesaid, 63 passenger-carrying vessels called at the port of Cristobal and 1 at Balboa without transiting the Canal, making a total of 190 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of April, 1930:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Total.
Sales at Cristobal to:						
Commercial vessels.....	\$2,166.27	\$12,442.31	\$28,856.23	\$248.71	\$6,542.63	\$50,256.15
Government vessels.....	88.30	547.34	6,326.20	114.03	788.56	7,864.43
P. R. R. vessels.....		215.03	855.92	458.69	61.08	1,590.72
Total sales, April, 1930.....	2,254.57	13,204.68	36,038.35	821.43	7,392.27	59,711.30
Total sales, April, 1929.....	3,483.25	16,972.62	48,163.53	1,037.30	9,482.32	79,139.02
Total sales, April, 1928.....	2,558.75	15,551.34	49,186.92	942.52	8,384.41	76,623.94
Sales at Balboa to:						
Commercial vessels.....	448.50	2,195.92	11,695.02	346.66	10,104.04	24,790.14
Government vessels.....	573.28	3,660.30	32,147.07	968.22	3,424.17	40,773.04
P. R. R. vessels.....				78.77		78.77
Total sales, April, 1930.....	1,021.78	5,856.22	43,842.09	1,393.65	13,528.21	65,641.95
Total sales, April, 1929.....	1,374.55	13,343.59	39,350.48	825.07	5,208.25	60,101.94
Total sales, April, 1928.....	1,816.45	13,085.57	31,787.25	1,657.99	5,129.84	53,477.10

The aggregate sales to Government vessels during the month was \$48,637.47; to Panama Railroad vessels, \$1,669.49; and to other commercial vessels, \$75,046.29, making the total sales to all vessels, \$125,353.25.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of April, 1930, as compared with the corresponding month in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. ¹			April 1930.	April 1929.	April 1928.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	236	231	467	8	12	20	487	514	508
Pedro Miguel.....	238	235	473	11	21	32	505	507	540
Miraflores.....	236	234	470	10	18	28	498	510	532
	Number of vessels put through locks.								
Gatun.....	249	240	489	29	45	74	563	642	613
Pedro Miguel.....	249	240	489	32	49	81	570	681	648
Miraflores.....	249	240	489	33	46	79	568	686	647

¹ Includes miscellaneous toll-paying craft under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	50	45	43
Panama Canal equipment.....	14	29	30
Launches (under 20 tons).....	8	5	1
Panamanian Government vessels.....	1	1	4
Vessels for repairs.....	1	1	1

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in April, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,467,850,000	1,352,520,000	1,327,130,000
Maintenance.....	5,020,000		
Leakages.....	40,000,000	9,000,000	20,000,000
Total, April, 1930.....	1,512,870,000	1,361,520,000	1,347,130,000
Totals, March, 1930.....	1,363,910,000	1,231,310,000	1,325,480,000
Totals, April, 1929.....	1,109,080,000	1,333,090,000	1,410,370,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of April, 1930, are shown in comparative form, in the following tabulation:

	April.		April—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	951	743	3,140	281	985
Maximum momentary discharge for the month.....	11,884	2,038	² 29,200		
Gatun Lake watershed, total yield.....	1,890	1,116	6,263	305	1,879
Gatun Lake watershed, net yield.....	1,216	238	5,400	—706	1,020
Draft on Gatun Lake for lockages and power.....	³ 2,136	2,464	2,648	² 1,019	² 1,962

¹ April 3, 1915.² 1914 not included.³ Two or more Diesel units in operation, 1st to 17th, inclusive.

The discharge of the Chagres River at Alhajuela was 3 per cent below the 29-year average, or 951 c.f.s., compared with an average of 985 c.f.s. The maximum momentary discharge for the month was 11,884 c.f.s. at elevation 97.84 feet on the 19th. The minimum discharge was 352 c.f.s. at elevation 91.28 feet on the 7th and 8th. The maximum monthly discharge on record for the month of April is 3,140 c.f.s. in 1910, and the minimum, 281 c.f.s. in 1926. The maximum momentary discharge on record for April is 29,200 c.f.s. at elevation 102.75 feet on April 3, 1915.

The total yield of the Gatun Lake watershed for April was one per cent above the 17-year average, or 1,890 c.f.s., compared with an average of 1,879 c.f.s. Maximum and minimum total yields of record for April are 6,263 c.f.s. in 1915 and 305 c.f.s. in 1926. The lake varied in elevation from 83.20 feet on the 1st to 82.57 feet on the 30th, averaged 82.85 feet, and ended at elevation 82.65 feet. The water saving program was discontinued on the 23d of the month.

Miraflores Lake varied between elevations 54.11 feet on the 29th and 52.82 feet on the 1st and 3d, averaged 53.41 feet, and ended at elevation 54.05 feet.

SEISMOLOGY.

No seismic disturbances were recorded during the month.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 3,427,200 kilowatt hours, and the computed water consumption was 2,711,073,710 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 2,259,600 kilowatt hours, and the fuel oil consumption was 4,353.4 barrels. An average load of 5,400 kilowatts was carried from the 1st to the 17th of the month for dry-season water conservation.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 29 vessels during the month. There were 330 work orders issued during the month, as compared with 341 issued during the previous month.

MECHANICAL DIVISION.

During the month of April, 1930, miscellaneous repairs were made on 53 vessels at Cristobal and 26 at Balboa. Nine vessels were dry-docked at Cristobal and 5 at Balboa. Work was completed and carried forward on several pieces of equipment of The Panama Canal, the United States Army and Navy, and commercial steamship lines.

MUNICIPAL ENGINEERING DIVISION.

The construction of the concrete road slab on Madden Road was completed on April 17th. During the month 13,355 lineal feet of 18-foot concrete road were constructed. Work was continued on the construction of the Chilibre and Chilibrillo

River bridges. Camp No. 1 and a portion of Camp No. 2 were taken down and transported to camp site on the proposed Arraijan Road. Work was in progress during the month on the road to Cerro Tigre explosive magazine, and near the end of the month construction of 21,700 feet of gravel road leading to the Madden Dam saddles on the south side of the Chagres River was begun.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water system. The amount of water pumped during the month totaled 749,737,250 gallons.

DREDGING DIVISION.

The general movement over the entire area of West Culebra slide continued during the month with an average movement of 11.3 feet toward the Canal between stations 1777-00 and 1797-00 W. The reference points on this slide showed a movement of 12.4 feet to 15.6 feet to the Canal. The dredge *Gamboa* worked 16½ days on this slide and removed a total of 64,050 cubic yards of material. The total yardage removed to May 1, 1930, from the East and West Culebra slides is 29,377,260 cubic yards.

The dredge *Gamboa* worked 1½ days on the West Lirio slide between stations 1722-00 and 1725-00 W., removing 12,360 cubic yards. The total yardage removed to May 1, 1930, from this slide is 2,207,770 cubic yards.

There was no interference with shipping on account of slides during the month.

The total excavation during April, 1930, was 1,012,128 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
	Cubic yds.	Cubic yds.	Cubic yds.
Work excavation:			
Gaillard Cut:			
West Culebra Slide.....	6,400	57,650	64,050
Project No. 2.....		25,100	25,100
West Lirio Slide.....	3,700	8,650	12,350
Pacific entrance:			
Project No. 1.....	411,000	57,750	468,750
Maintenance.....	366,900	13,100	380,000
Plant excavation:			
Chagres River gravel service.....	60,388		60,388
Dredging sand at Chame.....	1,490		1,490
Total.....	849,878	162,250	1,012,128

The ferry crossing at the north end of Pedro Miguel locks operated 30 days during the month. One thousand three hundred and twenty trips were made, and 278 Panama Canal, 251 U. S. Army, and 7,381 other vehicles, a total of 7,910 were ferried across the Canal.

MADDEN DAM PROJECT.

The Land Agent was requested to secure prices for purchase, or purchase and 10-year lease, of certain areas of land in the vicinity of Alhajuela, and easements for the telephone line.

Upon the completion of surfacing of Madden Road the transportation of men and material via the Chagres River ceased and truck transportation over the road was instituted. The Azote Caballo Ridge Road was maintained. A work request for the Municipal Engineering Division to surface 21,700 linear feet of this road for a width of 9 feet with 6 inches of gravel was issued.

The design and layout of dam, spillway, and power house were studied, the profile of damsite 6-B plotted and quantities estimated for saddle dams and spillways. Well log sheets were checked and traced, rock contour maps drawn, sink hole areas mapped, and permeability tests of drill cores plotted.

Hydroelectric studies, such as duration curves, hydrographs, natural flood storage, and head and flow available for power were continued. Studies of intakes for penstocks, needle valves, ground sluices and layout of hydraulic part of power house were made. A study of the transmission line location was continued, and designs and calculations of transmission line steel structures, switching station at Summit, and regulation of high tension system were made.

A total of 3,475 acres has been mapped to April 30. All of the 1:5,000 scale mapping has been completed. Three thousand and thirteen linear feet of drilling of all types was accomplished. Excavation of sink holes was continued and mapping of underground openings followed the excavations.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women and children occupying Panama Canal quarters on April 30, 1930, was 22,815, composed of 7,869 Americans, 2,875 of whom were men, 2,341 women, and 2,653 children; 246 Europeans, 98 of whom were men, 37 women, and 111 children; 14,700 West Indians, 4,362 of whom were men, 2,685 women, and 7,653 children. The total number of persons in quarters on April 30, 1929, was 21,836.

The following tabulation shows the number of gold and silver employees as of April 16, 1930, with a comparison of the working force for the preceding month and for April, 1929:

	As of April 16, 1930.			Total employees.	
	Gold.	Silver.	Total.	March, 1930.	April, 1929.
Operation and Maintenance:					
Office.....	57	96	153	151	110
Electrical.....	159	215	374	376	323
Municipal Engineering.....	81	818	899	879	1,868
Lock Operation.....	236	743	979	981	1,389
Dredging.....	199	1,076	1,275	1,253	1,187
Madden Project.....	83	985	1,068	1,195	.....
Mechanical.....	507	910	1,417	1,412	1,235
Marine.....	207	696	903	965	966
Fortifications.....	26	270	296	413	472
Total.....	1,555	5,809	7,364	7,625	7,550
Supply Department:					
Quartermaster.....	227	2,127	2,354	2,355	2,034
Commissary.....	222	1,332	1,554	1,558	1,499
Cattle Industry—Plantations.....	2	98	100	116	162
Hotel Tivoli.....	10	120	130	129	117
Hotel Washington.....	9	108	117	118	119
Transportation.....	79	259	338	333	297
Total.....	549	4,044	4,593	4,609	4,228
Accounting Department.....	203	6	209	211	202
Health Department.....	289	879	1,168	1,153	1,094
Executive Department.....	526	325	851	851	815
Total.....	1,018	1,210	2,228	2,215	2,111
Panama Railroad Company:					
Superintendent.....	48	300	348	365	344
Transportation.....	63	121	184	186	190
Receiving & Forwarding Agency.....	92	1,335	1,427	1,388	1,626
Coaling Stations.....	43	302	345	343	419
Total.....	246	2,058	2,304	2,282	2,579
Grand total, April, 1930.....	3,368	13,121	16,489	.....	.....
Grand total, March, 1930.....	.....	.....	.....	16,731	.....
Grand total, April, 1929.....	.....	.....	.....	.....	16,468

Additions to the gold force on the Isthmus in April were as follows: Employed in the United States, 14; reemployed in the United States, 2; employed on the Isthmus, 17; reemployed on the Isthmus, 11; total, 44. Separations from the gold force totaled 64, as follows: Resigned, 29; discharged, 27; retired, 1; died, 7. At the end of the month there were on file 469 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 168 deaths occurred during the month of April, 1930, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.26 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 26; nephritis (acute and chronic), 19; pneumonia (broncho and lobar), 15; organic diseases of the heart, 11; and cancer (various organs), 9. There were 7 deaths from syphilis, 7 from apoplexy, 2 from amebic dysentery, and 1 from meningococcus meningitis. There were 17 deaths among nonresidents. These are not counted in the above statistics.

There were 292 live births and 13 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 28.26. Deaths among children under 1 year of age numbered 33, giving an infant mortality rate based on the number of live births reported, of 113.01.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during April, 1930, was 57, of whom 16 were employees (7 white and 9 colored), 8 were families of employees (6 white and 2 colored), 4 were Canal Zone agriculturists, 7 were other civilian nonemployees, and 22 were Army and Navy personnel. There were no deaths from malaria.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$356,447.05, of which \$335,836.62 was for the Department of Operation and Maintenance, and \$20,610.43 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$48,879.95.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of March, 1930, as compared with March, 1929, with the figures for the first nine months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of April at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	March, 1930.	March, 1929.	To end of March.	
			This year.	Last year.
Tolls.....	\$2,260,044.42	\$2,344,009.79	\$20,580,209.14	\$20,420,498.10
Other receipts.....	495,619.70	322,693.24	3,381,400.78	2,962,537.13
Total transit revenues.....	2,755,664.12	2,666,703.03	23,961,609.92	23,383,035.23
Total transit expenses.....	1,252,197.42	1,282,843.26	10,024,949.68	9,797,223.14
Net transit revenues.....	1,503,466.70	1,383,859.77	13,936,660.24	13,585,812.09
Three per cent capital charge....	622,421.62	614,858.61	5,591,231.42	5,542,664.67
Transit surplus.....	881,045.08	769,001.16	8,345,428.82	8,043,147.42
Business revenues.....	1,731,202.23	1,556,098.68	15,053,179.21	12,879,863.57
Business expenses.....	1,615,460.82	1,452,110.54	14,196,556.08	12,070,439.92
Net revenues.....	115,741.41	103,988.14	856,623.13	809,423.65
Three per cent capital charge.....	63,651.02	61,550.27	603,367.53	587,462.15
Business surplus.....	52,090.39	42,437.87	253,255.60	221,961.50
Combined revenues.....	4,486,866.35	4,222,801.71	39,014,789.13	36,262,898.80
Combined expenses.....	2,867,658.24	2,734,953.80	24,221,505.76	21,867,663.06
Net revenues.....	1,619,208.11	1,487,847.91	14,793,283.37	14,395,235.74
Three per cent capital charge.....	686,072.64	676,408.88	6,194,598.95	6,130,126.82
Combined surplus.....	933,135.47	811,439.03	8,598,684.42	8,265,108.92

Respectfully,

H. BURGESS,
Governor.

United States Intercoastal Traffic by Commodities for April, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for April, 1930, and the totals for April, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

(Continued on page 623.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending May 24, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged Tons.	Laded. Tons.
Cristobal	Panama R. R. S. S. Line		May 11.		1,179
Calí	North German Lloyd		May 11.		195
Baralt	Royal Netherlands S. S. Co.		May 11.		45
Cerigo	Hamburg-American Line		May 11.		135
Champerico	Pacific Steam Nav. Co.	May 11.		563	
Ulúa	United Fruit Co.	May 11.	May 11.	23	13
Castletown	Nelson S. S. Line	May 11.	May 12.	115	(²)
Cartago	United Fruit Co.		May 12.		47
Aconagua	Chilean Line	May 12.	May 12.	85	(²)
Venezuela	Royal Netherlands S. S. Co.	May 12.	May 13.	49	7
Calamares	United Fruit Co.	May 12.	May 14.	502	49
Esparta	United Fruit Co.	May 13.	May 14.	892	(²)
Flandre	French Line	May 13.	May 15.	125	764
Castilla	United Fruit Co.	May 13.	May 17.	65	296
Santa Maria	Grace Line	May 14.	May 14.	103	60
Zacapa	United Fruit Co.	May 14.	May 15.	662	172
Tela	United Fruit Co.	May 14.	May 15.	832	61
Targis	North German Lloyd	May 14.		148	
Orinoco	Hamburg-American Line	May 14.	May 15.	119	2
Nietheroy	Royal Mail S. P. Co.	May 14.	May 15.	(¹)	132
Manizales	North German Lloyd	May 14.	May 16.	927	105
Narenta	Royal Mail S. P. Co.	May 15.	May 15.	9	231
Lochkatrine	Royal Mail S. P. Co.	May 15.	May 16.	57	483
Venezuela	Royal Netherlands S. S. Co.	May 15.	May 17.	3 ¹ / ₂	371
Guayaquil	Panama R. R. S. S. Line	May 15.	May 17.	1,211	19
Donau	North German Lloyd	May 16.	May 16.	(¹)	302
Amapala	Standard Fruit & S. S. Co.	May 16.	May 17.	324	106
Ares	Royal Netherlands S. S. Co.	May 16.	May 17.	197	201
Pearl Marie	R. Feuillebois	May 17.	May 17.	(²)	36
Dora K.	R. Feuillebois	May 17.	May 17.	(¹)	35
Mayari	United Fruit Co.	May 17.	May 17.	34	745
George Washington	Fred Olsen & Co.	May 17.	May 17.	(¹)	164
Parismina	United Fruit Co.	May 17.		229	
Buenaventura	Panama R. R. S. S. Line	May 17.		478	
Targis	North German Lloyd		May 18.		249
Buenaventura	Panama R. R. S. S. Line		May 18.		35
Calamares	United Fruit Co.	May 18.	May 13.	30	69
Orinoco	Hamburg-American Line	May 18.	May 18.	30	465
Loriga	Pacific Steam Navigation Co.	May 18.	May 18.	8	16
Cid	Pacific Steam Navigation Co.	May 18.	May 19.	829	13
Tela	United Fruit Co.	May 18.	May 19.	7	53
Camden	United Fruit Co.	May 18.	May 19.	9,697	(²)
S. M. Spalding	Huasteca Petroleum Co.	May 18.	May 20.	10,893	(²)
Parismina	United Fruit Co.		May 19.		241
Tolosa	United Fruit Co.	May 19.	May 21.	383	12
Mayan	Gulf-Caribbean S. S. Line	May 19.	May 21.	1,127	(²)
Havel	North German Lloyd	May 19.	May 19.	1	336
Durazzo	Hamburg-American Line	May 19.	May 24.	1,193	132
Toba Maru	Nippon Yusen Kaisha	May 20.	May 20.	85	(²)
Canada	Johnson S. S. Line	May 20.	May 21.	165	62
Venezuela	Panama Mail S. S. Co.	May 20.	May 21.	285	353
Escupe Fuego	A. A. Conolly & A. Papi	May 20.	May 23.	¹ / ₂	73
Barneveld	Royal Netherlands S. S. Co.	May 21.	May 21.	118	23
Santa Rita	Grace Line	May 21.	May 21.	33	76
Santa Marta	United Fruit Co.	May 21.	May 22.	396	55
Indiana	French Line	May 21.	May 22.	19	91
Irióna	United Fruit Co.	May 21.	May 22.	472	68
Orbita	Pacific Steam Navigation Co.	May 21.	May 22.	64	53
Alvarado	Pacific Steam Navigation Co.	May 22.	May 22.	9	33
Salvador	Pacific Steam Navigation Co.	May 22.		598	
Mercian	Leyland S. S. Line	May 22.		532	
Midas	Royal Netherlands S. S. Co.		May 23.		38
El Salvador	Pacific Steam Navigation Co.	May 22.	May 23.	1,032	124
San Jose	United Fruit Co.	May 22.	May 24.	734	355
Wasgenwald	Hamburg-American Line	May 23.	May 24.	268	508
Magallanes	Spanish Line	May 23.		177	
Atlantida	Standard Fruit & S. S. Co.	May 23.	May 24.	106	261
Tela	United Fruit Co.	May 23.	May 24.	305	174
Santa Clara	Grace Line	May 24.	May 24.	4	5
Heredia	United Fruit Co.	May 24.		179	
Maravi	United Fruit Co.	May 24.		9	
Tai Ping	Barber S. S. Line	May 24.	May 24.	1	(²)
San Francisco	Hamburg-American Line	May 24.		8	
Murla	North German Lloyd	May 24.		866	
Zenon	French Line	May 24.		135	
War Sidar	British Admiralty	May 24.		7,820	
Esequibo	Pacific Steam Navigation Co.	May 24.		18	
Ancon	Panama R. R. S. S. Line	May 21.		2,481	

¹ No cargo discharged.² No cargo laded.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 24, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.				Day.	Hour.			Nature.	Tons.	Gross.	Net.
City of Rayville ²	18	00.15	18	6.30	18	13.43	20	13.30	American.	Roosevelt S. S. Co., S. B.	401.9	54.2	23.0	General.	1,835	7,097	5,241
Georgia	18	7.55	18	8.10	18	15.16	18	18.25	American.	Amer.-Hawaiian Line	434.3	57.7	18.0	Portland, Oreg.	3,443	7,983	5,912
Loriga ²	18	5.25	18	10.16	18	19.00	19	16.15	British.	Pacific Steam Nav. Co.	406.5	54.2	23.2	Magallanes, Chile.	6,949	7,331	5,091
Axel Johnson ²	18	11.20	18	11.30	18	18.05	18	21.45	Swedish.	Johnson Line	392.0	52.6	17.0	Everett, Wash.	881	6,042	4,860
Paul	18	14.20	18	14.45	18	21.04	18	22.15	American.	Luckenbach Line	471.0	59.6	25.0	Tacoma, Wash.	7,806	9,027	6,539
Gen. G. W. Clety ¹	18	8.10	18	8.10	18	10.30			American.	U. S. Army	89.0	22.0		Catun, C. Z.			
Washington	18	17.10	18	18.10	19	10.07	19	10.44	American.	The Texas S. S. Co.	425.8	57.0	21.0	Los Angeles, Calif.		7,484	5,216
Port Pirie	18	13.40	19	6.10	19	13.33	19	14.35	British.	Comth & Don. Line.	470.0	53.4	26.8	Dunedin, N. Z.	4,524	9,381	6,915
Innesmoor ²	19	3.25	19	6.25	19	14.06	19	22.05	British.	W. Runciman & Co.	375.0	52.6	24.6	Vancouver, B. C.	7,000	6,055	4,615
Steel Exporter.	19	5.30	19	7.30	19	15.15	19	16.15	American.	Isthmian S. S. Lines	424.0	56.0	24.6	Vancouver, B. C.	6,936	7,611	5,450
Pacific Trader.	19	10.20	19	10.35	19	17.02	19	22.05	British.	Furness, Withy & Co.	420.0	53.0	16.6	Vancouver, B. C.	2,139	7,979	5,916
Antileam ¹	19	11.15	19	11.30	19	18.30	19	19.59	American.	Shell Eastern Pet. Co.	435.0	56.2	29.0	Los Angeles, Calif.		7,426	5,073
Luce ⁴	19	12.35	19	12.35	19	19.20	20	7.46	American.	U. S. Navy	310.0	31.0		Balboa, C. Z.			
S-20 ⁴	19	12.35	19	12.35	19	21.39	19	22.28	American.	U. S. S. Corp.	550.0	72.0	33.5	Balboa, C. Z.		15,551	4,297
Steclore.	19	5.15	19	13.45	19	21.50	19	23.00	American.	Nelson Line	519.0	52.0	17.0	Cruz Grande, Chile	2,148	5,434	4,004
Democracy ¹	19	14.30	19	14.55	19	22.35	20	1.54	American.	United Fruit Co.	377.0	52.0	17.0	Seattle, Wash.		6,997	4,959
Camden ¹	18	12.50	19	18.55	20	9.12			American.	Standard Oil Co.	419.0	56.0	23.0	Balboa, C. Z.		8,638	5,935
D. G. Scofield ¹	20	8.40	20	8.45	20	17.27	20	18.45	American.	Panama Mail S. S. Co.	433.0	58.0	20.8	Los Angeles, Calif.	2,173	6,033	4,353
Venezuela	20	10.10	21	6.06	21	13.50	21	23.25	American.	Angle-Saxon Pet. Co.	380.0	48.7	23.0	San Francisco, Cal.		7,957	4,984
Pecten ²	21	3.15	21	6.25	21	15.10	22	6.10	British.	Tidewater Oil Co.	420.0	69.0	22.6	Los Angeles, Calif.		7,441	5,077
Dilworth ¹	21	5.20	21	7.15	21	15.10	21	16.40	American.	Can. Nat. Steamships	400.3	52.0	21.0	Vancouver, B. C.	4,000	5,858	4,108
Canadian	21	6.55	21	7.45	21	15.48	12	18.50	British.	States S. S. Co.	387.0	52.3	16.0	Seattle, Wash.	1,700	5,719	4,023
Phauser.	21	8.45	21	8.55	21	16.32	21	17.45	American.	Amer.-Hawaiian Line	472.0	57.2	16.9	Tacoma, Wash.	2,241	9,258	6,944
San Gabriel.	21	9.30	21	9.50	21	17.29	21	18.50	American.	Luckenbach Line	445.0	58.0	22.0	Seattle, Wash.	3,920	8,099	6,363
Horace	21	10.20	21	10.45	21	18.18	21	19.45	American.	Panama Mail S. S. Co.	296.0	45.9	17.7	San Francisco, Cal.	1,300	3,848	2,606
City of San Francisco ²	5	16.05	21	10.50	21	19.15	21	20.30	American.	Grace Line	370.0	52.0	21.0	Talcahuano, Chile.	2,299	6,255	4,099
Santa Rita ²	21	4.45	21	11.05	21	18.28	22	3.02	American.	Nippon Yusen Kaisha.	440.3	57.0	27.0	Kobe, Japan.	8,741	8,158	5,676
Atago Maru ²	21	10.45	21	12.15	21	20.05	21	21.35	Japanese.	Quaker Line	440.0	56.0	20.1	Vancouver, B. C.	3,122	7,476	5,485
Canada ²	20	22.55	21	14.15	21	20.22	20	40.25	Swedish.	Johns on Line	410.5	54.3	16.6	Tacoma, Wash.	3,379	6,973	4,916
San Simeon	21	16.35	21	16.50	22	9.42	22	10.40	American.	A. Valentinas	440.0	56.0	22.6	Balboa, C. Z.			
Launch Hull	21	16.35	21	16.50	22	15.10	22	16.20	British.	Pacific Steam Nav. Co.	550.0	67.4	28.0	Valparaiso, Chile.	2,287	16,844	11,731
Orbita ²	21	16.05	21	6.05	22	15.10	22	16.20	British.					General.			

⁶ For dry-docking.⁵ Submarine.⁴ Mine layer.³ Tug.² Motor ship.¹ Tanker.

21	21	00	22	6	05	22	15	50	22	21	20	American.	Standard Oil Co.	500	0	68	0	18	0	London, England.	San Francisco, Cal.	Ballast.
21	22	45	22	7	25	22	16	53	22	19	00	American.	Standard Transp. Co.	467	6	62	7	20	0	Boston, Mass.	Los Angeles, Calif.	Ballast.
21	23	53	22	8	35	22	17	10	23	6	59	British.	Amer.-Australian Line.	375	5	52	3	20	0	Hatifax, N. S.	Dunedin, N. Z.	General.
22	10	28	22	10	25	22	19	16	22	20	50	American.	Calumet S. S. Corp.	419	0	50	0	20	0	Baltimore, Md.	Seattle, Wash.	Steel, general.
22	12	28	22	12	40	22	20	08	23	3	55	British.	N. Z. Shipping Co.	531	0	70	0	28	6	London, England.	Auckland, N. Z.	General.
22	5	55	22	12	30	22	21	20	22	22	46	British.	Pacific Steam Nav. Co.	333	0	43	0	15	7	New York, N. Y.	Guayaquil, Ecuador	General.
22	13	15	22	14	40	22	22	10	23	3	31	Swedish.	Ore S. S. Corp.	561	0	72	0	23	0	New York, N. Y.	Cruz Grande, Chile	Ballast.
23	1	35	23	6	15	23	13	29	23	14	40	American.	Arrow Line	409	6	54	1	17	0	Baltimore, Md.	Tacoma, Wash.	General.
23	6	10	23	6	10	23	13	14	44			Panamanian	A. Tagaropitos	105	0	15	0			Perma, R. P.	Bahboa, C. Z.	Bananas
23	5	55	23	7	15	23	14	37	24	2	34	American.	Panama-Pacific Line	586	4	80	3	26	6	New York, N. Y.	San Francisco, Cal.	General.
23	7	10	23	7	10	23	14	40				Panamanian	United Fruit Co.	105	0	15	0			Perma, R. P.	Bahboa, C. Z.	Bananas
23	7	10	23	9	03	23	16	32	23	17	35	British.	Kerr S. S. Co.	451	0	61	4	19	0	Boston, Mass.	Kobe, Japan.	General.
23	10	25	23	10	35	23	17	26	23	18	30	American.	Standard Shipping Co.	465	4	60	2	22	0	Baytown, Tex.	Los Angeles, Calif.	Ballast.
23	20	58	24	5	55	24	13	05	22	14	30	American.	United Fruit Co.	330	0	44	6	18	6	Cristobal, C. Z.	San Francisco, Cal.	General.
23	00	15	24	6	09	24	14	49	24	16	00	German.	Hamburg-American Line	394	0	51	0	24	6	Hamburg, Germany	Valparaiso, Chile	General.
23	02	05	24	7	15	24	15	45	24	16	20	American.	Standard Oil Co.	419	0	56	0	21	0	New York, N. Y.	Los Angeles, Calif.	Ballast.
24	1	03	24	7	15	24	15	35	24	16	50	American.	Island S. S. Lines	425	0	56	0	27	3	Mobile, Ala.	Dairen, China	General, steel.
24	1	03	24	9	15	24	15	58	24	17	10	American.	Sun Oil Co.	429	3	59	2	0	0	Chester, Pa.	Los Angeles, Calif.	Ballast.
24	9	40	24	10	05	24	16	40	24	17	55	American.	Amer.-Havran Line	407	7	53	7	21	0	Boston, Mass.	Portland, Ore.	General.
19	07	24	10	25	24	17	23	24	18	40		German.	Hamburg-American Line	324	0	34	0	12	10	Cristobal, C. Z.	Guayaquil, Ecuador	General.
24	14	45	24	14	55	24	22	05	24	23	28	American.	Cal-Pacific Line	226	0	46	2	23	6	Lake Charles, La.	Seattle, Wash.	General.
24	19	15	24	20	40	25	9	30	25	10	36	American.	Richfield Oil Co.	500	0	71	2	22	00	New York, N. Y.	Los Angeles, Calif.	Ballast.
24	19	15	24	20	40	25	9	30	25	10	36	American.	U. S. Navy	149	3	30	0			Cristobal, C. Z.	Bahboa, C. Z.	Ballast.

THROUGH THE CANAL.—PACIFIC TO ATLANTIC.																						
* Motor boat.																						
	17	20	00	18	6	54	18	14	10	18	15	55	Danzig	W. Tankerschiff Rhoderer	470	0	63	2	27	0	Hamburg, Germany	Naphtha
Ohio	18	7	40	18	9	04	18	16	10	18	15	55	British.	Pacific Steam Nav. Co.	264	8	41	2	17	0	New York, N. Y.	General
Calif.	18	9	00	18	9	46	18	17	03	18	17	05	American.	Calmor S. S. Corp.	409	8	51	2	24	0	Baltimore, Md.	Lumber
Losmar.	18	5	50	18	10	32	18	15	05	18	20	50	German	Atlantic Tank Rhoderer.	412	6	55	1	26	0	Liverpool, England	Benzine
Biscaya *	18	9	45	18	10	58	18	18	45	18	23	35	American.	American-Cuban Line.	399	0	48	2	19	0	Port Allen, T. H.	Sugar
Field	18	10	48	18	11	32	18	19	28	19	9	50	American.	Dollar Line.	415	5	56	5	27	0	Hingham, Wash.	Lumber
Montana	18	11	15	18	12	18	18	20	25	19	1	15	Japanese.	Kokusai Kisen Kaisha.	425	0	53	6	27	0	New York, N. Y.	Sugar
Yari Maru.	18	11	15	18	12	18	18	20	25	19	1	15	Japanese.	Kokusai Kisen Kaisha.	425	0	53	6	27	0	Boston, Mass.	Sugar
Havel *	18	18	25	18	19	05	19	11	00	19	15	35	German	North German Lloyd.	374	1	61	1	28	0	San Francisco, Cal.	Antwerp, Belgium
Neosheid	18	10	20	19	6	32	19	11	30	19	16	45	British.	James Bell & Co.	380	2	50	9	26	0	Fecamp, France	General
Wedmoor *	18	2	00	19	6	44	19	15	20	19	15	23	British.	Moor Line, Ltd.	375	0	52	6	25	0	Lisbon, Portugal.	Wheat
Galveston	19	7	09	19	7	09	19	16	35	19	16	45	American.	U. S. Navy	292	0	44	0			New Orleans, La.	Cruiser
Denver	19	6	00	19	8	16	19	17	15	20	14	55	American.	Messageries Maritimes	450	3	56	9	22	0	Cristobal, C. Z.	General
Andromede	19	7	50	19	8	18	19	18	15	19	23	48	French.	Hamburg-American Line	227	5	54	9	22	0	Marseilles, France.	General
Durazzo	19	8	35	19	9	16	19	19	07				German	Calmor S. S. Corp.	385	0	51	2	26	0	Cristobal, C. Z.	Lumber
Mussar.	19	9	35	19	10	26	19	19	10	19	10	10	American.	San Oil Co.	480	6	66	0	29	0	Sacramento, Calif.	Gasoline
Chester Sun *	19	9	35	19	11	21	19	19	20	19	20	10	American.	Panama-Pacific Line	571	4	80	3	29	0	Philadelphia, Pa.	Gen., passengers.
California	19	12	47	19	6	20	19	20	13	45	20	14	American.	Nippon Yusen Kaisha.	445	0	58	0	21	0	New York, N. Y.	General
Toba Maru.	19	19	20	19	6	26	20	14	05	20	21	00	Japanese.	Hamburg-American Line	402	2	61	2	26	0	New York, N. Y.	General
Portland *	20	4	00	20	7	04	20	14	25	20	18	10	American.	Amer.-Hawaiian Line.	414	5	53	7	24	0	Hamburg-Germany	General
Kentuckian	20	5	52	20	8	27	20	15	40	20	15	40	American.	Ore S. S. Corp.	449	1	57	2	30	0	Boston, Mass.	General
Finmore.	20	9	15	20	10	06	20	18	25	20	18	25	American.	Ore S. S. Corp.	449	1	57	2	30	0	Baltimore, Md.	Iron ore.
* Motor ship.																						
* Coffee, cocoa, tagua, and hides																						
* Tanker.																						

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.			Beam.	Beam.				Nature.	Tons.	Gross.	Net.
Lillian	20	9 25	20	10 40	20	17 50	20	17 50	American.	Luckenbach Line.	448.9	60.2	30.0	Portland, Oreg.	Boston, Mass.	Lumber, general.	8,250	9,294	6,865
Resolute	20	5 45	20	12 14	20	19 00	20	19 45	German.	Hamburg-American Line.	599.5	72.3	42.0	New York, N. Y.	New York, N. Y.	Passengers.	20,893	12,735	
Pacific	20	9 35	20	12 44	20	20 20	20	21 40	British.	Furness, Withy & Co.	435.9	60.2	28.0	Vancouver, B. C.	London, England.	General.	8,736	9,633	6,998
Exporter ¹⁰ .	20	14 45	20	15 35	20	22 35	21	3 30	Swedish.	Transatlantic S. S. Co.	378.0	54.0	24.0	Pt. Rupert, B. C.	Fayal ¹¹ .	Wheat.	7,300	6,235	4,486
Roxen	20	17 00	20	17 53	21	11 20	21	13 35	Italian.	D. Tripeovich	395.3	52.8	22.0	Vladivostok, U.S.S.R.	United Kingdom	Lumber	4,090	5,417	3,988
Numbia	20	17 00	21	6 28	21	14 10	21	14 10	American.	U. S. Navy.	314.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Luer, No. 99 ¹¹ .	20	17 00	21	6 29	21	14 10	21	14 10	American.	U. S. Navy.	314.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-20 ¹² .	20	21 00	21	6 45	21	15 40	21	15 40	Norwegian.	B. Dampskifsselskab.	367.5	51.5	24.0	Hollo, P. I.	Providence, R. I.	Sugar, lumber.	6,300	5,427	4,113
Rigel ¹⁰ .	20	21 00	21	6 45	21	15 40	21	15 40	Norwegian.	B. Dampskifsselskab.	367.5	51.5	24.0	Hollo, P. I.	Providence, R. I.	Sugar, lumber.	6,300	5,427	4,113
George H.	21	4 55	21	7 09	21	16 15	21	16 15	American.	Standard Shipping Co.	429.3	50.2	27.0	Talara, Peru	Vallo, Norway.	Crude oil	10,072	7,089	5,667
Jones ¹¹ .	21	6 20	21	7 43	21	17 20	21	17 20	American.	Christensen S. S. Co.	409.6	51.2	23.0	Pt. Alberni, B. C.	Baltimore, Md.	Lumber	7,000	6,667	4,949
Helen Whittier.	21	7 15	21	8 23	21	18 25	21	18 25	French.	French Line	417.8	55.9	27.0	Vancouver, B. C.	Le Havre, France.	General	7,583	7,157	4,936
Indiana	21	11 45	21	12 22	21	19 15	21	20 10	American.	States S. S. Co.	376.0	52.3	24.0	Portland, Oreg.	Baltimore, Md.	General, lumber	6,068		
San Diego	21	13 35	21	14 15	21	21 29	21	21 29	Norwegian.	W. L. Conyn & Co.	370.0	57.3	24.0	Bellevue, Wash.	Cardiff, Wales.	(¹³)	6,350	4,825	3,489
Tyr.	21	13 55	21	14 35	21	22 14	22	11 50	Dutch.	Royal Neth. S. S. Co.	400.9	58.2	22.0	Corral, Chile	Hamburg, Germany	General	4,905	7,820	5,980
Barneveld.	21	14 15	21	15 50	21	22 40	21	22 40	Norwegian.	Fern Line.	376.5	53.8	23.0	Saigon, China	Santa Domingo.	Rice	7,360	6,264	4,681
Ferlane ¹⁰ .	21	14 15	21	15 50	21	22 40	21	22 40	Norwegian.	Fern Line.	376.5	53.8	23.0	Saigon, China	Santa Domingo.	Rice	7,360	6,264	4,681
Baron	21	14 45	21	18 58	22	11 45	22	12 25	British.	S. C. Hogarth	348.7	50.0	21.0	Manila, P. I.	Delaware ¹⁴ .	Sugar	2,300	4,323	3,013
Dalmeny ¹⁰ .	21	13 10	22	6 21	22	13 25	23	15 50	American.	Panama Mail S. S. Co.	360.2	51.6	23.6	San Francisco, Cal.	New York, N. Y.	General, coffee.	3,277	5,710	4,023
El Salvador	21	16 30	22	6 58	22	14 20	22	14 20	British.	Com'k & Dom. Line.	466.9	59.7	25.7	G'bart, Tasmania	London, England.	Frozen, general.	7,238	10,041	7,271
Port Hobart ¹⁰ .	22	4 00	22	7 15	22	15 50	22	18 45	French.	Cie. Aux. de Nav.	389.8	53.2	24.0	Los Angeles, Calif.	Rouen, France.	Gasoline.	7,039	5,426	3,645
Pallas ¹⁰ .	22	21 30	22	8 35	22	19 10	22	19 10	Danzig	Standard Shipping Co.	509.5	64.1	29.5	Cabo Blanco, Peru	Halifax, N. S.	Crude oil	13,200	10,550	7,888
Baile ¹⁰ .	22	1 30	22	8 50	22	16 55	22	16 55	American.	Redwood Line, Inc.	375.9	53.1	22.6	Pt. Townsend, Wash.	Mobile, Ala.	Lumber, general.	4,803	5,667	4,103
Delight	22	6 10	22	9 18	22	18 25	22	18 25	British.	Pacific Steam Nav. Co.	219.0	23.5	15.7	San Jose, Guat.	Cristobal, C. Z.	(¹⁵)	508	1,270	733
Salvador	22	6 10	22	9 18	22	18 25	22	18 25	American.	Nelson S. S. Line	334.0	46.2	22.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general.	3,700	3,955	2,630
Buffalo Bridge	21	3 30	22	10 51	22	18 25	22	18 25	British.	Cunard Line	601.3	73.7	26.7	Yokohama, Japan	New York, N. Y.	Passengers only	22,513	16,521	
Franconia	22	7 03	22	11 54	22	19 40	22	19 40	British.	Cunard Line	601.3	73.7	26.7	Yokohama, Japan	New York, N. Y.	Passengers only	22,513	16,521	
Marie	22	7 10	22	12 26	22	20 25	22	20 25	Danish.	Anglo-Saxon Pet. Co.	456.3	61.3	26.5	Los Angeles, Calif.	Land's End, Eng. ¹⁴ .	Gasoline.	11,413	8,045	6,054
Maersk ¹⁰ .	22	7 10	22	12 26	22	20 25	22	20 25	American.	Ford Motor Co.	251.0	43.6	19.7	Aberdeen, Wash.	Philadelphia, Pa.	(¹⁷)	2,805	2,656	1,621
Onetia	22	7 18	22	14 14	22	20 58	24	5 55	American.	United Fruit Co.	330.0	46.0	30.0	San Francisco, Cal.	Cristobal, C. Z.	(¹⁸)	599	3,675	2,359
San Jose.	22	16 15	22	17 18	23	11 25	23	11 25	American.	North, Lilly & Co.	410.0	56.6	30.0	Vancouver, B. C.	Cristobal, C. Z.	(¹⁹)	10,243	7,780	5,811
Challenger ¹⁰ .	22	16 15	22	17 18	23	11 25	23	11 25	American.	DuPont de Nemours	389.0	53.9	27.0	Tooeville, Chile	Wilmington, N. C.	Nitrates	8,700	6,252	4,519
Nordpol ¹⁰ .	23	00 45	23	6 31	23	14 00	23	14 00	Danish	F. & W. Rison	385.0	49.8	22.6	Corral, Chile	London, England.	General	5,546	5,209	4,035
Oak Branch.	23	00 45	23	6 31	23	14 00	23	14 00	Danish	F. & W. Rison	385.0	49.8	22.6	Corral, Chile	London, England.	General	5,546	5,209	4,035
Fetore.	23	2 35	23	7 49	23	17 40	23	17 40	American.	Ore S. S. Corp.	454.9	57.2	30.6	Batimore, Md.	Baltimore, Md.	Iron ore	12,333	7,139	
Balklava ¹⁰ .	22	17 50	23	8 15	23	17 10	23	17 10	Swedish.	Anglo-Saxon Pet. Co.	454.9	57.2	30.6	Los Angeles, Calif.	Land's End, Eng. ¹⁴ .	Benzene	10,055	8,047	6,035
Selota ¹³ .	23	8 11	23	15 30	24	6 30	24	6 30	American.	U. S. Navy.	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.				

¹⁰ Coffee, hides, and specie.¹¹ Lumber, paper, and pulp.¹² For orders.¹³ Tug.¹⁴ Grain, lumber, and general.¹⁵ Destroyer.¹⁶ Submarine.¹⁷ Motor ship.¹⁸ Coffee, sugar, and general.¹⁹ Lumber and automobile parts.²⁰ Tanker.

Marie Bakke ¹⁰	23	1.00	23	12.44	23	20.05	23	29.05	Norwegian.	Knut Knutsen Co.	375.6	52.5	19.6	Corral, Chile.	Oslo, Norway	General	4,232	6,077	4,580
Tashmoo	23	00.55	23	13.08	23	21.23	23	21.23	American.	Charles Nelson Co.	324.0	46.2	25.0	Pr. Towns d, Wash.	Wilmington, Del.	Lumber	3,825	3,984	2,628
Tophore	23	8.00	23	17.10	24	13.10	24	13.10	British.	Com'th & Dom. Line.	477.3	63.2	25.9	Hobart, Tasmania.	London, England.	Frozen, general.	6,497		
San Lucas	23	16.00	23	18.36	24	11.25	24	11.25	American.	States S. S. Co.	415.1	55.7	27.5	Portland, Oreg.	Philad'lphia Pa.	Lumber, copper	8,253	7,643	5,657
Anacuacuna ²⁰	23	14.40	24	5.57	24	14.30			Panamanian	United Fruit Co.	105.0	15.3		Balboa, C. Z.	Cristobal, C. Z.	Ballast.	92	47	
Annetta I ^{10 21}	23	14.44	24	5.57	24	14.20	24	14.20	Panamanian	United Fruit Co.	105.0	15.3		Balboa, C. Z.	Cristobal, C. Z.	Ballast.	96	59	
Meria																			
Mercedes ²²		24	5.57	24	14.20				Panamanian	Jose Gareia.	32.0	12.0		Panama, R. P.	Cristobal, C. Z.	(²²)	8,532	7,893	5,893
Dryden	24	6.45	24	8.00	24	15.10	24	17.10	American.	Tampa Intercean Co.	434.3	57.7	26.0	Manila, P. I.	New Orleans, La.	General	1,787	7,756	3,378
Murla	23	23.30	24	7.10	24	14.45	25	12.00	German.	Roland Line.	449.2	58.1	18.0	San Antonio, Chile.	Hamburg, Germany	General	4,533		
Santa Clara.	24	4.30	24	8.24	24	15.25	25	1.30	American.	Gracc Line.	463.0	63.9	24.0	Valparaiso, Chile.	New York, N. Y.	General	5,029	9,894	6,829
Sai Ping ¹⁰	24	7.50	24	8.31	24	16.05	24	17.10	Norwegian.	Barber S. S. Line.	481.0	60.0	24.0	Davao, P. I.	New York, N. Y.	General	5,029	9,894	6,829
Pacific																			
Cedar	24	10.15	24	10.56	24	18.00	24	21.19	American.	Dimon S. S. Corp.	399.4	54.7	26.0	Beddingham, Wash.	Baltimore, Md.	Lumber	7,400	6,138	4,354
Californian ¹⁰	24	10.40	24	11.34	24	19.55	24	19.55	American.	Amer.-Hawaian Line.	445.1	59.8	24.0	San Francisco, Cal.	Boston, Mass.	General	7,546	8,567	6,020
Gen. W. M.																			
Gratham ²⁰		24	11.42	24	21.20				American.	U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.	Ballast.	455	317	
Georgene ¹⁰	18	10.15	24	11.46	24	21.20	24	21.40	American.	J. W. Worker	142.9	26.3	7.0	Los Angeles, Calif.	Boston, Mass.	Ballast.	7,890	6,209	4,658
Patagon Maru	24	16.00	24	16.47	25	11.25	25	13.05	Japanese.	Kokuni Kisen Kaisha.	385.0	51.0	27.0	Hilo, P. I.	East coast of U. S.	Sugar	6,209	4,658	

ing *Maria Mercedes*.²¹ Launch.²² Sugar, and coconut oil. All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 18.	Orinoco.	Hamburg-American Line.	Port Limon, C. R.	May 18.	No. 9664 ²⁴ .	Pan American Airways.	San Salvador via wayp'ts.
May 18.	Calamarcas.	United Fruit Co.	Port Limon, C. R.	May 18.	Orinoco.	Hamburg-American Line.	Hamburg via wayp'ts.
May 18.	S. M. Spaulding.	Huasteca Petroleum Co.	Aruba, D. W. I.	May 18.	Calamarcas.	United Fruit Co.	New York via Habana.
May 18.	Tela.	United Fruit Co.	Puerto Colombia.	May 19.	Parinama.	United Fruit Co.	New Orleans via wayp'ts.
May 18.	No. 9775 ²⁴ .	Pan American Airways.	Miami via wayports.	May 19.	No. 9688 ²⁴ .	Pan American Airways.	David, R. P.
May 19.	No. 9688 ²⁴ .	Pan American Airways.	David, R. P.	May 19.	No. 309-N ²⁴ .	Pan American Airways.	Guayaquil via wayports.
May 19.	Mayan.	Gulf-Caribbean S. S. Line.	Tampa via wayports.	May 19.	No. 309-N ²⁴ .	Pan American Airways.	Pto. Cabello via wayp'ts.
May 19.	Tolosa.	United Fruit Co.	New York via Habana.	May 19.	Tela.	United Fruit Co.	Port Limon via Bocas.
May 20.	No. 9664 ²⁴ .	Pan American Airways.	San Salvador via wayp'ts.	May 20.	No. 9685 ²⁴ .	Pan American Airways.	Tela via wayports.
May 21.	Ancon.	Panama R. S. S. Line.	New York via Haiti.	May 20.	S. M. Spaulding.	Huasteca Petroleum Co.	Aruba, D. W. I.
May 21.	Cavina.	Elders & Fyffes Line.	Avonmouth via wayp'ts.	May 21.	Cavina.	Elders & Fyffes, Ltd.	Avonmouth via wayp'ts.
May 21.	Isapofo Fuego ²⁵ .	A. A. Conolly & A. Papl.	El Bluff, Nicaragua.	May 21.	Mayan.	Gulf-Caribbean S. S. Line.	New Orleans via wayp'ts.
May 21.	Santa Marta.	United Fruit Co.	New York via Kingston.	May 21.	Tolosa.	United Fruit Co.	Port Limon, C. R.
May 21.	Irona.	United Fruit Co.	New Orleans, La.	May 22.	No. 9775 ²⁴ .	Pan American Airways.	Miami via wayports.
May 21.	No. 309-N ²⁴ .	Pan American Airways.	Pto. Cabello and wayp'ts.	May 22.	Santa Marta.	United Fruit Co.	New York via wayports.
May 21.	No. 309-N ²⁴ .	Pan American Airways.	Guayaquil via wayports.	May 22.	Irona.	United Fruit Co.	Pto. Colombia and wayp'ts.
May 22.	Mercian.	Leyland S. S. Line.	Liverpool via wayports.	May 22.	No. 9688 ²⁴ .	Pan American Airways.	Tela via wayports.
May 22.	No. 998 ²⁴ .	Pan-American Airways.	Brownsville via wayp'ts.	May 23.	Cordoba C-40 ²⁴ .	Scandia Airplane Co.	Barranquilla via wayp'ts.
May 22.	No. 9670 ²⁴ .	Pan American Airways.	Tela via wayports.	May 23.	Midus.	Royal Netherlands S. S. Co.	Curacao, D. W. I.
May 23.	Magallanes.	Standard Fruit & S. S. Co.	New Orleans via Habana.	May 23.	Atlantida.	Standard Fruit & S. S. Co.	New Orleans and wayp'ts.
May 23.	Magallanes.	Spanish Line.	Barcelona via wayp'ts.	May 24.	Tela.	United Fruit Co.	New Orleans and wayp'ts.

* Other than ships passing through the Canal.

24 Air mail carrier.

Motor schooner.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 23.....	Tela.....	United Fruit Co.	Bocas, R. P.	May 24.....	Escape Fuego ²⁹	A. A. Conolly & A. Papi.....	Bluefields, Nicaragua.
May 23.....	Inapaquina ²⁶	United Fruit Co.	Colon, R. P.	.....	.....	.....	.....
May 19.....	Cordoba C-40 ²⁷	Scudta Airplane Co.	Barranquilla, via wayp'ts.	.....	.....	.....	.....
May 24.....	Dora K. ²⁸	A. L. Surgeon.....	Colon, R. P.	.....	.....	.....	.....
May 24.....	War Sidar.....	British Admiralty.....	Curacao, D. W. I.	.....	.....	.....	.....
May 24.....	Maravi.....	United Fruit Co.	Puerto Colombia.	.....	.....	.....	.....
May 24.....	Heredia.....	United Fruit Co.	New Orleans via Habana.	.....	.....	.....	.....
²⁶ Motor boat.				²⁹ Motor schooner.			
²⁷ Air mail carrier.				PORT OF BALBOA.			
²⁸ Motor ship				May 20.....	Real ³⁰	Hans Elliot.....	Panama Bay, R. P.
May 19.....	Real ³⁰	Byrd Antarctic Expedition.....	Panama Bay, R. P.	May 24.....	Eleanor Bolling.....	Byrd Antarctic Expedition.....	High seas.
May 22.....	Dos Hermanos ³⁰	A. Valdez.....	Dunedin, N. Z.	May 23.....	Dos Hermanos ³⁰	A. Valdez.....	Panama Bay, R. P.
May 23.....	La Union ³⁰	A. Valdez.....	Panama Bay, R. P.	May 23.....	La Union ³⁰	A. Valdez.....	Panama Bay, R. P.
May 23.....	A. B. Obarrío ³⁰	Hans Elliot.....	Panama Bay, R. P.	May 24.....	A. B. Obarrío ³⁰	Hans Elliot.....	Panama Bay, R. P.
May 23.....	Real ³⁰	Hans Elliot.....	Panama Bay, R. P.	May 25.....	Real ³⁰	Hans Elliot.....	Panama Bay, R. P.
May 24.....	Ginyo Maru.....	Nippon Yusen Kaisha.....	Hongkong, China.	May 25.....	Ginyo Maru.....	Nippon Yusen Kaisha.....	Valparaiso, Chile.
May 24.....	Hadiotis.....	Rethymnis & Kulukundis.....	Corral, Chile.	May 25.....	Hadiotis.....	Rethymnis & Kulukundis.....	Astoria, Oregon.

* Other than ships passing through the Canal.

³⁰ Motor schooner.

United States Intercoastal Traffic by Commodities for April, 1930.

(Continued from page 616.)

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements.....	1,165	376	1,541
Alfalfa.....	40	752	792
Alfalfa meal.....		664	664
Ammonia.....	49		49
Asbestos.....	88		88
Asphalt.....	191	162	353
Automobiles.....	4,628	202	4,830
Automobile accessories.....	780	161	940
Bamboo.....		17	17
Bark.....		390	390
Beans.....	40	3,487	3,527
Blood and tannage.....	23		23
Borax.....	35	162	197
Bricks.....	287		287
Burlap.....	166	44	210
Calcium carbide.....	90		90
Camphor.....		64	64
Canned:			
Fish.....	209	4,717	4,926
Fruit.....	693	15,224	15,827
Meat.....	137		137
Milk.....		292	292
Soup.....	1,492		1,492
Vegetables.....	617	3,267	3,884
Miscellaneous.....	2,768	8,532	11,300
Carbon black.....	147	31	178
Celite filtercel.....		595	595
Cement.....	431		431
Charcoal.....	88		88
Chemicals.....	1,530	522	2,052
China and fire clay.....	77		77
Coal.....	4,673		4,673
Cocoa.....	48		48
Coconuts.....	40	306	346
Coffee.....	278	242	520
Coke.....	1,038		1,038
Cold storage:			
Cheese.....	48	50	98
Eggs.....		421	421
Lard.....	113		113
Confectionery.....	494		494
Cork.....	170		170
Cotton.....	135	4,490	4,625
Cyanide.....	75		75
Drugs.....	893		893
Earthenware.....	171	22	193
Eggs, dried.....		41	41
Explosives.....	80	70	150
Fertilizer.....	149	75	224
Flour.....	293	7,508	7,801
Fruit:			
Dried.....	40	4,685	4,725
Fresh.....	430		430
Fullers earth.....	500		500
Furniture.....	706	144	850
General.....	46,271	11,914	58,185
Glass and glassware.....	2,129	42	2,171
Glue.....		40	40
Granite.....	18		18
Hair.....		82	82
Hardwoods.....	928		928
Hay.....		380	380
Hemp.....	35	1,264	1,299
Honey.....		100	100
Hops.....		120	120
Infusorial earth.....		112	112
Jute.....	190		190
Lard substitute.....	1,083		1,083
Linoleum.....	402	257	659
Liquors.....	52		52
Lumber.....	941	173,656	174,597
Malt.....	185		185
Manufactured goods:			
Iron and steel.....	83,584	1,678	85,262
Machinery.....	4,006	804	4,810
Railroad material.....	901	20	921
Tinplate.....	10,317		10,317
Textiles.....	5,047	557	5,604
Miscellaneous.....	7,874	3,590	11,464
Marble.....	226		226
Matchee.....	39		39

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Metals:			
Antimony		532	532
Copper		15,152	15,152
Iron	3,270	447	3,717
Lead	27		27
Scrap	218	291	509
Tin		25	25
Zinc	52	2,000	2,052
Other		83	83
Milk, powdered	24	384	408
Molasses	53		58
Musical instruments	12		12
Nuts		109	109
Oils:			
Cottonseed	43	20	63
Gas oil, fuel oil		32,254	32,254
Gasoline, benzine, naphtha		185,086	185,086
Kerosene	21		21
Linseed	564		564
Lubricating and greases	5,532	3,713	9,305
Olive	110		119
Vegetable	217	41	258
Wood	10	68	78
Other	75	27	102
Ores:			
Chrome	110		110
Copper	859	530	1,350
Magnesite		113	113
Manganese		1,520	1,520
Tin	15		15
Other	24		24
Paint	725	58	733
Paper	9,052	7,063	16,115
Paper pulp	15	6,106	6,121
Paper roofing	25		25
Peanuts	658	72	730
Peas	116		116
Phosphates	352		352
Porcelain	109	531	640
Rags	16	429	445
Rice	390	12	402
Rope	145	62	207
Rosin	541		541
Rubber:			
Manufactured	1,342	222	1,564
Scrap		186	186
Salt	282		282
Sand	630		630
Seeds:			
Grass	15	21	35
Other	29	170	190
Shells	1,220	74	1,294
Silk		467	467
Skins and hides		2,010	2,010
Slag	4,436		4,436
Slate	38		38
Soap	1,974	195	2,169
Soda	596		596
Soda ash	830		830
Soda, bicarbonate	110		110
Soda, caustic	231		281
Starch	54		54
Sugar	48	11,767	11,815
Sulphur	23,674		23,674
Syrup	236	107	373
Talc		101	101
Tallow		379	379
Tar	163		163
Tartar		23	23
Tea		79	79
Tobacco	1,765	40	1,805
Toys	10	22	32
Turpentine	53		53
Vegetables		10	10
Waste	151	252	403
Wax	156	12	168
Wine		255	255
Wool	9	3,925	3,934
Total, April, 1930	251,812	529,345	781,157
Total, April, 1929	297,271	541,129	838,400
Total, April, 1928	232,777	594,832	827,659

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., June 4, 1930.

No. 44.

Traffic Through the Panama Canal in May, 1930.

During the month of May, 1930, 479 commercial vessels and 14 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,162,898.60, and on the launches \$111.30, or a total tolls collection of \$2,163,009.90.

The daily average number of commercial transits for the month was 15.45, and the average tolls collected \$69,770.92, as compared with an average of 16.3 transits and \$74,425.43 in tolls for the previous month, and an average of 16.9 transits and \$74,082.15 in tolls for May, 1929. The average amount of tolls paid by each of the commercial transits was \$4,515.45, as compared with \$4,565.98 for the month of April, 1930.

The daily average number of commercial transits in May, 1930, was the lowest since June, 1927, when the daily average was 15.16 transits. The daily average tolls collection for the month of May, 1930, was the lowest since July, 1928, when the daily average amounted to \$68,034.94.

The number of transits for the first 11 months of the current fiscal year is 203 fewer and the amount of tolls collected is \$23,675.46 less than in the corresponding period of the preceding year.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 11 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 11 months of the fiscal years 1929 and 1928:

	Total for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April.....	489	2,232,763.00	16.30	74,425.43
May.....	479	2,162,898.60	15.45	69,770.92
Total, first 11 months of fiscal year, 1930.....	5,707	24,975,895.48	17.04	74,554.91
Total, first 11 months of fiscal year, 1929.....	5,910	24,999,570.94	17.64	74,625.58
Total, first 11 months of fiscal year, 1928.....	5,975	24,928,288.68	17.78	74,191.34

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 31, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
San Francisco ²	24	3.05	25	6.00	25	13.20	25	14.20	German	Hamburg-American Line	432.3	60.0	18.0	Hamburg, Germany	Vancouver, B. C.	General, bananas	2,526	8,454	6,344
Essequibo	24	14.00	25	13.55	25	14.48	25	16.08	British	Pacific Steam Nav. Co.	450.0	57.0	25.3	New York, N. Y.	Talcahuano, Chile.	General	2,173	9,158	6,176
Marore	24	14.35	25	7.10	25	15.00	25	16.08	American	Bethlehem Steel Corp.	550.3	72.2	21.10	Baltimore, Md.	Cruz Grande, Chile	Ballast	15,551	4,297	
Zenon	24	15.30	25	10.55	25	16.40	25	16.40	French	French Line	425.0	55.0	22.0	Haar, France	Corral, Chile	General	4,511	6,982	4,834
Sobotan	24	18.15	25	8.10	25	16.50	25	18.05	American	Redwood Line	386.0	52.0	21.6	Houston, Texas	Seattle, Wash.	General	5,395	5,708	4,138
Lake Benbow	24	22.30	25	8.30	25	16.34	25	18.05	American	Ford Motor Co.	250.0	45.0	19.7	Chester, Pa.	Seattle, Wash.	Automobile parts	2,444	2,676	1,797
City of Guddford	24	20.00	25	9.45	25	18.12	25	19.40	British	Ellerman-Hall Line	400.0	52.0	24.0	New York, N. Y.	Brisbane, Australia	General	3,805	6,185	4,554
Japanese Prince ²	24	21.05	25	9.55	25	18.38	25	19.48	British	Rio Cape Line	441.0	60.0	22.3	New York, N. Y.	Manila, P. I.	General	4,447	9,240	6,145
Mobile City	24	22.55	25	10.45	25	19.36	25	21.02	American	Norton Lilly & Co.	395.0	55.0	27.6	Baltimore, Md.	Honolulu, T. H.	General	8,141	7,339	5,241
Castle ²	25	6.30	25	11.00	25	19.10	25	20.00	British	Barber S. S. Line	464.0	60.3	25.7	New York, N. Y.	Manila, P. I.	General, case oil	5,414	8,805	6,085
Acadia ²	25	9.15	25	12.30	25	19.53	26	13.55	American	Mrs. H. R. Hardwick	174.0	27.6	10.6	Jacksonville, Fla.	Long Beach, Calif.	Ballast	501	263	
Arcté ²	25	9.50	25	12.25	25	20.40	26	19.15	American	U. S. Navy	402.0	53.0		High seas	Balboa, C. Z.	Not stated			
Karama	25	13.35	25	13.50	25	21.25	26	3.36	British	Shaw, Savill & Albion	483.0	64.0	24.0	Glasgow, Scotland	Dunedin, N. Z.	General	5,040	11,729	8,373
Heffron	25	13.50	25	14.45	25	23.05	26	4.45	American	Ishkman S. S. Lines	440.0	56.0	25.10	Baltimore, Md.	Seattle, Wash.	Steel, general	7,731	8,312	6,097
Villager	25	13.15	26	6.03	26	12.53	26	17.00	Norwegian	Westfal, Larsen & Co.	398.5	54.7	17.6	Buenos Aires, Arg.	Vancouver, B. C.	General	2,382	6,869	5,131
Plum Branch	25	23.59	26	7.25	26	14.10	26	15.35	British	F. & W. Rison	398.5	53.8	20.0	North Shields, Eng.	Coronel, Chile	General	3,136	5,761	3,881
S-15 ²	25	.....	26	8.40	26	14.54	27	7.15	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	.....	.....	.....
S-17 ²	25	.....	26	8.40	26	14.54	27	7.15	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	.....	.....	.....
Maasda	26	10.30	26	10.45	26	17.39	26	22.00	British	Macay & McIntyre	402.0	55.0	18.0	Norfolk, Va.	Portland, Ore.	Ballast	6,085	4,289	
Chastine	26	14.35	26	14.50	26	22.08	26	23.10	Danish	Isbrandtsen Moller Co.	378.0	50.2	24.0	Savannah, Ga.	Saigon, China	General	6,156	5,526	4,066
Maersk ²	27	1.50	27	6.20	27	13.36	27	16.25	British	Donaldson Brothers	415.0	54.0	20.9	Glasgow, Scotland	Portland, Ore.	General	8,870	6,899	4,842
Gracia	27	5.25	27	7.25	27	14.50	27	16.10	American	Texas Gulf Sulphur Co.	356.0	52.0	25.6	Galveston, Texas	Marshfield, Ore.	Sulphur	6,300	5,349	2,990
Western Sun ²	27	6.39	27	8.30	27	16.15	27	17.40	American	Sun Oil Co.	480.6	63.0	24.6	Chester, Pa.	Los Angeles, Calif.	Ballast	9,697	6,551	
Nelson	27	6.45	27	9.35	27	17.08	27	18.55	American	Nelson Line	380.0	53.0	16.6	Baltimore, Md.	Seattle, Wash.	General	2,317	5,657	4,133
Traveler	27	10.35	27	11.15	27	18.14	27	19.30	American	Amor-Hawaiian Line	404.6	53.9	20.0	Boston, Mass.	Seattle, Wash.	General	2,647	6,760	4,450
Columbian	27	18.05	27	14.15	27	20.18	28	16.25	American	U. S. Army	399.0	54.0	21.1	New York, N. Y.	San Francisco, Cal.	Army supplies	2,424	.....	.....
Kenowis ⁶	18	20.55	27	14.15	27	20.18	28	16.25	American	U. S. Army	399.0	54.0	21.1	New York, N. Y.	San Francisco, Cal.	Army supplies	2,424	.....	.....
F. J.	28	2.05	28	6.30	28	13.42	28	14.45	American	Lukenbach Line	446.0	56.0	23.0	Boston, Mass.	Tacoma, Wash.	General	4,103	8,508	6,179
S-13 ²	28	7.10	28	8.30	28	15.34	28	16.35	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	.....	.....	.....
Santa Barbara ²	28	7.10	28	8.30	28	15.34	28	16.35	American	Grace Line	466.0	64.0	22.10	New York, N. Y.	Valparaiso, Chile	General	1,654	10,687	6,663
Hugonot ²	28	11.30	28	12.00	28	19.05	28	20.30	American	Richfield Oil Co.	434.0	56.2	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,394	5,099	
Nosa Queen	27	14.15	28	13.50	28	21.26	29	1.30	American	N. O. & S. A. S. Co.	324.0	46.0	20.2	New Orleans, La.	Talcahuano, Chile	General	2,339	3,981	2,600

* Transport.

* Submarine.

* Supply ship.

* Yacht.

* Motor ship.

* Tanker.

1 Tanker.	2 Mine planter.	3 Launch.	4 Mine sweeper.	5 Towing pontoons.	THROUGH THE CANAL—PACIFIC TO ATLANTIC.									
					6	7	8	9	10	11	12	13	14	15
Laurits Swenson ²	28 2 00	28 15 15	28 15 15	28 15 15	28 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
West Mahwah.	28 15 25	28 15 40	28 15 40	28 15 40	28 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
California	28 18 40	28 19 10	28 19 10	28 19 10	28 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Standard ^{1 2}	28 18 40	28 19 10	28 19 10	28 19 10	28 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Gen. Wm. M. Graham ⁷	28 18 40	28 19 10	28 19 10	28 19 10	28 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Mariposa ⁸	27 6 55	29 6 00	29 14 33	29 14 33	29 17 15	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Virgilio ²	27 6 55	29 6 00	29 14 33	29 14 33	29 17 15	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Baarn ²	28 7 40	29 6 55	29 14 33	29 14 33	29 17 15	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Champerloo ²	11 14 55	29 10 00	29 17 15	29 17 15	29 20 10	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Amerika ²	29 8 55	29 13 37	29 20 10	29 20 10	29 21 01	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Canadian	29 16 50	29 17 00	30 9 12	30 9 12	30 10 31	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Ranger ⁷	29 11 40	29 11 40	29 13 04	29 13 04	30 15 00	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Swan ⁹	29 17 05	30 6 05	30 13 40	30 13 40	30 15 00	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Polzella ²	29 22 10	30 6 15	30 14 07	30 14 07	30 15 20	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Peter Kerr ²	30 4 35	30 7 00	30 14 33	30 14 33	30 21 38	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Wilson	30 5 30	30 7 10	30 15 28	30 15 28	30 20 46	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Penelope ^{2 2}	30 6 50	30 8 40	30 15 30	30 15 30	30 17 00	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
El Cervo ¹	29 23 15	30 12 25	30 19 15	30 19 15	30 20 35	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Cedina ²	30 17 45	31 6 10	31 13 40	31 13 40	31 15 10	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Portnar ²	30 17 45	31 6 10	31 13 40	31 13 40	31 15 10	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Willpelo ²	31 5 50	31 7 55	31 14 04	31 14 04	31 15 20	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Atlantic ²	31 7 45	31 7 55	31 14 04	31 14 04	31 15 20	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Mallard ⁹	31 12 55	31 13 20	31 18 00	31 18 00	31 21 36	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Dakota ²	30 13 23	31 14 20	31 21 16	31 21 16	31 21 50	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Lochmonar ²	31 12 35	31 15 35	31 22 50	31 22 50	31 22 50	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
New Zealand ^{1 2}	31 12 35	31 15 35	31 22 50	31 22 50	31 22 50	30 22 50	30 4 35	30 00 01	30 12 45	30 22 50	30 22 50	30 22 50	30 22 50	30 22 50
Sun ^{1 1 1}	24 16 45	25 6 10	25 14 55	25 14 55	25 17 25	25 14 55	25 14 55	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25
Pacific Sun ^{1 1 1}	24 23 55	25 6 40	25 17 25	25 17 25	25 17 25	25 14 55	25 14 55	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25
Carl Legten ²	24 17 00	25 7 04	25 16 20	25 16 20	25 17 25	25 14 55	25 14 55	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25	25 17 25
Tuscaloosa	24 20 05	25 8 11	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25
City ²	25 4 00	25 8 40	25 19 20	25 19 20	26 6 15	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25	25 18 25
Wyoming	25 11 30	25 12 16	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Charles R. McCormick ²	25 11 45	25 12 33	25 20 30	25 20 30	27 00 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Chateau Thierry ²	25 12 50	25 14 00	25 22 10	25 22 10	26 9 35	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Gargoyles ²	25 14 20	25 15 10	25 22 30	25 22 30	26 22 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Oakmar ²	25 14 20	25 15 10	25 22 30	25 22 30	26 22 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Julia	25 14 30	25 15 40	26 10 20	26 10 20	26 10 20	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Lukenbach ²	25 23 30	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Maltran ²	25 23 30	26 6 55	26 14 50	26 14 50	26 16 25	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Van ²	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
Tanker.	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
1 Tanker.	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
2 Motor ship.	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
3 Lumber, pulp, and paper.	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
4	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
5	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
6	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
7	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
8	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
9	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
10	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
11	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
12	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
13	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
14	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
15	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
16	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
17	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
18	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
19	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30	25 19 30
20	26 3 00	26 6 11	26 13 25	26 13 25	26 14 50	25 19 30	25 19 30	25 19 30						

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	Gross.	Net.
Christy Payne ¹	26	3 30	26	7 24	26	15 20	American	Standard Shipping Co.	463.3	60.2	23.3		Talca, Peru	Montreal, Canada	Crude oil	12,000		
Tiger ¹	26	5 45	26	7 50	26	16 05	American	Standard Transp. Co.	410.0	56.0	28.0		Los Angeles, Calif.	New York, N. Y.	Gas oil	8,789	8,201	6,207
Nebraska ¹	26	7 30	26	8 15	26	16 35	American	Amer-Hawaiian Line	471.2	59.1	25.0		Portland, Oreg.	Boston, Mass.	General	6,800	9,032	6,638
Adolf Von Bayer	26	8 10	26	9 29	26	18 00	German	Hamburg-American Line	409.8	53.8	20.0		Valparaiso, Chile	Hamburg, Germany	(¹⁶)	4,790	7,173	5,514
Mallard, No. 44	26	9 40	26	10 26	26	18 50	American	U. S. Navy	187.0	35.6			Balboa, C. Z.	Cristobal, C. Z.	(¹⁷)			
Arweco	26	5 45	26	12 10	26	19 00	British	Gen. Nav. Co., Canada	225.4	34.2	14.3		N. Westminster, B. C.	Antwerp, Belgium	Liquors	183	1,370	783
Defiance ¹²	26	11 10	26	15 25	26	22 35	American	Rosevelt S. S. Co.	456.1	56.0	22.0		Iloilo, P. I.	New York, N. Y.	(¹⁸)	5,529	8,313	5,901
Santa Inez ¹³	26	19 00	27	6 12	27	13 05	American	Grace Line	370.0	53.2	24.1		Talcahuano, Chile	New York, N. Y.	General	4,008	6,255	4,016
Unity ¹⁴	26	19 00	27	6 12	27	13 05	Panamanian	A. M. Scott	26.5	8.6			Balboa, C. Z.	Cristobal, C. Z.	Ballast		3	
Rupahu	26	19 30	27	6 31	27	14 10	British	N. Z. Shipping Co.	457.3	58.2	23.0		Pieter, N. Z.	London, England	General	4,146	9,079	6,798
San Salvador	26	19 00	27	7 35	27	14 55	British	Anglo-Mex. Oil Co.	407.4	52.2	26.0		Los Angeles, Calif.	Lizards, Eng.	Gasoline	7,397	6,157	4,137
Canadian	26	20 15	27	7 40	27	15 50	British	Can. Nat. Steamships	399.8	52.2	23.5		N. Westminster, B. C.	Montreal, Canada	Lumber, general	5,982	5,885	4,073
Bennet	27	7 30	27	8 12	27	16 35	British	Ben Line	400.0	52.0	25.0		Vancouver, B. C.	Leith, Scotland	Grain, timber	7,000	5,822	4,103
Lukenbach	27	9 30	27	10 22	27	17 00	American	Lukenbach Line	446.5	56.1	27.0		Portland, Oreg.	Boston, Mass.	(¹⁹)	5,100	8,785	6,567
Elane, L. D.	27	10 30	27	11 57	27	19 15	French	Lou S. Dreyfus & Co.	360.0	58.8	24.0		Tocopilla, Chile	Alexandria, Egypt	Nitrates	5,704		
New Westminister City	27	13 15	27	14 58	27	21 40	British	Sir W. R. Smith & Sons	400.5	54.3	26.4		Bellingham, Wash.	London, England	Lumber, general	6,983	7,000	5,407
Rialto ¹⁵	27	18 30	28	6 27	28	13 55	Italian	Nav. Libera Trastina	436.6	55.4	26.0		Vancouver, B. C.	Trieste, Italy	Wheat, general	8,901	7,789	6,025
Skegness	27	18 50	28	6 37	28	14 40	British	Reardon Smith Line	401.6	54.3	25.0		Vancouver, B. C.	Manchester, Eng.	Lumber, general	7,648	6,621	4,916
Kellogg	27	22 10	28	6 59	28	16 00	American	Kellogg S. S. Corp.	391.9	51.2	25.0		Manila, P. I.	New Orleans, La.	Coconut oil	6,702	5,393	3,719
Ordum	28	5 40	28	8 10	28	17 30	British	Pacific Steam Nav. Co.	330.3	67.3	31.2		Talcahuano, Chile	Liverpool, England	(²⁰)	7,042	17,146	12,015
Point Reyes	28	8 43	28	9 35	28	18 40	American	Swayne & Hoyt	524.0	46.2	20.0		Powell River, B. C.	New Orleans, La.	(²¹)	3,149	3,984	2,617
Eleanor	28	11 20	28	12 04	28	19 50	American	Arrow Line	410.5	54.3	25.0		N. Westminster, B. C.	New York, N. Y.	Lumber	7,354	6,572	4,788
Christenson	28	13 45	28	15 08	28	23 59	German	Hamburg-American Line	391.2	50.4	16.4		Champer, Co., Guat.	Freeport, Texas	Ballast	5,621	3,948	
Westervald	28	3 30	29	5 52	29	15 40	American	Ore S. S. Corp.	549.6	73.2	35.0		Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,000	14,325	4,635
Lebore	29	4 15	29	7 35	29	15 05	Italian	Navy Gen. Italiana	518.0	64.0	23.0		San Antonio, Chile	Genoa, Italy	General	1,016	12,553	7,516
Colombo	29	4 05	29	8 53	29	16 54	American	Chile S. S. Co.	391.8	51.3	27.0		San Francisco, Cal.	New York, N. Y.	Gas oil	7,000	5,445	3,849
Chibarr	29	6 05	29	8 53	29	16 54	American	Lloyd Royal Belge	400.0	52.0	24.0		Vancouver, B. C.	Hull, England	General	7,000	5,740	4,031
Suevler	29	6 35	29	8 58	29	17 20	Belgium											
Abraham	29	11 45	29	12 47	29	18 50	Norwegian	Fred Olsen & Co.	435.9	56.2	28.0		Vancouver, B. C.	Oslo, Norway	(²²)	7,592	8,005	5,953
Lincoln ¹³	29	13 45	29	14 26	29	22 00	American	Assocated Oil Co.	419.5	56.5	27.0		San Francisco, Cal.	New York, N. Y.	Gasoline	9,258	7,060	5,025
Solana ¹⁴	28	19 20	29	15 37	29	22 35	British	Anglo-American Oil Co.	424.4	57.0	26.0		Los Angeles, Calif.	Avonmouth, Eng.	Gasoline	9,375	7,012	5,022
Seminole	28	19 30	29	15 37	29	22 35	British	North German Lloyd	216.5	32.9	13.8		Callao, Peru	Cristobal, C. Z.	Cotton	382	1,105	
Call	29	16 30	29	17 11	29	23 00	German											

¹ Tanker.¹² Motor ship.¹³ Launch.¹⁴ Copper, tin, cotton, wool, and general.¹⁵ Pulp, canned goods, and beans.¹⁶ Sugar, ore, cotton, copper, and general.¹⁷ Towing pontoons.¹⁸ Sugar, lumber, molasses, and general.¹⁹ Wheat, fruit, etc.²⁰ Lumber, grain, paper, cotton, canned goods, and litharge.²¹ Towing pontoons.²² Sugar, lumber, molasses, and general.

Illinois ¹	29	13.50	30	6.10	30	13.00	30	13.00	American.....	The Texas Co.....	416.8	56.1	24.6	Los Angeles, Calif.....	Pt. Arthur, Tex.....	Gasoline.....	7,659	6,945	5,032
Betterton ¹	29	14.30	30	6.46	30	13.40	30	13.40	American.....	Associated Oil Co.....	431.0	59.2	28.0	Los Angeles, Calif.....	Baltimore, Md.....	Gasoline.....	9,486	7,863	5,104
Camden ¹	29	9.12	30	7.10	30	14.20	30	17.50	American.....	United Fruit Co.....	439.0	56.0	25.0	Balboa, C. Z.....	Cristobal, C. Z.....	Ballast.....	6,977	4,969	
Ehro.....	29	22.30	30	8.10	30	15.40	30	15.40	British.....	Pacific Steam Nav. Co.....	430.3	56.8	25.0	Tacahuano, Chile.....	New York, N. Y.....	General.....	2,836	9,291	6,301
Kako Maru.....	29	18.50	30	8.57	30	15.55	30	15.55	Japanese.....	Nippon Yusen Kaisha.....	405.0	53.0	25.0	Hongkong, China.....	New York, N. Y.....	General.....	6,493	7,025	5,055
Gen. Wm. M. Graham ²¹	30	9.07	30	9.07	30	14.35	30	14.35	American.....	U. S. Army.....	160.2	32.1	14.3	Balboa, C. Z.....	Cristobal, C. Z.....	Gasoline.....	928	1,182	742
Baralt.....	30	2.30	30	9.10	30	16.50	30	16.50	Dutch.....	Royal Neth. S. S. Co.....	202.9	33.1	14.3	Buenaventura, Col.....	Cristobal, C. Z.....	Coffee, cocoa, etc. (+s).....	7,520	7,330	5,233
San Pedro.....	30	7.35	30	9.36	30	17.05	30	18.05	American.....	Pacific-Atlantic S. S. Co.....	395.5	55.0	26.0	San Francisco, Cal.....	Wilmington, Del.....	Gasoline.....	12,247	9,474	6,489
Hilda.....	30	7.55	30	10.16	30	18.35	30	18.35	Norwegian.....	K. Knutsen.....	470.3	64.5	27.0	Los Angeles, Calif.....	Lands End, Eng.....	General.....	5,820	7,097	5,065
Krusen ²¹	30	8.05	30	10.40	30	18.45	30	18.45	American.....	Amer-Hawaiian Line.....	407.7	53.7	26.0	Seattle, Wash.....	Boston, Mass.....	General.....	2,956	2,109	1,903
C. B. Pedersen ²⁴	17	12.00	31	6.32	31	15.50	1	8.00	Swedish.....	Rederie A. B. Portunus.....	272.9	40.5	21.0	Melbourne, Auslia.....	Cobh, Ireland.....	Wheat.....	7,700	7,093	5,021
Leverbank ¹³	30	22.20	31	6.42	31	14.25	31	15.45	British.....	Andrew Weir & Co.....	420.0	53.9	26.0	San Francisco, Cal.....	Dublin, Ireland.....	Barley in bags.....	9,003	8,324	6,066
Pomona.....	31	1.30	31	7.26	31	16.30	31	16.30	American.....	Pomona S. S. Co.....	440.0	56.0	28.0	Everett, Wash.....	Newark, N. J.....	Lumber.....	7,689	7,731	5,805
Willapa.....	31	2.05	31	8.06	31	17.50	31	17.50	American.....	Williams S. S. Corp.....	415.1	57.7	26.0	Seattle, Wash.....	Baltimore, Md.....	General, lumber.....	7,097	5,787	3,852
Antien.....	31	6.30	31	8.49	31	19.30	31	20.10	British.....	T. C. Bowring & Co.....	385.4	53.2	24.0	Wiyalla, Australia.....	Baltimore, Md.....	Iron ore.....	6,811	6,616	4,614
Ipswich.....	31	6.30	31	8.49	31	19.35	31	19.35	American.....	Cancaster S. S. Corp.....	400.7	53.9	25.0	Portland, Ore.....	Baltimore, Md.....	(+s).....	7,900	6,161	4,554
Daleory ¹	31	1.30	31	9.15	31	20.05	31	20.05	British.....	United Steam Nav. Co.....	406.5	54.0	24.0	Liquique, Chile.....	Lenningrad, U.S.S.R.....	Nitrate of soda.....	3,913	8,237	5,711
Kia Ora.....	31	9.05	31	9.49	31	20.55	1	1.10	British.....	Shaw, Savill & Albion.....	448.3	56.5	24.0	Wellington, N. Z.....	Glasgow, Scotland.....	General, frozen.....	7,433	4,359	2,639
Westmoor ¹¹	31	18.48	31	19.29	1	10.55	1	14.15	British.....	W. Runciman & Co.....	375.0	52.6	25.0	Portland, Ore.....	United Kingdom.....	Wheat in bulk.....			

¹ Tanker.²¹ Tug.²³ Bark.²⁵ Lumber, wire reels, and cylinders.²⁶ Lumber, paper, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

Date.	Vessel.	* ARRIVALS.		* DEPARTURES.		For—
		Line.	From—	Date.	Vessel.	Line.
May 25.....	Tolosa.....	United Fruit Co.....	Port Limon, C. R.....	May 23.....	Inapaquina ²⁸	United Fruit Co.....
May 25.....	Van Rensselaer.....	Royal Netherlands S. S. Co.....	Amsterdam via wayports	May 25.....	Maravi.....	United Fruit Co.....
May 25.....	No. 9688 ²⁷	Pan American Airways.....	Tela via wayports.	May 25.....	Tolosa.....	United Fruit Co.....
May 25.....	No. 142-M ²⁷	Pan American Airways.....	Miami via wayports.	May 25.....	Ancon.....	Panama R. R. S. S. Line.....
May 26.....	Perou.....	French Line.....	St. Nazaire via wayports.	May 25.....	No. 9670 ²⁷	Pan American Airways.....
May 26.....	Pastores.....	United Fruit Co.....	New York via Habana.	May 26.....	Heredia.....	United Fruit Co.....
May 26.....	Darien C-35 ²⁷	Scandia Airplane Co.....	Barranquilla and waypts.	May 26.....	No. 309-N ²⁷	Pan American Airways.....
May 27.....	No. 9670 ²⁷	Pan American Airways.....	San Salvador and waypts.	May 26.....	War Sidar.....	British Admiralty.....
May 27.....	British Reliance.....	Anglo-Saxon Petroleum Co.....	Curacao, D. W. I.....	May 27.....	No. 9664 ²⁷	Pan American Airways.....
May 28.....	Metapan.....	United Fruit Co.....	New York via Kingston.	May 27.....	Mercian.....	Levyland S. S. Line.....
May 28.....	Iriona.....	United Fruit Co.....	Cartagena.....	May 27.....	Van Rensselaer.....	Royal Netherlands S. S. Co.....
May 28.....	Annotta I. ²⁸	A. Tagaropoulos.....	Colon, R. P.....	May 28.....	Magallanes.....	Spanish Line.....
May 28.....	No. 309-N ²⁷	Pan American Airways.....	Pto. Cabello via wayports.	May 28.....	Pastores.....	French Line.....
May 28.....	No. 300-N ²⁷	Pan American Airways.....	Guayaquil via wayports.	May 28.....	Perou.....	United Fruit Co.....
May 29.....	Van Rensselaer.....	Royal Netherlands S. S. Co.....	Port Limon, C. R.....	May 29.....	No. 142-M ²⁷	Pan American Airways.....
May 29.....	Castilla.....	United Fruit Co.....	New Orleans, La.....	May 29.....	Metapan.....	United Fruit Co.....
May 29.....	No. 9664 ²⁷	Pan American Airways.....	Tela via wayports.	May 30.....	Castilla.....	United Fruit Co.....
May 29.....	Viborg.....	United Fruit Co.....	Tela.....	May 30.....	British Reliance.....	Anglo-Saxon Petroleum Co.....

²⁷ Air mail carrier.²⁸ Motor boat.²⁹ Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.							
* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 30.	Amapala.	Standard Fruit & S. S. Co.	New Orleans via Habana.	May 30.	No. 9670 ³⁰	Pan American Airways.	Tela via wayports.
May 30.	Managua.	United Fruit Co.	New York via wayports.	May 30.	Darien C-35 ³⁰	Scadta Airplane Co.	Barranquilla via wayports.
May 30.	Darian.	Leyland S. S. Line.	Liverpool via wayports.	May 31.	Van Rensselaer.	Royal Netherlands S. S. Co.	Amsterdam via wayports.
May 31.	Grunewald.	Hamburg-American Line.	Tampico via wayports.	May 31.	Darian.	Leyland S. S. Line.	Puerto Cortez.
May 31.	Cartago.	United Fruit Co.	New York via Habana.	May 31.	Iriona.	United Fruit Co.	New Orleans and waypts.
May 31.	Inapaquina ²⁹ .	United Fruit Co.	Colon, R. P.	May 31.	No. 8817 ³⁰	Pan American Airways.	Puntarenas via David.
				May 31.	Amapala.	Standard Fruit & S. S. Co.	New Orleans and waypts.
				May 31.	Inapaquina ²⁹ .	United Fruit Co.	Colon, R. P.
				May 31.	Annetta I. ²⁹ .	A. Tagaropoulos.	Colon, R. P.
				May 31.	Dora K. ³¹ .	A. L. Surgeon.	Bluefields via Pt. Limon.
PORT OF BALBOA.							
²⁹ Motor boat.		³⁰ Air mail carrier.		³¹ Motor ship			
May 27.	Real ³² .	Hans Elliot.	Panama Bay, R. P.	May 28.	Real ³² .	Hans Elliot.	Panama Bay, R. P.
May 31.	Sambu ³¹ .	Hans Elliot.	Panama Bay, R. P.	May 31.	Real ³² .	Hans Elliot.	Panama Bay, R. P.
May 31.	Real ³² .	Hans Elliot.	Panama Bay, R. P.				
May 31.	Saramacca.	United Fruit Co.	San Francisco, California.				
May 31.	Cecilia ³² .	Dr. Lignarola.	Buenaventura, Colombia.				

* Other than ships passing through the Canal.

³² Motor schooner.

Cargo Through the Canal During April, 1930.

On pages 634 and 635 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in April, 1930. This cargo, segregated according to direction, as compared with April, 1929, and the differences, is shown in the following tabulation:

	April, 1930.	April, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	806,119	862,450	-56,331
Pacific to Atlantic.....	1,650,663	1,857,218	-206,555
Total.....	2,456,782	2,719,668	-262,886

It will be noted from the above that the Atlantic to Pacific tonnage decreased 56,331 tons as compared with April, 1929, and that from the Pacific to Atlantic 206,555 tons, making a total decrease of cargo tonnage in both directions of 262,886 tons. The heavy decrease was accounted for by curtailment in shipments of several important commodities as indicated under "Principal commodities," most notably, iron and steel manufactured goods from the Atlantic, and nitrates from the Pacific.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five and four-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 27.0 per cent in Europe. Tonnage from the United States decreased 29,365 tons, or 5.3 per cent, as compared with April, 1929, while the proportion to the total in April, 1930, was somewhat higher. The amount originating in Europe was 217,650 tons in 1930, as compared with 222,966 tons in 1929, a decrease of 5,316 tons, or 2.4 per cent—although the percentage of the whole was slightly higher in April of this year.

Destination.—Forty per cent of the Pacific-bound tonnage was destined to the United States; 24.1 per cent to Asia; 17.7 per cent to South America; and 12.0 per cent to Australasia. Cargo tonnage to all these areas, with the exception of Asia, declined as compared with April, 1929, in actual tonnage as follows: To the United States, 45,141, or 12.3 per cent; to South America, 2,615, or 1.8 per cent; and to Australasia, 26,348, or 21.4 per cent. Tonnage to Asia increased 24,265 tons, or 14.3 per cent. In point of the relation of cargo destined to the aforementioned areas to the total tonnage in this direction, that to the United States and Australasia decreased, while that to Asia and South American showed a gain.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 48.6 per cent came from the United States; 23.0 per cent from South America; 13.0 from Canada; 4.6 per cent from Asia; and 9.3 per cent from Australasia. As compared with the corresponding month a year ago, tonnage from the United States decreased 3,332 tons, or 0.4 per cent—while the percentage of the total was somewhat higher in April, 1930. On account of the greatly lessened nitrate shipments, cargo tonnage from South America decreased 182,354 tons, or 32.4 per cent, and also showed a greatly reduced percentage in its relation to the total cargo.

Tonnage from Canada and Asia showed proportionate decreases as well as decreases in actual tonnage in the amounts of 52,616, or 19.8 per cent, and 17,438, or 18.7 per cent, respectively, as compared with April, 1929. On account of heavy whale oil shipments, cargo tonnage from Australasia increased 43,285 tons, or 39.3 per cent—also showing a large increase in its proportion to the total Atlantic-bound cargo movement.

Destination.—Segregated according to destination, 57.6 per cent of the cargo in this direction went to the United States, and 34.3 per cent to Europe. Tonnage to the United States increased in its proportion to the total tonnage in this direction over April, 1929, but showed a decrease in actual tonnage of 89,239 tons, or 8.6 per cent. That to Europe showed a decrease in its relation to the total cargo as well as an actual decrease of 135,797 tons, or 19.4 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 89.7 per cent of the total cargo in transit through the canal from the Atlantic to the Pacific. The remaining 10.3 per cent consists, for the most part, of manufactured articles in small lots reported as "General Cargo."

Atlantic to Pacific bound commodities which aggregated more than 10,000 tons for April, 1930, or April, 1929, are listed in the following tabulation, showing differences:

Commodity.	April, 1930.	April, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	16,996	11,200	+5,796
Automobiles.....	15,374	24,631	-9,257
Cement.....	35,539	33,651	+1,888
Coal and coke.....	22,929	17,173	+5,756
Cotton.....	19,590	14,460	+4,130
Manufactured goods:			
Iron and steel.....	170,008	229,029	-59,021
Machinery.....	17,797	16,495	+1,302
Railroad material.....	19,055	23,949	-4,894
Textiles.....	11,078	11,837	-759
Tinplate.....	28,362	27,672	+690
Miscellaneous.....	12,782	11,576	+1,206
Metal, scrap.....	15,021	3,653	+11,368
Oils, mineral.....	48,290	46,266	+2,024
Paper.....	22,891	20,373	+2,518
Phosphates.....	40,557	22,042	+18,515
Silversand.....	12,517	4,055	+8,462
Slag.....	11,735	13,514	-1,779
Sugar.....	17,969	29,354	-11,385
Sulphur.....	30,982	13,877	+17,105

The above 19 commodity groups comprise 70.6 per cent of the cargo moving from the Atlantic to the Pacific during April, 1930. As will be noted, 13 of the items increased and 6 decreased as compared with April, 1929. Manufactured iron and steel, automobiles, and sugar showed heavy decreases, while the heaviest gains were in scrap metal, phosphates, and sulphur.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of April, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month in 1929 are listed below:

Commodity.	April, 1930.	April, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	13,035	14,574	-1,539
Canned goods (fish, fruit, vegetables, etc.).....	45,737	49,537	-3,800
Coffee.....	19,581	18,360	+1,221
Cold storage (food products) *.....	36,608	27,791	+8,817
Copra.....	14,414	15,955	-1,541
Flour.....	10,007	8,906	+1,101
Fruit, dried.....	8,805	14,440	-5,635
Fruit, fresh.....	8,294	25,690	-17,396
Lumber.....	305,523	301,631	+3,892
Metals, various.....	54,068	51,064	+3,004
Nitrates.....	71,063	236,351	-165,288
Oats.....	4,589	11,506	-6,917
Oils, mineral.....	420,252	391,426	+28,826
Oil, whale.....	47,330	20,166	+27,164
Ores, principally iron.....	210,475	183,903	+26,572
Sugar.....	72,325	111,004	-38,679
Wheat.....	166,242	231,619	-65,377
Wool.....	17,062	20,309	-3,247

* Fresh fruit not included.

The above 18 commodity groups comprise 92.4 per cent of the cargo moving from the Pacific to the Atlantic during April, 1930. Eight of the items show increases and 10 decreases. Mineral oil, whale oil, and ores showed the greatest increases, while fresh fruit, nitrates, sugar, and wheat decreased heavily.

(Continued on next page.)

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 9, 1930.

No. 698.

AIDS TO NAVIGATION.

Pacific entrance, range lights, The Panama Canal. Corrected data on these lights are as follows:

Range light No. 1: Position of light, latitude 8° 57' 34.46" N., longitude 79° 34' 45.11" W.; characteristic, white, fixed; elevation, 50 feet above M. H. W.; visibility, 14.5 nautical miles.

Range light No. 2: Position of light, latitude 8° 59' 13.31" N., longitude 79° 36' 04.40" W.; characteristic, white, occulting; period, 5 seconds, light 4.5 seconds, eclipse 0.5 seconds or 12 flashes per minute; elevation, 193 feet above M. H. W.; visibility, 20 nautical miles.

This supersedes Notice to Mariners No. 647, dated December 6, 1929.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 4, 1930.

No. 712.

CENTRAL AMERICA.

Panama Canal, Atlantic approach, Isla Grande Light. On June 1, 1930, the red flash in the characteristic of Isla Grande Light was changed to a white flash, thus making the present characteristic of this light 12 white flashes per minute.

New characteristic: Flashing white, period 5 seconds; flash 0.3 second, eclipse 4.7 seconds.

Position: Latitude 9° 38' 22" N., longitude 79° 33' 38" W.

(See Notice to Mariners No. 694 for advance notice of above.)

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending May 24, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Neotsfield.....	James Bell & Co.....	May 18.....	May 19.....	149	
Loriga.....	Pacific Steam Navigation Co.....	May 19.....	May 19.....		50
City of San Francisco.....	Panama Mail S. S. Co.....	May 21.....	May 21.....		1
Venezuela.....	Panama Mail S. S. Co.....	May 21.....	May 21.....	115	7
Santa Rita.....	Grace Line.....	May 21.....	May 21.....		124
El Salvador.....	Panama Mail S. S. Co.....	May 22.....	May 22.....	186	
San Jose.....	United Fruit Co.....	May 22.....	May 22.....	64	42
Pennsylvania.....	Panama-Pacific Line.....	May 23.....	May 23.....		194

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, April, 1930.—Continued from page 633.
(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.							SOUTH AMERICA.					AUSTRALASIA.				ASIA.				Grand total.	Per cent of total cargo.	
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. ²	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. ¹	Total, South America.	Australia.	New Zealand.	Australasia. ¹	Total, Australasia.	Philippine Islands.	China.	Japan.	Far East. ¹			Total, Asia.
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports.....	187,374	1,192	1,316			170 14, 625 204, 677 14, 095		443	523	10, 483	9, 609	35, 153 11, 972		4, 568	1, 950 18, 490 14, 899 25, 596	38, 031 17, 257	95, 783 354, 103	43. 9					
South Atlantic ports.....	3, 817					3, 817										3, 860	3, 860	3, 845	3, 860	3, 860	3, 845	5, 662	
Gulf ports.....	60, 621	160				60, 781 3, 220		77	65	337	59	3, 758		7, 155	7, 155	1, 543 20, 723	64, 242	5, 487	91, 995	163, 689	20. 3		
Total, United States.....	251, 812	1, 352	1, 316			170 14, 625 269, 275 17, 315		520	588	10, 820	9, 668	38, 911 11, 972		11, 723	1, 950 25, 645 16, 772 47, 635	106, 133 23, 083	193, 623	927, 454	65. 4				
East coast of Canada.																							
East coast of Central America.....																							
Cristobal, C. Z. ²	2, 583	113	4, 434			7, 130 1, 399		595	625	675	1, 188	2, 500		4, 518	5, 003	9, 521							
West Indies.....	8, 576	7, 022				10, 598 7, 750						7, 750		6, 782	6, 782	6, 782							
Total, North America.....	257, 971	8, 487	6, 950			170 14, 625 288, 203 28, 964 1, 115 1, 213		1, 115	1, 213	11, 495	10, 856	53, 648 16, 490 23, 508		1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	1, 950 41, 948	
EUROPE:																							
British Isles.....	3, 574	6, 968	2, 500			13, 042 31, 053				2, 441	5, 258	38, 752		43, 051	6, 510 49, 561								
Belgium.....	19, 721	2, 370	714			22, 805 7, 022		8	189	177	2, 915	10, 302											
Denmark.....									477	369		837											
France.....	1, 548	488	147			2, 183 862		8	69	56	210	1, 195											
Germany.....	8, 296	84	421			8, 944 866		208	323	400	805	2, 602											
Holland.....	2, 889	346				3, 359 1, 858		63	227	1, 448	3, 596												
Italy.....	1, 041	22	235			1, 298 28					7	2, 450											
Norway and Sweden.....	5, 439	1, 686	990			8, 174 9, 634			76	351	267	10, 064											
Spain and Portugal.....		1, 083	30			1, 113					267	267											
Europe ¹	12, 559	758				13, 357 2, 229		79	121	1, 621 14, 598	18, 648												
Total, Europe.....	55, 067 12, 178	5, 733 1, 297				74, 275 53, 542		366 1, 473	6, 864 26, 503	88, 748	1, 681 43, 051	9, 895 54, 027											
East coast of South America.....	9, 384	630				10, 014		98			212	310											
Grand totals.....	322, 422 21, 295 12, 683	1, 467 14, 625 372, 492 82, 506	1, 579 2, 686	18, 359 37, 571 142, 701 18, 171	66, 559 11, 845 90, 575 16, 772	47, 635 106, 861 23, 083 194, 351	806, 119 103 0																
Per cent of total cargo:																							
April, 1930.....	40. 0	2. 6	1. 6	0. 2	1. 8	46. 2	10. 2	0. 2	0. 3	2. 3	4. 7	17. 7		2. 8	8. 2	1. 5	12. 0		5. 9	13. 2	2. 9	24. 1	100. 0
April, 1929.....	42. 6	1. 7	3. 0	0. 0	1. 9	49. 2	4. 9	2. 2	0. 4	2. 4	6. 9	16. 8		3. 9	10. 0	0. 4	14. 3		4. 6	10. 4	1. 8	19. 7	103. 0
April, 1928.....	41. 4	1. 7	2. 1	0. 8	0. 6	46. 6	5. 4	2. 1	0. 5	1. 8	4. 8	14. 6		5. 4	11. 9	1. 8	19. 0		4. 5	7. 6	6. 3	19. 8	103. 0

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, April, 1930.

(Figures represent tons of 2,240 pounds.)

From—	North America.							Europe.												Grand total.	Per cent of total cargo.				
	UNITED STATES.				North America.			Europe.																	
	North Atlan- tic ports.	South Atlan- tic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Cen- tral America.	Cristobal, C. Z. ²	West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. ¹			Total, Europe.	East coast of South America.	Egypt.	Africa.
North America:																									
W. coast U. S.	474,805	10,740	43,800	529,345	3,427	1,692	12,344	546,808	135,738	5,776	747	13,475	19,427	7,274	962	1,545	519	59,555	245,028	9,657	601	998	803,092	48.6	
W. coast Canada	21,847			21,911	23,607	306	100	6,317	52,235	48,093	4,311	15	207	3,835	4,287	424	9,203	18,451	70,767	159,593	1,767			213,595	13.0
W. coast C. Am.	102			102		8,987	142	9,231					1,400	1,021	81	912		1,741	5,155				14,336	0.9	
Balboa, C. Z. ²																					189		189		
Hawaiian Isl'ds	3,370			7,352	10,722			10,722																10,722	0.6
Total, N. A.	500,124	10,740	51,216	562,080	23,607	3,727	10,779	618,996	183,831	10,087	762	15,082	24,283	11,642	1,386	11,600	18,970	132,073	409,776	11,604	601	998	1,041,975	63.1	
South America:																									
Chile	179,872	23,100	2,057	205,029			266	1,298	207,493	19,941	1,486		3,356	2,310	62	406	432	10	22,491	50,494		7,700		265,637	16.1
Colombia	1,812			1,812			3,265		5,077		3		79						335	1,832				5,159	0.3
Ecuador	15,074			15,074			2,448	20	17,522		6	663	2,411	1,959	51	325		1	2,399	11,979		8		19,372	1.2
Peru	25,540		1,484	27,024	46,374		67		73,485	4,263						485			1,155	1,693				85,472	5.2
W. coast S. A.	789			789			1,489		2,269				53											3,962	0.2
Total, S. A.	223,087	23,100	4,441	250,628	46,374		7,526	1,318	305,846	24,204	1,495	663	6,529	4,367	168	1,930	432	11	26,281	68,080		267,709		379,652	23.0
Australasia:																									
Australia	16,376			16,376	120				16,496	3,551										3,551				20,047	1.2
New Zealand	8,458	10,238		18,696	1,318				20,014	53,416							20,009			73,416				93,431	5.7
Australasia	24,833		4,400	29,233					29,223	6,046	4,540									10,586				39,899	2.4
* Total, Aus'n	49,657	10,238	4,400	64,295	1,438				65,733	63,013	4,540						20,000			87,553				153,286	9.3
Asia:																									
Philippine Isl's.	48,354		14,415	62,769					62,769															62,769	3.8
China	4,125			4,125			257	69	4,451															4,451	0.3
Japan	5,978			5,978			15	370	6,363															6,363	0.4
Far East	116			116			51		167	2,000										2,000				2,167	0.1
Total, Asia	58,573		14,415	72,988			323	439	73,750	2,000										2,000				75,750	4.6
Grand total	831,441	47,742	991,711	419,372	18,628	20,560	1,004	3,352	273,048	16,122	1,425	21,611	28,650	11,810	3,313	2,092	18,981	135,351	565,409	11,630	8,301	998	1,655,663	100.0	
Per cent, total cargo:																									
April, 1930	50.4	2.7	4.5	57.6	4.3	0.2	1.1	1.2	64.4	16.5	1.0	0.1	1.3	1.7	0.7	0.2	1.9	1.1	9.6	34.3	0.7	0.5	0.1	100.0	.....
April, 1929	49.7	2.4	3.8	55.9	3.9	0.2	1.1	1.0	62.1	15.4	2.2	1.1	2.6	2.6	2.7	0.4	0.8	0.7	9.2	37.8	0.1	.....	100.0	.....	
April, 1928	46.8	4.9	3.2	54.9	0.9	1.1	1.5	0.9	59.3	20.3	2.2	1.0	1.8	4.4	2.9	1.1	1.0	.....	5.4	40.0	0.2	0.4	100.0	.....	

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., May 31, 1930.

No. 710.

Colombia, Atlantic coast, Hermoso Point Light, period changed. The following reports regarding period of Hermoso Point Light, approach to Puerto Colombia have been received by the Office of the Captain of the Port, Cristobal:

(1). M. S. *Lochmonar*, May 28, 1930. On approaching Puerto Colombia it was observed that Hermoso Point Light was showing four short flashes.

(2). S. S. *Managua*, May 29, 1930. The characteristic of Hermoso Point Light was observed to be as follows:

Group flashing white every fifteen seconds—

Flash 0.3 second, eclipse 0.7 second.

Flash 0.3 second, eclipse 0.7 second.

Flash 0.3 second, eclipse 0.7 second.

Flash 0.3 second, eclipse 0.7 second.

Flash 1.0 second, eclipse 10.0 seconds.

Approximate position: Lat. 10° 58' 20" N., Long. 75° 01' 50" W.

H. BURGESS,

Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending May 31, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Maravi.....	United Fruit Co.....		May 25.....		869
San Francisco.....	Hamburg-American Line.....		May 25.....		611
Murla.....	North German Lloyd.....		May 25.....		550
Zenon.....	French Line.....		May 25.....		12
Essequibo.....	Pacific Steam Nav. Co.....		May 25.....		150
Ancon.....	Panama R. R. S. S. Line.....		May 25.....		906
Tolosa.....	United Fruit Co.....	May 25.....	May 25.....	31	88
Wyoming.....	French Line.....	May 25.....	May 26.....	146	103
Villanger.....	Westfal, Larsen & Co.....	May 25.....	May 26.....	110	(²)
Van Rensselaer.....	Royal Netherlands S. S. Co.....	May 25.....	May 27.....	15	4
Carl Legien.....	Hamburg-American Line.....	May 25.....	May 30.....	129	984
Heredia.....	United Fruit Co.....		May 26.....		54
Adolf von Baeyer.....	Hamburg-American Line.....	May 26.....	May 27.....	558	856
Defiance.....	Roosevelt S. S. Co.....	May 26.....	May 27.....	85	(²)
Perou.....	French Line.....	May 26.....	May 28.....	59	466
Pastores.....	United Fruit Co.....	May 26.....	May 28.....	785	38
Mercian.....	Leyland S. S. Line.....		May 27.....		225
Magallanes.....	Spanish Line.....		May 27.....		478
Santa Inez.....	Grace Line.....	May 27.....	May 27.....	691	10
Nosa Queen.....	N. O. & S. A. S. S. Co.....	May 27.....	May 28.....	64	541
Virgilio.....	Italian Line.....	May 27.....	May 29.....	289	1
Orduna.....	Pacific Steam Navigation Co.....	May 28.....	May 28.....	12	(²)
Laurits Swenson.....	Fred Olsen & Co.....	May 28.....	May 28.....	564	176
Rialto.....	Nav. Libera Triestina.....	May 28.....	May 28.....	2	221½
Santa Barbara.....	Grace Line.....	May 28.....	May 28.....	92	4
Metapan.....	United Fruit Co.....	May 28.....	May 29.....	591	132
Baarn.....	Royal Netherlands S. S. Co.....	May 28.....	May 29.....	127	233
British Reliance.....	Anglo-Saxon Petroleum Co.....	May 28.....	May 30.....	9,444	(²)
Iriana.....	United Fruit Co.....	May 28.....	May 31.....	11	176
Champerico.....	Pacific Steam Navigation Co.....		May 29.....		890
Amerika.....	Danish-East Asiatic Co.....	May 29.....	May 29.....	7	31
Castilla.....	United Fruit Co.....	May 29.....	May 29.....	929	42
Viborg.....	United Fruit Co.....	May 29.....		1,128	
Abraham Lincoln.....	Fred Olsen & Co.....	May 29.....	May 30.....	(²)	283
Colombo.....	Italian Line.....	May 29.....	May 31.....	32	1,096
Cellina.....	Nav. Libera Triestina.....	May 29.....	May 30.....	213	(²)
Van Rensselaer.....	Royal Netherlands S. S. Co.....	May 29.....	May 31.....	(²)	309
Ebro.....	Pacific Steam Navigation Co.....	May 30.....	May 31.....	102	256
Lochmonar.....	Pacific Steam Navigation Co.....	May 30.....	May 31.....	255	330
Darian.....	Leyland S. S. Line.....	May 30.....	May 31.....	367	(²)
Amapala.....	Standard Fruit & S. S. Co.....	May 30.....	May 31.....	213	425
Managua.....	United Fruit Co.....	May 30.....		40	
Cali.....	North German Lloyd.....	May 30.....		382	
Baralt.....	Royal Netherlands S. S. Co.....	May 30.....		983	
Dora K.....	R. Feuillebois.....		May 31.....		40
Grünwald.....	Hamburg-American Line.....	May 31.....		25	
Cartago.....	United Fruit Co.....	May 31.....		85	

¹ No cargo discharged.² No cargo laded.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., June 11, 1930. No. 45.

Tanker Traffic Through the Panama Canal in May, 1930.

During the month of May, 1930, 92 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 508,917, on which tolls of \$445,747.89 were paid. Cargo amounted to 456,102 tons, which included 442,700 tons of mineral oil and 13,402 tons of coconut oil. In point of net tonnage, tanker traffic decreased 5.5 per cent under the same traffic for the corresponding month a year ago, and cargo tonnage decreased 3.6 per cent.

Tanker traffic comprised 19.2 per cent of the total commercial transits through the Canal during the month; made up 21 per cent of the total Panama Canal net tonnage; were the source of 20.6 per cent of the tolls collected; and carried 20.2 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of May, 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the 2 preceding months and for May, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
British.....	8	43,747	\$32,998.59	7,269
Chilean.....	1	2,093	1,596.96	.....
Danzig.....	1	6,310	4,543.20	.....
Norwegian.....	5	30,943	24,594.82	12,300
United States.....	33	159,062	139,212.78	14,359
Total, May, 1930.....	48	272,155	202,856.35	33,928
Total, April, 1930.....	39	213,878	162,405.20	28,454
Total, March, 1930.....	40	209,588	152,605.22	6,907
Total, May, 1929.....	52	286,387	210,607.65	19,679
<i>Pacific to Atlantic.</i>				
British.....	6	30,588	32,391.14	50,792
Danish.....	2	11,677	12,160.09	22,238
Danzig.....	2	14,198	13,445.00	24,524
French.....	3	12,891	14,055.00	23,319
German.....	1	4,435	4,742.50	8,665
Norwegian.....	2	10,825	11,582.50	20,811
Swedish.....	1	6,035	7,242.00	10,055
United States.....	27	146,113	147,273.40	* 261,770
Total, May, 1930.....	44	236,762	242,891.54	422,174
Total, April, 1930.....	46	264,438	264,724.95	455,872
Total, March, 1930.....	47	234,316	240,982.05	423,247
Total, May, 1929.....	49	252,053	261,846.40	453,684

* Includes 13,402 tons coconut oil.

The following tabulation shows the tanker traffic through the Canal during May, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	26	146,626	\$108,658.86	14,359
United States to South America.....	4	22,483	16,187.76	.....
United States to Hawaii.....	1	4,286	3,085.92	.....
Canada to South America.....	1	5,049	3,635.28	.....
Central America to South America.....	1	3,650	4,128.75	7,269
West Indies to United States.....	1	6,050	4,356.00	.....
West Indies to South America.....	1	6,287	6,842.50	12,300
Europe to United States.....	11	69,321	49,911.12	.....
Europe to South America.....	2	8,403	6,050.16	.....

PACIFIC TO ATLANTIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	21	116,835	\$115,586.25	207,811
United States to Australasia.....	13	65,053	71,040.90	120,345
South America to United States.....	3	17,537	19,132.50	34,029
South America to Canada.....	2	13,836	12,998.75	25,200
South America to West Indies.....	1	3,892	2,802.24	.....
South America to Europe.....	2	11,977	12,172.50	21,396
Philippine Islands to United States.....	2	7,632	9,158.40	* 13,402

* Coconut oil.

Of the tanker traffic passing through the Canal in May, 1930, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for May, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
May, 1930.....	33	190,213	\$139,975.35	14,359
April, 1930.....	29	160,376	116,391.53	300
March, 1930.....	31	177,371	127,753.83	.....
May, 1929.....	41	227,722	165,842.76	1,277
<i>From Los Angeles.</i>				
May, 1930.....	32	173,014	177,384.65	311,898
April, 1930.....	33	181,662	182,359.75	321,197
March, 1930.....	40	203,457	208,169.55	364,974
May, 1929.....	35	181,003	186,620.50	322,997

Transit of Byrd Antarctic Expedition Vessels.

The auxiliary steamers *Eleanor Bolling* and *City of New York* transited the Canal on June 1, en route from Dunedin to New York via Papeete on their return from the Antarctic in the service of the Byrd Antarctic Expedition. The *Eleanor Bolling* arrived first in Balboa on May 23, and after refueling returned to the assistance of the *City of New York*, bringing the latter in under tow, on May 31. Both vessels refueled, took commissary supplies and water, and sailed for New York on June 3, the *City of New York* under tow of the Navy tug *Sciota*, which had been ordered to tow for 72 hours.

The *Eleanor Bolling* was manned by a crew of 21, under command of Gil Brown, and the *City of New York* by a crew of 32, under command of F. C. Melville. Rear Admiral R. E. Byrd, commander of the expedition, arrived at Balboa on May 14 on the motor ship *Rangitiki* of the New Zealand Shipping Co., awaited the arrival of the two expedition ships, and sailed aboard the *City of New York* on June 3.

The expedition ships passed through the Canal on their way south, the *City of New York* on September 17, 1928, and the *Eleanor Bolling* on October 6, 1928.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending June 7, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Manaquí	United Fruit Co.		June 1.		150
Cali.	North German Lloyd.		June 1.		350 ³ / ₄
Canadian Transporter.	Can. Nat. Steamships.	June 1.	June 1.	16	(²)
Pastores.	United Fruit Co.	June 1.	June 1.	13	79 ³ / ₄
Acajutla.	Pacific Steam Navigation Co.	June 1.	June 1.	805	
Ville de Strasbourg.	French Line.	June 1.	June 2.	(¹)	101
Lochgoil.	Royal Mail S. P. Co.	June 1.	June 2.	(²)	238
Baralt.	Royal Netherlands S. S. Co.		June 2.		99
Grunewald.	Hamburg-American Line.		June 2.		448
Cartago.	United Fruit Co.		June 2.		68
Castilla.	United Fruit Co.	June 2.	June 2.	24	115
Roland.	North German Lloyd.	June 2.	June 3.	296	52
Guatemala.	Panama Mail S. S. Co.	June 2.	June 3.	418	492
Volunteer.	Tampa Intercean Co.	June 2.	June 3.	148	(²)
Ulua.	United Fruit Co.	June 2.	June 4.	357	20
Manizales.	North German Lloyd.	June 2.	June 3.	992	
Balboa.	Johnson S. S. Line.	June 3.	June 3.	(¹)	236
Santa Elisa.	Grace Line.	June 4.	June 4.	99	139
Cristobal.	Panama R. R. S. S. Line.	June 4.	June 4.	3,552	
Kinderdijk.	Holland-American Line.	June 4.	June 4.	(²)	320
Sixola.	United Fruit Co.	June 4.	June 5.	546	148
Tela.	United Fruit Co.	June 4.	June 5.	682	215
Saint Joseph.	French Line.	June 4.	June 6.	798	(²)
Cerigo.	Hamburg-American Line.	June 4.	June 4.	1,012	
Oroya.	Pacific Steam Navigation Co.	June 4.	June 5.	73	47
Emil Kirdorf.	Hamburg-American Line.	June 4.	June 7.	603	47
Rugia.	Hamburg-American Line.	June 5.	June 5.	72	(²)
Colombia.	Panama Mail S. S. Co.	June 5.	June 6.	997	77
Trave.	North German Lloyd.	June 5.	June 6.	(²)	313
Eemdijk.	Holland-American Line.	June 5.	June 6.	27	284
Aconcagua.	Chilean Line.	June 5.	June 6.	(²)	37
Havre Maru.	Osaka Shosen Kaisha.	June 5.	June 6.	48	(²)
Nosa Chief.	N. O. & S. A. S. S. Co.	June 6.	June 7.	113	173
Camden.	United Fruit Co.	June 6.	June 7.	5,532	(²)
City of Panama.	Panama Mail S. S. Co.	June 6.	June 6.	1,209	
San Mateo.	United Fruit Co.	June 6.	June 6.	582	
Atlantida.	Standard Fruit & S. S. Co.	June 6.	June 7.	114	391
Castilla.	United Fruit Co.	June 6.	June 7.	307	243
Lobos.	Pacific Steam Navigation Co.	June 6.	June 7.	41	52
Swiftwind.	C. D. Mallory & Co.	June 7.	June 7.	11,900	
Parissima.	United Fruit Co.	June 7.	June 7.	134	
Santa Maria.	Grace Line.	June 7.	June 7.	2	222
Oregon.	French Line.	June 7.	June 7.	28	85
Macabi.	United Fruit Co.	June 7.	June 7.	232	1,142
Tongking.	Danish-East Asiatic Co.	June 7.	June 7.	(²)	241

* No cargo discharged.

* No cargo laded.

* 330 pounds.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending June 7, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ginyo Maru.	Nippon Yusen Kaisha.	May 24.	May 25.	44	36
Santa Inez.	Grace Line.	May 26.	May 27.	6	
Defiance.	U. S. Shipping Board.	May 26.	May 26.	150	
Kenowis.	U. S. Government.	May 27.	May 27.	474	
Santa Barbara.	Grace Line.	May 28.	May 28.	1	2
Nosa Queen.	N. O. & S. A. S. S. Co.	May 28.	May 28.		46
Westerwald.	Hamburg-American Line.	May 28.	May 28.		7
Laurits Swenson.	Fred Olsen & Co.	May 28.	May 30.	1,010	34
Baarn.	Royal Netherlands S. S. Co.	May 29.	May 29.	148	
Kako Maru.	Nippon Yusen Kaisha.	May 29.	May 30.	83	
President Wilson.	Dollar Line.	May 30.	May 30.		19
Saramacca.	United Fruit Co.	May 31.	June 1.	555	76
Volunteer.	U. S. Shipping Board.	June 1.	June 2.	220	
Roland.	North German Lloyd.	June 3.	June 3.	262	119
Guatemala.	Panama Mail S. S. Co.	June 3.	June 4.	41	4
St. Mihiel.	U. S. Government.	June 3.	June 4.	64	8
Somme.	U. S. Government.	June 3.	June 3.	273	23
Epoca.	Grace Line.	June 3.	June 3.	759	
Bradfyne.	Leeds Shipping Co.	June 4.	June 5.	350	
St. Joseph.	French Line.	June 4.	June 4.	131	
Santa Elisa.	Grace Line.	June 4.	June 4.	69	15
Colombia.	Panama Mail S. S. Co.	June 4.	June 5.	85	180
City of Panama.	Panama Mail S. S. Co.	June 5.	June 6.	8	677
San Mateo.	United Fruit Co.	June 5.	June 6.	79	
California.	Panama-Pacific Line.	June 6.	June 6.		171

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 7, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Zeriba	31	21.50	1	6.05	1	14.11	1	15.35	British	Isthmian S. S. Lines	400.0	52.0	25.7	Philadelphia, Pa.	San Antonio, Chile.	General.	5,420	5,725	3,973
Larry Doheny	1	3.05	1	6.15	1	14.29	1	15.35	American	Richfield Oil Co.	430.0	59.0	20.0	Avonmouth, Eng.	Los Angeles, Calif.	Ballast.	7,494	5,198	
Edgar F. Lukenbach.	1	7.20	1	7.35	1	15.06	1	16.20	American	Lukenbach Line.	425.0	57.0	20.0	Houston, Texas.	Tacoma, Wash.	General.	2,640	8,568	6,648
S-14	1	8.15	1	8.15	1	15.26	2	11.00	American	U. S. Navy	281.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-16	1	8.15	1	8.15	1	15.26	2	11.00	American	U. S. Navy	281.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-10	1	8.30	1	8.30	1	15.33	2	11.15	American	U. S. Navy	281.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Call.	29	23.00	1	9.20	1	16.22	1	17.40	German	Roland Line.	216.0	32.0	15.0	Cristobal, C. Z.	Buenaventura, Col.	General.	444	1,105	698
Cities Service	1	8.40	1	9.25	1	16.45	1	18.10	American	Richfield Oil Co.	439.0	59.0	20.0	Baltimore, Md.	Los Angeles, Calif.	Ballast.	8,093	5,347	
Oklahoma	1	9.40	1	10.35	1	17.44	1	18.55	American	Roosevelt S. Co., S. B.	456.0	56.0	27.6	Baltimore, Md.	Hakodate, Japan.	General, oil	8,485	8,368	5,850
Courageous	1	9.55	1	10.50	1	18.28	1	19.40	American	McCormick S. S. Co.	409.0	54.0	21.0	Wilmington, Del.	Seattle, Wash.	General.	4,415	6,566	4,969
West Cape.	1	10.00	1	11.40	1	18.55	1	22.15	American	Tidewater Oil Co.	425.8	57.0	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	7,484	5,212	
Meton	1	10.45	1	12.50	1	19.11	2	10.21	British	Furness, Withy & Co.	435.0	60.0	20.6	Manchester, Eng.	Vancouver, B. C.	General.	1,040	9,725	6,942
Pacific Ranger	1	8.30	1	8.30	1	15.33	1		American	U. S. Navy	441.0	57.0	20.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Motor Sailor	1	16.35	1	19.45	2	12.54	2	18.50	American	Anglo-Saxon Pet. Co.	441.0	57.0	20.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast.	7,589	5,312	
Atlantic	1	18.40	1	20.50	2	12.00	2	15.40	American	Norton Lilly & Co.	440.0	56.0	26.0	Baltimore, Md.	Vancouver, B. C.	Steel.	7,377	8,353	6,113
Hegira	1		2	5.45	2	16.26	1		American	U. S. Navy	690.0	97.0	33.6	Guantanamo, Cuba	San Diego, Calif.	Ballast.			
California	1		2	6.00	2	16.56	1		American	U. S. Navy	690.0	97.0	33.6	Guantanamo, Cuba	San Diego, Calif.	Ballast.			
Tennessee	1		2	6.00	2	16.56	1		American	U. S. Navy	690.0	97.0	33.6	Guantanamo, Cuba	San Diego, Calif.	Ballast.			
Chuyana	1		2	7.10	2	17.21	1		American	U. S. Navy	455.0	56.0		Guantanamo, Cuba	San Diego, Calif.	Unknown			
Ville de																			
Strasbourg	1	7.05	2	7.40	2	17.55	2	19.08	French	Messageries Maritimes	411.0	53.0	22.2	Marseilles, France	Noumea, N. Calid	General	1,024		742
Barat	30	16.50	2	7.30	2	17.56	2	19.08	Dutch	Royal Nedl. S. S. Co.	290.0	33.0	12.2	Cristobal, C. Z.	Guayaquil, Ecuador	General	99	1,183	
Langley	1		2	9.25	2	19.00	1		American	U. S. Navy	520.0	65.0		Guantanamo, Cuba	San Diego, Calif.	Airplanes			
Aroostook	1		2	9.45	2	18.12	1		American	U. S. Navy	375.0	52.0		Guantanamo, Cuba	San Diego, Calif.	Ballast.			
No. 342	1		2	10.50	2	19.20	1		American	U. S. Navy	310.0	31.0		Guantanamo, Cuba	San Diego, Calif.	Ballast.			
No. 343	1		2	10.50	2	19.25	1		American	U. S. Navy	310.0	31.0		Guantanamo, Cuba	San Diego, Calif.	Ballast.			
No. 344	1		2	10.50	2	19.25	1		American	U. S. Navy	310.0	31.0		Guantanamo, Cuba	San Diego, Calif.	Ballast.			
Santore	31	20.30	2	10.50	2	19.50	2	21.00	American	Ore S. S. Corp.	449.0	57.0	19.6	Norfolk, Va.	Cruz Grande, Chile	Ballast.	7,808	5,139	
Charles																			
Christenson.	2	3.00	2	12.00	2	20.17	2	21.35	American	Arrow Line	409.0	54.0	17.6	Savannah, Ga.	San Francisco, Cal.	General.	2,362	6,693	4,915
Americakland	2	6.15	2	12.10	2	20.03	3	21.35	Swedish	Ore S. S. Corp.	561.0	72.0	22.2	Baltimore, Md.	Cruz Grande, Chile	Ballast.	15,500	4,496	
Pacific.	2	7.00	2	13.15	2	21.25	2	22.35	American	Isthmian S. S. Lines	400.0	56.0	20.0	Baltimore, Md.	Hilo, Hawaii	Timplate, general	3,858	6,517	4,723
Americanstar	2	7.40	2	13.30	2	21.55	2	23.20	American	Nelson Line	306.0	52.0	17.7	New York, N. Y.	Seattle, Wash.	General.	2,167	5,690	4,167
Athlregent	2	8.00	2	15.00	2	23.54	3	9.38	British	Union S. S. Co. of N. Z.	475.0	63.0	23.10	Falmouth, England	Wellington, N. Z.	Fuel oil	12,234	9,540	6,227
K. R.																			
Kingsbury	2	19.50	2	20.15	3	14.37	3	15.57	American	Standard Oil Co.	440.0	58.0	22.0	Paulsboro, N. J.	Los Angeles, Calif.	Ballast.		9,033	5,938
West Virginia	1		3	5.45	3	17.14			American	U. S. Navy	600.0	97.0		Guantanamo, Cuba	San Diego, Calif.	Ballast.			
												</							

* Tanker.

* Motor ship.

* Battleship.

* Aircraft carrier.

* Mine layer.

* Destroyer.

New Mexico 4.	1	8.05	3	6.10	3 18 20	American.	U. S. Navy	600.0	97.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Procyon 9.	2	8.05	3	6.45	3 19 17	American.	U. S. Navy	390.0	54.0	Guantanamo, Cuba	San Diego, Calif.	Unknown		
Partridge 9.	3	7.05	3	7.05	3 19 20	American.	U. S. Navy	180.0	35.6	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Gannet 9.	3	7.05	3	7.05	3 19 20	American.	U. S. Navy	180.0	35.6	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Roland 9.	2	5.40	3	7.53	3 18 34	4 4 00	German	North German Lloyd	21.6	21.6	Hamburg, Germany	Valparaiso, Chile	General	3,518 4,800 3,399
Relief 10.	1		3	8.30	3 21 20	American.	U. S. Navy	460.0	61.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Term 8.	1		3	8.50	3 21 25	American.	U. S. Navy	180.0	35.6	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Brant 8.	1		3	8.50	3 21 25	American.	U. S. Navy	180.0	35.6	Guantanamo, Cuba	San Diego, Calif.	Ballast		
No. 336 7.	1		3	9.35	3 19 55	American.	U. S. Navy	310.0	31.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
No. 341 7.	1		3	9.35	3 19 55	American.	U. S. Navy	310.0	31.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
No. 347 7.	1		3	9.35	3 19 55	American.	U. S. Navy	310.0	31.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Guatemala 1.	2	5.00	3	10.05	3 20 11	4 19 32	American.	Panama Mail S. S. Co.	360.0	51.0	Guantanamo, Cuba	San Diego, Calif.	Ballast	
Pacific Redwood 1.	3	2.50	3	11.25	3 21 52	3 23 19	American.	Dimon S. S. Corp.	409.0	54.0	Guantanamo, Cuba	San Francisco, Cal	Coffee, general	1,995 5,776 4,081
St. Michel 1.	3	6.10	3	14.35	3 22 08	4 12 30	American.	U. S. Army	436.0	45.0	Philadelphia, Pa.	Seattle, Wash	General	5,513 6,537 4,845
Moko Maru 1.	3	14.40	3	17.25	4 11 48	4 13 10	Japanese	Nippon S. S. Co.	415.0	55.0	New York, N. Y.	San Francisco, Cal	Army supplies	7,578
Argonne 1.	1		4	6.05	4 13 05	American.	U. S. Navy	448.0	58.0	Tampa, Florida.	Yokohama, Japan	General		
V-2 2.	1		4	7.05	4 14 14	American.	U. S. Navy	341.0	27.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
V-3 2.	1		4	7.05	4 14 14	American.	U. S. Navy	341.0	27.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
Neches 1.	1	6.30	4	7.45	4 14 51	American.	U. S. Navy	455.0	56.0	Pt. Arthur, Tex	San Diego, Calif.	Fuel oil	7,250	
Kansas 1.	4	1.40	4	8.10	4 15 15	4 16 15	American.	Amer-Hawaiian Line	404.0	54.0	Boston, Mass	Seattle, Wash	General	3,218 6,779 4,921
Harry 1.	4	4.05	4	8.50	4 15 57	4 17 00	American.	Luckenbach Line	448.0	60.0	Boston, Mass	Seattle, Wash	General	3,690 9,262 6,853
Lukenbach 1.	4	3.40	4	10.10	4 17 08	4 18 15	Norwegian.	Per Gyrding	396.0	55.0	Palmouth, England	Los Angeles, Calif	Ballast	
Bisca 1.	4	5.45	4	9.25	4 16 44	American.	U. S. Navy	310.0	31.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
No. 345 7.	4	5.45	4	9.25	4 16 44	American.	U. S. Navy	310.0	31.0	Guantanamo, Cuba	San Diego, Calif.	Ballast		
No. 346 7.	4	10.35	4	10.55	4 18 20	5 2 00	French	Anglo-Saxon Pet. Co.	425.0	57.0	Guantanamo, Cuba	San Diego, Calif.	Ballast	
Myrtam 1.	4	5.20	4	12.17	4 18 31	5 2 40	American.	Gracia Line	360.0	51.0	Cherbourg, France	Los Angeles, Calif	Ballast	
Santa Elisa 1.	4	15.50	4	16.10	5 9 28	5 13 00	British.	Imperial Oil Co	470.0	63.0	New York, N. Y.	Talcahuano, Chile	General	1,682 5,957 4,325
Ontariolite 1.	4		4	16.10	5 9 28	5 13 00	British.	Imperial Oil Co	470.0	63.0	Halifax, N. S.	Talara, Peru	Ballast	5,278
Lt. Wilson B.	4		4	10.04	4 10 04	American.	U. S. Army	64.0	17.3	Cristobal, C. Z.	Gatun, C. Z.	Ballast		
Gatier 1.	4	23.05	5	6.10	5 13 40	6 1 10	British.	Shaw, Savill & Albion	500.0	63.2	London, England	Lyttelton, N. Z.	General	5,269 13,592 9,383
Tamara 1.	4	21.55	5	6.00	5 14 15	5 15 28	British.	Anglo-Saxon Pet. Co.	412.0	53.0	Walleand, England	Los Angeles, Calif	Ballast	4,248
Achagua 1.	4	22.50	5	7.20	5 14 48	5 19 15	American.	Rosagard S. S. Co., S. B.	395.0	55.0	New York, N. Y.	Brisbane, Australia	General	5,172
New Orleans 1.	4	22.50	5	7.10	5 14 48	5 15 42	American.	U. S. Navy	231.0	21.6	Cristobal, C. Z.	Bahoa, C. Z.	Ballast	
S-11 2.	5		5	14.48	5 14 48	5 15 42	American.	U. S. Navy	231.0	21.6	Cristobal, C. Z.	Bahoa, C. Z.	Ballast	
C. O.	5		5	14.48	5 14 48	5 15 42	American.	U. S. Navy	231.0	21.6	Cristobal, C. Z.	Bahoa, C. Z.	Ballast	
Stillman 1.	5	2.45	5	7.20	5 15 18	5 16 23	British.	International Pet. Co.	595.7	75.6	New York, N. Y.	Los Angeles, Calif	Ballast	16,780 9,885
Westmoreland 1.	5	5.40	5	8.55	5 15 50	5 21 55	British.	Federal Steam Nav. Co.	473.0	60.0	Glasgow, Scotland	N. Plymouth, N. Z.	Ballast	10,423 7,456
Asra III 1.	5	6.15	5	11.00	5 18 18	5 23 30	Argentine.	Car. Arg. de Petroleo	396.0	55.0	Antwerp, Belgium	Talara, Peru	Ballast	5,960 3,816
Oroya 1.	4	22.20	5	11.35	5 18 48	5 20 00	British.	Pacific Steam Nav. Co.	525.0	63.0	Liverpool, England	Talcahuano, Chile	General	3,325 3,137 9,067
New Jersey 1.	5	12.05	5	12.25	5 19 05	5 21 15	American.	The Texas S. S. Co.	416.8	56.0	New York, N. Y.	Los Angeles, Calif	Ballast	6,925 5,014
H. M. Storey 1.	5	12.20	5	13.15	5 20 00	6 2 20	American.	Anglo-Saxon Pet. Co.	500.0	68.2	London, England	Los Angeles, Calif	Ballast	11,224 7,849
Samuel Q.	5	13.40	5	14.20	5 21 18	5 23 07	American.	Tidewater Oil Co.	424.4	58.0	New York, N. Y.	Los Angeles, Calif	Ballast	7,333 5,183
Brown 1.	5	14.40	5	15.15	5 22 10	5 23 38	Norwegian.	Alf Mohr	375.6	52.5	Rotterdam, Holland	Los Angeles, Calif	Ballast	6,067 4,386
Leise Maersk 1.	5	18.40	5	19.15	6 9 52	6 11 04	Danish.	Isbrandtsen Moller Co.	302.0	44.2	New York, N. Y.	Manila, P. I.	General	3,930 3,212 2,206
Benidijk 1.	5	2.15	6	6.00	6 12 58	6 13 30	Dutch.	Holland-American Line.	469.7	58.3	Antwerp, Belgium	Vancouver, B. C.	General	2,984 8,514 6,066
Amatucena 1.	6	6.00	6	6.00	6 12 54	6 13 30	Panamanian	United Fruit Co.	105.0	15.3	Perme, R. P.	Bahoa, C. Z.	Bananas	50 92 47
Trave 3.	5	12.25	6	6.10	6 13 28	6 14 40	German.	North German Lloyd	471.0	60.4	Bremen, Germany	Vancouver, B. C.	General	4,130 9,904 7,006
California 1.	6	5.50	6	7.10	6 14 12	6 15 00	American.	Panama-Pacific Line	574.4	80.3	New York, N. Y.	San Francisco, Cal	General	2,775 24,506 17,565
Port Fremantle 1.	6	1.40	6	7.20	6 14 43	6 20 50	British.	Com th & Dom. Line.	477.4	63.4	London, England	Bluff, N. Z.	General	4,178 10,652 7,704
Tanker.														

* Tanker.

** Motor boat.

** Tug.

** Submarine tender.

** Transport.

** Hospital ship.

** Mine sweeper.

** Auxiliary.

** Auxiliary.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Araucano ¹⁵ ...	3	7.10	6	8.15	6	15.55	Chilean	Chilean Government.	395.8	55.3	17.6	London, England	Valparaiso, Chile	Ballast.	6,458	4,069
Hadnot ¹⁶ ...	6	2.45	6	8.16	6	16.39	American	Gulf Refining Co.	416.9	56.2	17.6	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	6,706	4,639
Oilpioneer ¹⁷ ...	5	3.15	6	9.59	6	16.50	British	Richfield Oil Co.	410.0	53.4	21.0	Yule, England	Los Angeles, Calif.	Ballast.	6,700	4,094
Baldhill ¹⁸ ...	6	4.30	6	10.00	6	18.50	American	Richfield Oil Co.	416.8	56.1	18.10	New York, N. Y.	Los Angeles, Calif.	Ballast.	6,728	4,806
Aconagua ¹⁹ ...	5	22.55	6	10.55	6	18.03	Chilean	Chilean Line.	422.8	56.2	25.9	New York, N. Y.	Valparaiso, Chile	General.	7,764	4,705
Salvador ²⁰ ...	22	18.25	6	11.05	6	18.58	British	Pacific Steam Nav. Co.	215.0	33.5	15.7	Cristobal, C. Z.	Champerteo, Guat.	General.	935	735
Wm. H. Doherty ²¹ ...	6	10.30	6	10.50	6	18.50	American	Huasteca Petroleum Co.	435.0	56.2	21.0	Norfolk, Va.	Los Angeles, Calif.	Ballast.	7,406	5,111
Steel Traveler ²² ...	6	11.00	6	11.30	7	9.25	American	Ishman S. S. Lines	424.2	56.2	28.0	New York, N. Y.	Singapore, Str. Set.	General.	8,500	7,698
Tokiwa Maru ²³ ...	6	20.20	6	20.35	7	9.25	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.2	New York, N. Y.	Kobe, Japan	General.	6,236	5,346
Emil Kirdorf ²⁴ ...	4	22.40	7	6.15	7	13.28	German	Hamburg-American Line	410.0	54.0	20.4	Hamburg, Germany	Valparaiso, Chile	General.	4,505	7,151
Yaye Maru ²⁵ ...	7	4.05	7	6.15	7	13.54	Japanese	Kokusa Line	425.0	53.8	25.8	New York, N. Y.	Yawata, Japan	General.	7,369	6,798
Occidental ²⁶ ...	7	6.30	7	7.20	7	15.40	American	The Texas S. S. Co.	417.0	56.0	22.0	Providence, R. I.	Los Angeles, Calif.	Ballast.	6,934	5,030
Lumina ²⁷ ...	7	3.35	7	8.55	7	16.02	British	Anglo-Saxon Pst. Co.	407.0	52.0	17.10	Hamburg, Germany	Los Angeles, Calif.	Ballast.	5,940	4,108
Oregon ²⁸ ...	7	8.10	7	12.00	7	18.18	French	French Line.	468.0	61.3	19.0	Antwerp, Belgium	Vancouver, B. C.	General.	2,884	10,332
Lobos ²⁹ ...	6	20.40	7	13.00	7	20.16	British	Pacific Steam Nav. Co.	405.0	52.4	21.0	Hull, England	Corral, Chile	General.	5,772	7,151
San Mateo ³⁰ ...	6	16.35	7	13.55	7	21.48	American	United Fruit Co.	315.0	44.0	19.3	Cristobal, C. Z.	San Francisco, Cal.	General.	164	3,496
Nosa Chief ³¹ ...	6	19.50	7	14.10	7	21.38	American	N. O. & S. A. S. Co.	300.0	45.0	18.0	New Orleans, La.	Talcahuano, Chile	General.	1,419	3,256
Chester Sun ³² ...	7	16.45	7	18.15	8	11.33	American	Sun Oil Co.	480.0	66.0	24.8	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.	9,607	6,548
Hope ³³ ...			7	9.00	7	18.31	American	J. D. Hautman				Cristobal, C. Z.	Balboa, C. Z.	Ballast.	16	11

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	
Bethore ³⁴ ...	31	20.55	1	5.43	1	17.10	American	Ore S. S. Corp.	550.3	72.2	35.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,400	15,476
Maimoa ³⁵ ...	31	22.45	1	6.48	1	15.10	British	Shaw, Savill & Albion.	477.9	63.0	33.0	Wellington, N. Z.	London, England	General	3,839	11,033
Acapula ³⁶ ...	31	23.00	1	7.25	1	17.35	British	Pacific Steam Nav. Co.	215.1	33.5	17.0	Champerteo, Guat.	Cristobal, C. Z.	General	8,905	1,273
Ionic ³⁷ ...	31	15.00	1	8.24	1	17.25	British	Shaw, Savill & Albion.	500.3	63.3	30.0	Wellington, N. Z.	London, England	General, frozen	3,902	12,872
Canadian ³⁸ ...	1	7.40	1	8.32	1	18.05	British	Can. Nat. Steamships.	400.0	52.0	15.0	Auckland, N. Z.	Montreal, Canada	General	1,843	6,228
Transporter ³⁹ ...	31	17.00	1	9.25	1	17.45	American	Byrd Antarctic Exped.	170.0	30.0	12.0	High seas.	New York, N. Y.	Ballast.	643	303
Eleanor Bolling ⁴⁰ ...	31	17.30	1	10.10	1	19.20	American	Byrd Antarctic Exped.	147.9	31.1	17.0	Dunedin, N. Z.	New York, N. Y.	Ballast.	534	194
City of New York ⁴¹ ...	1	10.40	1	11.40	1	20.35	British	Royal Mail S. P. Co.	485.6	62.3	29.0	Victoria, B. C.	Rotterdam, Holland	Grain, general	8,763	10,803
Lochgoil ⁴² ...	31	18.00	2	6.11	2	18.25	American	The Texas Co.	509.7	70.3	30.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	16,994	12,514
Australia ⁴³ ...	31	18.00	2	7.15	2	19.30	American	U. S. Navy	153.0	30.0		Balboa, C. Z.	Cristobal, C. Z.	General	8,865	8,214
Seiotea ⁴⁴ ...	1	17.40	2	7.35	2	19.55	American	Tampa Intercean Co.	410.0	56.0	29.2	Cebu, P. I.	New Orleans, La.	Sugar, copra, gen.	8,865	8,214
Volunteer ⁴⁵ ...	2	6.30	2	8.39	2	19.35	German	Roland Line.	216.5	32.9	15.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	998	1,132
Manizales ⁴⁶ ...																741

Tug.

Motor ship.

Motor ship.

Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Graindon.....	2	10.15	2	11.02	2	21.15	2	22.05	British.....	R. Chapman & Sons.....	Whyalla, Australia.....	Baltimore, Md.....	Iron ore.....	8,600.....
Virginia.....	2	12.05	3	6.25	3	14.45	3	15.55	American.....	Panama-Pacific Line.....	San Francisco, Cal.....	New York, N. Y.....	General.....	7,161 25, 254.....
Chilore.....	3	3.40	3	6.40	3	15.50	3	15.50	American.....	Ore S. S. Corp.....	Cruz Grande, Chile.....	Baltimore, Md.....	Iron ore.....	20,000 14,538 9,348
Dorothy.....	2	17.30	3	7.29	3	16.05	3	16.05	American.....	Luckenbach Line.....	Portland, Ore.....	Boston, Mass.....	Lumber, general.....	8,100 9,224 6,861
Jackenbach.....	2	21.00	3	7.55	3	16.55	3	23.25	Swedish.....	Johnson Line.....	San Francisco, Cal.....	Gothenburg, Sweed.....	(¹²).....	7,433 7,480 5,533
Balboa ¹⁰	2	23.30	3	8.12	3	17.55	3	17.55	American.....	Amer-Hawaiian Line.....	Portland, Ore.....	Boston, Mass.....	General.....	7,400 7,983 5,916
Arizona.....	3	3.25	3	8.40	3	18.30	3	18.30	British.....	Iyie Shipping Co.....	Portland, Ore.....	Cork, Ireland.....	Wheat, lumber.....	8,325 6,813 4,838
Cape Horn ¹⁸	3	8.30	3	8.16	3	19.05	3	20.15	Norwegian.....	Westfall, Larson & Co.....	Vancouver, B. C.....	Buenos Aires, Arg.....	Lumber, gen rail.....	3,693 6,853 5,246
Brimanger ¹⁸	3	6.00	3	14.53	3	21.35	4	11.15	American.....	U. S. Army.....	San Francisco, Cal.....	Brooklyn, N. Y.....	Army supplies.....	90.....
Somme.....	3	13.50	3	14.40	4	8.55	4	8.55	Danish.....	Isbrandtsen Moller Co.....	Iloilo, P. I.....	Providence, R. I.....	Sugar, lumber.....	4,707 3,518 2,510
R. J. Hanna ¹²	3	20.05	4	6.46	4	14.30	4	14.30	American.....	Standard Oil Co. of Cal.....	San Francisco, Cal.....	Philadelphia, Pa.....	(²⁴).....	9,000 7,639 5,135
Herman F.....	3	14.50	4	7.22	4	15.25	4	15.25	American.....	Union Sulphur Co.....	Longview, Wash.....	New York, N. Y.....	Lumber.....	7,200 6,531 4,784
Whiton.....	3	19.30	4	7.42	4	15.55	4	15.55	British.....	Furness, Withy & Co.....	Vancouver, B. C.....	Glasgow, Scotland.....	General.....	8,187 9,630 6,943
Pacific Pioneer ¹⁸	3	15.00	4	8.28	4	16.45	4	17.15	American.....	Julius Forstmann.....	Honolulu, T. H.....	New York, N. Y.....	Ballast.....	3,167 1,569
Orion ¹⁰	4	8.10	4	9.24	4	16.55	4	16.55	American.....	Hamburg-American Line.....	Guayaquil, Ecuador.....	Cristobal, C. Z.....	(¹²).....	1,012 1,372 1,011
Cerigo.....	4	9.15	4	9.54	4	17.40	5	00.30	Dutch.....	Holland-American Line.....	Vancouver, B. C.....	Antwerp, Belgium.....	General.....	8,783 8,315 6,060
Kinderlijk.....	4	11.04	4	11.54	4	18.30	4	21.05	British.....	N. Z. Shipping Co.....	Lyttelton, N. Z.....	Glasgow, Scotland.....	Frozen, general.....	6,472 12,433 8,991
Hertford.....	3	22.55	4	14.20	4	22.25	4	22.25	French.....	French Line.....	Talcahuano, Chile.....	Le Havre, France.....	(¹⁶).....	7,277 9,025 4,187
Saint Joseph.....	4	17.43	5	11.20	5	11.20	5	11.20	American.....	Arrow Line.....	Everett, Wash.....	New York, N. Y.....	Lumber, piles.....	6,842 6,603 4,932
Edwin.....	4	16.00	5	6.15	5	15.25	5	15.25	British.....	R. S. Daley & Co.....	Guantanamo Island.....	London, England.....	Guano.....	3,659 2,968 1,785
Christenson.....	4	20.15	5	6.46	5	17.00	5	22.00	American.....	Isthmian S. S. Lines.....	N. Westminster, Eng.....	Avonmouth, Eng.....	(¹⁷).....	7,516 7,611 5,450
Knoxville City.....	4	23.15	5	7.07	5	19.00	5	19.00	American.....	Standard Transp. Co.....	Los Angeles, Calif.....	New York, N. Y.....	Gas oil.....	12,223 10,084 7,388
China Arrow ¹²	5	2.15	5	8.05	5	19.15	5	19.15	American.....	Redwood Line, Inc.....	Portland, Ore.....	Mobile, Ala.....	Lumber, general.....	4,210 5,696 4,125
Manhattan.....	5	7.25	5	9.12	5	20.00	5	23.30	British.....	Charter S. S. Co.....	Iquique, Chile.....	Lanugrad, U.S.S.R.....	Nitrates.....	6,270 4,712 3,568
Charterlythe.....	4	12.30	5	10.15	5	20.25	5	23.25	British.....	Leeds Shipping Co.....	Vancouver, B. C.....	Manchester, Eng.....	General.....	7,748 6,961 5,365
Bradlyne.....	4	12.00	5	10.37	5	18.20	6	13.00	American.....	Panama Mail S. S. Co.....	San Francisco, Cal.....	New York, N. Y.....	Coffee, general.....	3,251 6,015 4,281
Colombia.....	5	13.50	5	14.44	5	21.35	6	9.50	Japanese.....	Oakta Shosen Kaisha.....	Shanghai, China.....	New York, N. Y.....	General.....	1,632 6,539 4,773
Paul Maru.....	3	14.10	6	6.21	6	16.05	6	16.05	American.....	Associated Oil Co.....	Los Angeles, Calif.....	Bayonne, N. J.....	Gasoline.....	10,309 7,333 5,182
Hay Ship ¹²	5	14.40	6	6.58	6	16.35	7	13.55	American.....	United Fruit Co.....	San Francisco, Cal.....	Cristobal, C. Z.....	Gen., gasoline.....	313 3,496 2,141
San Mateo.....	6	6.56	6	6.56	6	16.30	6	16.30	American.....	U. S. Navy.....	Balboa, C. Z.....	Cristobal, C. Z.....	(²⁹).....	8,611 7,913 5,317
S-15 ²¹	6	6.56	6	6.56	6	16.30	6	16.30	American.....	U. S. Navy.....	Balboa, C. Z.....	Cristobal, C. Z.....	(²⁹).....	8,611 7,913 5,317
S-17 ²¹	6	6.56	6	6.56	6	16.30	6	16.30	American.....	U. S. Navy.....	Balboa, C. Z.....	Cristobal, C. Z.....	(²⁹).....	8,611 7,913 5,317
City of.....	6	6.56	6	6.56	6	16.30	6	16.30	American.....	U. S. Navy.....	Balboa, C. Z.....	Cristobal, C. Z.....	(²⁹).....	8,611 7,913 5,317
Panama ¹⁸	5	14.25	6	7.17	6	14.55	6	17.05	American.....	Panama Mail S. S. Co.....	San Francisco, Cal.....	Cristobal, C. Z.....	(¹⁸).....	1,240 3,848 2,603
Ohioan.....	6	6.30	6	7.42	6	17.05	6	17.05	American.....	Amer-Hawaiian Line.....	Tacoma, Wash.....	Boston, Mass.....	General.....	5,273 7,103 4,901
Sacramento.....	5	2.00	6	9.44	6	17.15	6	17.45	American.....	Nelson S. S. Co.....	Tacoma, Wash.....	Providence, R. I.....	Lumber.....	5,445 5,653 4,122
Idi Cervo ¹²	6	13.15	6	14.11	6	21.55	7	1.55	British.....	C. T. Bowring & Co.....	La Libertad, Peru.....	Philadelphia, Pa.....	Crude oil.....	7,925 6,046 4,320
Anacahu.....	7	6.42	7	7.14	7	14.10	7	14.10	Panamanian.....	United Fruit Co.....	Balboa, C. Z.....	Cristobal, C. Z.....	(²⁹).....	8,400 5,724 4,292
cuma ^{18 21}	6	22.55	7	7.00	7	14.45	7	16.00	Greek.....	S. Livanos & Co.....	Cruz Grande, Chile.....	Baltimore, Md.....	Iron ore.....	8,400 5,724 4,292
Archangelos.....	7	12.50	7	7.45	7	16.05	7	17.10	British.....	J. M. Thomson.....	Manila, P. I.....	New York, N. Y.....	Sugar.....	7,200 6,778 4,837
Bosworth.....	7	8.00	7	9.04	7	16.50	7	16.50	American.....	Chile S. S. Co.....	San Francisco, Cal.....	New York, N. Y.....	Gas oil.....	6,800 5,549 3,955
Chilol ¹²	7	11.40	7	12.21	7	19.50	7	20.45	British.....	Wm. Thomas & Co.....	Vancouver, B. C.....	Leith, Scotland.....	Wheat, lumber.....	8,000 5,870 4,650
Bengloe.....	7	10.05	7	13.14	7	20.30	8	2.35	American.....	Grace Line.....	Valparaiso, Chile.....	New York, N. Y.....	(²⁹).....	4,310 10,626 6,680
Santa Maria ¹⁸	7	13.10	7	14.27	7	22.36	8	8.55	Danish.....	East Asiatic Co.....	Vancouver, B. C.....	Hamburg, Germany.....	General.....	8,611 7,913 5,317
Tongking ¹⁸	7	13.10	7	14.27	7	22.36	8	8.55	Danish.....	East Asiatic Co.....	Vancouver, B. C.....	Hamburg, Germany.....	General.....	8,611 7,913 5,317

¹⁸ Coffee, cocoa, and ivory nuts.²⁴ Gasoline and lubricating oil.²⁹ Copper, hides, and lead.²⁵ Towing barges.²⁶ Submarine.²⁷ Wheat, lumber, and general.²⁸ Coffee, hides, and logs.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.					* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—		
June 1	Pastores.	United Fruit Co.	Port Limon, C. R.	June 1	Viborg.	United Fruit Co.	Preston, Cuba.		
June 1	No. 9670 ³⁰ .	Pan American Airways	Tela via waypoints.	June 1	No. 9688 ³⁰ .	Pan American Airways	San Salvador and waypoints.		
June 1	No. 9775 ³⁰ .	Pan American Airways	Miami via waypoints.	June 1	Manqui.	United Fruit Co.	New York via waypoints.		
June 2	Castilla.	United Fruit Co.	Puerto Colombia.	June 1	Pagores.	United Fruit Co.	New York via Habana.		
June 2	No. 9068 ³⁰ .	Pan American Airways	San Jose, C. R.	June 2	Carlago.	United Fruit Co.	New Orleans and waypoints.		
June 2	No. 478-H ³⁰ .	Prot Radio Corp.	Managua.	June 2	No. 144-M ³⁰ .	Pan American Airways	Pto. Cabello via waypoints.		
June 2	Darien C-35 ³⁰ .	Seadta Airplane Co.	Barranquilla via waypoints.	June 2	Grunewald.	Hamburg-American Line	Puerto Colombia.		
June 2	Ulua.	United Fruit Co.	New York via Habana.	June 2	Castilla.	United Fruit Co.	Port Limon and Bocas.		
June 3	No. 9688 ³⁰ .	Pan American Airways	San Salvador via waypoints.	June 3	No. 9664 ³⁰ .	Pan American Airways	Tela via waypoints.		
June 4	Cristobal.	Panama R. R. S. S. Line.	San Salvador via waypoints.	June 3	Ulua.	United Fruit Co.	Port Limon, C. R.		
June 4	Ariguani.	Elders & Fyfes Line.	New York via Haiti.	June 4	Ariguani.	Elders & Fyfes Line.	Avonmouth via waypoints.		
June 4	Sivaola.	United Fruit Co.	Avonmouth via waypoints.	June 4	No. 9775 ³⁰ .	Pan American Airways	Miami via waypoints.		
June 4	Tela.	United Fruit Co.	New York via Kingston.	June 5	Sixaola.	United Fruit Co.	New York via waypoints.		
June 4	No. 144-M ³⁰ .	Pan American Airways	New Orleans, La.	June 5	Rugia.	Hamburg-American Line.	Tampico via waypoints.		
June 4	No. 360-N ³⁰ .	Pan American Airways	Puerto Cabello & waypoints.	June 5	Tela.	United Fruit Co.	Colombian ports.		
June 5	Annetta I. ³¹ .	A. Tagaropulos	Guayaquil via waypoints.	June 5	Colorado.	U. S. Navy.	New York.		
June 5	Rugia.	Hamburg-American Line.	Colon, R. P.	June 5	Annetta I. ³¹ .	A. Tagaropulos.	Colon, R. P.		
June 5	No. 9664 ³⁰ .	Pan American Airways	Hamburg and waypoints.	June 6	No. 9670 ³⁰ .	Pan American Airways	Tela via waypoints.		
June 6	Atlantida.	Standard Fruit & S. S. Co.	Tela via waypoints.	June 6	Darien C-35 ³⁰ .	Seadta Airplane Co.	Baranquilla and waypoints.		
June 6	Camden.	United Fruit Co.	New Orleans via Habana.	June 6	Castilla.	United Fruit Co.	New Orleans and waypoints.		
June 6	Camden.	United Fruit Co.	Curacao, D. W. I.	June 7	Atlantida.	Standard Fruit & S. S. Co.	New Orleans and waypoints.		
June 6	Macabi.	United Fruit Co.	Port Limon, C. R.	June 7	Camden.	United Fruit Co.	Santa Marta & Curacao.		
June 7	Swiftwind.	Shell Eastern Oil Co.	Curacao, D. W. I.	June 7	Macabi.	United Fruit Co.	New York via Kingston.		
June 7	Parissima.	United Fruit Co.	New Orleans via Habana.	June 7					

PORT OF BALBOA.				
Date.	Vessel.	Line.	From—	
June 6	Dos Hermanos ³² .	A. Valdez.	Panama Bay, R. P.	Panama Bay, R. P.
June 6	A. B. Obarrio ³² .	Hans Elliot.	Panama Bay, R. P.	Panama Bay, R. P.
June 6	La Union ³² .	A. Valdez.	Panama Bay, R. P.	Panama Bay, R. P.

* Other than ships passing through the Canal.

³⁰ Air mail carrier. ³¹ Motor boat.³² Motor schooner.

Commercial Traffic Through the Panama Canal in May, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of May, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for May, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	81	436,292	331,650	535,283	331,287	\$376,973.19	235,134
East coast of United States to west coast of South America:							
British	8	35,611	29,767	51,620	31,256	29,183.86	4,321
Chilean	2	7,735	6,033	10,889	6,233	7,541.25	4,980
Swedish	1	4,421	3,743	15,339	4,377	3,183.12	.....
United States	14	65,628	53,273	95,205	53,945	50,602.01	13,703
Totals	25	113,395	92,816	173,053	95,811	90,510.24	23,004
Europe to west coast of South America:							
British	5	34,844	26,796	45,485	27,769	33,495.00	21,066
Chilean	1	2,093	1,918	3,936	1,951	1,506.96	.....
Danzig	2	12,437	10,614	17,879	10,057	8,954.64	.....
Dutch	3	15,393	8,779	15,065	9,068	10,973.75	15,244
French	1	4,834	3,223	5,390	3,219	4,028.75	4,511
German	3	15,847	10,163	16,897	10,267	12,703.75	16,831
Italian	1	9,329	5,176	11,718	6,750	6,470.00	2,305
Norwegian	1	3,965	2,637	4,436	2,664	3,296.25	6,317
Swedish	1	5,014	3,338	5,391	4,048	4,172.50	7,877
Total	18	103,756	72,644	126,197	75,793	85,601.60	74,151
Europe to west coast of Canada:							
British	6	36,975	25,456	43,155	26,438	31,711.80	8,178
Danish	1	8,076	5,689	10,119	6,180	7,111.25	1,858
Dutch	2	14,607	10,323	16,709	10,309	12,903.75	4,299
French	1	7,513	4,581	8,152	4,882	5,726.25	1,393
German	2	13,648	8,619	15,021	9,049	10,773.75	10,651
Italian	2	12,039	10,086	14,122	8,920	12,607.50	4,364
Norwegian	2	11,977	8,736	14,243	8,897	10,920.00	13,119
Swedish	1	5,485	3,406	5,558	4,246	4,257.50	5,122
Total	17	110,370	76,896	127,070	78,921	96,011.80	48,984
East coast of United States to Far East:							
British	6	31,552	20,476	31,049	20,609	25,595.00	38,088
Danish	1	4,066	3,142	5,177	3,199	3,927.50	6,156
Japanese	5	24,097	20,796	31,247	20,393	25,662.50	35,778
Panamanian	1	7,063	4,017	6,744	4,109	5,021.25	2,634
United States	2	10,691	7,303	11,844	7,251	9,128.75	15,859
Total	15	77,469	55,734	89,052	55,561	69,335.00	98,515
Europe to west coast of United States:							
British	3	17,511	15,265	23,137	14,866	12,607.92	.....
Danish	1	334	308	542	321	385.00	307
German	1	7,698	5,626	9,026	5,637	7,032.50	4,767
Norwegian	3	18,432	15,534	25,802	15,444	13,271.04	.....
Swedish	1	4,860	2,781	4,960	3,665	3,476.25	881
United States	5	33,378	27,515	44,445	27,277	24,032.16	.....
Total	14	82,213	67,029	109,912	67,210	60,804.87	5,955
Cristobal to west coast of South America:							
Colombian	2	287	277	440	275	336.85	127
Dutch	1	742	294	780	323	367.50	43
German	5	4,532	2,777	5,500	2,890	3,471.25	884
Swedish	1	746	600	1,036	582	537.12	.....
Total	9	6,307	3,948	7,756	4,070	4,712.72	1,054

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to Australasia:							
British.....	7	59,238	41,420	69,501	42,715	\$50,346.57	32,409
East coast of United States to Philippine Islands:							
British.....	4	23,906	14,213	24,882	14,460	17,766.25	18,987
United States.....	2	11,607	8,288	13,279	8,279	10,360.00	17,846
Total.....	6	35,513	22,501	38,161	22,739	28,126.25	36,833
East coast of United States to Australasia:							
British.....	4	19,400	13,926	22,379	13,979	17,407.50	10,646
United States.....	1	5,241	3,763	5,831	3,664	4,703.75	1,835
Total.....	5	24,641	17,689	28,260	17,643	22,111.25	12,481
Cristobal to west coast of United States:							
United States.....	4	9,435	7,297	12,174	7,181	7,517.15	1,762
Cristobal to west coast of Central America:							
British.....	3	3,028	2,558	4,831	2,715	3,197.50	2,380
East coast of Canada to Australasia:							
British.....	3	14,346	10,360	17,057	10,407	12,950.00	13,629
Around the world:							
United States.....	3	33,389	27,225	45,247	27,200	34,031.25	12,800
East coast of United States to Hawaii:							
United States.....	3	11,865	9,443	15,251	9,474	11,048.42	11,966
West Indies to west coast of Canada:							
British.....	2	4,615	2,678	4,392	2,649	6,192.50	7,000
Canadian interoceanic:							
British.....	2	8,229	6,523	11,151	6,884	8,153.75	4,500
East coast of South America to west coast of United States:							
Norwegian.....	1	5,131	4,603	4,884	3,004	5,753.75	2,382
United States.....	1	5,046	3,587	5,580	3,541	4,483.75	2,847
Total.....	2	10,177	8,190	10,464	6,545	10,237.50	5,229
East coast of Central America to Balboa:							
Panamanian.....	2	106	101	180	101	123.90	71
Foreign vessels in ballast— United States inter- oceanic:							
British.....	1	4,289	3,318	5,250	3,286	3,088.08	.....
Norwegian.....	1	6,224	5,553	8,875	5,215	4,481.28	.....
Total.....	2	10,513	8,871	14,125	8,501	7,569.35	.....
East coast of United States to west coast of Canada:							
United States.....	1	5,450	3,465	5,687	3,450	4,331.25	8,112
East coast of South America to west coast of Canada:							
United States.....	1	5,049	3,545	5,603	3,547	4,431.25	3,677
West Indies to west coast of United States:							
United States.....	1	6,050	5,140	8,207	5,092	4,356.00	.....
Africa to Far East:							
British.....	1	5,094	2,889	4,811	2,881	3,611.25	7,840
Europe to west coast of Central America:							
German.....	1	3,948	2,753	4,541	2,759	3,441.25	1,327
West Indies to Australasia:							
British.....	1	4,614	2,884	4,751	2,868	3,605.00	7,167
West Indies to west coast of South America:							
Norwegian.....	1	6,287	5,474	8,998	5,217	6,842.50	12,300
East coast of South America to Far East:							
Japanese.....	1	5,821	4,170	7,267	4,387	5,212.50	2,214
East coast of Central America to Australasia:							
Norwegian.....	1	4,265	2,495	4,333	2,494	3,118.75	3,310

* Includes naval vessel of 5,690 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Central America to west coast of South America:							
British	1	3,650	3,303	5,674	3,261	\$4,128.75	7,269
East coast of Canada to west coast South America:							
British	1	5,049	4,395	7,203	4,382	3,635.28	.....
Grand total, May, 1930	234	1,210,174	906,086	1,506,197	913,745	1,032,268.60	681,073
Grand total, May, 1929	278	1,329,095	1,011,384	1,668,713	1,014,479	1,164,303.77	920,360
Grand total, May, 1928	243	1,082,871	835,725	1,363,566	832,286	962,722.86	725,345

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	77	403,129	306,082	492,805	308,459	\$382,496.99	538,438
West coast of South America to east coast of United States:							
British	8	36,753	30,687	52,260	31,628	38,282.55	58,063
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	4,530
Danish	1	4,519	3,595	5,886	3,658	4,493.75	8,700
Swedish	2	8,917	7,486	30,676	8,762	9,357.50	43,946
United States	14	62,810	49,456	84,575	49,214	61,638.40	123,125
Total	26	117,704	94,690	180,707	97,238	118,104.70	238,364
West coast of Canada to Europe:							
Belgian	2	8,019	7,537	10,028	7,200	9,421.25	13,796
British	12	59,133	40,819	66,049	40,732	51,020.85	84,558
Danish	1	5,338	4,223	6,650	4,247	5,278.75	8,628
French	2	11,999	7,403	13,817	8,049	9,253.75	15,643
German	1	6,656	3,994	7,132	4,188	4,992.50	7,733
Italian	1	6,025	5,056	7,098	4,498	6,320.00	8,900
Norwegian	4	21,425	12,433	20,406	12,603	15,541.25	29,633
Swedish	1	4,486	2,651	4,585	3,435	3,313.75	7,300
United States	2	11,056	9,698	13,778	9,586	11,949.75	18,133
Total	26	134,147	93,724	149,543	94,538	117,091.85	194,324
West coast of United States to Europe:							
British	8	41,317	28,450	45,365	28,321	35,458.90	62,056
Danish	3	15,298	12,112	19,915	12,161	15,140.00	28,183
French	4	18,192	15,455	24,850	14,545	19,318.75	32,375
German	2	11,225	8,226	13,625	8,075	10,282.50	17,166
Norwegian	3	14,314	11,770	19,805	11,745	14,712.50	27,161
Swedish	1	6,035	5,836	7,941	6,154	7,242.00	10,055
United States	2	10,031	8,642	13,963	8,691	10,802.50	18,485
Total	23	116,322	90,491	145,464	89,602	112,957.15	195,481
West coast of South America to Europe:							
British	6	32,831	23,954	39,723	24,662	29,942.50	41,961
Danzig	1	6,310	5,346	8,940	5,050	6,682.50	11,324
Dutch	2	10,749	7,183	12,460	7,256	8,978.75	6,923
German	6	31,522	23,633	37,499	22,048	27,874.81	20,243
Greek	1	3,846	3,608	4,937	3,116	4,510.00	7,600
Italian	1	7,516	5,514	12,003	6,058	6,892.50	987
Norwegian	3	9,613	6,290	10,226	6,177	7,862.50	13,132
United States	1	5,667	4,392	6,690	4,165	5,490.00	10,072
Total	21	108,054	79,920	132,478	78,532	98,233.56	112,242
Philippine Islands to east coast of United States:							
British	1	3,013	2,186	3,469	2,187	2,732.50	2,300
Japanese	6	30,358	26,699	38,294	26,437	33,038.20	44,696
Norwegian	3	15,178	8,695	14,815	8,838	10,868.75	18,527
United States	6	30,424	26,043	37,249	25,100	32,308.40	45,233
Total	16	78,973	63,623	93,827	62,562	78,947.85	110,756

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Cristobal:							
Colombian.....	2	287	277	440	275	\$336.85	551
Dutch.....	2	1,484	588	1,569	646	735.00	1,106
German.....	5	4,189	2,878	5,370	2,950	3,597.50	3,703
United States.....	1	2,606	1,350	2,434	1,349	1,687.50	1,365
Total.....	10	8,566	5,093	9,804	5,220	6,356.85	6,725
Australasia to Europe:							
British.....	8	66,465	48,679	79,737	50,069	60,848.75	44,258
French.....	1	5,472	4,777	6,037	3,747	5,971.25	2,764
Swedish.....	1	1,993	1,914	2,142	1,843	2,283.60	2,956
Total.....	10	73,840	55,370	87,916	55,659	69,103.60	49,978
West coast of Canada to east coast of United States:							
United States.....	4	14,699	10,856	17,481	10,885	13,570.00	21,574
West coast of United States to Cristobal:							
United States.....	3	7,061	6,070	9,816	6,024	7,587.50	2,247
West coast of South America to Egypt:							
Belgian.....	1	6,211	4,522	7,130	4,013	5,652.50	9,650
French.....	1	3,244	2,473	4,148	2,888	3,001.25	5,704
Yugoslav.....	1	4,178	3,706	5,856	3,798	4,632.50	7,500
Total.....	3	13,633	10,701	17,134	10,699	13,376.25	22,854
Australasia to east coast of United States:							
British.....	2	9,037	6,198	10,053	6,123	7,747.50	14,607
Norwegian.....	1	4,222	2,487	4,392	2,450	3,103.75	7,078
Total.....	3	13,259	8,685	14,355	8,573	10,856.25	21,685
Australasia to east coast of Canada:							
British.....	3	13,805	10,976	17,956	10,978	13,720.00	6,251
Far East to east coast of United States:							
British.....	1	16,521	10,086	20,175	12,162	12,607.50	.....
Japanese.....	2	9,356	7,307	11,791	7,163	9,133.75	8,285
Total.....	3	25,877	17,393	31,966	19,325	21,741.25	8,285
West coast of Central America to Cristobal:							
British.....	2	2,322	1,930	3,661	2,061	2,412.50	1,161
Swedish.....	1	746	600	1,036	582	750.00	1,312
Total.....	3	3,068	2,530	4,697	2,643	3,162.50	2,473
West coast of South America to east coast of Canada:							
Danzig.....	1	7,883	5,410	9,006	5,111	6,762.50	13,200
United States.....	1	5,948	4,989	8,156	5,082	6,236.25	12,000
Total.....	2	13,836	10,399	17,162	10,193	12,998.75	25,200
Balboa to Cristobal:							
Panamanian.....	2	106	101	145	101	10,275.00	.....
West coast of Central America to east coast of United States:							
Danish.....	1	1,795	1,189	2,028	1,188	1,292.40	.....
German.....	1	3,948	2,753	4,541	2,759	2,842.56	.....
Total.....	2	5,743	3,942	6,569	3,947	4,134.96	.....
Canadian intercoastal:							
British.....	2	8,259	6,580	10,921	6,711	8,225.00	12,048
Around the world:							
German.....	2	32,814	20,565	52,257	25,919	25,706.25	.....
West coast of Central America to Europe.....							
German.....	1	3,003	1,807	3,106	1,809	2,258.75	258

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to West Indies:							
British.....	1	3,892	3,363	5,582	3,370	\$2,892.24	.....
Far East to West Indies:							
Norwegian.....	1	4,681	2,496	4,400	2,527	3,120.00	7,360
Far East to Europe:							
Italian.....	1	3,988	3,180	5,339	3,397	3,975.00	4,000
Grand total, May, 1930.....	245	1,208,459	908,637	1,511,430	918,912	1,130,630.00	1,580,543
Grand total, May, 1929.....	246	1,167,810	897,630	1,481,885	906,931	1,132,242.80	1,616,479
Grand total, May, 1928.....	265	1,191,741	936,169	1,519,638	935,267	1,156,246.97	1,772,243

Flag Stops of Train No. 106 at Represo.

PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., June 5, 1930.

CIRCULAR NO. 1420.

To all concerned: Effective Sunday, June 8th, and during the life of Timetable No. 38,¹ train 106 will stop at Represo on flag to receive as well as discharge passengers.

W. J. BISSELL,
Acting Master of Transportation.

APPROVED:

S. W. HEALD,
Superintendent.

¹ Published in The Panama Canal Record of July 25, 1928.

Traffic by Nationality for May, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of May, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for May, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British.....	58	311,951	226,227	381,319	231,425	\$266,676.01	183,480
Chilean.....	3	9,828	7,951	14,825	8,184	9,048.21	4,980
Colombian.....	2	287	277	440	275	336.85	127
Danish.....	3	12,476	9,139	15,829	9,700	11,423.75	8,321
Danzig.....	2	12,437	10,614	17,879	10,057	8,954.64	.....
Dutch.....	6	30,742	19,396	32,554	19,700	24,245.00	19,586
French.....	2	12,347	7,804	13,542	8,101	9,755.00	5,904
German.....	12	45,673	29,938	50,985	30,602	37,422.50	34,460
Italian.....	3	21,418	15,262	25,840	15,670	19,077.50	6,669
Japanese.....	6	29,918	24,966	38,514	24,780	30,875.00	37,992
Norwegian.....	10	56,281	45,032	71,571	42,935	47,683.57	37,423
Panamanian.....	3	7,169	4,118	6,924	4,210	5,145.15	2,705
Swedish.....	5	20,526	13,868	32,284	16,918	15,626.49	13,880
United States.....	119	639,121	491,494	803,691	491,183	545,998.93	325,541
Total, May, 1930.....	234	1,210,174	906,086	1,506,197	913,745	1,032,268.60	681,073
Total, May, 1929.....	278	1,329,095	1,011,384	1,668,713	1,014,479	1,164,303.77	920,360
Total, May, 1928.....	243	1,082,871	835,725	1,363,566	832,286	962,722.86	725,345

¹ Includes naval vessel of 5,690 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	3	14,230	12,059	17,158	11,213	\$15,073.75	23,446
British.....	54	293,348	213,908	354,951	219,004	265,800.79	327,263
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	4,530
Colombian.....	2	287	277	440	275	336.85	551
Danish.....	6	26,860	21,119	34,479	21,254	26,204.90	45,511
Danzig.....	2	14,198	10,756	17,946	10,161	13,445.00	24,524
Dutch.....	4	12,233	7,771	14,020	7,902	9,713.75	8,029
French.....	8	38,907	30,108	48,852	29,229	37,635.00	56,486
German.....	18	93,367	63,836	123,530	67,743	77,554.87	49,103
Greek.....	1	3,846	3,608	4,937	3,116	4,510.00	7,600
Italian.....	3	17,529	13,750	24,440	13,953	17,187.50	13,887
Japanese.....	8	39,714	34,006	50,085	33,600	42,171.95	52,981
Norwegian.....	15	69,433	44,171	73,954	44,340	55,213.75	102,891
Panamanian.....	2	106	101	145	101	102.75	.....
Swedish.....	6	22,087	18,487	46,380	20,776	22,946.85	65,569
United States.....	111	553,431	427,488	686,947	428,466	533,767.29	790,672
Yugoslav.....	1	4,178	3,706	5,856	3,798	4,632.50	7,500
Total, May, 1930.....	245	1,208,459	908,637	1,511,430	918,912	1,130,630.00	1,580,543
Total, May, 1929.....	246	1,167,810	897,630	1,481,885	906,931	1,132,242.80	1,616,479
Total, May, 1928.....	265	1,191,741	936,169	1,519,638	935,267	1,156,246.97	1,772,243

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	3	14,230	12,059	17,158	11,213	\$15,073.75	23,446
British.....	112	605,299	440,135	738,270	450,429	532,476.80	510,743
Chilean.....	4	14,533	11,417	22,135	12,160	13,380.71	9,510
Colombian.....	4	574	554	880	550	673.70	678
Danish.....	9	39,336	30,238	50,398	30,954	37,628.65	53,832
Danzig.....	4	26,635	21,370	35,825	20,218	22,399.64	24,524
Dutch.....	10	42,975	27,167	46,574	27,602	33,958.75	27,615
French.....	10	51,254	37,912	62,394	37,330	47,390.00	62,390
German.....	30	139,040	93,794	174,515	98,350	114,977.37	83,563
Greek.....	1	3,846	3,608	4,937	3,116	4,510.00	7,600
Italian.....	6	38,947	29,012	50,280	29,623	36,265.00	20,556
Japanese.....	14	69,632	58,972	88,599	58,380	73,046.95	90,973
Norwegian.....	25	125,714	89,203	145,525	87,275	102,897.32	140,319
Panamanian.....	5	7,275	4,219	7,069	4,311	5,247.90	2,705
Swedish.....	11	42,613	32,355	78,664	37,694	38,573.34	79,449
United States.....	230	1,192,552	918,932	1,490,638	919,654	1,079,766.22	1,116,213
Yugoslav.....	1	4,178	3,706	5,856	3,798	4,632.50	7,500
Total, May, 1930.....	479	2,418,633	1,814,723	3,017,627	1,832,657	2,162,898.60	2,261,616
Total, May, 1929.....	524	2,496,905	1,909,014	3,150,598	1,921,410	2,296,546.57	2,536,839
Total, May, 1928.....	508	2,274,612	1,771,894	2,883,204	1,767,553	2,118,969.83	2,497,588

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Coal.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Ancon.....	June 10.....	June 15.....	June 18.....	June 22.....	June 25.....	June 30.
Cristobal.....	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.
Ancon.....	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
Cristobal.....	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
Ancon.....	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
Cristobal.....	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
Ancon.....	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.
Cristobal.....	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
Ancon ²	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
Cristobal.....	October 15.....	October 20.....	October 23.....	October 28.....	October 31.....	November 5.
Ancon.....	October 28.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.
Cristobal.....	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
Ancon.....	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
Cristobal.....	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
Ancon.....	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

¹ Effective April 30, steamers sail daylight saving time.

² Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4. p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, Semi-private, white male.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat patients.....	Tuesdays, Thursdays and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 4, Private rooms.....	Daily, same as Ward 2 (above).
Section "B:"	
Ward 5, Male, private rooms, American boys.....	} Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls.....	
Ward 7, White females, private rooms.....	
Ward 8, Obstetrical department, white females.....	} No visitors permitted in nursery.
Nursery.....	
Section "C:"	
Ward 9, Colored, male.....	} Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 10, White foreign, male.....	
Ward 11, Colored, male (surgical).....	
Ward 12, Colored, male (medical).....	
Ward 13, Colored, male, G. U.....	} Tuesdays, Thursdays, Saturdays, Sundays, and holidays, 2.30 to 4.30 p. m.
Ward 14, White, male, G. U.....	
Section "D:"	
Ward 15, American, male (surgical).....	} Tuesdays, Thursdays, Saturdays, Sundays and holidays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.
Ward 16, American, male (medical).....	
Ward 17, Colored children.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3.00 p. m.
Ward 18, White children.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 19, Colored, female (medical).....	} Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 20, Colored, female, surgical, obstetrical.....	
Isolation section.....	No visitors permitted except to visit tuberculosis patients Thursdays, Sundays and holidays, 1.30 to 3.00 p. m.

Permission to visit outside of visiting hours may be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., June 18, 1930. No. 46.

Cargo Through the Canal During May, 1930.

On pages 663 and 664 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in May, 1930. This cargo, segregated according to direction, as compared with May, 1929, and the differences, is shown in the following tabulation:

	May, 1930.	May, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	681,073	920,360	—239,287
Pacific to Atlantic.....	1,580,543	1,616,479	—35,936
Total.....	2,261,616	2,536,839	—275,223

It will be noted from the above that the Atlantic to Pacific tonnage decreased 239,287 tons as compared with May, 1929, and that from the Pacific to Atlantic 35,936 tons, making a total decrease of cargo tonnage in both directions of 275,223 tons. The heavy decrease was accounted for by curtailment in shipments of several important commodities as indicated under "Principal commodities," most notably, manufactured iron and steel from the Atlantic, and nitrates, lumber, and wheat from the Pacific.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-four and one-tenth per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 23.5 per cent in Europe. Tonnage from the United States decreased 164,769 tons, or 27.4 per cent, as compared with May, 1929, and the proportion to the total in May, 1930, was lower. The amount originating in Europe decreased 65,023 tons, or 28.9 per cent, and the percentage of the whole was lower in May of this year.

Destination.—Forty-three per cent of the Pacific-bound tonnage was destined to the United States; 22.6 per cent to Asia; 17.2 per cent to South America; and 10.4 per cent to Australasia. Cargo tonnage to all these areas declined as compared with May, 1929, in actual tonnage as follows: To the United States, 74,108, or 20.2 per cent; to South America, 26,113, or 18.2 per cent; to Australasia, 69,353, or 49.3 per cent; and to Asia 33,778 tons, or 18.0 per cent. In point of the relation of cargo destined to the aforementioned areas to the total tonnage in this direction, that to the United States, South America, and Asia increased, while that to Australasia showed a loss.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 48.0 per cent came from the United States; 25.7 per cent from South America; 12.0 per

cent from Canada; 8.1 per cent from Asia; and 5.4 per cent from Australasia. As compared with the corresponding month a year ago, tonnage from the United States decreased 46,915 tons, or 5.8 per cent, and the percentage of the total was slightly lower in May, 1930. Cargo tonnage from South America decreased 30,527 tons, or 7.0 per cent, and also showed a reduced percentage in its relation to the total cargo. Tonnage from Canada decreased 2,020 tons or 1.1 per cent with the percentage of the total remaining about the same. Asia and Australasia showed cargo increases of 35,576 tons, or 38.3 per cent, and 18,486, or 27.7 per cent, respectively, and each area showed an increase in its percentage to the total cargo. The increase from Asia was due to a larger tonnage of sugar from the Philippine Islands, and that from Australasia to shipments of iron ore from Australia to the east coast of the United States.

Destination.—Segregated according to destination, 58.9 per cent of the cargo in this direction went to the United States, and 34.6 per cent to Europe. Tonnage to the United States decreased in its proportion to the total tonnage in this direction as compared with May, 1929, and showed a decrease in actual tonnage of 64,072 tons, or 6.4 per cent. That to Europe showed an increase in its relation to the total cargo as well as an actual increase of 50,011 tons, or 10.1 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 87.4 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12.6 per cent consists, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific bound commodities which aggregated more than 10,000 tons for May, 1930, or May, 1929, are listed in the following tabulation, showing differences:

Commodity.	May, 1930.	May, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Ammonia.....	8,744	13,153	-4,409
Automobiles.....	10,839	19,552	-8,713
Cement.....	33,959	49,956	-15,997
Coal and coke.....	3,787	14,995	-11,208
Cotton.....	6,904	10,156	-3,252
Manufactured goods:			
Iron and steel.....	154,153	203,420	-49,267
Machinery.....	10,999	16,889	-5,890
Railroad material.....	12,333	13,127	-794
Textiles.....	9,557	11,578	-2,021
Tinplate.....	28,173	29,681	-1,508
Miscellaneous.....	11,224	18,881	-7,657
Metal, scrap.....	22,052	4,763	+17,289
Oils, mineral.....	68,885	90,906	-22,021
Paper.....	20,335	16,617	+3,718
Phosphates.....	34,242	27,246	+6,996
Slag.....	1,880	12,598	-10,718
Sugar.....	14,363	32,227	-17,864
Sulphur.....	9,998	24,789	-14,791

The above 18 commodity groups comprise 67.9 per cent of the cargo moving from the Atlantic to the Pacific during May, 1930. As will be noted, 3 of the items increased and 15 decreased as compared with May, 1929. Manufactured iron and steel, cement, and sugar showed heavy decreases, while the gains were in scrap metal, phosphates, and paper.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 98.4 per cent of all cargo moving from the Pacific to the Atlantic during the month of May, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month in 1929 are listed below:

Commodity.	May, 1930.	May, 1929.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Asphalt.....	11,263	1,132	+10,131
Barley.....	26,065	11,599	+14,466
Canned goods (fish, fruit, vegetables, etc.).....	33,581	44,911	-11,330
Coffee.....	16,302	12,072	+4,230
Cold storage (food products) ¹	27,903	27,538	+365
Cotton.....	10,028	6,171	+3,857
Fruit, dried.....	12,079	11,057	+1,022
Fruit, fresh.....	7,724	22,641	-14,917
Lumber.....	295,964	334,538	-38,574
Metals, various.....	55,016	52,656	+2,360
Nitrates.....	103,329	140,425	-37,096
Oil, coconut.....	15,058	16,688	-1,630
Oils, mineral.....	408,980	432,368	-23,388
Ores, principally iron.....	174,340	127,905	+46,435
Rice.....	9,404	13,108	-3,704
Sugar.....	114,916	75,298	+39,618
Wheat.....	113,039	129,597	-16,558
Wool.....	18,479	20,001	-1,522

¹ Fresh fruit not included.

The above 18 commodity groups comprise 92 per cent of the cargo moving from the Pacific to the Atlantic during May, 1930. Nine of the items show increases and 9 decreases. Ores and sugar showed the greatest increases, while lumber, nitrates, and mineral oils decreased heavily.

(Continued on page 663.)

United States Intercoastal Traffic by Commodities for May, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for May, 1930, and the totals for May, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Agricultural implements.....	268	.....	268
Alfalfa.....	.....	206	206
Alfalfa meal.....	.....	465	465
Ammunition.....	60	.....	60
Asbestos.....	51	.....	51
Asphalt.....	88	23	111
Automobiles.....	3,661	248	3,909
Automobile accessories.....	1,123	58	1,181
Bamboo.....	.....	8	8
Bark.....	470	234	704
Beans.....	.....	1,582	1,582
Bones and bonemeal.....	150	22	172
Borax.....	30	487	517
Bran.....	.....	137	137
Burlap.....	92	116	208
Calcium carbide.....	45	.....	45
Camphor.....	.....	52	52

(Continued on page 661.)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 14, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Tai Shan ²	7	20.35	8	6.05	8	14.08	8	15.10	Panamanian	Barber S. S. Line.	460.0	60.0	22.0	General.	4,135	9,870	6,967
Oregonian	7	21.00	8	7.10	8	14.14	8	16.08	American	Amuriza & Co.	423.5	56.0	16.0	Ballast.	3,432	6,561	4,701
British Prince	7	21.55	8	7.25	8	14.53	8	16.08	Yugoslav	Abner-Hawainian Line.	423.5	52.0	19.0	General.	3,391	8,662	6,099
Cathleen	8	00.30	8	7.30	8	15.37	8	16.50	British	Prince Line, Ltd.	430.4	58.0	20.0	General.	3,391	8,662	6,099
Cenigo	8	3.55	8	8.45	8	16.13	8	17.28	German	Ore S. S. Corp.	420.0	54.0	17.0	General.	545	1,572	1,011
Manizales	2	19.45	8	8.25	8	16.18	8	17.15	German	Hamburg-American Line	217.5	34.4	16.0	General.	156	1,132	741
Penmar	8	9.05	8	9.30	8	17.30	8	20.31	American	North German Lloyd	385.3	61.2	20.3	General.	4,843	6,224	4,465
Aryshire	8	3.55	8	12.45	8	20.40	8	21.40	British	Calmar S. S. Corp.	425.3	55.2	25.6	General.	8,716	12,237	8,672
Chile ²	8	5.55	8	13.35	8	21.18	8	22.54	Danish	Turnbull, Martin & Co.	406.5	54.1	25.0	General.	8,007	7,382	5,663
Dalman	8	11.25	8	14.45	8	22.50	9	00.12	British	East Asiatic Co.	406.5	54.1	25.0	Sugar.	7,560		
Motor Sailor	8	22.00	9	6.00	9	9.06	9	10.12	American	Cambell Brothers.	251.0	44.0	21.0	Ballast.	2,518	2,656	1,621
Overdaga	9	00.45	9	7.15	9	13.19	9	14.45	American	Ford Motor Co.	400.0	54.6	24.0	Automobile parts	7,598	6,379	5,389
Vernon City	9	00.45	9	7.15	9	13.21	9	19.37	British	Sir W. R. Smith & Sons	324.0	46.2	20.6	Phosphate rock.	3,282	3,384	2,612
Pontic Sur	9	7.50	9	8.20	9	15.35	9	16.40	American	Swayne & Hoyt	231.0	21.1		General.	8,745	7,946	5,698
Greylock	9	11.20	9	11.30	9	18.25	9	19.37	American	U. S. Navy	430.7	52.8	23.6	Ballast.	2,300	6,896	4,775
Lamedon	9	16.05	9	16.10	9	22.44	9	23.50	British	Isthmian S. S. Lines	443.0	52.8	23.6	Steel, general.			
Ona ²	9	18.00	9	20.15	10	10.56	10	15.05	British	Alfred Holt & Co.	430.0	57.0	19.0	General.			
Maryland ⁴	9	15.30	10	5.45	10	15.54	11	20.46	American	Davis Newman	624.0	97.0		Ballast.			
Oklahoma ⁴	9	15.35	10	5.50	10	17.37	11	20.46	American	U. S. Navy	575.0	108.0		Ballast.			
Nevada ²	9	15.40	10	6.55	10	19.38	11	20.46	American	U. S. Navy	575.0	108.0		Ballast.			
Motavia ²	9	21.15	10	7.10	10	18.43	10	19.54	British	Donaldson Line	387.0	53.7	15.10	General.	623	6,719	4,979
Kuma Maru	9	22.55	10	9.15	10	19.50	10	21.17	Japanese	Nippon Yusen Kaisha	445.0	53.0	26.8	General.	7,312	6,962	4,967
City of																	
Salisbury	10	1.45	10	9.15	10	20.13	10	21.46	British	Ellerman Lines	415.0	54.0	24.0	General.	3,754	6,946	5,198
Papamui	10	6.50	10	10.20	10	20.46	10	22.02	British	Federal Steam Nav. Co.	469.0	58.6	22.0	General.	6,120	8,772	6,457
Pacific Hemlock	10	7.55	10	12.05	10	21.16	10	22.16	American	Dimon S. S. Corp.	409.7	54.2	18.6	General.	4,484	6,630	4,916
Texas	10	8.40	10	13.20	10	22.16	10	22.55	American	Amer-Hawainian Line	471.0	57.2	19.0	General.	2,564	9,154	6,966
Prince Henry	10	9.10	10	13.45	10	22.18	11	4.05	British	Can. Nat. Steamships	365.0	57.0	17.6	Ballast.			
Castor ²	10	12.15	10	14.55	10	22.51	11	2.30	Swedish	Anglo-Saxon Pet. Co.	466.0	61.0	20.9	General.			
El Lobo ¹	10	14.15	10	15.55	10	23.46	11	1.10	British	Atlantic Refining Co.	385.2	51.0	20.8	Fuel oil.	8,969		6,285
Saratoga ⁵	11	4.45	11	5.50	11				American	U. S. Navy	874.0	108.0		General.	4,476	4,851	3,326
Swid	11	5.30	11	6.25	11	13.50	11	15.20	American	Nelson S. S. Line	394.0	56.2	21.4	Airplanes			
Sirius ⁶	10	7.25	11	7.40	11	18.22	11	23.35	American	U. S. Navy	390.0	44.0	19.4	General.	2,975	3,983	2,629
Robert																	
Lukenbach	11	6.00	11	8.30	11	18.04	11	19.10	American	Lukenbach Line	445.0	58.0	20.0	General.	3,328	8,695	6,375
Santa Clara	11	4.10	11	12.45	11	19.00	12	1.55	American	Grace Line	483.3	63.9	25.5	General.	1,895		

* Supply ship.

* Airplane carrier.

* Battleship.

* Submarine.

* Motor ship.

* Tanker.

Robert E. Hopkins *	11	17 05	11	17 20	12	9 20	12	10 35	American	Tidewater Oil Co.	424.4	58.2	23.7	New York, N. Y.	Los Angeles, Calif.	Ballast	7,333	5,182
Feltore	11	19 00	12	6 00	12	13 13	12	14 55	American	Ore S. S. Corp.	449.1	57.2	20.4	Baltimore, Md.	Crus Grande, Chile	Ballast	7,308	5,139
Charles H. Champ	11	22 50	12	6 15	12	14 00	12	17 35	American	Argonaut S. S. Line	405.0	54.0	26.11	Baltimore, Md.	Portland, Oreg.	Steel, general	7,540	6,755
Thos. H. Wheeler *	12	00 05	12	7 30	12	14 13	12	15 45	American	Richfield Oil Co.	425.0	57.0	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,481	5,004
San Rafael	12	4 55	12	7 20	12	14 55	12	16 25	American	States S. S. Co.	410.0	54.0	16.6	Philadelphia, Pa.	Seattle, Wash.	General	3,001	4,675
Wilboro	12	6 05	12	8 25	12	15 29	12	17 35	American	Williams Line	415.0	56.0	16.0	Charleston, S. C.	Tacoma, Wash.	General	2,000	7,717
Dochet	12	7 05	12	8 35	12	15 57	12	17 35	American	Redwood Line	331.0	52.0	24.3	New Orleans, La.	Seattle, Wash.	General	6,605	5,705
Canadian	12	11 05	12	11 15	12	17 50	13	2 47	British	Can. Nat. Steamships	400.0	52.0	22.0	Montreal, Canada	Dunedin, N. Z.	General	4,575	6,142
Challenger	12	5 30	13	6 05	13	13 01	13	15 50	German	Hamburg-American Line	423.4	60.0	19.6	Hamburg, Germany	Los Angeles, Calif.	General	3,073	8,510
Oakland *	13	6 00	13	6 00	13	14 12	15	10 30	Panamaian	Panamaian Gov't.	125.0	23.0		Colon, R. P.	Panama, R. P.	Ballast	288	101
El Panquiao *	12	6 15	13	6 00	13	14 12			American	U. S. Navy	292.0	44.0	18.0	Nicaragua	Balboa, C. Z.	Ballast		
Denver *	12	6 15	13	6 00	13	14 12			American	U. S. Navy	292.0	44.0	18.0	Nicaragua	Balboa, C. Z.	Ballast		
President	13	4 00	13	7 20	13	15 01	13	21 30	American	Dollar Line	502.0	62.2	28.6	New York, N. Y.	Round the world	General	4,363	12,023
Van Buren	12	18 05	13	7 10	13	16 00	13	17 20	British	Royal Mail S. P. Co.	450.0	58.0	19.6	Rotterdam, Holland	Yancover, B. C.	General	2,577	8,878
Nebraska	12	20 15	13	9 35	13	17 04	13	18 20	Japanese	Osaka Shosen Kaisha	400.0	54.0	24.0	Philadelphia, Pa.	Yawata, Japan	Phosphate, gen.	6,605	6,091
Hamburg Maru	12	20 15	13	9 35	13	17 04	13	18 20	Japanese	Osaka Shosen Kaisha	400.0	54.0	24.0	Philadelphia, Pa.	Yawata, Japan	Phosphate, gen.	6,605	6,091
Canadian	12	20 40	13	9 35	13	17 40	13	18 51	British	Can. Nat. Steamships	399.9	52.2	22.0	Montreal, Canada	Brisbane, Australia	General	3,105	5,905
Scottish	12	21 30	13	10 50	13	17 51	13	18 51	American	Standard Transp. Co.	410.0	56.0	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast	8,201	6,207
Tiger *	12	23 30	13	12 05	13	19 18	13	20 30	British	Shell Oil Co.	412.0	53.0	20.6	Falmouth, England	Los Angeles, Calif.	Ballast	6,239	4,312
Paludina *	12	23 30	13	12 05	13	19 18	13	20 30	British	Shell Oil Co.	412.0	53.0	20.6	Falmouth, England	Los Angeles, Calif.	Ballast	6,239	4,312
Absaroka	13	20 13	13	12 45	13	20 24	13	21 30	American	McCormick S. S. Co.	409.6	54.1	19.6	Baltimore, Md.	Tacoma, Wash.	General, iron	2,442	6,627
Buenaventura	12	16 35	13	13 10	13	21 00	13	22 05	American	Panama R. R. S. S. Line	251.0	43.0	16.5	New York, N. Y.	Guayaquil, Ecuador	General	488	2,873
Canadian	13	19 50	13	20 15	14	9 26	14	11 02	British	Can. Nat. Steamships	400.0	52.0	16.8	Montreal, Canada	Vancouver, B. C.	General	1,623	5,801
Importer	13	19 50	13	20 15	14	9 26	14	11 02	British	Can. Nat. Steamships	400.0	52.0	16.8	Montreal, Canada	Vancouver, B. C.	General	1,623	5,801
Mathew	13	20 00	14	6 05	14	15 13	14	16 20	American	Luckenbach Line	434.3	57.7	23.0	Houston, Texas	Tacoma, Wash.	General	5,747	7,977
Luckenbach	13	20 15	14	6 10	14	15 30	14	16 50	Norwegian	Pearnty & Eger	382.7	53.4	23.0	Tampa, Florida	Shanghai, China	Gen. phosphate	6,200	6,082
Ferdale *	13	20 15	14	6 10	14	15 30	14	16 50	Norwegian	Pearnty & Eger	382.7	53.4	23.0	Tampa, Florida	Shanghai, China	Gen. phosphate	6,200	6,082
Sun *	14	00 35	14	7 25	14	16 37	14	17 45	American	Sun Oil Co.	480.6	56.6	21.0	Chester, Pa.	Los Angeles, Calif.	Ballast	9,629	6,476
Scottsburg	14	2 40	14	7 30	14	16 34	14	18 47	American	Tampa Intercoastal Co.	419.4	56.3	23.0	New Orleans, La.	Manila, P. I.	General, cotton	8,349	8,696
Scota *	14	00 35	14	8 10	14	16 32			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.	General	3,000	3,333
Lycia *	13	23 55	14	8 42	14	17 05	14	18 47	British	Canadian Transp. Co.	300.0	44.0	20.8	Mobile, Ala.	Vancouver, B. C.	General	3,000	3,333
Dorothy Cahill	14	10 00	14	10 10	14	18 20	14	19 45	American	Christianson S. S. Co.	410.5	54.2	18.0	Baltimore, Md.	Seattle, Wash.	General	3,350	6,579
Theodore	14	10 00	14	10 10	14	18 20	14	19 45	American	Christianson S. S. Co.	410.5	54.2	18.0	Baltimore, Md.	Seattle, Wash.	General	3,350	6,579
Roosevelt *	14	11 35	14	11 50	14	18 36	14	19 45	Norwegian	Fred Olsen Line	425.0	55.0	19.6	Antwerp, Belgium	Vancouver, B. C.	General	3,496	7,503
Tynefield *	14	13 10	14	13 20	14	19 40	14	23 30	British	Anglo-American Pet. Co.	395.0	54.5	18.6	Hull, England	Los Angeles, Calif.	Ballast	6,036	4,159

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Sunoil *	7	13 45	8	6 11	8	13 25	8	13 25	American	Sun Oil Co.	460.6	66.0	29.1	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,571	9,619
Panelope *	7	15 45	8	6 40	8	14 00	8	14 00	Danzig	W. Tankeriff Rhederei	470.1	63.2	27.0	Talara, Peru	Hamburg, Germany	Gasoline	11,200	9,302
Atthelard	7	17 25	8	7 28	8	14 45	8	14 45	British	British Molasses Co.	475.3	63.3	28.4	Balboa, C. Z.	Hamburg, Germany	Gasoline	11,964	9,621
S-10	8	8 35	8	8 35	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-11	8	8 35	8	8 35	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-12	8	8 41	8	8 41	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-13	8	8 41	8	8 41	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-14	8	8 41	8	8 41	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-15	8	8 41	8	8 41	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
S-16	8	8 41	8	8 41	8	16 10			American	C. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.			
Pacific Oak	8	8 00	8	9 16	8	17 55	8	17 55	American	Dimon S. S. Corp.	409.7	54.2	27.0	Seattle, Wash.	Norfolk, Va.	Lumber, general	8,107	6,687

* Motor ship. ** Submarine.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.		Gross.	Net.
Tilington Court	8	10 25	8	11 07	8	18 40	8	18 40	British	Can.-Amer. S. S. Co.	420.1	56.5	27.0	Vancouver, B. C.	Hull, England	Wheat.	9,562	6,966	4,971
Lisbon Maru	8	6 45	8	13 33	8	20 15	8	20 15	Japanese	Nippon Yusen Kaisha.	445.0	58.0	29.0	Manila, P. I.	New York, N. Y.	Sugar, beans, oil.	7,410	8,015	5,849
Point Garda	8	14 10	8	15 15	8	23 20	10	15 20	American	Swaine & Hoyt	324.0	46.2	23.0	Portland, Ore.	New Orleans, La.	(*)	3,869		
Steele	8	13 00	8	16 37	9	13 40	9	13 40	American	Ore S. S. Corp.	550.3	72.2	35.0	Cruz Grande, Chile	New York, N. Y.	Iron ore.	22,146	15,551	4,297
Shenandoah	8	8 40	9	6 14	9	14 35	9	14 35	American	The Texas Co.	416.8	56.1	25.4	Los Angeles, Calif.	New York, N. Y.	Gasoline.	8,288	6,967	5,060
Lafayette	8	18 00	9	6 41	9	15 00	9	16 10	Belgian	Soc. Anonyme D'Arnet	440.8	57.4	26.0	San Francisco, Cal.	Rotterdam, Holland	Gas oil.	9,127	7,615	4,976
R. C. Rickmers	8	18 15	9	7 19	9	17 50	9	17 50	German	Rickmer Line	401.5	53.2	25.0	Vancouver, B. C.	Port of Spain, Trin.	Lumber, general.	7,000		
Rio Claro	9	00 15	9	7 38	9	16 30	9	18 25	British	Thompson S. S. Co.	363.0	53.2	24.0	Chenai, B. C.	Montreal, Canada	Lumber.	5,016	5,067	3,484
Sale	9	4 30	9	8 09	9	17 20	10	11 00	German	North German Lloyd	473.8	61.1	27.1	Vancouver, B. C.	Hamburg, Germany	General.	8,910	9,335	6,844
Jefferson																			
Myers	9	6 12	9	8 39	9	18 35	9	18 35	American	States S. S. Co.	456.5	56.0	28.0	Seattle, Wash.	New York, N. Y.	(*)	9,135	8,300	6,020
Minnesota	9	7 40	9	8 59	9	17 20	9	17 20	American	Amer.-Hawaiian Line.	407.7	53.7	21.0	Portland, Ore.	Boston, Mass.	General.	5,787	7,150	5,024
Commander																			
McCauley																			
Vega	9	10 55	10	6 16	10	14 00	11	15 30	American	U. S. Navy	401.7	54.2	19.0	Balboa, C. Z.	Cristobal, C. Z.	Launch.	2,476		
Santa Teresa	9	15 40	10	6 47	10	14 55	10	20 15	American	U. S. Navy	360.2	51.6	25.0	Mare Island, Calif.	Hampton Rds., Va.	Naval supplies.	3,121	5,726	4,086
Svealand	10	5 00	10	7 19	10	17 50	10	17 50	Swedish	Grace Line	561.1	72.2	35.0	Talcahuano, Chile	New York, N. Y.	General.	22,146	15,424	4,421
W. H. Libby	9	17 20	10	7 49	10	19 00	10	19 00	American	Ore S. S. Corp.	462.4	60.2	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	10,700	8,461	6,212
Vancouver	10	4 00	10	8 35	10	20 35	10	20 35	British	Standard Shipping Co.	415.6	55.5	28.0	Vancouver, B. C.	New York, N. Y.	General.	8,425	7,272	5,494
City	10	9 45	10	10 27	11	22 10	11	22 10	French	Reardon Smith Line.	425.0	54.8	26.0	Vancouver, B. C.	Grangemouth, Eng.	General.	7,515	7,351	5,189
Arizona										French Line.					Le Havre, France.	General.	7,515	7,351	5,189
Canadian																			
Seigneur	10	10 10	10	10 47	10	23 25	11	4 15	British	Can. Nat. Steamships.	400.6	52.3	24.4	Vancouver, B. C.	Montreal, Canada.	Lumber, general.	6,139	5,893	4,182
Karina																			
Luckenbach	10	10 46	10	11 39	10	22 10	10	22 10	American	Luckenbach Line.	446.0	56.1	26.1	Portland, Ore.	Boston, Mass.	General.	6,628	8,508	6,179
Teno	10	16 00	11	6 14	11	13 30	11	15 00	Chilean	Chilean Line.	422.8	56.2	25.0	Talcahuano, Chile.	New York, N. Y.	General.	4,065	7,764	4,672
El Aleto	10	18 30	11	6 37	11	14 00	11	14 00	British	C. T. Bowring & Co.	448.8	57.5	27.0	Talara, Peru.	Halifax, N. S.	Crude petroleum	8,970	7,555	5,049
Florence																			
Luckenbach	11	4 25	11	7 14	11	14 30	11	14 30	American	Luckenbach Line.	401.8	52.2	25.0	Portland, Ore.	Mobile, Ala.	General.	6,001	6,002	4,621
Boulderpool	11	5 40	11	7 49	11	16 00	11	16 50	British	Sir R. Roper & Co.	405.0	53.0	24.4	N. Westminster.	New York, N. Y.	Lumber.	6,909	5,802	4,203
Drechttdijk	11	12 10	11	12 51	11	19 55			Dutch	N. Pacific Coast Line.	501.0	62.0	25.1	Vancouver, B. C.	Rotterdam, Holland	General.	9,556	10,793	7,619
Willaro	11	13 05	11	13 45	11	21 20	11	21 20	American	Amer.-Hawaiian Line.	386.8	52.2	25.0	Seattle, Wash.	Baltimore, Md.	Lumber, copper.	5,478	5,684	4,070
Stunnington																			
Count	11	13 20	11	14 49	11	23 15	12	12 15	British	Canadian Transp. Co.	420.0	56.5	24.0	Vancouver, B. C.	Montreal, Canada.	Lumber.	6,860	6,967	4,963
Almagro	11	16 30	12	6 37	12	13 10	13	1 10	British	Pacific Steam Nav. Co.	303.4	40.3	14.0	Callao, Peru.	New York, N. Y.	General.	714	2,826	1,770
Marsadok	10	17 00	12	7 12	12	14 00	12	14 00	American	Charles Nelson & Co.	324.0	46.2	23.5	Seattle, Wash.	Baltimore, Md.	General, lumber.	4,237	3,984	2,628
Santa Verónica	12	10 42	12	11 44	12	18 35	12	23 10	American	American-Cuban Line.	251.0	40.3	23.0	Abukini, T. H.	Baltimore, Md.	Raw sugar.	3,323	2,823	1,740
Durazzo	12	13 40	12	14 54	12	22 05	15	9 18	German	Hamburg-American Line	227.5	34.4	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	(*)	813	1,632	1,041

1 Tanker.

2 Motor ship.

3 Supply ship.

4 Lumber, wheat, sugar, paper, and general.

5 Lumber, copper, and empty drums.

6 Coffee, cocoa, and hides

* Tanker.

** Supply ship.

** Lumber, copper, and empty drums.

** Lumber, copper, and empty drums.

** Lumber, copper, and empty drums.

** Coffee, cocoa, and hides.

12	15	08	12	16	26	13	11	35	13	18	00	British	Can. Nat. Steamships	400	3	52	4	16	0	Adelaide, Australia	Portsmouth, W. I.	6,564	8,310	6,005
12	16	20	12	17	27	13	11	00	13	23	03	American	N. O. & S. S. Co.	324	0	46	2	25	0	Talcahuano, Chile	New York, N. Y.	7,573	6,615	4,859
12	15	00	12	17	27	13	11	00	13	18	15	American	Shepard S. S. Corp.	423	9	54	2	25	0	Tacoma, Wash.	Curacao, D. W. I.	9,102	7,678	5,040
12	13	00	12	17	27	13	11	00	13	18	15	American	Amor-Hawaiian Line	491	5	58	2	25	0	Seattle, Wash.	Liverpool, England	5,451	14,827	10,630
13	3	30	13	8	29	13	15	50	14	1	10	British	Standard Transp. Co.	435	0	56	0	27	0	Los Angeles, Calif.	Wilmington, Del.	8,438	6,932	5,115
12	17	30	13	8	37	13	16	35	13	16	35	American	The Texas Co.	535	1	56	0	25	0	Talcahuano, Chile	Wilmington, Del.	8,438	6,932	5,115
12	21	00	13	9	17	13	17	05	13	18	00	British	Can. Nat. Steamships	400	3	52	4	16	0	Adelaide, Australia	Portsmouth, W. I.	6,564	8,310	6,005
13	00	25	13	9	54	13	17	55	13	23	03	American	N. O. & S. S. Co.	324	0	46	2	25	0	Talcahuano, Chile	New York, N. Y.	7,573	6,615	4,859
13	02	13	13	10	20	13	18	15	13	18	15	American	Shepard S. S. Corp.	423	9	54	2	25	0	Tacoma, Wash.	Curacao, D. W. I.	9,102	7,678	5,040
13	8	30	13	10	48	13	18	15	13	18	15	American	Amor-Hawaiian Line	491	5	58	2	25	0	Seattle, Wash.	Liverpool, England	5,451	14,827	10,630
13	8	30	13	11	17	13	19	35	13	22	05	American	Standard Transp. Co.	435	0	56	0	27	0	Los Angeles, Calif.	Wilmington, Del.	8,438	6,932	5,115
13	10	50	13	11	50	13	20	50	13	20	50	Norwegian	S. Brømandslund	275	7	40	2	19	0	Ilo, Peru	Wilmington, Del.	8,438	6,932	5,115
13	7	10	13	12	31	13	20	15	13	20	15	Swedish	Scand.-Bom, Pacific Co.	378	6	51	3	16	0	Antofagasta, Chile	Wilmington, Del.	8,438	6,932	5,115
8	00	01	13	14	30	13	23	10	13	23	10	American	C. D. Mallory & Co.	464	6	60	2	28	0	Talcahuano, Chile	Wilmington, Del.	8,438	6,932	5,115
13	3	35	13	17	47	14	11	50	14	1	10	British	Imperial Oil Co., Ltd.	470	0	63	2	28	0	Talcahuano, Chile	Wilmington, Del.	8,438	6,932	5,115
13	21	30	14	6	11	14	16	05	14	16	05	American	Ore S. S. Corp.	550	3	72	0	35	0	Talcahuano, Chile	Wilmington, Del.	8,438	6,932	5,115
13	16	40	14	6	36	14	13	50	14	15	10	British	Pacific Steam Nav. Co.	404	6	54	2	23	0	Talcahuano, Chile	Wilmington, Del.	8,438	6,932	5,115
14	7	00	14	8	03	14	17	35	14	20	10	Japanese	Kokusa, Kisen Kaisha	385	0	51	0	25	0	Magallanes, Chile	Wilmington, Del.	8,438	6,932	5,115
14	8	00	14	8	06	14	16	55	15	00	04	German	Hamburg-American Line	432	3	59	1	26	0	Magallanes, Chile	Wilmington, Del.	8,438	6,932	5,115
14	8	40	14	9	09	14	17	45	14	23	33	American	Panama R. S. S. Line	251	0	43	6	18	0	Guayaquil, Ecuador	Wilmington, Del.	8,438	6,932	5,115
14	10	00	14	10	35	15	11	50	15	1	50	French	Cie. National de Nav.	466	0	61	7	27	0	Los Angeles, Calif.	Wilmington, Del.	8,438	6,932	5,115
14	10	35	14	11	24	14	20	05	14	20	05	American	McCormick S. S. Co.	401	4	53	2	28	0	Tacoma, Wash.	Baltimore, Md	7,767	7,082	5,167
14	10	45	14	11	34	14	20	14	22	55	British	Shaw, Savill & Albion.	478	1	63	2	22	0	Timaru, N. Z.	Hull, England	5,605	11,192	8,149	

Tanker.

¹⁸ Sugar, copper, and general.

Beans, nitrates, and garlic.

Wheat, beans, and copper.

beans, and copper.

PORT OF CRISTOBAL.

* ARRIVALS.			* DEPARTURES.		
Date.	Vessel.	Line.	Date.	Vessel.	Line.
June 8	Ulúa	United Fruit Co.	June 8	No. 9688 ²¹	Pan American Airways
June 8	No. 9670 ²¹	Pan American Airways	June 8	Cristofwind	Shell Eastern Oil Co.
June 9	Calamarcas	United Fruit Co.	June 8	Cristobal	Panama R. S. S. Line
June 9	No. 142-M ²¹	Pan American Airways	June 8	Ulúa	United Fruit Co.
June 9	Atlantico C-29 ²¹	Seadka Airplane Co.	June 8	Paraimina	United Fruit Co.
June 10	Pellerin de la Touche.	French Line	June 8	No. 478-H ²¹	Proté Radio Corp.
June 10	Dora K. ²²	A. L. Surgeon	June 9	No. 144-M ²¹	Pan American Airways
June 10	No. 9688 ²¹	Pan American Airways	June 10	Dora K. ²²	A. L. Surgeon.
June 11	Magdalena.	Hamburg-American Line.	June 10	No. 945-M ²²	Pan American Airways
June 11	Zacapa	United Fruit Co.	June 10	No. 9658 ²¹	Pan American Airways
June 11	Tela.	United Fruit Co.	June 10	No. 9664 ²²	Pan American Airways
June 11	No. 144-M ²¹	Pan American Airways	June 11	Calamarcas	United Fruit Co.
June 11	Irona.	United Fruit Co.	June 11	Magdalena.	Hamburg-American Line
June 12	Leyland S. S. Line	Leyland S. S. Line	June 11	Zacapa	United Fruit Co.
June 12	Darian.	Darian	June 12	No. 142-M ²¹	Pan American Airways
June 12	No. 945-M ²¹	Pan American Airways	June 12	Pellerin de la Touche	French Line
June 12	No. 9664 ²¹	Pan American Airways			

21 Air mail carrier.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.							
* ARRIVALS.			* DEPARTURES.				
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 12.....	Annetta I. ²⁴	A. Tagaropulos	Colon, R. P.	June 12.....	El Panquaco ²⁵	Panamanian Government.....	Colon, R. P.
June 12.....	Inapaquina ²⁴	A. Tagaropulos	Colon, R. P.	June 12.....	Annetta I. ²⁴	A. Tagaropulos.....	Colon, R. P.
June 12.....	Anachuena ²⁴	United Fruit Co.	Colon, R. P.	June 12.....	Inapaquina ²⁴	A. Tagaropulos.....	Colon, R. P.
June 12.....	El Panquaco ²⁵	Panamanian Government.	Colon, R. P.	June 12.....	Arrihuecuna ²⁴	United Fruit Co.....	Colon, R. P.
June 13.....	Norden.....	Munson S. S. Line.....	Tampa, Florida.	June 13.....	Iriota.....	United Fruit Co.....	Puerto Colombia.
June 13.....	Amapala.....	Standard Fruit & S. S. Co.	New Orleans via Habana.	June 13.....	No. 9033 ²¹	Pan American Airways.....	Tela via wayports.
June 14.....	Mayari.....	United Fruit Co.....	New York via wayports.	June 13.....	Atlantico C-29 ²³	Seadta Airplane Co.....	Barranquilla via wayports.
June 14.....	Magdalena.....	Hamburg-American Line.	Port Limon, C. R.	June 14.....	Tela.....	Pan American Airways.....	San Lorenzo via wayports.
June 14.....	Heredia.....	United Fruit Co.....	New Orleans via Habana.	June 14.....	Amapala.....	United Fruit Co.....	New Orleans & wayports.
June 14.....	Nueva Espana.....	Diez & Garcia.....	Colon, R. P.	June 14.....	Mayari.....	Standard Fruit & S. S. Co.....	New Orleans & wayports.
.....	.....	.....	.....	June 14.....	Nueva Espana.....	United Fruit Co.....	New York via Kingston.
.....	.....	.....	.....	.....	.....	Diez & Garcia.....	Colon, R. P.
PORT OF BAILEA.							
²³ Air mail carrier.	²⁴ Motor boat.	²⁵ Transport.					
June 9.....	Montebello ¹	Union Oil Co. of California	Los Angeles, California.	June 10.....	Montebello ¹	Union Oil Co. of California	Los Angeles, California.
June 13.....	Suriname.....	United Fruit Co.....	San Francisco, California.	June 14.....	Suriname.....	United Fruit Co.....	San Francisco, California.
June 14.....	Rio Nozara ²⁶	Hans T. Lau.....	Puntarenas, C. R.	June 15.....	Heijo Maru ²⁶	Nippon Yusen Kaisha.....	Valparaiso, Chile.
June 15.....	Heijo Maru ²⁶	Nippon Yusen Kaisha.....	Hongkong, China.	.....	.....	.....	.....

* Other than ships passing through the Canal.

¹ Tanker. ²⁶ Motor ship.

United States Intercoastal Traffic by Commodities—Continued from page 655.

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Canned:			
Fish.....	389	5,342	5,731
Fruit.....	374	11,210	11,584
Meat.....	414	750	1,164
Milk.....		10	10
Soup.....	1,325	15	1,340
Vegetables.....	443	4,403	4,846
Miscellaneous.....	1,117	2,282	3,399
Carbon black.....		49	49
Celite filtercel.....		512	512
Cement.....	139	122	261
Charcoal.....	94		94
Chemicals.....	1,183	1,159	2,342
China and fire clay.....	436	6	442
Coal.....	1,138		1,138
Cocoa.....	22	377	399
Cocoa leaves.....		60	60
Cocanuts.....	19	469	488
Coffee.....	137	139	276
Cold storage:			
Beef.....		14	14
Butter.....		27	27
Cheese.....	25	67	92
Eggs.....		20	20
Fish.....		104	104
Lard.....	663	105	768
Mutton.....		37	37
Other.....		300	300
Confectionery.....	190		190
Copra.....		246	246
Cork.....	50		50
Corn.....	94		94
Cotton.....	952	4,991	5,943
Cottonseed oilcake.....		1,864	1,864
Drugs.....	1,127	286	1,413
Earthenware.....	212	85	297
Eggs, dried.....		670	670
Explosives.....	54	78	132
Fish meal.....		20	20
Flour.....	198	6,157	6,355
Fruit:			
Dried.....	21	7,102	7,123
Fresh.....	62	42	104
Fuller's earth.....	25		25
Furniture.....	151	20	171
General.....	51,491	16,372	67,863
Glass and glassware.....	1,697	200	1,897
Glue.....	35	40	75
Granite.....	22		22
Gum.....		20	20
Hair.....		93	93
Hardwoods.....	677	99	776
Hay.....		322	322
Hemp.....	35	916	951
Honey.....		106	106
Hops.....		10	10
Horns and hoofs.....		10	10
Infusorial earth.....		65	65
Ink.....	17		17
Jute.....		250	250
Lard substitute.....	1,049		1,049
Leather.....	18		18
Lime.....	50		50
Linoleum.....	231	161	392
Liquors.....	85	42	127
Lumber.....	2,204	163,726	165,930
Malt.....	211		211
Manufactured goods:			
Iron and steel.....	89,704	2,499	92,203
Machinery.....	2,940	1,153	4,093
Railroad material.....	3,365	62	3,427
Tinplate.....	11,382	23	11,405
Textiles.....	2,424	277	2,701
Miscellaneous.....	4,374	1,885	6,259
Marble.....	53		53
Matches.....	267		267
Metals:			
Antimony.....		62	62
Copper.....	433	12,524	12,957
Gold and silver.....		59	59
Iron.....	1,722	11	1,733
Lead.....	78	509	587
Scrap.....	61	649	710

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Metals—Continued:			
Tin.....		40	40
Other.....	45	20	65
Milk, powdered.....	20	325	345
Molasses.....	68		68
Nitrates.....	13	42	55
Nuts.....		448	448
Oats.....	25		25
Oils:			
Coconut.....		800	800
Cottonseed.....	28		28
Crude.....	9,202	24	9,226
Gas oil, fuel oil.....	68	37,083	37,151
Gasoline, benzine, naphtha.....	13	167,792	167,805
Linseed.....	605		605
Lubricating and greases.....	9,598	3,127	12,725
Vegetable.....	286		286
Wood.....	94		94
Other.....	536	11	547
Ores:			
Copper.....	600		600
Iron.....	28	446	474
Magnesite.....		1,227	1,227
Manganese.....		100	100
Tin.....		360	360
Zinc.....		41	41
Other.....	23		23
Paint.....	1,092	1,996	3,088
Paper.....	4,684	9,171	13,855
Paper pulp.....	30	7,325	7,355
Paper roofing.....	160		160
Peanuts.....	55	1,891	1,946
Peas.....		20	20
Phosphates.....	1,060	16	1,076
Porcelain.....	144	749	893
Rags.....	5	493	498
Rice.....	693	12	705
Rope.....	30	93	123
Resin.....	869		869
Rubber:			
Manufactured.....	1,509	15	1,524
Raw.....	20		20
Scrap.....		44	44
Salt.....	161	29	190
Seeds:			
Hemp.....		60	60
Other.....	130	67	197
Shells.....	1,325	30	1,355
Silk.....		515	515
Skins and hides.....	18	2,126	2,144
Slate.....	491		491
Soap.....	1,829	121	1,950
Soda.....	440		440
Soda ash.....	1,828		1,828
Soda, bicarbonate.....	307		307
Soda, caustic.....	529		529
Starch.....	142		142
Sugar.....	150	10,696	10,846
Sulphur.....	9,848		9,848
Syrup.....	172	3	175
Talc.....		59	59
Tallow.....		217	217
Tar.....	22		22
Tea.....	23	15	38
Tobacco.....	1,375	147	1,522
Toys.....	18	51	69
Turpentine.....	80		80
Waste.....		105	105
Wax.....	50		50
Wine.....		257	257
Wool.....	11	6,657	6,668
Total, May, 1930.....	242,319	509,789	752,108
Total, May, 1929.....	294,255	546,192	840,447
Total, May, 1928.....	250,734	598,179	848,913

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, May, 1930.—Continued from page 655.
(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.						SOUTH AMERICA.						AUSTRALASIA.				ASIA.				Grand total.	Per cent of total cargo.	
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.²	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.¹	Total, South America.	Australia.	New Zealand.	Australasia.¹	Total, Australasia.	Philippine Islands.	China.	Japan.	Far East.¹			Total, Asia.
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports	179,174	738,169		121	9,924	191,126	8,395	892	524	3,143	3,998	16,952	13,214	1,252		14,468	8,398	15,223	32,971	19,645	76,237	298,781	43.9
South Atlantic ports	2,656					2,656											650	1,090	4,495	100	6,335	8,991	1.3
Gulf ports.	60,489	779			277	61,545	2,605	599	184	594	193	4,235					485	10,237	35,187	16,790	62,759	128,539	18.9
Total, United States.	242,319	1,517,109		121	10,201	255,327	11,060	1,491	708	3,737	4,191	21,187	13,214	1,252		14,468	9,533	26,610	72,653	36,535	145,331	436,311	64.1
East coast of Canada.	4,500					4,500							6,139	5,070	11,229							15,709	2.3
East coast of Central America.				71		71	7,269					7,269	3,310		3,310							10,650	1.5
Cristobal, C. Z.²	3,310	4,256				7,566	1,351	808	1,147	918	399	4,623						5	11		16	12,205	1.8
West Indies.	140	7,052		4		7,196	12,300					12,300		7,167	7,167							26,663	3.9
Total, North America.	245,769	13,069	5,425	196	10,201	254,660	31,930	2,299	1,855	4,655	4,590	45,379	22,663	13,489		36,152	9,533	26,615	72,664	36,535	145,347	501,535	73.6
EUROPE:																							
British Isles.	1,311	4,952				6,263	13,865	116	685	1,515	9,982	26,163	2,582	30,177	32,759							65,185	9.6
Belgium.	8,240	3,348				11,588	5,390		44	1,825	1,735	8,994	1,800		1,800							22,382	3.3
Denmark.	70	14				84																84	0.0
France.	1,781	32	64			1,877	2,478		55	338	120	2,991										4,868	0.7
Germany.	2,833	70				2,903	1,454	37	19	1,544	15	3,069			16							5,988	0.9
Holland.	3,117	1,070				4,187	2,610	82	270	2,177	2,135	5,139										9,323	1.4
Italy.	1,333	94				1,427					2,135	2,135										3,562	0.5
Norway and Sweden.	6,947	163	1,111	2,071		10,292	150			49	2,656	2,876										13,165	1.9
Spain and Portugal.	40	1,347	351			1,708	6			5	15	26										1,734	0.2
Europe ².	10,439	1,632	1,432			13,503	3,560			332	16,440	20,332										33,835	5.0
Total, Europe.	36,081	12,628	3,052	2,071		53,832	29,513	235	1,073	7,776	33,123	71,725	4,382	30,177	16,834	575						160,132	23.5
East coast of South America.	10,211	387				10,598		80	35			115							850		850	11,563	1.7
Africa.																						7,840	1.2
Grand total.	292,061	26,084	8,477	2,267	10,201	339,090	61,493	2,614	2,963	12,431	37,718	117,219	27,045	43,666	16,707	727	9,533	26,615	81,354	36,535	154,037	681,073	100.0
Per cent of total cargo:																							
May, 1930.	43.0	3.8	1.2	0.3	1.5	49.8	9.0	0.4	0.4	1.9	5.5	17.2	4.0	6.4	10.4	1.4	1.4	4.0	11.8	5.4	22.6	100.0	
May, 1929.	39.8	3.6	2.9	1.6	0.9	48.8	9.0	0.8	0.5	2.1	3.2	15.6	6.0	9.2	15.2	2.0	2.0	6.1	10.8	1.5	23.4	100.0	
May, 1928.	44.6	2.1	2.6	0.1	2.6	52.0	6.5	1.7	0.6	2.8	2.8	14.4	1.0	6.9	5.1	13.0	1.6	7.5	10.0	1.5	21.6	100.0	

¹ General cargo not routed so as to allow segregation between definite ports. ² Includes both local and transit cargo.

* General cargo not routed so as to allow segregation between definite ports.

* Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, May, 1930.
(figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.										EUROPE.												Grand total.	Per cent of total cargo.
	UNITED STATES.					Other North America.					Other Europe.													
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Central America.	Cristobal, C. Z.	West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Union of Soviet Republics.	Spain and Portugal.	Europe.*	Total, Europe.	East coast of South America.			Egypt.	Africa.
No. America:																								
W. coast U.S.	469,919	5,617 34	253 509	789	385	1,888	4,200	515,762	106,072	1,470	29,181	24,885	9,835	10,726	106	25	61,651	243,951	105	15	759,833	48.0		
W. coast Can.	36,912	407	37,319	12,093	306	7,474	57,192	69,044	4,282	147	1,358	5,202	5,212	57	7,450	38,349	131,044	1,642	15	189,878	12.0			
W. coast C.A.	103	103	25	5,210	5,338	5,210	25	5,338	69,044	4,282	147	1,400	406	57	7,450	174	2,037	7,375	0.5	7,375	0.5			
Hawaiian Is.	4,048	4,048		4,048				4,048											4,048	0.3	4,048	0.3		
Total, N.A.	510,982	5,617 34	660 551	239 12,093	691	6,593	11,699	582,340	175,116	5,752	147 31	939 30	493 15	104 10	726	106	7,475	100,174	377,032	1,747	15	961,134	60.8	
So. America:																								
Chile.	154,860	23,321	5,234	183,415		611	2,106	186,132	15,041	3,549	41	3,176	4,142	32	410	604	37,705	400	1,587	66,237	352,22	854		
Colombia.	1,699			1,699		5,947		7,646										400	5	405				
Ecuador.	15,372			15,372		3,377		19,349	16		118	199	78	608	72	59	539	1,689	82	539	1,689	82		
Peru.	26,383			26,383		634	24	52,241	7,855	1,379	441	1,320	844	7,364	121,045		11,347	41,607	273	918				
W. coast S.A.	4,945			4,945		1,400		6,345					645											
Total, S. A.	203,859	23,321	5,234	232,414	25,200	11,969	2,130	271,713	22,912	4,928	482	4,614	5,830	7,474	1,030	11,721	37,705	459	13,751	110,906	434,22	854		
AUSTRALASIA:																								
Australia.	25,240			25,240	688			25,928	2,956											2,956				
New Zealand.	1,940			1,940	70			2,010	51,496											51,496				
Australasia.												2,764								2,764				
Total, Aus. Asia	27,180			27,180	758			27,938	54,452			2,764								57,216				
ASIA:																								
Philippine Is.	91,377		15,234	106,611				106,611																
China.	6,986			6,986		376	7,360	14,732																
Japan.	3,227			3,227				3,227																
Far East.	1,753			1,753		35		1,788	2,000											2,000				
Total, Asia.	103,343		15,234	118,577		411	7,360	126,348	2,000											2,000				
Grand total.	845,365	28,938 55	128 929	430 38,051	691 18	978 21	189 1,008	339 254	480 10	680	629 39	317 36	323 22	578 11	756 11	827 37	7,705 7	934 113	925 547	154 2,181	22 854	15 1,580	543 100	0
Per cent of total cargo:																								
May, 1930.	53.6	1.8	3.5	58.9	2.5	1.2	1.3	63.9	16.2	0.7		2.5	2.3	1.4	0.7	0.7	2.4	0.5	7.9	34.6	0.1	1.4		
May, 1929.	52.3	4.4	4.8	61.5	3.7	1.1	2.1	68.5	15.2	0.8		1.8	1.8	1.4	0.3	0.2	0.4	0.4	8.8	30.7	0.3	0.5		
May, 1928.	48.3	3.5	2.6	54.4	3.0	1.6	1.8	61.4	20.9	1.3	0.2	1.6	3.4	2.8	1.1	0.2	0.8	0.8	6.1	38.4	0.2			

[†] Includes both local and transit cargo.

[†] General cargo not routed so as to allow segregation between defined ports.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., June 25, 1930.

No. 47.

Comparison of Canal Traffic in May with May Traffic in Previous Years.

The traffic through the Panama Canal during the month of May, 1930, showed a decrease both as compared with the preceding month and with May in 1929 and 1928. The 479 transits in May this year are fewer by 45 than those in the corresponding month a year ago, while the net tonnage, Panama Canal measurement, aggregating 2,418,633 tons, falls short by 8,272 tons of the total of 2,496,905 tons in May of last year. The cargo tonnage of 2,261,616 tons for May, 1930, shows the large decline of 275,223 tons, or 10.8 per cent from the total of 2,536,839 tons passing through the Canal in May, 1929.

In the following tabulation are shown the number of transits, net tonnage, Panama Canal measurement, and the tons of cargo carried through the Canal during the months of May from 1915 to 1930, inclusive, together with the corresponding monthly averages for each fiscal year.

Year.	Month of May.			Average per month for fiscal year.		
	Commer- cial transits.	Panama Canal net tonnage.	Tons of cargo.	Commer- cial transits.	Panama Canal net tonnage.	Tons of cargo.
1915.....	138	475,004	534,020	102	361,197	465,567
1916.....	123	385,062	479,961	63	199,687	257,843
1917.....	145	468,665	596,425	150	483,213	588,213
1918.....	198	658,174	757,984	172	547,839	627,669
1919.....	176	566,892	642,171	169	510,416	576,385
1920.....	224	852,425	974,919	206	712,170	781,208
1921.....	210	864,617	792,735	241	951,323	966,601
1922.....	243	1,032,816	1,158,597	228	951,455	907,075
1923.....	419	2,128,414	2,265,083	331	1,550,482	1,630,656
1924.....	417	2,085,670	2,353,986	436	2,179,073	2,249,559
1925.....	372	1,847,682	1,823,042	389	1,904,596	1,996,570
1926.....	470	2,243,103	2,416,701	433	2,064,549	2,169,787
1927.....	471	2,248,892	2,379,713	456	2,185,651	2,312,351
1928.....	508	2,274,612	2,497,588	538	2,454,886	2,469,226
1929.....	524	2,496,905	2,536,839	534	2,486,483	2,555,250
1930.....	479	2,418,633	2,261,616	476	2,301,865	2,323,587

* 10½ months; Canal opened August 15, 1914.

‡ 11 months.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 19, 1930.

No. 717.

Pacific Ocean, shoals off Morro Puercos, Panama. The second officer of the American steam freighter *Steel Worker* reports the following, under date of June 15, 1930:

A sounding of three fathoms at low water was made in the following position: Latitude 7° 13' 10" N., longitude 80° 22' 10" W. The ship drawing 25 feet 6 inches, struck bottom and considerable damage to the vessel was sustained.

H. O. Chart No. 1019 shows a five fathom shoal in this position. Several vessels have reported dangerous shoals off Morro Puercos. See local Notice to Mariners No. 690, of April 23, 1930.

H. BURGESS,
Governor.

CANAL WORK IN MAY, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of May, 1930.

BALBOA HEIGHTS, C. Z., June 19, 1930.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of May, 1930:

NUMBER OF TRANSITS.

During the month 479 commercial vessels and 14 small nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 48 vessels belonging to the United States Government, 2 transits of a Panamanian Government vessel, and 3 transits of vessels solely for repairs, on which no tolls were collected, making a total of 546 transits for the month, or a daily average of 17.61.

Tolls on the 479 commercial vessels amounted to \$2,162,898.60, and on the launches to \$111.30, a total of \$2,163,009.90, or a daily average on all traffic of \$69,774.51.

Commercial traffic for the past month as compared with April, 1930, shows a decrease of 10 transits and \$69,864.40 in tolls, and in comparison with the traffic in May, 1929, a decrease of 45 transits and \$133,647.97 in tolls. Traffic in the first 11 months of the current fiscal year has fallen off to the extent of 203 transits and \$23,675.46 in tolls in comparison with the corresponding period last year.

The total numbers of craft of all kinds transiting the Canal during the month of May, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	May, 1930.	May, 1929.	May, 1928.
Commercial vessels.....	479	524	508
Launches (under 20 tons).....	14	18	12
Noncommercial vessels:			
United States Government.....	48	40	35
Panamanian Government.....	2	1	1
Colombian Government.....			2
Vessels for repairs.....	3	2	8
Total.....	546	585	566

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North- bound.	South- bound.	Total.
Gatun.....	8	6	14
Pedro Miguel.....	24	22	46
Miraflores.....	22	23	45
Total.....	54	51	105

COMMERCIAL TRAFFIC.*

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1930 to the end of May, 1930, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928-9	1929-30	1928-29.	1929-30.	1928-29.	1929-30.	1928-29.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,109,083.19	\$2,259,582.37
August.....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September.....	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October.....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November.....	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.48	2,244,895.94
December.....	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.88
January.....	603	531	2,771,280	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
February.....	522	491	2,428,530	2,369,255	2,550,498	2,377,900	2,211,961.20	2,131,386.12
March.....	536	515	2,567,961	2,505,859	2,743,768	2,558,238	2,343,865.55	2,260,002.36
April.....	540	489	2,488,176	2,479,096	2,719,668	2,456,782	2,281,087.27	2,232,763.00
May.....	524	479	2,496,905	2,418,633	2,536,839	2,261,616	2,296,546.57	2,162,898.60
Total.....	5,910	5,707	27,485,363	27,622,377	28,239,004	27,883,051	24,999,570.94	24,975,895.48

* Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for May, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the calendar year 1929:

	May, 1930.	May, 1929.	May, 1928.	Average per month for calendar year 1929.
Number of vessels.....	479	524	508	536
Panama Canal net tonnage.....	2,418,633	2,496,905	2,274,612	2,529,432
United States net tonnage.....	1,814,723	1,909,014	1,771,894	1,923,223
Registered gross tonnage.....	3,017,627	3,150,598	2,883,204	3,171,832
Registered net tonnage.....	1,832,657	1,921,410	1,767,553	1,936,803
Tolls.....	\$2,162,898.60	\$2,296,546.57	\$2,118,969.83	\$2,299,392.99
Tons of cargo carried.....	2,261,616	2,536,839	2,497,588	2,620.874

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1929.
	May, 1930.	May, 1929.	May, 1928.	
Number of transits.....	15.45	16.90	16.38	17.62
Panama Canal net tonnage.....	78,020	80,545	73,374	83,159
Tolls.....	\$69,770.92	\$74,082.15	\$68,353.86	\$75,596.48
Tons of cargo carried.....	72,955	81,833	80,567	86,166

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of May, 1930, as compared with May, 1929, and 1928, are shown in the following tabulation:

	Average per vessel.		
	May, 1930.	May, 1929.	May, 1928.
Panama Canal net tonnage.....	5,049	4,765	4,477
United States net tonnage.....	3,789	3,643	3,488
Registered gross tonnage.....	6,300	6,012	5,675
Registered net tonnage.....	3,826	3,667	3,479
Tolls.....	\$4,515.45	\$4,382.72	\$4,171.20
Tons of cargo (including vessels in ballast).....	4,721	4,841	4,916
Tons of cargo (laden vessels only).....	5,516	5,726	5,728

NATIONALITY OF VESSELS.

Seventeen nationalities were represented in the commercial traffic passing through the Canal in May, 1930. Vessels of United States registry, with 230, led in the number of transits, while those of British registry, with 112, were second; these two nationalities made up over 71 per cent of the total transits for the month. Germany, Norway, and Japan were next in order with 30, 25, and 14 transits, respectively.

CARGO AND PRINCIPAL COMMODITIES.

The total cargo carried through the Canal during the month of May, 1930, was 2,261,616 tons. Cargo from the Atlantic to the Pacific aggregated 681,073 tons, as compared with 806,119 tons in April, 1930, and 920,360 tons in May, 1929. From the Pacific to Atlantic there were 1,580,543 tons, as compared with 1,650,663 tons in April, 1930, and 1,616,479 tons in May, 1929.

From the Atlantic to Pacific, various manufactured goods, 226,439 tons, constituted the heaviest item, followed by mineral oils with 68,885 tons, phosphates with 34,242 tons, and cement with 33,959 tons.

From the Pacific to Atlantic, mineral oil shipments totaling 408,980 tons, were the heaviest item, followed by lumber with 295,964 tons, sugar with 114,916 tons, and wheat with 113,039 tons.

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per net ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels average \$0.921 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged \$0.721 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of May, 1930, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast with no added charges for deck loads. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian.....	\$15,073.75	\$14,230.00		\$843.75
British.....	* 532,476.80	* 532,654.00	\$50,177.20	
Chilean.....	13,330.71	13,695.80	315.09	
Colombian.....	673.70	574.00		99.70
Danish.....	37,628.65	38,618.00	989.35	
Danzig.....	22,399.64	21,660.20		739.44
Dutch.....	33,953.75	42,975.00	9,016.25	
French.....	47,390.00	51,254.00	3,864.00	
German.....	114,977.37	135,311.60	20,334.23	
Greek.....	4,510.00	3,846.00		664.00
Italian.....	36,265.00	38,947.00	2,682.00	
Japanese.....	73,046.95	69,632.00		3,414.95
Norwegian.....	102,897.32	115,851.60	12,954.28	
Panamanian.....	5,247.90	7,256.20	2,008.30	
Swedish.....	38,573.34	40,546.20	1,972.86	
United States.....	1,079,766.22	1,105,552.40	25,786.18	
Yugoslav.....	4,632.50	4,178.00		454.50
‡ Total.....	2,162,898.60	2,236,782.00	130,099.74	6,216.34
Net increase for all traffic.....			123,883.40	

* Includes \$2,845 collected for naval vessel at \$0.50 per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$27,031.22
United States foreign trade.....	* 848.39
United States—Canal Zone trade.....	* 396.65
Net increase.....	25,786.18

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in May, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Belgian.....		1.65	1.65
British.....	.73	1.13	.94
Chilean.....	.64	.96	.76
Colombian.....	.44	1.92	1.18
Danish.....	.67	1.82	1.43
Danzig.....		1.73	1.73
Dutch.....	.64	.66	.64
French.....	.45	1.45	1.22
German.....	.75	.58	.64
Greek.....		1.98	1.98
Italian.....	.31	.79	.53
Japanese.....	1.27	1.34	1.30
Norwegian.....	1.18	1.48	1.39
Panamanian.....	.37		.37
Swedish.....	.90	2.97	2.12
United States.....	.77	1.43	1.14
Yugoslav.....		1.80	1.80
Averages, May, 1930.....	.76	1.32	1.09
Averages, May, 1929.....	.93	1.44	1.20
Averages, May, 1928.....	.90	1.51	1.27

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of May is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	4	18,620	\$20,245.00	43	232,870	\$240,089.30
Ballast.....	44	253,535	182,611.35	1	3,892	2,802.24
General cargo ships:						
Laden.....	169	870,186	777,568.25	194	927,403	853,765.29
Ballast.....	15	67,570	48,809.64	5	11,480	8,267.01
Noncargo-carrying ships:						
Naval.....	1		2,845.00			
Passenger.....				2	32,814	25,706.25
Yachts.....	1	263	189.36			
Total.....	234	1,210,174	1,032,268.60	245	1,208,459	1,130,630.00
Method of propulsion:						
Steam.....	167	835,633	730,734.97	190	931,288	885,203.91
Motor.....	67	374,541	301,533.63	54	275,268	243,142.49
Sail.....				1	1,903	2,283.60
Total.....	234	1,210,174	1,032,268.69	245	1,208,459	1,130,630.00

Of the 357 steam-driven vessels, 273 were oil burning, 82 coal burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of May, 1930. If the tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers.....				5	26,385	\$13,192.50
Mine layers.....	1	1,191	\$595.50	2	2,382	1,191.00
Mine sweepers.....	3	2,850	1,425.00	1	950	475.00
Submarines.....	8	8,141	4,070.50	10	8,628	4,314.00
Supply.....	1	4,276	5,345.00			
Survey.....	1	2,630	1,300.00	1	2,600	1,300.00
Tugs.....	2	2,000	1,000.00	2	2,000	1,000.00
U. S. Army vessels:						
Mine planters.....	1	1,208	604.00	2	2,416	1,208.00
Transports.....	2	9,217	11,521.25	2	7,827	9,783.75
Tugs.....	2	92	69.00	2	92	69.00
Total, U. S. Government.....	21		25,930.25	27		32,533.25
Panamanian Government vessels:						
Transports.....	1	101	72.72	1	101	72.72
Vessels for repairs:						
Tankers.....	1	4,149	3,111.75	2	5,791	4,343.25
Grand total.....	23		29,114.72	30		36,949.22

¹ Indicates displacement tonnage. ² Indicates Panama Canal net tonnage. ³ Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of May, 1930, carried cargo as follows: Atlantic to Pacific, 4,455 tons; Pacific to Atlantic, 503 tons; total, 4,958 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of May, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	11	107	\$95.55
Pacific to Atlantic.....	3	18	15.75
Total.....	14	125	111.30

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of May, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons	150,447	40,287	190,734
Local cargo shipped..... tons	7,281	1,043	8,324
Transit cargo arriving..... tons	2,152,232	2,286,062	4,438,294
Transit cargo clearing..... tons	2,173,613	2,266,621	4,440,234
Cargo received for transshipment..... tons	32,062	1,194	33,256
Cargo transshipped..... tons	31,308	452	31,760
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	96	48	144
Number of withdrawals.....	637	267	904
Tons received.....	2,212	537	2,749
Tons withdrawn.....	2,197	284	2,481
Packages received.....	10,273	5,460	15,733
Packages withdrawn.....	8,884	2,209	11,093
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	45	3	48
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons	16,378	382	16,760
Coal issued, miscellaneous:			
Panama Canal departments..... tons	44	3	47
U. S. Army, including vessels..... tons	81	20	101
Individuals and companies..... tons	135		135
Panama Railroad Company..... tons		8	8
Transferred to Navy..... tons	413		413
Total sales and issues..... tons	17,051	413	17,464
Coal on hand, May 1, 1930..... tons	95,383		95,383
Coal on hand, June 1, 1930..... tons	139,663		139,663
Coal received during month..... tons	61,331		61,331
Coal received from Navy..... tons		413	413
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments..... bbls.	6,189.31	15,386.09	21,575.40
Panama Railroad Company..... bbls.	1,429.08		1,429.08
U. S. Army and Navy..... bbls.	625.60	729.68	1,355.28
Individuals and companies..... bbls.		322.39	322.39
Total sales and issues..... bbls.	8,243.99	16,438.16	24,682.15
Fuel oil received during May, 1930..... bbls.	63,678.62	75,793.94	139,472.56
Inventory shortage..... bbls.	413.78		409.04
Inventory overage..... bbls.		4.74	
Fuel oil on hand, June 1, 1930..... bbls.	87,745.19	59,356.67	147,101.86
Diesel oil issued and sold during May, 1930..... bbls.	706.08	1,851.60	2,557.68
Inventory shortage..... bbls.		29.16	.29
Inventory overage..... bbls.	28.87		
Diesel oil on hand, June 1, 1930..... bbls.	13,370.88	20,799.45	34,170.33
Miscellaneous transfers..... bbls.	453.08	1,871.63	2,324.71
Gasoline and kerosene pumped for the Panama Canal..... bbls.	2,003.26	3,638.45	5,641.71
Gasoline pumped for individuals and companies..... bbls.	603.79	7,150.03	7,753.82
Oil pumped for individuals and companies..... bbls.	713,014.91	410,704.05	1,123,718.96
Oil pumped for U. S. Navy..... bbls.	682.60	17,328.81	18,011.41
Total fuel oil, gasoline, and kerosene handled..... bbls.	789,386.33	534,776.67	1,324,163.00
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	14	13	27
Measured for Panama Canal net tonnage.....	5	3	8
Remeasured for Panama Canal net tonnage.....	12	6	18
Panama Canal net tonnage corrected.....	3	4	7
U. S. equivalent tonnage corrected.....	11	4	15

	Cristobal.	Balboa.	Total.
Services of harbor equipment:			
Tugs, total operating hours.....	397½	332½	729½
Launches, total operating hours.....	1,398	1,573	2,971
Revenue from tug service, pilotage, etc.:			
Tag revenue.....	\$12,420.00	\$10,641.25	\$23,061.25
Pilotage.....	18,522.00	8,935.00	27,457.00
Seamen.....	11,104.00	11,456.00	22,560.00
Launch service.....	1,946.50	3,017.00	4,963.50
Wharfage.....	16,747.86	5,652.05	22,399.91
Ships measured.....	70.00	105.00	175.00
Miscellaneous.....	1,218.95	596.00	1,814.95
Ships repaired at Panama Canal Shops:			
Commercial.....	56	12	68
U. S. Army and Navy.....	6	6	12
U. S. Commerce Department.....	1		1
Panama Canal equipment.....	2	6	8
Total.....	65	24	89
Vessels dry docked:			
Commercial.....	12	3	15
U. S. Army and Navy.....	1	1	2
U. S. Commerce Department.....	1		1
Panama Canal equipment.....		1	1
Total.....	14	5	19
Clearances issued.....	319	242	561
Bills of health issued.....	332	247	579

* Includes 7,368.80 barrels borrowed from U. S. Navy.

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal.	551	3,455,717	2,111,110	512	3,166,540	1,940,220
Vessels entering port but not transiting Canal.	79	365,076	215,130	12	44,610	26,401
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	108	724,373	432,793	97	699,461	413,826
<i>Ships clearing.</i>						
All vessels, including those transiting Canal.	563	3,504,160	2,137,475	517	3,176,664	1,951,627
Vessels clearing port but not transiting Canal.	80	371,630	218,344	11	41,398	24,484
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	111	745,536	445,242	98	703,090	415,381

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,029	667	1,696	118	159	277
From Pacific ports.....	194	153	347	255	142	397
Total disembarking.....	1,223	820	2,043	373	301	674
Embarking:						
For Atlantic ports.....	1,626	952	2,578	111	71	182
For Pacific ports.....	216	170	386	278	344	622
Total embarking.....	1,842	1,122	2,964	389	415	804
Remaining on board:						
From Atlantic to Pacific ports.....	1,215	1,593	2,808	1,397	1,670	3,067
From Pacific to Atlantic ports.....	2,807	1,947	4,754	2,902	2,447	5,349
From Atlantic to Atlantic ports.....	534	435	969			
From Pacific to Pacific ports.....				14	346	360
Total remaining on board.....	4,556	3,975	8,531	4,313	4,463	8,776
Total arriving.....	5,779	4,795	10,574	4,686	4,764	9,450
Total departing.....	6,398	5,097	11,495	4,702	4,878	9,580

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	234	47	20.1
Pacific to Atlantic.....	245	66	26.9
Total.....	479	113	23.6

In addition to the aforesaid, 68 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 184 passenger-carrying vessels calling at Canal ports during the month.

AIRCRAFT ENTERING AND CLEARING.

During the month of May, 1930, 31 commercial airplanes entered and 33 cleared at the port of Cristobal, and 4 entered and cleared at Balboa.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of May, 1930:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Total.
Sales at Cristobal to:						
Commercial vessels.....	\$2,022.95	\$13,096.29	\$29,627.32	\$279.68	\$7,091.30	\$52,117.54
Government vessels.....	140.38	1,148.51	9,006.41	72.83	597.37	11,565.50
P. R. R. vessels.....	5.40	124.03	1,040.57	621.55	10.51	1,802.06
Total sales, May, 1930.....	2,168.73	14,368.83	40,274.30	974.06	7,699.18	65,485.10
Total sales, May, 1929.....	2,844.51	14,932.87	40,388.14	1,248.28	9,415.70	68,829.50
Total sales, May, 1928.....	2,098.03	13,202.83	41,109.58	911.83	8,028.57	65,350.84
Sales at Balboa to:						
Commercial vessels.....	733.02	1,824.45	13,945.56	589.39	11,589.16	28,681.58
Government vessels.....	364.32	1,273.57	9,619.29	777.58	1,346.35	13,381.11
Total sales, May, 1930.....	1,097.34	3,098.02	23,564.85	1,366.97	12,935.51	42,062.00
Total sales, May, 1929.....	2,269.97	13,938.21	27,009.84	1,138.77	6,048.39	50,405.18
Total sales, May, 1928.....	1,687.98	15,890.82	31,380.49	1,040.79	6,435.62	56,435.70

The aggregate sales to Government vessels during the month was \$24,946.61; to Panama Railroad vessels, \$1,802.06; and to other commercial vessels, \$80,799.12, making the total sales to all vessels, \$107,547.79.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of May, 1930, as compared with the corresponding month in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.*			May 1930.	May 1929.	May 1928.
	North.	South.	Total.	North.	South.	Total.			
Gatun.....	237	224	461	17	14	31	492	512	498
Pedro Miguel.....	239	232	471	17	22	39	510	508	531
Miraflores.....	236	226	462	17	20	37	499	504	519
Number of vessels put through locks.									
Gatun.....	247	234	481	54	46	100	581	605	590
Pedro Miguel.....	245	234	479	66	51	117	596	642	625
Miraflores.....	245	234	479	64	53	117	596	628	610

* Includes miscellaneous tolls-paying craft under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	58	62	63
Panama Canal equipment.....	14	46	45
Launehes (under 20 tons).....	24	5	5
Panamanian Government vessels.....	2	1	1
Vessels for repairs.....	2	3	3

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in May, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,872,210,000	1,468,540,000	1,474,830,000
Leakage.....	40,000,000	9,000,000	20,000,000
Maintenance.....	10,160,000		
Total, May, 1930.....	1,922,370,000	1,477,540,000	1,494,830,000
Total, April, 1930.....	1,512,870,000	1,361,520,000	1,347,130,000
Total, May, 1929.....	1,579,000,000	1,327,630,000	1,395,420,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of May, 1930, are shown in comparative form, in the following tabulation:

	May.		May—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	2,069	1,750	5,220	491	2,088
Maximum momentary discharge for the month.....	15,986	12,070	¹ 61,200	231	.....
Gatun Lake watershed, total yield.....	4,548	3,812	8,665	1,417	4,551
Gatun Lake watershed, net yield.....	3,988	3,154	7,964	583	3,897
Draft on Gatun Lake for lockages and power.....	2,910	2,663	2,910	² 1,067	² 2,090

¹ May 5, 1918.

² May, 1914, not included.

The discharge of the Chagres River at Alhajuela was one per cent below the 29-year average, or 2,069 c. f. s. compared with an average of 2,088 c. f. s. The maximum momentary discharge for the month was 15,986 c. f. s. at elevation 99.38 feet on the 28th. The minimum discharge was 662 c. f. s. at elevation 91.84 feet on the 1st.

The maximum mean monthly discharge on record for the month of May is 5,220 c. f. s. in 1910, and the minimum, 491 c. f. s. in 1920. The maximum momentary discharge on record for May is 61,200 c. f. s. at elevation 110.0 feet on May 5, 1918. Three rises of 5 feet or more occurred during the month.

The total yield of the Gatun Lake watershed for May was 4,548 c. f. s. as compared with the 17-year average for May of 4,551 c. f. s. Maximum and minimum total yields of record for May are 8,665 c. f. s. in 1918 and 1,417 c. f. s. in 1920. The lake varied in elevation from 82.58 feet on the 2d to a maximum of 83.34 feet on the 30th.

Miraflores Lake varied between elevations 53.08 feet on the 16th and 54.25 feet on the 11th, averaged 53.77 feet, and ended at elevation 53.84 feet.

SEISMOLOGY.

One seismic disturbance was recorded during the month, on the 5th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,847,700 kilowatt hours, and the computed water consumption was 4,443,570,339 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 19,400 kilowatt hours, and the fuel oil consumption was 46.76 barrels. The station was operated only for peak-load service during the month.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 46 vessels and 4 salvage pontoons during the month. There were 431 work orders issued during the month, as compared with 330 issued during the previous month.

MECHANICAL DIVISION.

During the month of May, 1930, miscellaneous repairs were made on 65 vessels at Cristobal and 24 at Balboa. Fourteen vessels were dry-docked at Cristobal and 5 at Balboa. Work was completed and carried forward on several pieces of equipment of The Panama Canal, the United States Army and Navy, and commercial steamship lines.

MUNICIPAL ENGINEERING DIVISION.

Work was continued on the construction of the Chilibre and Chilibrillo River bridges and Madden Road on the road to Cerro Tigre explosive magazine. The construction of the gravel road leading to the Madden Dam saddles on the south side of the Chagres River was carried forward.

Work on several improvement projects in the cities of Colon and Panama, and in the Canal Zone, was continued.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 741,583,250 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during May with an average movement of 2.7 feet toward the Canal between stations 1777-00 and 1797-00 W. The reference points on this slide showed no movement. There was a continuous surface movement along the waterfront of the Southwest La Pita slide. The West Lirio slide showed movement along the waterfront between stations 1721-00 and 1725-00 W. and between stations 1735-00 and 1740-00 W. The dredge *Gamboa* worked four days on this slide and removed 12,650 cubic yards of material. The Cucaracha Village slide showed movement between stations 1840-00 and 1842-00 E., with a settlement of 5 feet, 175 feet east of the east prism line, no material entering the Canal prism.

There were numerous small bank breaks during the month but there was no interference with shipping on account of slides or breaks.

The total excavation during May, 1930, was 736,508 cubic yards, was follows:

	Wet excavation.		
	Earth.	Rock.	Total.
	Cubic yds.	Cubic yds.	Cubic yds.
Work excavation:			
Gaillard Cut—			
West Culebra slide.....	200	800	1,000
Project No. 2.....	17,150	51,400	68,550
West Lirio slide.....	1,900	10,750	12,650
General.....	5,100	15,400	20,500
Pacific entrance—			
Project No. 1.....	110,000	173,300	283,300
Maintenance.....	271,300	8,200	279,500
Plant excavation:			
Chagres River gravel service.....	64,948	.....	64,948
Dredging sand at Chame.....	6,060	.....	6,060
Total.....	476,658	259,850	736,508

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. One thousand three hundred and sixty trips were made, and 141 Panama Canal, 75 U. S. Army, and 4,899 other vehicles, a total of 5,115, were ferried across the Canal.

MADDEN DAM PROJECT.

The running of new boundary lines covering certain additional areas of land for the Project was begun. Work was continued on the Azote Caballo Ridge Road.

Designs and estimates were prepared of the main dam, both with and without spillway, and also of the left bank ridge dam and all saddle dams. Well log sheets were checked and traced and seepage curves traced.

Hydroelectric studies were made of intakes, powerhouse location and layout, and quantities in powerhouse were computed for estimating. Designs were made of structures and piers for Summit switching station, and electrical calculations made for the transmission line.

All sink hole and saddle mapping has been completed.

In the Madronal area, sink holes were excavated a total of 217 feet. This work is on a strictly exploratory basis and more than half of the footage was in sink hole No. 20 where one cave heading toward the Madronal was found and another discovered running about 2,000 feet to the southeast toward the Chagres River above the dam site. This portion varies in width from 20 to 50 feet, and in height from 30 to

50 feet, and at the far end it is nearly filled with soft mud and is impassable. The larger passage was discovered while making a smoke test in an attempt to ascertain whether there is a connection between sink holes No. 20 and 22. The result of this test being negative, a dyed-water test lasting three days was made for the same purpose. The water test likewise produced only negative results, although an increased flow of uncolored water was discovered in a tributary of the Madronal; the source of this flow is being investigated. A small electric unit has been installed at this point and lights placed in the shaft and passage.

One thousand six hundred and eleven linear feet of drilling of all types were performed during the month.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children occupying Panama Canal quarters on May 31, 1930, was 22,768, composed of 7,863 Americans, 2,841 of whom were men, 2,354 women, and 2,668 children; 253 Europeans, 100 of whom were men, 38 women, and 115 children; 14,652 West Indians, 4,290 of whom were men, 2,674 women, and 7,688 children. The total number of persons in quarters on May 31, 1929, was 21,768.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of May 21, 1930, with a comparison of the working force for the preceding month and for May, 1929:

	As of May 1, 1930.			Total employees.	
	Gold.	Silver.	Total.	April, 1930.	May, 1929.
Operation and Maintenance:					
Office.....	56	80	136	153	107
Electrical.....	158	230	388	374	321
Municipal Engineering.....	85	949	1,034	899	1,885
Lock Operation.....	235	712	947	979	1,279
Dredging.....	201	1,071	1,272	1,275	1,183
Madden Project.....	58	862	920	1,068	
Mechanical.....	506	899	1,405	1,417	1,275
Marine.....	207	690	897	903	911
Fortifications.....	25	133	158	296	559
Total.....	1,531	5,626	7,157	7,364	7,520
Supply Department:					
Quartermaster.....	223	2,052	2,275	2,354	2,135
Commissary.....	228	1,318	1,546	1,554	1,501
Cattle Industry—Plantations.....	2	94	96	100	155
Hotel Tivoli.....	8	107	115	130	112
Hotel Washington.....	9	102	111	117	114
Transportation.....	78	253	331	338	294
Total.....	548	3,926	4,474	4,593	4,311
Accounting Department.....	205	6	211	209	296
Health Department.....	294	885	1,179	1,168	1,097
Executive Department.....	535	328	863	851	812
Total.....	1,034	1,219	2,253	2,228	2,115
Panama Railroad Company:					
Superintendent.....	51	281	332	348	328
Transportation.....	62	122	184	184	194
Receiving and Forwarding Agency.....	89	1,259	1,348	1,427	1,608
Coaling Stations.....	43	275	318	345	327
Total.....	245	1,937	2,182	2,304	2,457
Grand total, May, 1930.....	3,358	12,708	16,066		
Grand total, April, 1930.....				16,489	
Grand total, May, 1929.....					16,403

Additions to the gold force on the Isthmus in May were as follows: Employed in the United States, 13; reemployed in the United States, 4; employed on the Isthmus, 8; reemployed on the Isthmus, 11; total, 36. Separations from the gold force totaled 36, as follows: Resigned, 23; discharged, 10; retired, 2; died, 1. At the end of the month there were on file 501 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 182 deaths occurred during the month of May, 1930, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.21 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 33; pneumonia (broncho and lobar), 16; nephritis (acute and chronic), 13; syphilis, 9; diarrhea and enteritis, 7. There were 6 deaths from cancer, 5 from organic diseases of the heart, 2 from tetanus, and 1 each from measles, amebic dysentery, influenza, and meningococcus meningitis. There were 21 deaths among nonresidents. These are not counted in the above statistics.

There were 346 live births and 13 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 30.00. Deaths among children under 1 year of age numbered 28, giving an infant mortality rate based on the number of live births reported, of 80.92.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during May, 1930, was 293, of whom 49 were employees (12 white and 37 colored), 37 were families of employees (1 white, 36 colored), 13 were Canal Zone agriculturists, 53 were other civilian nonemployees, and 141 Army and Navy personnel.

There was one death from malaria among nonemployee residents, a colored female Canal Zone agriculturist living near Monte Lirio on Gatun Lake.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$404,271.48, of which \$381,955.64 was for the Department of Operation and Maintenance, and \$22,315.84 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$46,730.53.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of April, 1930, as compared with April, 1929, with the figures for the first 10 months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of May at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	April, 1930.	April, 1929.	To end of April.	
			This year.	Last year.
Tolls.....	\$2,232,790.15	\$2,278,505.21	\$22,812,999.29	\$22,699,003.31
Other receipts.....	318,153.39	338,360.76	3,699,554.17	3,330,897.89
Total transit revenues.....	2,550,943.54	2,616,865.97	26,512,553.46	25,999,901.20
Total transit expenses.....	1,064,953.34	1,255,023.73	11,089,933.02	11,052,246.87
Net transit revenues.....	1,485,990.20	1,361,842.24	15,422,650.44	14,947,654.33
Three per cent capital charge....	621,848.49	614,929.83	6,213,079.91	6,157,594.50
Transit surplus.....	864,141.71	746,912.41	9,209,570.53	8,790,059.83
Business revenues.....	1,545,760.58	1,419,405.43	16,598,939.79	14,239,269.00
Business expenses.....	1,469,352.57	1,335,606.78	15,665,908.65	13,406,046.70
Net revenues.....	76,408.01	83,798.65	933,031.14	893,222.30
Three per cent capital charge.....	63,586.90	62,153.07	666,954.43	649,615.22
Business surplus.....	12,821.11	21,645.58	266,076.71	243,607.08
Combined revenues.....	4,096,704.12	4,036,271.40	39,709,182.08	40,299,170.23
Combined expenses.....	2,534,305.91	2,590,630.51	23,353,500.50	24,458,293.57
Net revenues.....	1,562,398.21	1,445,640.89	16,355,681.58	15,840,876.63
Three per cent capital charge.....	685,435.39	677,082.90	6,889,034.34	6,807,209.72
Combined surplus.....	876,962.82	768,557.99	9,475,647.24	9,033,666.91

Respectfully,

H. BURGESS,
Governor.

Steamer "Vancouver" Added to Hamburg-American Line Service.

The steamer *Vancouver*, due at Cristobal on June 20 on her maiden voyage from European ports to the west coast of the United States and Canada, is the seventh new ship placed in the European-North Pacific service of the Hamburg-American Line, within the past two years. The previous vessels being the motor ships *San Francisco*, *Los Angeles*, *Seattle*, *Portland*, and *Oakland*, and the steamer *Tacoma*.

The *Vancouver*, a sister ship of the *Tacoma*, is 451 feet in length, with 59 foot beam, 30 feet deep and of 7,000 gross tons; and is steam driven with oil burners. The average speed is 15 knots enabling her to make the trip from the Canal to Los Angeles in less than 9 days, and to Europe in 15 days.

The vessel has accommodations for 24 first-class, and 24 third-class passengers, and is equipped with 1,800 cubic meters of refrigerated compartments for carrying perishable goods from the Canal to California, and from North Pacific ports to Europe.

The Hamburg-American Line states that with the addition of the *Vancouver*, this service, which is operated in conjunction with the North German Lloyd, will be maintained on a regular 10-day basis.

Natural Timber Preserve Flanking Madden Road.

Land on both sides of the Madden Road, from the north boundary of the Summit pasture to the boundary between the Canal Zone and Panama, has been set aside as a natural timber preserve by an order of the Governor issued June 14, 1930. The area, which begins about a mile and a half to the northeast of the crossing of the Panama Railroad and Madden Road is roughly 3 miles long by 2 miles wide, containing 3,460 acres, and extending about a mile to either side of the road. It is crossed by the old paved Cruces Trail, laid by the Spanish, which is cut through at right angles by the Madden Road at Station 222; this is 4-1/6 miles from the beginning point of the road, at its junction with the Gaillard Highway.

No cultivations beyond those now existing will be permitted in the timber preserve area, and the cutting of timber in it is prohibited, except as specific authority may be granted by the Governor.

The reason for creating the preserve is essentially to maintain the scenic beauty of the forest or jungle now bordering the road through this section. The land to the south of the preserve has been cleared for pasture, and beyond the Canal Zone boundary the woods will probably be cut away to a large extent by settlers; hence the occasion for allowing the intervening area to remain in its primeval state.

Coal.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

MOVEMENTS OF OCEAN VESSELS.
Week ending at midnight, June 21, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.		Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	
Scotish Borderer ¹	14	16.00	15	6.20	15	13.05	15	14.20	British	Anglo-Saxon Pet. Co.	426.5	56.9	18.10	Bristol, England.	Los Angeles, Calif.	Ballast.		7,149	4,927
Arana	14	16.45	15	6.00	15	13.42	15	15.15	British	Pacific Steam Nav. Co.	303.4	43.0	17.9	New York, N. Y.	Callao, Peru.	General	1,216	2,551	1,776
Hawaiian	14	23.30	15	7.20	15	14.15	15	15.40	American	Amer.-Hawaiian Line.	404.0	53.9	18.6	Boston, Mass.	Portland, Ore.	General	3,420	6,766	5,185
Firmore	15	1.15	15	7.00	15	14.15	15	15.55	American	Ore S. S. Corp.	449.0	57.2	19.9	Baltimore, Md.	Cruz Grande, Chile	Ballast.	2,586	10,173	7,354
Hawaii Maru ²	15	3.00	15	8.15	15	15.31	15	16.35	Japanese	Oosaka Shosen Kaisha.	475.0	61.0	21.0	Buenos Aires, Arg.	Kobe, Japan.	General	334	1,633	1,041
Durazzo	12	22.05	15	9.15	15	17.12	15	18.20	German	Hamburg-American Line	227.0	34.0	13.5	Cristobal, C. Z.	Guayquil, Ecuador	General	5,102	5,616	3,879
Golden Gate ²	15	7.25	15	9.00	15	17.45	15	19.00	Norwegian	Stand.-Sc. Pacific Co.	331.3	53.1	23.6	Oslo, Norway	Corral, Chile	General	6,063	7,591	5,661
Buenos Aires	15	9.35	15	10.00	15	23.25	15	23.25	Swedish	Johnson Line.	426.0	56.0	26.0	Stockholm, Sweden	Honolulu, T. H.	General			
Muralol	15	11.20	15	17.00	15	12.20	15	12.20	American	A. M. Butcher	549.6	72.2	24.5	Cristobal, C. Z.	Gatun, C. Z.	Ballast.	14,325	4,635	
Lehoue	16	6.40	16	6.45	16	9.35	16	10.44	American	Ore S. S. Corp.	565.0	95.0		Baltimore, Md.	Cruz Grande, Chile	Ballast.	2,437	5,117	3,807
Texas ⁴	15	11.15	16	6.12	16	13.40	16	16.40	American	U. S. Navy	361.0	49.0	19.10	New York, N. Y.	San Diego, Calif.	General	6,945	5,032	
Helder	15	12.05	16	7.10	16	14.46	17	3.45	Dutch	Royal Neth. S. S. Co.	416.8	56.1	20.6	Amsterdam, Holland	Corral, Chile.	General			
Illinois	15	12.05	16	7.10	16	14.46	17	3.45	American	The Texas Co.				Pt. Arthur, Texas	Los Angeles, Calif.	(¹)			
Cape of Good Hope ²	15	23.20	16	8.20	16	16.10	16	19.21	British	H. L. E. Meyer, Jr., Co.	405.0	52.5	17.9	North Shields, Eng.	Seattle, Wash.	Coke	4,007	5,851	4,284
Cape Oregon	16	8.23	16	8.35	16	16.59	16	18.24	British	Lyle Shipping Co.	405.0	52.6	14.6	North Shields, Eng.	Arica, Chile	Coal	7,033	5,651	4,071
Steel Trader	16	8.45	16	10.00	16	17.07	16	23.32	American	Isthmian S. S. Lines	424.2	56.2	26.0	Baltimore, Md.	Vancouver, B. C.	General, steel	8,212	7,611	5,453
Cherry Branch	16	8.20	16	10.03	16	17.46	16	18.55	British	F. & W. Rison	400.5	51.9	21.0	Liverpool, England	Talcahuano, Chile	General	4,522	5,493	3,960
Aegina	15	16.10	16	11.40	16	18.21	16	19.40	German	North German Lloyd	315.8	46.0	15.8	Bremenhaven, Ger.	Champerico, Guat	General	938	3,514	2,500
Chippewa	16	6.43	16	11.40	16	18.25	16	21.04	American	J. Allison	215.0	43.0	14.3	Galveston, Texas	Buenaventura, Col.	Ballast	2,615	1,581	5
Lady May ¹	16	19.40	17	6.05	17	13.27	17	17.55	American	G. M. Downer	426.0	57.4	23.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast	6,820	5	5
Isisbank ²	16	20.50	17	6.10	17	13.45	17	17.55	British	Andrew Weir & Co.	431.0	59.2	20.9	New York, N. Y.	Manila, P. I.	General	7,963	5,104	
Berterton ¹	16	20.50	17	6.10	17	13.45	17	17.55	American	Seaboard Mid. Pet. Corp.	431.0	59.2	20.9	Baltimore, Md.	Los Angeles, Calif.	Ballast	9,741	7,140	
Dixie Arrow ¹	16	21.30	17	7.15	17	14.09	17	15.20	American	Standard Oil Co.	468.3	62.7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast	5,756	4,118	
Cape Verde	17	2.40	17	7.15	17	14.44	17	16.50	British	Lyle Shipping Co.	405.3	53.0	14.6	Portland, Me.	Vancouver, B. C.	Ballast	2,907	3,984	2,628
Chetopa	17	7.35	17	8.15	17	15.23	17	16.45	American	Nelson Line	324.0	46.2	18.6	New York, N. Y.	Seattle, Wash.	General	638	1,273	706
Acajutla	1	17.35	17	11.15	17	17.22	17	22.05	British	Pacific Steam Nav. Co.	215.0	34.0	15.0	Cristobal, C. Z.	Champerico, Guat	General			
Pacific Sun ¹	1	12.10	17	12.15	17	19.10	17	22.00	American	Sun Oil Co.	480.6	66.0	20.0	Chester, Pa.	Los Angeles, Calif.	Ballast	1,430	7,065	5,025
Solana ¹	17	20.05	17	10.15	18	9.30	18	11.05	American	Tidewater Oil Co.	419.5	56.5	22.0	New York, N. Y.	San Francisco, Cal.	Lubricating oil	1,619	5,710	4,423
El Salvador	16	20.45	18	6.10	18	13.08	18	23.32	American	Panama Mail S. S. Co.	369.2	51.6	21.5	New York, N. Y.	San Francisco, Cal.	General, coffee			
S-20 ¹	18	6.10	18	6.10	18	13.08	18	16.40	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast	4,007	9,234	6,861
Lucienbach.	17	21.00	18	6.40	18	13.46	18	14.55	American	Lucienbach Line.	448.9	63.2	20.3	Boston, Mass.	Seattle, Wash.	General	917	10,036	7,226
Pacific Grove ²	18	5.05	18	7.30	18	14.32	18	19.38	British	Furness, Withy & Co.	370.0	60.8	19.0	Glasgow, Scotland	Vancouver, B. C.	General	1,153	6,255	4,016
Santa Inez ³	17	16.15	18	9.00	18	15.19	18	19.35	American	Grace Line	450.0	53.2	20.0	New York, N. Y.	Talcahuano, Chile	General	2,057	6,823	4,627
Nevadan	18	9.10	18	9.50	18	16.16	18	17.20	American	Amer.-Hawaiian Line.	460.0	53.0	18.6	Boston, Mass.	Seattle, Wash.	General	766		
Cautin	1	1.05	18	12.15	18	18.48	18	20.06	Chilean	Cia. Sud. Amer. de Vap.	352.4	51.0	18.3	Greenock, England	Valparaiso, Chile	Gen., explosives.			

¹ Tanker.

² Motor ship.

³ Launch.

⁴ Battleship.

⁵ Submarine.

⁶ Cotton, oil, and hides.

⁷ Gasoline and kerosene.

Oreona	18	12	40	19	6	00	19	14	09	19	15	45	British	Pacific Steam Nav. Co.	511.6	62	0	25	7	Liverpool, England	Tacahuano, Chile	General	2,639	12,417	8,305
Yokmar	19	1	40	19	6	00	19	14	21	19	15	45	American	Calmar Line	409.8	54	2	20	11	Baltimore, Md	Seattle, Wash.	Steel, general	5,466	6,757	4,919
Lancaster	19	6	50	19	7	30	19	15	20	19	16	55	American	Argonaut S. S. Line	494.3	57	7	25	6	Mobile, Ala.	Seattle, Wash.	Steel	8,670	7,935	5,841
Tanager	19	6	15	19	12	39	19	16	42	19	17	10	Norwegian	Westfal, Larsen & Co.	398.0	55	0	23	0	Rosario, Arg.	Vancouver, B. C.	General	5,148	6,858	5,308
Alda	18	10	00	19	12	39	19	16	24	19	17	10	German	North German Lloyd	360.0	51	0	23	3	Bremen, Germany	San Antonio, Chile	General	4,870	4,791	3,392
Bethore	19	6	00	19	13	35	19	20	26	19	22	58	Danish	Ore S. S. Corp.	550.3	72	2	21	8	Baltimore, Md	Cruz Grande, Chile	Ballast	4,859	15,476	4,354
Siam	19	7	00	19	14	25	19	21	25	19	22	58	Danish	East Asiatic S. S. Co.	410.0	55	2	21	8	Newcastle, Eng.	Vancouver, B. C.	Gen., coke, iron	4,859	7,063	5,303
Republic	19	20	55	20	6	25	20	13	15	20	14	30	American	Richfield Oil Co.	391.8	57	3	15	0	Baltimore, Md	Los Angeles, Calif	Ballast	5,351	3,881	
Point Arena	19	22	30	20	6	25	20	13	43	20	15	00	British	Anglo-Saxon Pet. Co.	420.0	57	3	15	0	Dublin, Ireland	Los Angeles, Calif	Ballast	6,655	4,631	
Oncida	20	3	55	20	7	10	20	14	29	20	15	40	American	Swayne & Hoyt	324.0	46	2	22	8	New Orleans, La	Seattle, Wash.	General	4,145	3,934	2,612
Silverash	20	8	50	20	9	10	20	15	30	20	18	23	American	Ford Motor Co.	251.0	43	6	20	0	Chester, Pa.	Portland, Ore	Auto, parts	2,267	2,656	1,621
Barwin	20	6	40	20	10	15	20	17	00	21	00	42	British	S. & J. Thompson	425.6	58	3	19	2	Boston, Mass.	Singapore, Str. Set	General	4,157	8,219	5,861
San Clemente	19	20	00	20	10	52	20	17	58	20	19	25	American	R. G. Lane	405.5	55	7	23	6	London, England	Antofagasta, Chile	Cement	7,269		
Rotorua	20	15	45	20	16	05	20	23	02	21	11	20	British	Quaker Line	410.0	54	4	19	11	Wellington, Del.	Tacoma, Wash.	General	3,647	6,476	4,682
Chilore	20	16	10	21	6	00	21	13	56	21	15	00	American	N. Z. Shipping Co.	530.0	61	2	24	3	London, England	Wellington, N. Z.	General	4,840	12,846	9,439
Carlton	20	21	10	21	6	15	21	14	48	21	16	10	British	Ore S. S. Corp.	390.0	53	2	17	0	Baltimore, Md	Cruz Grande, Chile	Ballast	14,538	9,348	
Temple Mount	20	23	25	21	7	25	21	15	00	21	16	10	British	R. Chapman & Sons	391.2	53	0	17	0	Rio Janeiro, Brazil	San Francisco, Cal.	Ballast	5,612	4,119	
Mississippi	21	7	35	21	7	40	21	16	53				American	Com'cl & Dom. Line	600.0	97	0			New York, N. Y	Brisbane, Australia	General	4,344	5,919	4,302
R. J. Hanna	21	8	35	21	9	45	21	17	14	21	18	10	American	U. S. Navy	435.0	56	2	23	0	High seas	Bahboa, C. Z.	Ballast			
Standard	21	8	35	21	9	45	21	17	14	21	18	10	American	Standard Oil Co.	435.0	56	2	23	0	Philadelphia, Pa.	Los Angeles, Calif	Ballast	7,039	5,145	
Arrow	21	12	10	21	12	20	21	19	12	21	20	00	American	Standard Transp. Co.	447.6	62	7	20	0	New York, N. Y	Los Angeles, Calif	Ballast	9,098	6,783	
Spinanger	21	12	20	21	12	35	21	20	05	22	1	46	Norwegian	Anglo-Saxon Pet. Co.	460.0	57	0	22	0	Rouen, France	Los Angeles, Calif	Ballast	7,616	5,263	
West Isis	21	3	00	21	13	15	21	20	53	21	22	25	American	McCormick S. S. Co.	410.5	54	2	20	0	Rosario, Arg	Vancouver, B. C.	General	3,331	6,754	4,967
Vancouver	20	6	55	21	14	10	21	21	25	21	22	35	German	Hamburg-American Line	478.0	62	10	21	10	Hamburg, Germany	Vancouver, B. C.	General	4,360		
La Perla	20	15	40	21	15	04	21	22	33	22	00	03	American	United Fruit Co.	325.0	42	0	18	9	Castobal, C. Z.	San Francisco, Cal.	Ballast	4,033	2,261	
Iowan	21	15	20	21	17	10	22	9	12	22	11	00	American	Amer-Hawaiian Line	407.7	54	0	19	3	Boston, Mass.	Portland, Oregon	General	2,886	7,079	5,028
Niagara	21	14	15	21	18	50							American	U. S. Navy	243.0	30	0	19	3	Cristobal, C. Z.	Bahboa, C. Z.	Ballast			

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Parthenia.....	14	15	35	15	6	10	15	13	30	15	13	30	British.....	Donaldson Bros., Ltd.	399.5	51.9	25.5	Vancouver, B. C.	Glasgow, Scotland	General.....	6,220	5,831	4,341
Albanar.....	14	20	45	15	6	54	15	14	05	15	14	05	American.....	Calmar S. S. Corp.	399.7	56.2	23.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general.....	5,160	7,381	5,595
Washington.....	15	7	00	15	7	57	15	15	20	15	15	20	American.....	The Texas Co.	425.8	57.0	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	8,980	7,484	5,216
Henry D.	15	7	30	15	8	12	15	14	55	15	14	55	American.....	Union Sulphur Co.	356.0	51.6	25.0	Tacoma, Wash.	New York, N. Y.	Lumber.....	5,475	5,367	2,925
San Vicente.....	15	8	45	15	9	30	15	16	40	15	16	40	American.....	Quaker Line	410.5	54.3	26.0	Aberdeen, Wash.	Philadelphia, Pa.	Lumber.....	7,353	6,572	4,900
Nasa Prince.....	15	9	10	15	10	08	15	17	05	15	20	22	American.....	N. O. & S. A. S. Co.	324.0	46.2	16.0	Toconilla, Chile	New Orleans, La.	Coffee, nitrates.....	1,895	3,983	2,570
Tromolite.....	14	11	15	16	50	15	22	25	16	14	15	15	British.....	Imperial Oil Co., Ltd.	430.0	57.0	29.0	Los Angeles, Calif.	Montreal, Canada	Fuel oil.....	9,000	7,226	4,413
Dilworth.....	15	18	26	16	6	29	16	14	15	16	14	15	American.....	Pennsylvania Ship. Co.	435.0	56.0	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	10,000	7,441	5,077
Aachen.....	15	10	40	16	6	57	16	15	15	17	13	23	German.....	North German Lloyd	431.2	56.4	21.0	Pt. Chicama, Peru	Hamburg, Germany	General.....	4,900	7,196	4,956
American.....	16	8	00	16	8	58	16	17	03	16	17	05	American.....	Amer-Hawaiian Line	404.6	53.9	23.0	Portland, Ore.	Boston, Mass.	General.....	4,416	6,777	4,761
Sagaland.....	16	9	05	16	9	56	16	17	55	16	17	55	Swedish.....	Axel Brestrom & Son	430.2	54.2	28.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.....	9,500	8,840	5,014
Kuahne.....	16	8	03	16	14	25	16	20	40	16	20	40	British.....	N. Z. Shipping Co.	480.6	60.3	24.0	Auckland, N. Z.	London, England	Frozen, general.....	3,941	11,443	8,469
Ankham.....	16	17	00	16	17	48	17	12	35	17	12	35	American.....	Pennsylvania Ship. Co.	433.6	56.2	27.0	Los Angeles, Calif.	Wellington, N. C.	Kerosene.....	10,186	7,426	5,073
Willmota.....	16	17	35	16	18	21	17	11	30	17	11	30	American.....	Dimon S. S. Corp.	390.2	54.2	26.0	Bellingham, Wash.	New York, N. Y.	Lumber.....	6,500	6,162	4,433
Pennsylvania.....	16	10	10	17	6	19	17	14	00	17	14	55	American.....	Panama-Pacific Line	588.4	80.3	29.0	San Francisco, Cal.	New York, N. Y.	Lumber.....	5,650	25,262	18,194
Pecten.....	15	22	20	17	6	14	17	15	45	17	14	45	British.....	Anglo-Saxon Pet. Co.	448.9	59.3	26.2	Los Angeles, Calif.	United Kingdom	Gasoline.....	7,456	7,957	4,984
Urda.....	16	22	20	17	7	14	17	15	35	17	18	05	German.....	Hamburg-American Line	479.2	60.3	23.0	Toconilla, Chile	Alexandria, Egypt	Nitrates.....	8,030	9,154	6,712
Eagle.....	17	7	20	17	8	02	17	16	05	17	16	05	American.....	Standard Transp. Co.	410.0	56.0	29.0	Los Angeles, Calif.	New York, N. Y.	Gas oil.....	8,476	8,201	6,225

Motor ship.

Silk, fruit, hay and general.

Tanker.

* Motor ship.

* Silk, fruit, hay, and general.

* Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Haarlem.	17	18.50	17	19.40	18	11.05	18	16.35	Dutch.	Royal Neth. S. S. Co.	361.5	49.6	16.0	Valparaiso, Chile.	Hamburg, Germany	General.	1,748	4,759	3,661
Astral	18	3.00	18	6.30	18	13.30	18	13.30	American.	Standard Transp. Co.	439.5	58.0	23.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,058	8,913	6,210
Lena	18	2.15	18	7.25	18	14.05	18	14.05	American.	Lukenbach-Gulf S.S. Co.	295.0	53.8	24.0	Seattle, Wash.	Boston, Mass.	(*)	5,847	7,217	5,295
Champerico.	18	2.55	18	7.30	18	15.25	18	15.25	British.	Pacific Steam Nav. Co.	420.1	41.7	16.0	Charperico, Peru	Cristobal, C. Z.	(*)	645	2,597	1,587
Vimeira	18	8.10	18	8.48	18	15.55	18	15.55	British.	Anglo-Saxon Pet. Co.	410.1	54.5	26.0	Los Angeles, Calif.	Louis End, Eng.	Kerosene.	7,525	6,984	4,375
Mataroa	17	19.45	18	11.00	18	17.20	18	17.20	British.	Shaw, Savill & Albion.	500.4	63.2	25.5	Wellington, N. Z.	London, England.	Foodstuffs, gen.	4,250	13,900	9,233
Call.	18	11.15	18	12.35	18	19.10	18	19.10	German.	Rotand Line	216.5	32.9	14.2	Guayaquil, Ecuador	Cristobal, C. Z.	General.	976	1,105	698
Benvotich.	18	10.15	18	13.33	18	21.10	18	22.25	British.	Ben Line, Ltd.	400.6	32.3	25.0	Vancouver, B. C.	W. Hartlepool, Eng.	(*)	6,600	5,770	4,072
Jane West	18	10.15	18	13.33	18	21.10	18	22.25	Panamanian	United Fruit Co.	400.6	32.3	25.0	Balboa, C. Z.	Gatun Lake, C. Z.	(*)	6,600	5,770	4,072
Northmoor	18	17.00	18	17.34	19	12.55	19	12.55	British.	Moore Line, Ltd.	375.0	52.6	26.0	Vancouver, B. C.	Liverpool, England	General.	7,136	6,051	4,612
Ecuador	18	11.00	19	6.12	19	14.05	20	11.52	American.	Panama Mail S. S. Co.	330.6	46.7	23.0	San Francisco, Cal.	New York, N. Y.	General, coffee.	2,319	5,926	4,178
Atlantic Sun	18	23.05	19	6.43	19	14.25	19	14.25	American.	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Florida.	Gasoline.	9,157	7,567	5,283
Pat Doherty	19	1.15	19	7.15	19	16.40	19	19.25	American.	Petroleum Securities Co.	430.2	59.2	27.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	9,048	7,978	5,839
Taranaki	18	19.25	19	7.36	19	15.25	19	15.25	British.	Shaw, Savill & Albion.	483.0	64.2	25.0	Townsville, N. Z.	London, England.	Frozen, general.	6,042	11,706	8,320
Cape York	19	7.20	19	8.10	19	17.50	19	19.30	British.	Lyle Shipping Co.	410.0	54.0	26.0	Portland, Ore.	Rouen, France.	Wheat, lumber.	8,298	6,927	4,802
Indra	19	5.30	19	11.14	19	18.25	19	20.15	Norwegian.	Knut Knutsen	385.0	51.4	23.6	Tocepilla, Chile	Azores, Az.	Nitrates	6,400	5,456	3,797
Naples Maru.	19	13.25	19	14.17	19	21.45	19	23.30	Japanese.	Kokusai Kisen Kaisha.	385.0	51.4	23.6	Manila, P. I.	Atlantic coast, U. S.	Sugar in bags	7,800	6,207	4,670
Tanabaru	19	7.50	20	6.04	20	13.50	20	13.50	American.	Behfild Oil Co.	500.0	71.2	30.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	17,600	10,227	6,552
Lustrous	19	16.10	20	6.44	20	14.15	20	15.00	British.	H. E. Moss & Co.	420.5	54.2	25.0	Los Angeles, Calif.	Lizards, Eng.	Gasoline.	8,596	6,156	3,690
La Perla.	19	12.20	20	7.14	20	14.55	20	15.15	British.	United Fruit Co.	325.2	48.1	20.0	San Francisco, Cal.	Cristobal, C. Z.	Coffee, general.	583	3,679	2,223
Malang.	19	19.30	20	7.47	20	15.35	20	15.35	American.	Malloy Transp. Lines	344.8	50.1	23.0	Aberdeen, Wash.	New York, N. Y.	Lumber.	4,937	3,735	2,265
Plow City.	19	5.45	20	8.27	20	16.15	20	16.15	American.	Charles Nelson & Co.	324.0	46.2	23.0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	3,000	3,250	1,989
Abdon.	19	21.10	20	8.52	20	16.20	20	17.45	American.	Redwood Line, Inc.	368.8	52.2	23.0	Portland, Ore.	Mobile, Ala.	Lumber, general.	5,004	4,870	3,049
Missourian	20	2.20	20	9.24	20	16.35	20	16.35	American.	Amer.-Hawaiian Line.	443.1	59.8	25.0	Tacoma, Wash.	Boston, Mass.	Lumber, general.	7,233	7,899	4,927
San Felipe.	20	7.35	20	9.48	20	17.25	20	17.25	American.	States S. S. Co.	409.8	54.2	27.0	Portland, Ore.	Philadelphia, Pa.	General.	6,880	5,919	3,681
Barat.	20	13.35	20	14.21	20	21.00	20	21.00	Dutch.	Royal Neth. S. S. Co.	302.9	33.1	14.0	Buenaventura, Col.	Cristobal, C. Z.	General.	864	780	323
Hazel Branch	20	16.15	20	17.01	21	12.25	21	12.25	British.	Nautilus S. S. Co.	400.4	51.2	23.0	Coronel, Chile.	Liverpool, England	General.	5,445	4,734	3,047
Niagara	20	16.15	21	6.42	21	14.15	21	18.50	American.	U. S. Navy.	243.0	36.3		Balboa, C. Z.	Cristobal, C. Z.				
Panquico.	18	6.32	21	6.42	21	14.05	21	14.05	Panamanian	Panamanian Gov't.	125.6	23.5		Panama, R. P.	Cristobal, C. Z.				
San Domingo	21	4.30	21	7.14	21	16.35	21	16.35	American.	States S. S. Co.	376.4	52.3	22.0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	4,800	5,674	3,261
Caica	21	5.30	21	7.20	21	16.50	21	16.50	Colombian.	Com. Nec. de Navig.	107.2	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	(*)	186	233	166
Gisla	21	10.25	21	11.29	21	19.30	21	19.30	Norwegian.	A. P. Moller	300.5	37.0	18.6	Port Lamon, P. I.	Providence, R. I.	Lumber, sugar.	4,336	3,549	2,098
Santa Barbara	21	10.20	21	12.24	21	19.05	22	3.00	American.	Grace Line.	496.0	64.0	26.0	Valparaiso, Chile.	New York, N. Y.	General.	5,582	8,157	3,946

* Tanker.
 † Launch.
 ‡ Coffee, hides, and cylinders.
 § Towing barge.
 ¶ For orders.

11 Motor ship.
 12 Lumber, canned fruit, and general.

13 Hides, skins, coffee, and wood.

14 Lumber, wheat, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 15.....	Calamares.....	United Fruit Co.	Port Limon, C. R.	June 15.....	No. 9670 ¹⁹ .	Pan American Airways.....	San Salvador and wayp'ts.
June 15.....	Statesman.....	T. & J. Harrison.	Liverpool via wayports.	June 15.....	Calamares.....	United Fruit Co.....	New York via Habana.
June 15.....	No. 9688 ¹⁹ .	Pan American Airways.....	Tela via wayports.	June 15.....	Magdalena.....	Hamburg-American Line.....	Hamburg via wayports.
June 16.....	Irona.....	United Fruit Co.	Puerto Colombia.	June 16.....	Heredia.....	United Fruit Co.....	New Orleans and wayp'ts.
June 16.....	Camden.....	United Fruit Co.	Curacao, D. W. I.	June 16.....	No. 945-M ¹⁹ .	Pan American Airways.....	Guayaquil via wayports.
June 16.....	No. 9776 ¹⁹ .	Pan American Airways.....	Miami via wayports.	June 16.....	No. 144-M ¹⁹ .	Pan American Airways.....	Pto. Cabello via wayp'ts.
June 16.....	Totoa.....	United Fruit Co.	New York via Habana.	June 16.....	Statesman.....	T. & J. Harrison.	Cardenas, Cuba.
June 16.....	Darien C-35 ¹⁹ .	Seadta Airplane Co.	Barraquilla and wayp'ts.	June 16.....	Darian.....	Leyland S. S. Line.....	Cardenas, Colombia.
June 17.....	Arandia.....	Hamburg-American Line.....	Managua.	June 16.....	Irona.....	United Fruit Co.....	Port Limon, C. R.
June 17.....	Simon Bolivar.....	Royal Netherlands S. S. Co.	Hamburg via wayports.	June 17.....	No. 9688 ¹⁹ .	Pan American Airways.....	Tela via wayports.
June 17.....	No. 9670 ¹⁹ .	Pan American Airways.....	San Salvador and wayp'ts.	June 17.....	Camden.....	United Fruit Co.....	Curacao, D. W. I.
June 17.....	Pasajero ²⁰ .	Gough Brothers.....	Port Limon, C. R.	June 17.....	Norden.....	Munson S. S. Line.....	Port Royal, Jamaica.
June 18.....	Carare.....	Panama R. R. S. S. Line.	Avonmouth via wayports.	June 18.....	Simon Bolivar.....	Royal Netherlands S. S. Co.....	Port Limon, C. R.
June 18.....	Ancon.....	United Fruit Co.	New York via Kingston.	June 18.....	Carare.....	Elders & Fyffes Line.....	Avonmouth via wayp'ts.
June 18.....	Santa Marta.....	United Fruit Co.	New Orleans, La.	June 18.....	Totoa.....	United Fruit Co.....	Port Limon, C. R.
June 18.....	Castilla.....	Pan American Airways.....	Pto. Cabello and wayp'ts.	June 19.....	Pasajero ²⁰ .	Gough Brothers.....	Port Limon, C. R.
June 18.....	No. 144-M ¹⁹ .	Pan American Airways.....	Talara via wayports.	June 19.....	No. 9776 ¹⁹ .	Pan American Airways.....	Miami via wayports.
June 18.....	No. 945-M ¹⁹ .	Pan American Airways.....	Port Limon, C. R.	June 19.....	Santa Marta.....	United Fruit Co.....	New York via wayports.
June 19.....	Irona.....	Pan American Airways.....	Managua via wayports.	June 19.....	Castilla.....	United Fruit Co.....	Pto. Colombia.
June 19.....	No. 998 ¹⁹ .	Pan American Airways.....	Tela via wayports.	June 20.....	No. 9670 ¹⁹ .	Pan American Airways.....	Tela via wayports.
June 19.....	No. 9688 ¹⁹ .	Pan American Airways.....	Pto. Cabello.	June 20.....	Darien C-35 ¹⁹ .	Seadta Airplane Co.....	Barraquilla and wayp'ts.
June 19.....	Wanks.....	Standard Fruit & S. S. Co.	New York.	June 21.....	Atlantida.....	United Fruit & S. S. Co.....	New Orleans and wayp'ts.
June 20.....	Maravi.....	Standard Fruit & S. S. Co.	New York via Habana.	June 21.....	Irona.....	United Fruit Co.....	New Orleans and wayp'ts.
June 20.....	Atlantida.....	Standard Fruit & S. S. Co.	Barcelona via wayports.	June 21.....	Maravi.....	United Fruit Co.....	New York via Kingston.
June 20.....	Buenos Aires.....	Spanish Line.....	Beaumont via wayports.	June 21.....	Shawnee.....	Clyde S. S. Co.....	Vera Cruz, Mexico.
June 21.....	Shawnee.....	Clyde S. S. Co.	Port Limon, C. R.	June 21.....	Dora K. ²¹ .	A. L. Surgeon.....	Bluefields, Nicaragua.
June 21.....	Simon Bolivar.....	Royal Netherlands S. S. Co.		June 21.....	Simon Bolivar.....	Royal Netherlands S. S. Co.....	Amsterdam and wayports.

¹⁹ Air mail carrier. ²⁰ Motor schooner. ²¹ Motor ship.

PORT OF BALBOA.

June 18.....	Cricamola ²² .	United Fruit Co.....	Panama Bay, R. P.	June 18.....	Rio Nozara ²² .	Hans T. Lau.....	Puntarenas, C. R.
June 18.....	Real ²³ .	Hans Elliot.....	Panama Bay, R. P.	June 18.....	Cricamola ²² .	United Fruit Co.....	Panama Bay, R. P.
June 19.....	Sambu ²³ .	Hans Elliot.....	Panama Bay, R. P.	June 19.....	Real ²³ .	Hans Elliot.....	Panama Bay, R. P.
June 19.....	T. J. Williams ²¹ .	Standard Shipping Co.....	Los Angeles, California.	June 20.....	Sambu ²³ .	Hans Elliot.....	Panama Bay, R. P.
June 20.....				June 20.....	T. J. Williams ²¹ .	Standard Shipping Co.....	Talara, Peru.

* Other than ships passing through the Canal.

²² Motor ship. ²³ Motor schooner.

Insurance Business in the Canal Zone, Calendar Year, 1929.

Eight insurance companies, all with head offices in the United States, transacted business in the Canal Zone in 1929. All companies licensed for 1928 renewed their licenses for 1929. A summary of the business follows:

MISCELLANEOUS COMPANIES.

	Premiums received in 1929.	Losses paid in 1929.
Property damage and collision.....	¹ \$6.69	
Accident.....	4,718.20	\$713.55
Automobile liability.....	2,136.68	203.75
Fidelity.....	655.92	² 25.00
Fire.....	7,187.05	
Health.....	1,326.93	278.50
Liability, other than automobile.....	9,656.06	4,623.37
Burglary and theft.....	103.26	
Automobile property damage.....	658.11	139.10
Surety.....	5,348.84	² 20.00
Plate glass.....	55.77	
Total.....	31,840.13	5,913.27

¹ Represents credit.

Premium tax paid in Canal Zone, \$481.70.

LIFE INSURANCE COMPANIES.

	Number.	Amount.
Policies in force, December 31, 1928.....	1,008	\$2,772,287.00
Policies issued during 1929.....	110	391,283.00
Total.....	1,118	3,163,570.00
Policies lapsed during 1929.....	101	344,546.00
Policies in force, December 31, 1929.....	1,017	2,819,024.00
Losses and claims unpaid, December 31, 1928.....		
Losses and claims incurred during 1929.....	6	19,291.00
Total.....	6	19,291.00
Losses and claims settled during 1929.....	3	12,277.00
Losses and claims unpaid on December 31, 1929.....	3	7,014.00
Premiums collected during 1929.....		107,294.74
Premium tax paid in Canal Zone.....		1,611.25

The relatively small amount of fire insurance business written is due to the fact that there are few structures in the Canal Zone outside of those owned by the Government of the United States, and none of the Government property is covered by fire insurance.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending June 21, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Sau Mateo.....	United Fruit Co.....		June 7.....		164
Manizales.....	North German Lloyd.....		June 8.....		156
Cristobal.....	Panama R. R. S. S. Line.....		June 8.....		1,523
Cerigo.....	Hamburg-American Line.....		June 8.....		629
Santa Maria.....	Grace Line.....		June 8.....		222
Chile.....	Danish-East Asiatic Co.....	June 8.....	June 8.....	112	125
Ulua.....	United Fruit Co.....	June 8.....	June 8.....	45	23
Tongking.....	Danish-East Asiatic Co.....		June 8.....		241
Parismina.....	United Fruit Co.....		June 8.....		30
Saale.....	North German Lloyd.....	June 9.....	June 10.....	(¹)	513
Calamares.....	United Fruit Co.....	June 9.....	June 11.....	342	4
Santa Teresa.....	Grace Line.....	June 10.....	June 10.....	124	(²)

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Dora K.	R. Feuillebois	June 10.	June 10.		16 $\frac{1}{2}$
Arizona	French Line	June 10.	June 11.	406	(²)
Pellerin de la Touche.	French Line	June 10.	June 12.	136	1,471
Santa Clara	Grace Line	June 11.	June 11.	53	57
Magdalena	Hamburg-American Line	June 11.	June 11.	80	5
Teno	Chilean Line	June 11.	June 11.	91	(²)
Drechtijk.	Holland-American Line	June 11.	June 12.	(¹)	387
Zacapa	United Fruit Co.	June 11.	June 12.	609	75
Tela	United Fruit Co.	June 11.	June 14.	19	46
Almagro	Pacific Steam Navigation Co.	June 12.	June 12.	355	(²)
Nebraska	Pacific Steam Navigation Co.	June 12.	June 13.	28	27
Oakland	Hamburg-American Line	June 12.	June 13.	(¹)	466
Durazzo	Hamburg-American Line	June 12.		894	
Iriona	United Fruit Co.	June 12.	June 13.	912	69
Buenaventura	Panama R. R. S. S. Line	June 13.	June 13.	1,075	128
Nosa King	N. O. & S. A. S. S. Co.	June 13.	June 13.	71	(²)
Norden	Munson S. S. Line	June 13.		4,855	
Amapala	Standard Fruit & S. S. Co.	June 13.	June 14.	253	459
Oropesa	Pacific Steam Navigation Co.	June 13.	June 14.	56	(²)
Heredia	United Fruit Co.	June 14.		42	
Guayaquil	Panama R. R. S. S. Line	June 14.		179	
Mayari	United Fruit Co.	June 14.	June 14.	58	496
Arana	Pacific Steam Navigation Co.	June 14.		234	
Durazzo	Hamburg-American Line		June 15.		334
Guayaquil	Panama R. R. S. S. Line		June 15.		223
Arana	Pacific Steam Nav. Co.		June 15.		59
Los Angeles	Hamburg-American Line		June 15.		155
Magdalena	Hamburg-American Line		June 15.		1,199
Golden Gate	Scandinavian South Pacific Line	June 15.	June 15.	3	(²)
Calamares	United Fruit Co.	June 15.	June 15.	212	31
Nosa Prince	N. O. & S. A. S. S. Co.	June 15.	June 16.	252	71
Illinois	Texas Oil Co.	June 15.	June 16.	775	(²)
Aegina	North German Lloyd	June 15.	June 16.	54	185
Helder	Royal Netherlands S. S. Co.	June 15.	June 16.	185	113
Statesman	T. & J. Harrison	June 15.	June 16.	306	(²)
Heredia	United Fruit Co.		June 16.		26
Darien	Leyland S. S. Line		June 16.		158
Iriona	United Fruit Co.	June 16.	June 16.	20	3
Camden	United Fruit Co.	June 16.	June 17.	9,617	(²)
Aachen	North German Lloyd	June 16.	June 17.	726	27
Tolosa	United Fruit Co.	June 16.	June 18.	444	55
El Salvador	Panama Mail S. S. Co.	June 16.	June 18.	411	375
Acacutla	Pacific Steam Navigation Co.		June 17.		628
Simon Bolivar	Royal Netherlands S. S. Co.	June 17.	June 18.	31	19
Santa Inez	Grace Line	June 17.	June 18.	34	289
Pasajero	Gough Brothers	June 17.	June 19.	(¹)	7
Carare	United Fruit Co.	June 18.	June 18.	(¹)	80
Champerico	Pacific Steam Navigation Co.	June 18.		646	
Haarlem	Royal Netherland S. S. Co.	June 18.	June 18.	186	39
Orcoma	Pacific Steam Navigation Co.	June 18.	June 19.	41	48
Castilla	United Fruit Co.	June 18.	June 19.	548	4
Aida	North German Lloyd	June 18.	June 19.	416	70
Calif.	North German Lloyd	June 18.		985	
Santa Marta	United Fruit Co.	June 18.	June 19.	447	76
Ancon	Panama R. R. S. S. Line	June 18.		2,547	
Siam	Danish-East Asiatic Line	June 19.	June 19.	90	123
Ecuador	Panama Mail S. S. Co.	June 19.	June 20.	989	398
San Clemente	Quaker S. S. Line	June 19.	June 20.	15	(²)
Wanks	Standard Fruit & S. S. Co.	June 19.		491	
Iriona	United Fruit Co.	June 19.	June 21.	19	248
Baralt	Royal Netherlands S. S. Co.	June 20.		864	
Vancouver	Hamburg-American Line	June 20.	June 21.	10	533
Maravi	United Fruit Co.	June 20.	June 21.	33	311
Atlantida	Standard Fruit & S. S. Co.	June 20.	June 21.	194	490
Buenos Aires	Spanish Line	June 20.		167	
La Perla	United Fruit Co.	June 20.	June 21.	627	(²)
Ebro	Pacific Steam Navigation Co.	June 21.		69	
Cauca	National Navigation Co.	June 21.		186	
Simon Bolivar	Royal Netherlands S. S. Co.	June 21.	June 21.	3	785
Dora K.	R. Feuillebois	June 21.	June 21.	(¹)	9
Santa Barbara	Grace Line	June 21.	June 21.	2	174
West Ives	McCormick S. S. Co.	June 21.	June 21.	190	(²)

* No cargo discharged.

* No cargo laded.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending June 21, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Sacramento.....	Charles Nelson & Co.....	June 5.....	June 6.....	121.....	.....
Lobos.....	Pacific Steam Navigation Co.....	June 7.....	June 7.....	.....	50.....
San Mateo.....	United Fruit Co.....	June 7.....	June 7.....	.....	32.....
Swiftlight.....	C. D. Mallory & Co.....	June 8.....	June 13.....	11,430.....	.....
Lisbon Maru.....	Nippon Yusen Kaisha.....	June 8.....	June 8.....	115.....	.....
Vega.....	U. S. Government.....	June 9.....	June 10.....	3.....	3.....
Montebello.....	Union Oil Co.....	June 9.....	June 10.....	11,680.....	47.....
Santa Teresa.....	W. R. Grace & Co.....	June 9.....	June 10.....	.....	1.....
Marsodak.....	Charles Nelson & Co.....	June 10.....	June 12.....	324.....	.....
Santa Clara.....	W. R. Grace & Co.....	June 11.....	June 11.....	37.....	.....
President Van Buren.....	Dollar Line.....	June 13.....	June 13.....	.....	4.....
Soriname.....	United Fruit Co.....	June 13.....	June 14.....	785.....	59.....
Sirius.....	U. S. Government.....	June 11.....	June 11.....	.....	64.....
Rio Nozara.....	Hans T. Lau.....	June 14.....	June 17.....	123.....	.....
Aachen.....	North German Lloyd.....	June 15.....	June 15.....	.....	80.....
Heiyo Maru.....	Nippon Yusen Kaisha.....	June 15.....	June 15.....	111.....	.....
Pecten.....	Anglo-Saxon Petroleum Co.....	June 15.....	June 17.....	1,846.....	.....
Ruahine.....	N. Z. Shipping Co.....	June 16.....	June 16.....	20.....	.....
Illinois.....	The Texas Co.....	June 16.....	June 16.....	1,360.....	.....
Steel Worker.....	Isthmian S. S. Lines.....	June 17.....	.....	2,336.....	.....
El Salvador.....	Panama Mail S. S. Co.....	June 18.....	June 18.....	64.....	8.....
Santa Inez.....	W. R. Grace & Co.....	June 18.....	June 18.....	13.....	140.....
Ecuador.....	Panama Mail S. S. Co.....	June 18.....	June 19.....	18.....	43.....
T. J. Williams.....	Standard Shipping Co.....	June 19.....	June 20.....	11,953.....	.....
La Perla.....	United Fruit Co.....	June 19.....	June 20.....	116.....	543.....
Santa Barbara.....	W. R. Grace & Co.....	June 21.....	June 21.....	.....	13.....

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
Cristobal.....	June 24.....	June 29.....	July 2.....	July 6.....	July 9.....	July 14.
Ancon.....	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
Cristobal.....	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
Ancon.....	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
Cristobal.....	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
Ancon.....	September 3.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23.
Cristobal.....	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
Ancon.....	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
Cristobal.....	October 15.....	October 20.....	October 23.....	October 28.....	October 31.....	November 5.
Ancon.....	October 28.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17.
Cristobal.....	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
Ancon.....	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
Cristobal.....	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
Ancon.....	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after S. S. *Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., July 2, 1930.

No. 48.

Canal Traffic During Fiscal Year 1930.

The total number of commercial vessels transiting the Canal during the fiscal year ended June 30, 1930, aggregated 6,185, and the total tolls collection was \$27,076,890.01. Tolls collected during the fiscal year 1930 were less by \$50,486.90 than the \$27,127,376.91 collected during the fiscal year 1929, which was a record year for tolls. The number of commercial transits for 1930 fell short by 228 of the 6,413 transits during the fiscal year 1929, and 271 short of the record of 6,456 established during the fiscal year 1928. These figures are for collections and subject to minor adjustments on account of over-charges or supplemental bills.

The daily average number of commercial transits during the year was 16.95, as compared with 17.57 for the fiscal year 1929. The daily average tolls collection amounted to \$74,183.26, as compared with \$74,321.58 for the previous fiscal year.

In the following tabulation, the number of commercial transits and amount of tolls collected are shown for the fiscal year 1930, with the averages of transits and tolls, together with the totals for the years 1929 and 1928:

	Total for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July.....	527	\$2,259,582.37	17.00	\$72,889.75
August.....	541	2,327,437.86	17.45	75,078.64
September.....	523	2,201,789.40	17.43	73,392.98
October.....	564	2,485,897.71	18.19	80,190.25
November.....	525	2,244,895.94	17.50	74,829.86
December.....	522	2,309,030.88	16.84	74,484.87
Total, first 6 months.....	3,202	13,828,634.16	17.40	75,155.62
January.....	531	2,360,211.24	17.13	76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April.....	489	2,232,763.00	16.30	74,425.43
May.....	479	2,162,898.60	15.45	69,770.92
June.....	478	2,100,994.53	15.93	70,033.15
Total, last 6 months.....	2,983	13,248,255.85	16.48	73,194.78
Total, fiscal year, 1930.....	6,185	27,076,890.01	16.95	74,183.26
Total, fiscal year, 1929.....	6,413	27,127,376.91	17.57	74,321.58
Total, fiscal year, 1928.....	6,456	26,944,499.77	17.63	72,618.85

Canal Traffic in June, 1930.

During the month of June, 1930, 478 commercial vessels and 14 small launches transited the Canal. Tolls on the commercial vessels aggregated \$2,100,994.53, and on the launches \$113.64, or a total tolls collection of \$2,101,108.17.

The daily average number of commercial transits for the month was 15.93, and the average tolls collected \$70,033.15, as compared with an average of 15.45 transits and \$69,770.92 in tolls for the previous month, and an average of 16.76 transits and \$70,926.87 in tolls for June, 1929. The average amount of tolls paid by each of the commercial transits was \$4,395.39, as compared with \$4,515.45 for the month of May, 1930.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 28, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chateau Thierry ¹	21	9 10	22	6 00	22	12 23	22	10 30	American	U. S. Army	436.0	58.0	23.6	New York, N. Y.	Balboa, C. Z.	Supplies.	730		
Chaumont ¹	21	10 45	22	6 00	22	13 01	24	10 30	American	U. S. Navy	436.0	58.0	24.7	Hampton, Va.	Manila, P. I.	General.	757		
Ebro ¹	21	19 20	22	7 00	22	14 50	22	14 50	British	Pacific Steam Nav. Co.	439.0	56.0	24.0	New York, N. Y.	Tacahuano, Chile.	General.	2,500	9,291	6,301
Dalenoor ¹	21	18 45	22	7 20	22	14 48	22	16 15	British	Henkel & Du Buisson	440.0	50.0	26.0	West Indies.	Vancouver, B. C.	Sugar.	7,000	5,948	4,245
Japanese Prince ²	22	00 05	22	8 15	22	14 52	22	15 55	British	Furness, Withy & Co.	441.6	60.0	20.6	New York, N. Y.	Manila, P. I.	General.	3,542	9,240	6,152
Texas ²	22	4 40	22	8 45	22	15 48	22	17 20	American	The Texas Co.	416.8	56.0	17.6	Jacksonville, Fla.	Los Angeles, Calif.	General.		6,782	4,964
Chileop ²	22	5 05	22	9 30	22	16 20	22	23 15	American	Chile S. S. Co.	411.6	54.1	16.10	New York, N. Y.	Tacahuano, Chile.	Coke, machinery	2,586	6,809	4,973
San Diego ²	22	5 25	22	9 50	22	17 00	22	18 05	American	States S. S. Co.	376.4	52.3	15.10	Charleston, S. C.	Seattle, Wash.	General.	1,365	5,455	3,879
Australia ²	22	8 05	22	10 55	22	18 05	22	19 18	American	The Texas Co.	509.7	70.3	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	12,514	8,427	
Cal ²	18	19 10	22	13 20	22	20 07	22	21 39	German	Roland Line	216.8	32.9	13.1	Cristobal, C. Z.	Guayaquil, Ecuador	General.	400	1,105	698
Roonoke ²	22	14 45	22	14 55	22	21 47	22	23 00	American	The Texas Co.	470.0	56.1	23.0	Norfolk, Va.	Los Angeles, Calif.	Ballast.		6,931	5,026
Calliope ²	22	18 45	22	19 00	23	10 25	23	15 50	Danish	Varied Tank, Rhederel.	470.0	63.2	19.0	Hamburg, Germany	Talara, Peru.	Ballast.		9,001	5,927
Robin Hood ²	22	19 25	23	6 05	23	14 34	23	15 50	American	Wishman S. S. Lines	424.0	55.0	23.6	Baltimore, Md.	Seattle, Wash.	General.	6,767	7,473	5,533
Svalder ²	23	00 25	23	6 15	23	14 45	23	18 00	Norwegian.	Pet. Stor. & Fin. Corp.	498.3	55.3	18.0	Preston, Cuba.	Los Angeles, Calif.	Ballast.		6,466	4,336
Taketoyo Maru ²	23	2 00	23	7 10	23	15 22	23	16 30	Japanese.	Nippon Yusen Kaisha.	445.0	58.0	21.3	New York, N. Y.	Kobe, Japan.	General, steel	5,204	7,972	5,687
Wind Rush ²	23	2 25	23	7 17	23	15 41	23	16 45	American	Shepard S. S. Co.	409.0	54.0	20.4	Boston, Mass.	Los Angeles, Calif.	General.	3,589	6,558	4,753
S-14 ²	23	8 35	23	8 35	23	16 00	24	9 44	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
S-17 ²	23	8 35	23	8 35	23	16 00	24	9 44	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Trimountain ²	23	8 10	23	9 40	23	17 05	23	21 35	American	Bernth Lemboke Co.	416.9	56.2	25.6	Middlesborough.	Los Angeles, Calif.	Creosote oil	8,502	6,728	4,734
Annie Johnson ²	22	18 10	23	10 30	23	17 36	25	11 40	Swedish	Johnson Line	392.0	52.6	18.10	Stockholm, Swed.	San Francisco, Cal.	General.	2,944	6,650	4,919
Buffalo Bridge ²	23	10 45	23	11 00	23	18 35	23	21 35	American	Nelson Line	334.0	46.2	18.0	Baltimore, Md.	Los Angeles, Calif.	General.	2,342	3,985	2,630
Gertrude Maersk ²	23	15 00	23	18 20	24	9 01	24	12 37	Danish	Isbrandtsen Moller Co.	418.9	54.7	21.4	Savannah, Ga.	Iloilo, P. I.	General.	5,080		
Somme ²	24	3 20	24	6 25	24	12 52	25	12 15	American	U. S. Army	434.0	58.0	22.0	New York, N. Y.	San Francisco, Cal.	General.	411		
Eastern Sun ²	23	15 45	24	6 25	24	13 36	24	14 50	American	Sun Oil Co.	430.6	60.0	21.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast.		9,607	6,551
Chilbar ²	23	19 15	24	7 10	24	14 27	24	15 35	American	Chile S. S. Co.	391.8	51.3	14.6	Boston, Mass.	Los Angeles, Calif.	Ballast.		3,405	3,806
Pacific Pine ²	24	7 50	24	7 30	24	16 52	24	18 05	American	Dimon S. S. Line.	410.5	54.3	19.7	Philadelphia, Pa.	Tacoma, Wash.	General.	4,676	6,583	4,808
Bowes Castle ²	24	11 20	24	11 30	24	18 17	24	22 40	British	Barber S. S. Line.	418.5	56.1	25.0	Philadelphia, Pa.	Manila, P. I.	General.	5,132	6,675	4,712
Kentuckian ²	24	18 30	24	19 00	25	9 23	25	10 26	American	Amer.-Hawaiian Line.	414.0	53.0	24.0	Boston, Mass.	Seattle, Wash.	General.	2,663	7,049	4,941
Knut Nelson ²	23	16 35	25	6 10	25	12 48			Norwegian.	Fred Olsen & Co.	435.9	56.2	23.9	Antwerp, Belgium.	Vancouver, B. C.	Cement, general.	3,400	8,016	5,854
Paul Shoup ²	25	1 55	25	6 25	25	13 49	25	15 10	American	Associated Oil Co.	424.4	58.2	19.0	New York, N. Y.	San Francisco, Cal.	Ballast.		7,333	5,182
K. I.																			
Lockenbach ²	25	3 50	25	7 30	25	14 48	25	16 00	American	Lockenbach Line	446.0	56.0	24.0	Boston, Mass.	Portland, Oreg.	General.	3,405	8,552	6,236
China Arrow ²	25	10 10	25	10 20	25	17 07	25	18 10	American	Standard Transp. Co.	468.3	62.7	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast.		10,084	7,388
Iowa ²	23	22 55	25	10 40	25	17 45	25	18 45	French	French Line	449.0	53.0	21.4	Havre, France.	Corral, Chile.	Iron, cement.	3,112	7,469	5,020

¹ Tanker.² Motor ship.³ Transport.⁴ Submarine.

Santa Tecla.....	23	12.45	25	12.30	25	19.38	25	21.05	American.....	N. O. & S. A. S. Co. Co.	298.6	40.0	18.4	New Orleans, La.	Taleahuano, Chile.	General.....	1,235	2,832	1,803
Santa Maria ¹	25	9.25	25	14.05	25	20.30	26	1.30	American.....	Grace Line	406.0	51.3	26.0	New York, N. Y.	Valparaiso, Chile.	General.....	2,061	10,636	6,680
Chilol ¹	25	18.25	25	18.40	26	9.30	26	10.02	American.....	Paine & Cleary	391.8	54.0	14.0	Providence, R. I.	San Francisco, Cal.	Ballast.....	3,549	3,955	3,955
Sularia.....	23	8.00	26	6.08	26	13.02	26	14.05	British.....	Donaldson Line	425.0	58.2	18.4	Glasgow, Scotland.	Vancouver, B. C.	General.....	916	7,827	6,419
Bodegraven.....	24	15.50	26	6.12	26	13.48	26	22.48	Dutch.....	Royal Neth. S. S. Co.	289.5	58.2	16.3	Tampico, Mexico.	Guaymas, Mexico.	General.....	3,501	7,834	3,028
Cissy.....	25	21.30	26	7.15	26	14.30	26	15.45	Norwegian.....	Islandsen Moller Co.	350.0	50.6	13.3	La Rochelle, Fr.	Los Angeles, Calif.	Case oil, grease.	1,672	2,937	3,532
Fernia ²	26	4.05	26	7.25	26	14.32	26	15.45	Swedish.....	W. L. Comyn & Co.	420.0	53.2	25.0	Galveston, Texas.	Geelong, Australia.	Ballast.....	7,900	7,101	5,018
Eldebank ¹	26	6.05	26	8.20	26	16.00	26	23.54	British.....	Texas Gulf Sulphur Co.	407.0	50.2	19.6	Philadelphia, Pa.	La Libertad, Ecu.	Sulphur.....	6,392	7,046	4,326
El Cervo ¹	26	9.05	26	9.20	26	16.52	26	18.00	British.....	Anglo-Ecuador. Oil Co.	425.0	56.2	25.0	Baltimore, Md.	Shanghai, China.	Steel, general.....	6,392	7,046	4,326
Memphis City.....	26	10.00	26	10.00	26	17.28	26	19.35	American.....	Isthmian S. S. Lines	374.0	53.8	16.0	Hamburg, Germany	Guaymas, Mexico.	General.....	2,051	5,370	3,467
Padra ¹	23	9.45	26	12.00	26	18.23	26	19.35	German.....	Hamburg-American Line	472.0	60.0	26.6	Swansea, England.	Tinaru, N. Z.	General.....	8,685	9,150	6,886
Pakpaki.....	26	4.45	26	13.20	26	20.16	26	21.30	British.....	Federal Steam Nav. Co.	436.0	57.0	26.0	New Orleans, La.	Tacoma, Wash.	General.....	5,578	8,543	6,402
Julia.....	26	13.15	26	14.35	26	21.20	26	22.48	American.....	Luckenbach Line	449.0	61.0	20.1	New Orleans, La.	Los Angeles, Calif.	Ballast.....	8,707	5,410	5,410
Belgian.....	26	16.00	26	16.05	26	22.31	26	23.54	Belgian.....	Good & Co.	445.0	72.2	23.11	Amsterdam, Holl'd	Baiboa, C. Z.	Ballast.....	15,551	4,297	4,297
Gulf ¹	27	5.30	27	6.10	27	12.55	27	15.00	British.....	British Government	550.3	62.0	27.0	West Indies.	Cruz Grande, Chile	Ballast.....	3,577	12,583	9,207
Despatch ¹	26	15.38	27	6.05	27	13.59	27	15.00	American.....	Ore S. S. Corp.	502.0	52.0	27.0	New York, N. Y.	Baiboa, C. Z.	General.....	39	92	11
Steele.....	27	5.55	27	7.25	27	14.27	28	1.39	American.....	Dollar Line	105.0	80.3	26.0	New York, N. Y.	Baiboa, C. Z.	Ballast.....	3,442	25,254	18,170
President.....	27	7.20	27	7.20	27	15.10	27	15.10	Panamaian.....	United Fruit Co.	586.4	54.2	18.0	Perme, P. P.	Baiboa, C. Z.	General.....	3,800	6,607	4,949
Anchucuna ⁶	27	7.20	27	7.20	27	15.10	27	15.10	American.....	United Fruit Co.	586.4	54.2	18.0	Cristobal, C. Z.	Baiboa, C. Z.	General.....	6,825	7,755	4,688
No. 31004 ⁷	27	6.05	27	7.30	27	15.08	28	3.45	American.....	Panama-Pacific Line	409.6	54.0	27.0	New York, N. Y.	Los Angeles, Calif.	General.....	6,825	7,755	4,688
Helen.....	27	00.25	27	8.10	27	15.53	27	17.20	American.....	Christenson S. S. Co.	404.6	54.0	27.0	Baltimore, Md.	Portland, Oreg.	General.....	15,425	4,421	4,421
Whittier.....	27	1.15	27	8.25	27	16.49	27	20.50	American.....	Argonaut S. S. Co.	425.0	56.0	22.0	Baltimore, Md.	Los Angeles, Calif.	Ballast.....	6,723	6,242	4,471
Grove.....	27	4.30	27	9.40	27	17.09	27	21.23	French.....	Desmarais	385.0	51.0	26.6	Blaye, France	Cruz Grande, Chile	Steel, general.....	8,491	6,065	6,065
Monique ¹	27	5.40	27	9.40	27	17.34	28	00.08	Swedish.....	Ore S. S. Corp.	340.0	54.0	24.6	Sparrows Pt., Md.	Seattle, Wash.	General.....	3,863	6,545	4,483
Svealand ²	27	5.50	27	10.40	27	18.22	27	19.35	American.....	Calmar Line	381.2	54.0	22.0	Philadelphia, Pa.	Seattle, Wash.	Ballast.....	4,613	2,996	2,996
Massar.....	27	8.50	27	11.50	27	19.14	27	21.11	American.....	Schock Ind. Oil Co.	399.0	60.0	16.0	New York, N. Y.	San Francisco, Cal.	Ballast.....	6,485	6,083	4,561
Livingston.....	26	12.40	27	13.45	27	20.25	28	18.46	German.....	Hamburg, Germany	399.0	54.0	24.6	Hamburg, Germany	Valparaiso, Chile	General.....	2,238	12,977	9,373
Roe ¹	27	14.40	27	14.45	27	22.00	27	23.20	American.....	Richfield Oil Co.	340.0	54.0	24.6	New York, N. Y.	Los Angeles, Calif.	General.....	6,593	5,667	4,103
Kellerwald.....	27	18.20	27	18.55	28	9.04	28	10.11	American.....	U. S. Navy	484.0	54.0	22.0	Cristobal, C. Z.	Baiboa, C. Z.	Ballast.....	5,300	5,698	4,297
Pueblo ¹	27	18.20	27	18.55	28	9.04	28	10.11	American.....	Canadian Transp. Co.	381.2	54.0	22.0	Tamra, Florida	Valparaiso, B. C.	Phosphate, gen	4,193	7,101	5,374
Siota.....	26	8.55	28	5.30	28	15.37	28	16.45	Italian.....	Italian Line	379.0	53.1	23.0	Genoa, Italy	Valparaiso, Chile	General.....	400	1,132	741
Orazio ¹	27	22.05	28	7.05	28	15.40	28	16.45	Italian.....	U. S. Navy	379.0	53.1	23.0	U. S. port	San Diego, Calif.	Airplanes	10,530	7,888	7,888
Lexington ¹	27	22.05	28	7.05	28	15.40	28	16.45	American.....	Redwood Line	379.0	53.1	23.0	New Orleans, La.	Los Angeles, Calif.	General.....	6,593	5,667	4,103
Delight.....	28	8.15	28	8.30	28	16.24	28	18.10	American.....	Munson, McCor k Line	370.0	53.1	23.0	Baltimore, Md.	Tacoma, Wash.	General, sulphur.	5,300	5,698	4,297
Mundeta.....	28	8.15	28	8.30	28	16.24	28	18.10	American.....	Munson, McCor k Line	370.0	53.1	23.0	Baltimore, Md.	Tacoma, Wash.	General.....	4,193	7,101	5,374
City of.....	28	5.55	28	9.30	28	16.32	28	18.10	British.....	Ellerman & Bucknall	430.0	54.0	24.0	New York, N. Y.	Sydney, Australia.	General.....	400	1,132	741
Khartoum.....	25	16.45	28	10.10	28	17.30	28	18.46	German.....	North German Lloyd	216.5	32.9	12.0	Cristobal, C. Z.	Guayaquil, Ecuador	General.....	10,530	7,888	7,888
Manizales.....	25	10.05	28	10.35	28	18.00	28	19.12	Danish.....	Standard Shipping Co.	508.0	64.0	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.....	7,571	4,840	4,840
Baltic ¹	28	10.05	28	10.35	28	18.00	28	19.12	British.....	Anglo-Saxon P&O Co.	417.0	57.1	19.5	Kingson, Jamaica.	Los Angeles, Calif.	Ballast.....	6,932	5,076	5,076
Scottish Chief.....	28	13.55	28	11.30	28	18.56	28	20.40	American.....	The Texas Co.	441.0	56.1	20.0	Marous Hook, Pa.	Portland, Oreg.	General.....	3,025	8,507	6,020
Harvester ¹	28	13.55	28	11.30	28	18.56	28	20.40	American.....	The Texas Co.	441.0	56.1	20.0	Marous Hook, Pa.	Portland, Oreg.	General.....	3,025	8,507	6,020
California ¹	28	14.15	28	14.35	28	21.25	28	22.40	American.....	Amer-Hawaiian Line	445.0	59.8	19.0	Boston, Mass.	Cebu, P. I.	Steel, cotton, gen.	7,976	7,339	5,249
Steel Voyager.....	28	16.50	28	17.00	29	9.32	29	10.42	American.....	Isthmian S. S. Lines	395.5	55.0	26.0	Mohile, Ala.	Cebu, P. I.	Steel, cotton, gen.	7,976	7,339	5,249

⁹ Tug.

⁸ Airplane carrier.

⁷ Barge.

⁶ Motor boat.

⁵ Cruiser.

¹ Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.		Salt draft.	From—	For—	Cargo.		Panama Canal tonnage.
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.									Nature.	Tons.	
Amerikaland ¹⁰	21	17.00	21	17.52	22	13.40	22	13.40	Swedish.	Ore S. S. Corp.	561.0	72.2	34.5		Cruz Grande, Chile	Baltimore, Md.	Iron ore.	21,800	4,496
Western ¹⁰	22	3.50	22	6.00	22	14.50	22	17.15	American.	Sun Oil Co.	480.6	66.0	28.0		Los Angeles, Calif.	Chester, Pa.	Gasoline.	13,276	6,551
San Alpire.	22	00.15	22	6.45	22	15.00	22	16.15	British.	Cayser Irvine & Co.	410.0	53.5	24.0		Calcutta, India.	United Kingdom.	General.	7,000	5,182
Mississippi ¹¹	23	5.33	23	6.25	23	14.30	23	16.15	American.	U. S. Navy.	624.0	97.0			Bahoa, C. Z.	East coast, U. S.	Gasoline.	9,416	4,975
S. C. T. Dodd ¹¹	23	5.33	23	6.36	23	15.40	23	16.15	American.	Standard Oil Co. of Cal.	425.0	58.0	28.2		Los Angeles, Calif.	New York, N. Y.	Sugar, wood, oil.	5,315	7,955
Tuyayama Maru.	22	18.10	23	7.25	23	15.10	23	17.05	Japanese.	Nippon Yusen Kaisha.	445.0	58.0	29.0		Manila, P. I.	New York, N. Y.	General.	7,500	7,139
Laguna ¹⁰	22	18.10	23	8.07	23	16.00	23	17.05	British.	Pacific Steam Nav. Co.	420.5	54.2	26.0		Corral, Chile.	Liverpool, England.	General.	7,500	7,139
Fella ¹⁰	22	3.30	23	8.43	23	17.05	23	18.08	Italian.	Nav. Libera-Triestina.	436.6	55.4	25.0		Vancouver, B. C.	Trieste, Italy.	Wheat, lumber.	8,695	7,784
Sagadahoc.	23	11.15	23	12.02	23	19.05	23	19.05	American.	Argonaut S. S. Co.	420.5	54.2	24.0		Everett, Wash.	Baltimore, Md.	Lumber.	6,938	7,345
Benmadhu.	23	18.20	23	19.00	24	10.55	24	10.55	British.	Wm. Thomson & Co.	401.0	52.1	28.0		Aberdeen, Wash.	Hamburg, Germany.	Wheat, lumber.	8,000	6,562
Chateau																			
Thierry.			24	6.12	24	12.55	25	11.20	American.	U. S. Army.	448.0	56.0	26.0		Bahoa, C. Z.	New York, N. Y.	Army supplies.	430	
Santa Rita ¹⁰	23	14.40	24	6.44	24	13.45	24	21.50	American.	Grace Line.	370.0	53.2	24.0		San Antonio, Chile.	New York, N. Y.	Metals, produce.	3,497	6,254
Cresington																			
Court ¹⁰	23	17.30	24	7.25	24	14.40	24	15.30	British.	United British S.S. Co.	404.7	55.5	25.0		Whyalla, Australia.	Baltimore, Md.	Iron ore.	8,410	
Cubore ¹⁰	23	21.20	24	8.10	24	15.20	24	15.20	American.	Calmar S. S. Corp.	450.6	57.2	26.0		New Westminster, B. C.	New York, N. Y.	Lumber, autos.	2,379	7,956
Wisconsin ¹⁰	24	6.40	24	8.39	24	15.45	25	00.05	American.	Roosevelt S. S. Co., S. B.	401.9	54.2	25.0		Freemantle, N. Z.	Baltimore, Md.	Iron ore, wool.	6,540	6,994
Montanan.	24	7.16	24	8.56	24	16.15	24	16.15	American.	Amer-Hawaiian Line.	404.6	53.9	21.0		San Francisco, Cal.	Boston, Mass.	General.	3,679	6,756
W. S. Rheem ¹¹	24	8.38	24	9.37	24	17.25	24	17.25	American.	Standard Oil Co. of Cal.	400.0	68.3	27.0		Los Angeles, Calif.	Bayonne, N. J.	Gasoline.	13,875	11,224
Winnipeg.	24	10.24	24	10.50	24	18.15	25	16.05	French.	French Line.	473.4	59.5	30.0		Vancouver, B. C.	Rotterdam, Holland.	General.	6,400	10,539
Queen Eleanor.	24	11.30	24	12.25	24	20.00	24	20.00	British.	DuPont de Nemours.	400.3	52.3	25.0		Tocopilla, Chile.	Charleston, S. C.	Nitrates.	7,450	5,808
Hugenot ¹¹	24	13.30	24	14.17	24	21.25	24	21.25	American.	Richfield Oil Co. of Cal.	434.8	56.2	26.0		Los Angeles, Calif.	New York, N. Y.	Gasoline.	9,526	7,394
Tai Yang ¹⁰	24	14.25	24	15.57	24	22.35	25	12.50	Norwegian.	Barber-Wilhelmsen Line	461.4	60.6	23.3		Dayao, P. I.	Boston, Mass.	General.	4,438	10,009
Susan V.																			
Loekenbach.	24	16.00	24	16.48	25	10.40	25	10.40	American.	Lukenbach Line.	434.7	57.7	24.0		Seattle, Wash.	Boston, Mass.	General.	6,391	7,947
El Lobo.	24	19.00	25	6.19	25	13.35	25	14.07	British.	C. T. Bowring & Co.	385.2	51.0	23.4		La Libertad, Ecua.	Philadelphia, Pa.	Crude oil.	6,106	5,688
Bradgen.	24	20.20	25	6.54	25	14.07	25	14.07	British.	Sir W. R. Smith & Sons.	400.4	54.2	25.0		Vancouver, B. C.	London, England.	General.	7,914	3,326
F. H.																			
Santa Rita ¹¹	25	3.20	25	7.20	25	15.40	25	22.30	American.	Standard Oil Co. of Cal.	560.0	68.2	28.3		Estero Bay, Calif.	Wilhelmshaven, Ger.	(*)	13,605	11,225
Point San Pablo.	25	2.51	25	7.39	25	17.20			American.	U. S. Navy.	155.0	30.0			Bahoa, C. Z.	Cristobal, C. Z.	(*)		
Canadian																			
Commander.	25	5.00	25	8.06	25	16.38	25	16.38	American.	Swayne & Hoyt.	324.0	46.2	20.0		Portland, Oreg.	New Orleans, La.	(*)	2,573	3,994
Manizales.	25	8.15	25	8.40	25	17.18	25	17.18	British.	Can. Nat. Steamships.	400.0	52.4	16.0		Sydney, Australia.	Montreal, Canada.	General.	1,000	5,914
Charles Nelson.	22	11.00	25	10.25	25	18.00	26	12.02	American.	Charles Nelson & Co.	380.4	53.1	23.0		Guayquil, Ecuador	Cristobal, C. Z.	General.	708	1,132
K. R.																	Lumber.	4,753	5,659
Kingsbury ¹¹	25	13.11	25	14.02	25	21.35	25	21.35	American.	Standard Oil Co. of Cal.	440.0	58.2	29.0		Los Angeles, Calif.	Paulsboro, N. J.	Gasoline.	9,400	9,033

¹⁰ Motor ship.¹¹ Tug.¹² Battleship.¹³ General, flour, and explosives.

25	14	00	25	15	00	25	22	25	26	11	35	Dutch	Holland-American Line.	485.6	62.3	30.0	Vancouver, B. C.	Rotterdam, Holl'd	9,980	10,786	7,551
25	4	00	25	17	09	26	18	30	27	7	30	Finish	Gustaf Erikson	297.2	52.3	22.0	Guanape Is., Peru	Dunkirk, France	2,400	2,370	2,133
25	13	25	26	6	05	26	13	25	26	13	25	Danish	Anglo-Saxon Pet. Co.	456.8	59.7	27.0	Los Angeles, Calif	Lands End, Eng.	10,769	8,102	5,605
25	19	45	26	6	38	26	14	05	26	14	05	British	Reardon-Smith Line	400.4	54.2	25.0	Portland, Oreg	Belfast, Ireland	8,028	6,947	5,358
26	1	00	26	8	14	26	15	40	27	1	25	German	Hamburg-American Line	477.3	63.1	25.0	Vancouver, B. C.	Hamburg, Germany	7,137	10,277	7,304
26	1	20	26	8	26	26	16	50	26	23	25	British	Pacific Steam Nav. Co.	550.3	67.3	28.0	Tacabuanu, Chile	Liverpool, England	4,833	16,834	11,731
26	1	00	26	8	48	26	20	15	27	2	15	American	Isthmian S. S. Lines	424.2	56.2	27.0	Kahului, T. H.	Baltimore, Md	8,483	5,450	5,450
26	4	00	26	9	11	26	20	15	27	10	25	German	Hamburg-American Line	399.6	54.2	26.0	Corral, Chile	Hamburg, Germany	7,679	6,571	4,607
26	8	10	26	9	52	26	20	32	26	20	32	American	Cities Service Trans.Co.	431.0	59.2	27.0	Los Angeles, Calif	New York, N. Y.	9,656	8,093	5,347
15	22	45	26	13	08	26	21	45	27	4	05	American	Isthmian S. S. Lines	424.2	56.0	26.0	Tacoma, Wash	Baltimore, Md	8,605	7,611	5,497
26	11	17	26	14	48	26	22	25	27	12	38	Swedish	Johnson Line	409.0	52.6	25.0	Vancouver, B. C.	Stockholm, Sweden	5,505	6,642	4,860
25	17	45	26	17	21	27	20	45	27	12	38	American	Standard Dredging Co.	151.5	39.5	10.0	Buenaventura, Col.	New Orleans, La	5,976		976
26	19	45	27	6	08	27	14	30	28	0	25	Norwegian	Fred Olsen & Co.	452.0	59.5	28.2	Vancouver, B. C.	Oslo, Norway	8,480	9,082	6,140
27	6	22	27	6	22	27	15	45	28	0	25	American	U. S. Navy	231.0	20.0	20.0	Balboa, C. Z.	Cristobal, C. Z.			
27	6	22	27	6	22	27	15	45	28	0	25	American	U. S. Navy	187.0	35.6	35.6	Balboa, C. Z.	Cristobal, C. Z.			
26	23	40	27	7	15	27	18	15	27	18	15	American	States S. S. Co.	426.3	54.0	23.0	Seattle, Wash	Philadelphia, Pa.	6,008	6,755	4,895
27	1	10	27	7	49	27	17	20	27	21	30	British	Pacific Steam Nav. Co.	450.0	57.8	24.0	Tacabuanu, Chile	New York, N. Y.	2,208	9,158	6,170
27	5	30	27	8	36	27	19	00	27	19	50	British	Thomas Dunlop & Sons.	400.2	52.3	26.4	Liquique, Chile	Alexandria, Egypt	7,000	5,748	3,965
27	6	50	27	8	53	27	15	50	27	15	50	British	Pacific Steam Nav. Co.	215.0	33.3	12.3	San Jose de Guat.	Cristobal, C. Z.	118	1,270	735
27	8	20	27	9	21	27	19	32	27	23	10	Norwegian	L. Mowinckels Roderi.	379.9	53.7	22.4	Whiyalla, Australia.	Baltimore, Md	6,092	5,745	4,165
27	8	24	27	9	47	27	20	25	27	20	25	American	Christenson S. S. Co.	409.0	54.2	23.0	Port Alberni, B. C.	New York, N. Y.	6,773	6,615	4,966
27	9	20	27	10	20	27	22	30	27	22	30	American	Amer.-Hawailn Line	415.0	57.3	26.0	Seattle, Wash	Boston, Mass	6,080	7,380	5,339
27	13	35	28	14	38	27	22	30	27	22	30	American	Ore S. S. Corp.	449.1	57.2	29.0	Cruz Grande, Chile	Baltimore, Md	12,303	7,808	5,139
27	13	35	28	14	38	27	22	30	27	22	30	American	Ore S. S. Corp.	231.0	20.0	20.0	Balboa, C. Z.	Cristobal, C. Z.			
27	13	35	28	14	38	27	22	30	27	22	30	American	U. S. Navy	231.0	20.0	20.0	Balboa, C. Z.	Cristobal, C. Z.			
27	13	35	28	14	38	27	22	30	27	22	30	American	U. S. Navy	231.0	20.0	20.0	Balboa, C. Z.	Cristobal, C. Z.			
27	13	35	28	14	38	27	22	30	27	22	30	American	United Fruit Co.	105.0	15.3	15.3	Balboa, C. Z.	Cristobal, C. Z.			
27	21	10	28	6	40	28	15	05	28	23	00	Dutch	Holland-American Line.	472.6	61.1	24.0	Victoria, B. C.	Antwerp, Belgium	8,641	9,165	7,056
27	21	10	28	6	40	28	15	05	28	23	00	Dutch	Holland-American Line.	472.6	61.1	24.0	Victoria, B. C.	Antwerp, Belgium	8,641	9,165	7,056
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27	21	10	28	6	40	28	15	05	28	23	00	Dutch	Holland-American Line.	472.6	61.1	24.0	Victoria, B. C.	Antwerp, Belgium			

¹ Tanker.
² Grain, fruit, and coffee.

¹⁵ Bark.
¹⁶ Dredge, towed through.

¹⁷ Submarine.
¹⁸ Copper, tin, ore, and cotton.

¹⁹ Paper, pulp, ore, lumber, and general.
²⁰ Copper, tin, ore, and cotton.

²¹ Air mail carrier.
²² Other than ships passing through the Canal.

²³ Air mail carrier.
²⁴ Other than ships passing through the Canal.

²⁵ Air mail carrier.
²⁶ Other than ships passing through the Canal.

PORT OF CRISTOBAL.

Date	Vessel	Line	From	Date	Vessel	Line	For
June 22	Cartago	United Fruit Co.	New Orleans via Habana	June 22	No. 9688 ²¹	Pan American Airways	San Salvador via waypoints.
June 22	Tolosa	United Fruit Co.	Port Limon, C. R.	June 22	Tolosa	United Fruit Co.	New York via Habana.
June 22	No. 9670 ²¹	Pan American Airways	Tela via waypoints.	June 22	Aconon	Panama R. R. S. Line	New York via Haiti.
June 22	No. 142-M ²¹	Pan American Airways	Miami via waypoints.	June 22	Cartago	United Fruit Co.	New Orleans and waypoints.
June 23	Maoris	French Line	Hayre via waypoints.	June 23	Buenos Aires	Spanish Line	Barcelona via waypoints.
June 23	Pastore	United Fruit Co.	New York via Habana	June 23	No. 144-M ²¹	Pan American Airways	Po. Cabello via waypoints.
June 23	Cundinamarca-C33 ²¹	Seata Airplane Co.	Barranquilla and waypoints	June 24	No. 9670 ²¹	Pan American Airways	Tela via waypoints.
June 24	No. 9688 ²¹	Pan American Airways	San Salvador via waypoints	June 25	Macoris	French Line	Hayre via waypoints.

* DEPARTURES.

* ARRIVALS.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.					* DEPARTURES.			
* ARRIVALS.								
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—	
June 24	Davision.	Leyland S. S. Line.	Liverpool via wayports.	June 25	Davision.	Leyland S. S. Line.	Cienfuegos, Cuba.	
June 24	Inapaquina ²²	A. Tagaropulos	Colon, R. P.	June 25	Annetta I. ²²	A. Tagaropulos	Colon, R. P.	
June 24	Annetta I. ²²	A. Tagaropulos	Colon, R. P.	June 25	Inapaquina ²²	A. Tagaropulos	Colon, R. P.	
June 24	Anachucma ²²	United Fruit Co.	Colon, R. P.	June 25	Anachucma ²²	United Fruit Co.	Colon, R. P.	
June 25	Castilla.	United Fruit Co.	Puerto Colombia.	June 25	Pastors	United Fruit Co.	Port Limon, C. R.	
June 25	Metapan.	United Fruit Co.	New York via Kingston.	June 26	Pearl Marie ²⁵	Pan American Airways	Bluefields, Nicaragua.	
June 25	Tela.	United Fruit Co.	New Orleans, La.	June 26	No. 142-M ²¹	Pan American Airways	Miami via wayports.	
June 25	No. 945-M ²³	Pan American Airways	Talara via wayports.	June 26	Metapan.	United Fruit Co.	New York via waypts.	
June 25	No. 144-M ²¹	Pan American Airways	Puerto Cabello via waypts.	June 26	Tela.	United Fruit Co.	Puerto Colombia.	
June 26	Ashville ²⁴	U. S. Navy	Nicaragua.	June 27	No. 9688 ²¹	Pan American Airways	Guatemala via wayports.	
June 26	No. 9670 ²¹	Pan American Airways	Puerto Cabello and waypts.	June 27	Cundinamarca-C33 ²³	Seavia Airplane Co.	Barranquilla via waypts.	
June 26	Pearl Marie ²⁵	G. I. Bryan	Colon, R. P.	June 27	Bridge town.	Colombian Line	Kingston, Jamaica.	
June 27	Bridge town.	Colombian Line	Cartagena, Colombia.	June 28	Amapala.	Standard Fruit & S. S. Co.	New Orleans and waypts.	
June 27	Diez & Garcia	Standard Fruit & S. S. Co.	New Orleans and waypts.	June 28	Castilla.	United Fruit Co.	New Orleans and waypts.	
June 27	Nueva Espana ²²	United Fruit Co.	Colon, R. P.	June 28	Wanks	Standard Fruit & S. S. Co.	Puerto Cabezas.	
June 28	Parissima.	United Fruit Co.	New Orleans and Habana.	June 28	Arcadia.	Hamburg-American Line.	Curacao, D. W. I.	
²² Motor boat.			²³ Air mail carrier.			PORT OF BALBOA.		
²⁴ Cruiser.			²⁵ Motor schooner.					
June 27	La Placencia ¹	Union Oil Co. of California.	Los Angeles, California.	June 23	La Placencia ¹	Union Oil Co. of California.	Los Angeles, California.	
June 27	Dos Hermanos ²⁶	A. Valdez.	Panama Bay, R. P.	June 27	Dos Hermanos ²⁶	A. Valdez.	Panama Bay, R. P.	
June 27	La Union ²⁶	A. Valdez.	Panama Bay, R. P.	June 27	La Union ²⁶	A. Valdez.	Panama Bay, R. P.	
June 27	Liberator ²⁶	A. Valdez.	Panama Bay, R. P.	June 27	Liberator ²⁶	A. Valdez.	Panama Bay, R. P.	
June 23	Real ²⁶	Hans Elliot.	Panama Bay, R. P.	June 24	Real ²⁶	Hans Elliot.	Panama Bay, R. P.	
June 23	San Jose.	United Fruit Co.	San Francisco, California.	June 24	San Jose.	United Fruit Co.	San Francisco, California.	
June 27	El Sona ²⁶	Hans Elliot.	Panama Bay, R. P.	June 28	El Sona ²⁶	Hans Elliot.	Panama Bay, R. P.	
June 27	Frost ²⁷	West India Oil Co.	Talara, Peru.	June 29	Frost ²⁷	West India Oil Co.	La Union, Salvador.	
June 28				June 29				
²⁶ Motor schooner.			²⁷ Motor ship.			* Other than ships passing through the Canal.		
* Tanker.								

Directory of The Panama Canal.

Executive Department.

Headquarters, Balboa Heights.

COL. HARRY BURGESS, U. S. A., Governor.

L. A. Poltrino, Secretary.

C. A. McILVAINE, Executive Secretary.

JNO. H. SMITH, Chief Clerk, Executive Office.

GUY JOHANNES, Chief, Police and Fire Division.

C. H. CALHOUN, Chief, Division of Civil Affairs.

BEN M. WILLIAMS, Superintendent, Division of Schools.

E. F. ATTAWAY, General Secretary, Bureau of Clubs and Playgrounds.

N. A. BECKER, Land Agent and Assistant Counsel, Ancon.

Department of Operation and Maintenance.

(Under immediate direction of the Governor as head of the department.)

Headquarters, Balboa Heights.

LIEUT. COL. J. L. SCHLEY, U. S. A., Engineer of Maintenance.

J. G. CLAYBOURN, Superintendent, Dredging Division.

LEONARD FOOTE, Assistant Superintendent, Dredging Division, Paraiso.

E. S. RANDOLPH, Designing Engineer, Madden Dam.

MAJ. J. C. MEHAFFEY, U. S. A., Assistant Engineer of Maintenance.

A. C. GARLINGTON, Electrical Engineer, Electrical Division.

G. W. GREEN, Municipal Engineer, Division of Municipal Engineering.

W. R. HOLLOWAY, Superintendent, Pacific Locks, Pedro Miguel.

E. D. STILLWELL, Superintendent, Gatun Locks, Gatun.

J. J. WALSH, Supervisor, Gatun Dam, Gatun.

L. W. LEWIS, Office Engineer.

R. Z. KIRKPATRICK, Chief of Surveys, Section of Surveys.

CAPT. C. H. WOODWARD, U. S. N., Marine Superintendent, Marine Division.

COMMANDER WILLIAM R. SMITH, Jr., U. S. N., Captain of the Port, Cristobal.

COMMANDER S. A. TAFFINDER, U. S. N., Captain of the Port, Balboa.

BOARD OF LOCAL INSPECTORS, COMMANDER S. A. TAFFINDER, U. S. N., *Chairman*,

COMMANDER W. R. SMITH, Jr., U. S. N., and LIEUT. ALFRED J. BYRHOLDT,
U. S. N., members.

John J. Walker, Recorder.

BOARD OF ADMEASURERS, CAPT. C. H. WOODWARD, U. S. N., *Chairman*.

O. MAESSEN, Inspector of Hulls and Boilers.

F. KARIGER, Pilot in Charge, Lighthouse Subdivision, Gatun.

CAPT. R. W. RYDEN, Naval Constructor, U. S. N., Superintendent, Mechanical Division, Balboa.

H. H. EVANS, Assistant Superintendent, Mechanical Division, Balboa.

LIEUT. WESLEY M. HAGUE, U. S. N., Assistant to the Superintendent, Mechanical Division, Balboa.

W. H. STONE, Production Superintendent, Cristobal Shops, Cristobal.

Supply Department.

Headquarters, Balboa Heights.

ROY R. WATSON, Chief Quartermaster.

J. H. K. HUMPHREY, Assistant Chief Quartermaster.

J. E. HIGGINS, Director, Canal Zone Experiment Gardens, Balboa Heights.

B. C. POOLE, District Quartermaster, Ancon-Balboa, Balboa Heights.

J. M. KING, District Quartermaster, Cristobal-Gatun, Cristobal.

C. PETERS, District Quartermaster, Pedro Miguel.

A. W. GOULET, General Manager, Commissary Division, Cristobal. (P. R. R.)

J. B. FIELDS, Constructing Quartermaster.

E. H. PARMELEE, General Storekeeper, Balboa.

A. P. E. DOYLE, Printer, The Panama Canal Press, Mount Hope.

Accounting Department.

Headquarters, Balboa Heights.

ELWYN GREENE, Auditor, The Panama Canal.

WILSON H. KROMER, Assistant Auditor on the Isthmus.

ROBERT W. GLAW, Paymaster.

ALFRED H. MOHR, Collector.

C. F. CHASE, Chief Accountant.

SAMUEL BARDELSON, Chief Examiner.

H. H. HUDSON, Claim Officer.

M. L. DUFF, Railroad Accountant.

Health Department.

Headquarters, Balboa Heights.

LIEUT. COL. J. F. SILER, U. S. A., Chief Health Officer.

DR. D. P. CURRY, Assistant Chief Health Officer.

DR. M. F. HARALSON, U. S. P. H. S., Chief Quarantine Officer.

COL. A. M. WHALEY, U. S. A., Superintendent, Gorgas Hospital, Ancon.

MAJ. H. P. MAKEL, U. S. A., Superintendent, Colon Hospital, Cristobal.

MAJ. S. L. CHAPPELL, U. S. A., Superintendent, Corozal Hospital, Corozal.

DR. PAUL PREBLE, U. S. P. H. S., Health Officer of Panama City, Ancon.

DR. J. L. BYRD, Health Officer of Cristobal-Colon, Cristobal.

DR. C. A. HEARNE, Quarantine Officer, Cristobal.

DR. J. D. ODOM, Quarantine Officer, Balboa.

Courts.

HON. JAMES J. LENIHAN, District Judge, Ancon.

F. H. SHEIBLEY, Clerk of Court, Ancon.

J. S. CAMPBELL, Senior Assistant Clerk of Court, Cristobal.

JOHN T. BARRETT, Canal Zone Marshal, Ancon.

J. W. BLACKBURN, Magistrate, Balboa.

P. E. MURRAY, Magistrate, Cristobal.

Wage and Complaints Boards.

Balboa Heights.

Wage Board:

MAJ. J. C. MEHAFFEY, representing The Panama Canal.

H. A. MCCONAUGHEY, representing employees.

*Complaints Board:*MAJ. J. C. MEHAFFEY, and Head of Department or Division interested,
representing The Panama Canal.

H. A. MCCONAUGHEY and CHAS. F. WAHL, representing employees.

The Panama Canal in the United States.

Headquarters, Munitions Building, 19th and "B" Streets, NW., Washington, D. C.

A. L. FLINT, General Purchasing Officer and Chief of Office.

E. E. WEISE, Assistant to the Chief of Office.

E. D. ANDERSON, Chief Clerk, Purchasing Department.

NOBLE MOORE, Assistant Auditor.

W. J. SHERIDAN, Assistant Purchasing Agent, 24 State St., New York, N. Y.

A. S. PERRY, Assistant Purchasing Agent, New Orleans, La.

W. A. E. DOYING, Inspecting Engineer, Washington, D. C.

Panama Railroad Company.

Headquarters, Balboa Heights.

COL. HARRY BURGESS, U. S. A., President.

LIEUT. COL. J. L. SCHLEY, U. S. A., Second Vice President.

S. W. HEALD, Superintendent.

ROBERT BEVERLEY, Assistant to Superintendent.

W. F. FOSTER, Master of Transportation.

M. B. CONNOLLY, Roadmaster.

R. B. WALKER, Receiving and Forwarding Agent, Cristobal.

A. L. PRATHER, Superintendent, Coaling Plants, Cristobal.

C. W. LEE, Commercial Agent.

JOHN O. COLLINS, Counsel, Ancon.

Office in the United States, 34 State Street, New York City.

- T. H. ROSSBOTTOM, Vice President.
 W. R. PFIZER, Assistant to Vice President and Secretary.
 V. M. NEWTON, Treasurer.
 G. L. SELKIRK, Auditor.
 W. K. B. POTTS, Superintending Engineer.
 RICHARD REID ROGERS, General Counsel.
 T. S. SPRAGUE, General Freight Agent.
 A. M. GIBSON, Passenger Agent.
 F. H. BUSCHMANN, Claim Agent.
 E. HATTON, Pier Superintendent.
 W. J. SHERIDAN, Commissary Purchasing Agent.
 GEO. HUYE, Assistant Commissary Purchasing Agent, New Orleans, La.

Directory of Officials of the Panaman Government.

(Revised as of July 1, 1930.)

- The Honorable FLORENCIO HARMODIO AROSEMENA, President of the Republic.
 Mr. MANUEL DE JESUS QUIJANO, Secretary General of the Presidencia.
 Mr. LUIS MORALES H., Private Secretary to the President.
 Colonel ROBERTO CHIARI, Aide de Camp to the President.
 The Honorable RICARDO J. ALFARO, Primer Designado.
 The Honorable CARLOS LOPEZ, Segundo Designado.
 The Honorable EDUARDO CHIARI, Tercer Designado.
 The Honorable ADRIANO ROBLES, Secretary of Government and Justice.
 Mr. JOSE C. DE OBALDIA, Subsecretary of Government and Justice.
 The Honorable J. D. AROSEMENA, Secretary of Foreign Relations.
 Doctor RICARDO A. MORALES, Subsecretary of Foreign Relations.
 The Honorable JEPHTHA B. DUNCAN, Secretary of Public Instruction.
 Mr. MANUEL E. MELO, Subsecretary of Public Instruction.
 The Honorable T. GABRIEL DUQUE, Secretary of Finance and Treasury.
 Mr. JULIO QUIJANO, Subsecretary of Finance and Treasury.
 The Honorable LUIS F. CLEMENT, Secretary of Agriculture and Public Works.
 Mr. C. J. QUINTERO, Subsecretary of Agriculture and Public Works.
 Mr. CARLOS CLEMENT, Chief of Materials and Purchases.
 Dr. MIGUEL ANGEL GRIMALDO B., Magistrate, Supreme Court of Justice (President).
 Dr. JUAN VASQUEZ V., Magistrate, Supreme Court of Justice (Vice-President).
 Dr. DANIEL BALLE, Magistrate, Supreme Court of Justice.
 Dr. MANUEL A. HERRERA L., Magistrate, Supreme Court of Justice.
 Dr. ERASMO MENDEZ, Magistrate, Supreme Court of Justice.
 Dr. ARISTIDES ARJONA, Attorney General of the Nation.
 Dr. J. FRANCISCO DE LA OSSA, Superior Judge of the Republic.
 Dr. JOSE DOMINGO SOTO, Executive Judge of the Republic.
 Dr. JOSE ISAAC FABREGA, Prosecuting Attorney of the Superior Court.
 Mr. JOSE MARIA GOYTIA, Director General of Posts and Telegraphs.
 Colonel RICARDO ARANGO, Commandant, National Police Corps.
 Mr. F. H. BALDWIN, Fiscal Agent of the Republic.
 Mr. ERNESTO JAEN GUARDIA, Chief Engineer of the Republic.
 Gen. IGNACIO QUINZADA, Director General of Statistics.
 Mr. EZEQUIEL FERNANDEZ J., Registrar General of Civil Affairs.
 Mr. DAMASO A. CERVERA, Registrar General of Property.
 DR. RAFAEL NEIRA A., Administrator General of Liquor Tax.
 Mr. ENRIQUE LINARES, Manager, Banco Nacional de Panama.
 The Honorable ARCHIBALDO E. BOYD, Governor of the Province of Panama.
 The Honorable INOCENCIO GALINDO, JR., Governor of the Province of Colon.
 The Honorable ABEL DE LA LASTRA, Alcalde of the District, Panama.
 The Honorable R. G. DE PAREDES, Alcalde of the District, Colon.
 Mr. JUAN A. GUIZADO, Commandant, Panama Fire Department.
 Mr. MAXIMINO WALKER H., Commandant, Colon Fire Department.
 Mr. CARLOS DE DIEGO, Inspector of the Port, Panama.
 Mr. AGUSTIN OSES, Inspector of the Port, Colon.
 Mr. JOSE AGUSTIN ARANGO, Superintendent, Santo Tomás Hospital, Panama.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Malden Voyage of Westfal, Larsen Line's Motor Ship "Taranger."

The new motor ship *Taranger* of the Westfal, Larsen Line transited the Canal June 19, 1930, on her maiden voyage, from Santos, Brazil, en route to Los Angeles and San Francisco.

The *Taranger* is the fourth of a new fleet of motor ships especially constructed for the trade between the east coast of South America and Pacific coast ports. Like her sister ships, this vessel is equipped with large refrigerator compartments and has accommodations for a limited number of passengers. The new vessel is 398 feet long, 54.75 feet beam, and of 5,308 net tons Panama Canal measurement.

The fifth new motor ship for this service, the *Heranger*, is expected to be delivered by her builders in the near future.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending June 28, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Calí.....	North German Lloyd.....	.....	June 23.....	.....	270
Ancon.....	Panama R. R. S. S. Line.....	.....	June 22.....	.....	1,195
Buenos Aires.....	Spanish Line.....	.....	June 22.....	.....	442
Ebro.....	Pacific Steam Nav. Co.....	.....	June 22.....	.....	105
Tolosa.....	United Fruit Co.....	June 22.....	June 22.....	32	99
Cartago.....	United Fruit Co.....	June 22.....	June 22.....	306	178
Annie Johnson.....	Johnson Line.....	June 22.....	June 23.....	175	78
Fella.....	Nav. Libera-Triestina.....	June 23.....	June 23.....	(¹)	150
Gertrude Maersk.....	A. P. Moller.....	June 23.....	June 23.....	2	(²)
Tsuyama Maru.....	Nippon Yusen Kaisha.....	June 23.....	June 23.....	132	(²)
Macoris.....	French Line.....	June 23.....	June 25.....	49	1,039
Knute Nelson.....	Fred Olsen & Co.....	June 23.....	June 25.....	398	225
Santa Tecla.....	N. O. & S. A. S. S. Co.....	June 23.....	June 25.....	129	732
Pastores.....	United Fruit Co.....	June 23.....	June 25.....	586	10
Sulairia.....	Donaldson Line.....	June 23.....	June 26.....	(¹)	465
Iowa.....	French Line.....	June 23.....	June 25.....	79½	51
Santa Rita.....	Grace Line.....	June 24.....	June 25.....	413	(²)
Tai Yang.....	Barber-Wilhelmsen Line.....	June 24.....	June 25.....	10	43
Winnipeg.....	French Line.....	June 24.....	June 25.....	199	128
Davision.....	Leyland S. S. Line.....	June 24.....	June 25.....	416	(²)
Bodegraven.....	Royal Netherlands S. S. Co.....	June 24.....	June 26.....	125	18
Tela.....	United Fruit Co.....	June 25.....	June 26.....	829	61
Patricia.....	Hamburg-American Line.....	June 25.....	June 26.....	200	240
Charles Nelson.....	Nelson Line.....	June 25.....	June 26.....	331	(²)
Santa Maria.....	Grace Line.....	June 25.....	June 25.....	182	30
Metapan.....	United Fruit Co.....	June 25.....	June 26.....	707	69
Dinteldijk.....	Holland-American Line.....	June 25.....	June 26.....	(¹)	72
Castilla.....	United Fruit Co.....	June 25.....	June 28.....	302	295
Manizales.....	North German Lloyd.....	June 25.....	June 28.....	711	305
Orbita.....	Pacific Steam Navigation Co.....	June 26.....	June 26.....	(¹)	291
Pearl Marie.....	R. Feuillebois.....	June 26.....	June 26.....	(²)	21½
Tacoma.....	Hamburg-American Line.....	June 26.....	June 26.....	21	397
Axel Johnson.....	Johnson S. S. Line.....	June 26.....	June 27.....	(¹)	328
Schwarzwald.....	Hamburg-American Line.....	June 26.....	June 27.....	116	(²)
Kellerwald.....	Hamburg-American Line.....	June 26.....	June 27.....	8	290
Orazio.....	Italian Line.....	June 26.....	June 28.....	180	4
Bridgetown.....	Colombian S. S. Line.....	June 27.....	June 27.....	318	655
Amapala.....	Standard Fruit & S. S. Co.....	June 27.....	June 28.....	143	234
Esequeibo.....	Pacific Steam Navigation Co.....	June 27.....	June 27.....	48	(³)
Salvador.....	Pacific Steam Navigation Co.....	June 27.....	.....	118	.....
Paristmina.....	United Fruit Co.....	June 28.....	.....	343	.....
Delftdijk.....	Holland-American Line.....	June 28.....	.....	419	.....
Moerdijk.....	Holland-American Line.....	June 28.....	June 28.....	(¹)	124

¹ No cargo discharged.

² No cargo laded.

³ One package.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., June 30, 1930.

No. 720.

COSTA RICA, SHOAL REPORTED.

The following is quoted from Notice to Mariners No. 25, Washington, June 21, 1930:

Central America, Costa Rica, West Coast, Guardian Bank, shoal reported.—The commanding officer of the U. S. S. *Wm. B. Preston* reports that on June 6, 1930, he obtained a sounding of 6 fathoms, black sandy bottom, on the southern end of Guardian Bank in approximately latitude 9° 11' N., longitude 87° 11' W.

H. BURGESS,
Governor.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Coal.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried; and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, Semi-private, white male.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat patients.....	Tuesdays, Thursdays and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 4, Private rooms.....	Daily, same as Ward 2 (above).
Section "B:"	
Ward 5, Male, private rooms, American boys.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls.....	
Ward 7, White females, private rooms.....	
Ward 8, Obstetrical department, white females.....	No visitors permitted in nursery.
Nursery.....	
Section "C:"	
Ward 9, Colored, male.....	Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 10, White foreign, male.....	
Ward 11, Colored, male (surgical).....	
Ward 12, Colored, male (medical).....	Tuesdays, Thursdays, Saturdays, Sundays, and holidays, 2.30 to 4.30 p. m.
Ward 13, Colored, male, G. U.....	
Ward 14, White, male, G. U.....	
Section "D:"	
Ward 15, American, male (surgical).....	Tuesdays, Thursdays, Saturdays, Sundays and holidays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.
Ward 16, American, male (medical).....	
Ward 17, Colored children.....	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3.00 p. m.
Ward 18, White children.....	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 19, Colored, female (medical).....	Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 20, Colored, female, surgical, obstetrical.....	
Isolation section.....	No visitors permitted except to visit tuberculosis patients Thursdays, Sundays and holidays, 1.30 to 3.00 p. m.

Permission to visit outside of visiting hours may be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., July 9, 1930.

No. 49.

Comparison of Canal Traffic in June, 1930, with June Traffic in Previous Years.

The traffic through the Panama Canal during the month of June, 1930, showed a decrease as compared with the preceding month, and a decrease in number of transits and cargo carried as compared with June, 1929. The net tonnage, Panama Canal measurement, was slightly higher in June this year than in June last year.

The 478 transits in June this year are fewer by 25 than those in the corresponding month a year ago, while the net tonnage, Panama Canal measurement, aggregating 2,358,237 tons, is greater by 5,806 tons than the total of 2,352,431 tons in June, 1929. The cargo tonnage of 2,147,181 tons for June, 1930, shows the large decline of 276,821 tons, or 11.4 per cent, from the total of 2,424,002 tons passing through the Canal in June, 1929.

In the following tabulation are shown the number of transits, net tonnage, Panama Canal measurement, and the tons of cargo carried through the Canal during the months of June from 1915 to 1930, inclusive, with the corresponding monthly averages for each fiscal year:

Year.	Month of June.			Average per month for Fiscal Year.		
	Commer- cial transits.	Panama Canal net tonnage.	Tons of cargo.	Commer- cial transits.	Panama Canal net tonnage.	Tons of cargo.
1915.....	142	498,084	567,285	102	361,197	465,567
1916.....	121	381,256	482,767	63	199,687	257,843
1917.....	170	528,614	630,638	150	483,213	588,213
1918.....	169	573,944	629,210	172	547,839	627,669
1919.....	161	517,442	586,887	169	510,416	576,385
1920.....	201	704,712	834,421	206	712,170	781,203
1921.....	192	761,477	664,720	241	951,323	966,601
1922.....	228	970,713	977,478	228	951,455	907,075
1923.....	417	2,035,902	2,066,446	331	1,550,482	1,630,656
1924.....	377	1,928,039	2,022,850	436	2,179,073	2,249,559
1925.....	368	1,753,327	1,920,323	389	1,904,596	1,996,570
1926.....	419	1,990,344	2,134,686	433	2,064,549	2,169,787
1927.....	455	2,152,926	2,229,097	456	2,185,651	2,312,351
1928.....	481	2,227,865	2,139,565	538	2,454,886	2,469,226
1929.....	503	2,352,431	2,424,002	531	2,468,483	2,555,250
1930.....	478	2,358,237	2,147,181	515	2,498,385	2,502,519

* 10½ months; Canal opened August 15, 1914.

Executive Order.

Cerro Tigre Ordnance Depot Military Reservation.

By virtue of the authority vested in me by law the tract of land hereinafter described, to be known as the Cerro Tigre Ordnance Depot, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a military reservation under the jurisdiction of the Secretary of War; but said area shall be subject to the civil control and jurisdiction of the Governor of the Panama Canal, in conformity with the Panama Canal Act (37 Stat. 569; U. S. Code, title 48, sec. 1306).

The boundaries of said reservation are described as follows:

Beginning at a concrete monument marked "A", the geodetic position of which is latitude $9^{\circ} 04'$, plus 1,000 feet north, and longitude $79^{\circ} 38'$ plus 1,500 feet west from Greenwich; thence:

(1) North $26^{\circ} 34'$ east, a distance of 1,118.03 feet to a concrete monument marked "B"; thence

(2) North $84^{\circ} 28'$ east, a distance of 2,071 feet to a concrete monument marked "C"; thence

(3) South $35^{\circ} 56'$ east, a distance of 2,470 feet to a concrete monument marked "D"; thence

(4) South $15^{\circ} 40'$ west, a distance of 1,296 feet to a concrete monument marked "E"; thence

(5) South $45^{\circ} 00'$ west, a distance of 1,245.02 feet to a concrete monument marked "F"; thence

(6) North $73^{\circ} 43'$ west, a distance of 1,636.98 feet to a concrete monument marked "G"; thence

(7) North $26^{\circ} 05' 30''$ west, a distance of 2,749.72 feet to the point of beginning.

The area of the reservation, as described, is 257.80 acres, plus or minus. All bearings are true bearings.

The above area is shown on map entitled "The Panama Canal—Section of Surveys—Cerro Tigre Magazine Project—Canal Zone," dated March 14, 1930. File No. S 6101-13.

HERBERT HOOVER

THE WHITE HOUSE,
June 16, 1930.

[No. 5369]

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Traffic by Nationality for June, 1930.

The following tabulation shows the commercial traffic through the Canal during the month of June, 1930, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for June, 1929 and 1928:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentine.....	1	3,816	3,370	5,518	3,146	\$2,747.52	
British.....	63	321,280	242,293	406,120	247,276	278,891.21	196,156
Chilean.....	3	12,302	8,935	17,328	10,393	9,953.43	2,700
Danish.....	4	13,672	14,233	21,513	14,344	17,791.25	21,876
Danzig.....	2	13,815	10,617	17,750	8,137	9,946.80	
Dutch.....	5	24,899	16,709	27,819	17,072	20,886.25	12,158
French.....	6	32,437	25,309	41,403	24,745	26,482.71	7,118
German.....	15	48,284	33,688	54,907	32,798	41,980.00	33,860
Italian.....	2	15,870	10,128	19,793	11,907	12,660.00	3,636
Japanese.....	8	43,963	36,518	56,355	36,260	45,244.40	44,287
Norwegian.....	13	59,884	44,160	72,868	43,871	47,352.89	37,088
Panamanian.....	7	7,061	4,057	6,776	4,151	5,066.55	4,224
Swedish.....	3	35,422	24,684	60,108	30,544	25,493.18	12,205
United States.....	126	649,197	502,587	819,569	504,087	551,883.96	324,344
Yugoslav.....	1	4,701	3,706	5,948	3,783	3,384.72	
Total, June, 1930.....	259	1,291,603	980,994	1,633,780	992,514	1,099,764.87	699,652
Total, June, 1929.....	272	1,287,393	977,989	1,604,457	981,038	1,117,940.01	899,386
Total, June, 1928.....	270	1,257,739	946,939	1,547,357	948,858	1,079,160.72	765,234

* Includes naval vessel of 5,350 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian.....	1	4,976	4,568	7,138	3,988	\$5,710.00	9,127
British.....	59	300,481	225,393	374,537	228,471	281,741.25	359,720
Chilean.....	1	4,672	3,433	7,310	3,976	4,291.25	3,996
Colombian.....	2	287	277	440	275	346.25	389
Danish.....	3	13,522	10,885	17,588	10,942	13,606.25	24,087
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,200
Dutch.....	7	38,785	26,679	43,705	26,847	33,348.75	43,272
Finnish.....	1	2,135	2,126	2,342	1,974	2,562.00	2,400
French.....	4	23,796	18,037	28,231	18,220	22,468.40	32,831
German.....	13	52,821	36,093	60,493	36,694	45,116.25	64,971
Greek.....	1	4,292	2,720	4,349	2,686	3,400.00	8,400
Italian.....	1	5,992	4,354	7,061	4,460	5,442.50	8,695
Japanese.....	5	25,382	20,963	31,353	20,524	26,039.55	28,947
Norwegian.....	8	36,696	23,524	39,215	23,893	29,405.00	43,935
Panamanian.....	2	94	94	172	94	91.65	.....
Swedish.....	6	28,291	20,107	51,646	24,765	25,133.75	68,345
United States.....	104	518,285	399,455	652,813	399,838	495,941.81	737,214
Total, June, 1930.....	219	1,066,634	803,976	1,337,332	812,704	1,001,229.66	1,447,529
Total, June, 1929.....	231	1,065,038	809,790	1,341,724	815,965	1,009,865.96	1,524,616
Total, June, 1928.....	211	970,126	750,666	1,230,149	751,298	937,050.37	1,374,331

COMBINED NATIONALITY.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentine.....	1	3,816	3,370	5,518	3,146	\$2,747.52	.....
Belgian.....	1	4,976	4,568	7,138	3,988	5,710.00	9,127
British.....	122	621,761	467,686	780,657	475,747	560,632.46	555,876
Chilean.....	4	16,974	12,368	24,638	14,369	14,244.68	6,696
Colombian.....	2	287	277	440	275	346.25	389
Danish.....	7	32,194	25,118	39,101	25,286	31,337.50	45,963
Danzig.....	3	19,942	15,885	26,689	13,144	16,531.80	11,200
Dutch.....	12	68,684	43,388	71,524	43,919	54,235.00	55,430
Finnish.....	1	2,135	2,126	2,342	1,974	2,562.00	2,400
French.....	10	56,233	43,346	69,639	42,965	48,951.11	39,949
German.....	28	101,105	69,781	115,400	69,492	87,096.25	98,831
Greek.....	1	4,292	2,720	4,349	2,686	3,400.00	8,400
Italian.....	3	21,862	14,482	26,854	16,367	18,102.50	12,331
Japanese.....	13	69,345	57,481	87,705	56,784	71,283.95	73,234
Norwegian.....	21	96,580	67,684	112,083	67,764	76,757.89	81,023
Panamanian.....	5	7,155	4,151	6,948	4,245	5,158.20	4,224
Swedish.....	13	63,713	44,791	111,754	55,309	50,626.93	80,550
United States.....	230	1,167,482	902,042	1,472,382	903,975	1,047,825.77	1,061,558
Yugoslav.....	1	4,701	3,706	5,948	3,783	3,384.72	.....
Total, June, 1930.....	478	2,358,237	1,784,970	2,971,112	1,805,218	2,100,994.53	2,147,181
Total, June, 1929.....	503	2,352,431	1,787,779	2,946,181	1,797,003	2,127,805.97	2,424,002
Total, June, 1928.....	481	2,227,865	1,697,605	2,777,506	1,700,156	2,016,211.09	2,139,565

* Includes naval vessel of 5,350 displacement tons.

Coal.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, July 5, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Delfdijk ¹	28	6.10	29	5.58	29	12.48	29	13.40	Dutch.	Holland-American Line.	490.0	64.6	22.0	Rotterdam, Holl'd.	Yanconver, B. C.	General.	3,137	11,724	8,266
Mirrabooka ²	28	19.50	29	6.13	29	12.49	29	14.10	Swedish.	Trans-Pacific S. S. Co.	435.0	57.0	19.6	Gefle, Sweden.	Adelaide, Australia	General.	3,201	8,274	6,098
Remora ³	29	6.20	29	7.20	29	14.30	29	23.50	British.	N. Z. Shipping Co.	485.0	62.3	28.0	London, England.	Wellington, N. Z.	General.	5,627	11,911	8,945
Sunoi ⁴	29	7.20	29	8.00	29	15.00	29	16.00	American.	Sun Oil Co.	480.6	66.0	17.0	Chester, Pa.	Los Angeles, Calif.	Ballast.	9,619	6,456	
Prince Albert ⁵	29	6.45	29	9.00	29	15.55	1	15.40	British.	General Navigation Co.	232.0	30.0	13.0	Antwerp, Belgium.	Yanconver, B. C.	Liquors.	496	1,076	657
Penlane ⁶	29	10.05	29	10.20	29	17.05	29	18.50	Norwegian.	Fern Line.	375.0	53.6	22.0	Tampa, Florida.	Seattle, Wash.	Phosphate.	4,411	6,264	4,681
Steel Inventor ⁷	29	11.35	29	11.45	29	19.05	29	22.54	American.	Isthmian S. S. Lines.	424.0	56.0	26.0	Baltimore, Md.	Yanconver, B. C.	Steel, general.	8,018	7,611	5,450
White Shadow ⁸	18	21.50	29	11.30	29	18.40	30	19.30	American.	E. Hope Norton.	77.0	22.0	9.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast.	98	2	55
Oroca ⁹	29	11.30	29	11.30	29	18.40			American.	Harry Adams.				Cristobal, C. Z.	Balboa, C. Z.	Ballast.		2	2
Manta ¹⁰	29	8.33	29	13.35	29	20.00	29	21.01	American.	Nav. Libera-Tristina.	450.0	57.0	24.7	Naples, Italy.	Balboa, C. Z.	General.	1,398	8,805	6,497
Wichita ¹¹	29	17.00	29	17.40	30	9.22	30	10.15	Italian.	Roosevelt S. S. Co., S. B.	395.6	55.0	25.6	Cebu, P. I.	Yanconver, B. C.	General.	5,110	7,209	5,172
La Plata Maru ¹²	29	15.50	30	6.10	30	13.45	30	14.50	Japanese.	Osaka Shosen Kaisha.	430.0	56.0	20.3	Montevideo, Uruguay.	Kobe, Japan.	Gen., case oil.	1,397	7,875	5,821
Henri ¹³																			
Desmarais ¹⁴	29	23.40	30	7.00	30	15.54	30	20.30	French.	Desmarais Freres.	400.5	51.2	21.6	Rouen, France.	Los Angeles, Calif.	Ballast.		5,930	4,178
Ward ¹⁵	29	22.05	30	8.10	30	16.10	30	20.55	American.	Roosevelt S. S. Co., S. B.	395.5	55.0	19.11	New York, N. Y.	Adelaide, Australia	General.	2,451	7,342	5,247
Ivaneo ¹⁶	29	13.25	30	8.55	30	17.29	3	21.26	American.	Leo Bourke.	71.3	20.2	10.0	Gloucester, Mass.	San Francisco, Cal.	Ballast.		67	31
New York ¹⁷	30	9.20	30	9.45	30	17.33	30	18.50	American.	The Texas Co.	416.8	56.1	21.0	Providence, R. I.	Los Angeles, Calif.	Ballast.		6,775	5,016
Miguel de ¹⁸																			
Lerrnaga ¹⁹	29	17.45	30	14.35	30	20.55	30	22.17	British.	Inter-Freighting Co.	388.4	53.0	21.4	Baltimore, Md.	Talcahuano, Chile.	General.	4,112	5,274	3,664
Lake Ornoce ²⁰	30	15.05	30	15.15	30	22.40	30	23.55	American.	Ford Motor Co.	251.0	43.0	18.9	Chester, Pa.	Seattle, Wash.	Automobile parts.	2,146	2,758	1,741
Gen. Wm. M. ²¹																			
Graham ²²											156.0	32.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Sir Osborn ²³																			
Holmden ²⁴	30	17.40	1	6.08	1	14.36	1	17.30	Norwegian.	Anglo-Saxon Pet. Co.	478.0	64.0	18.0	Falmouth, England.	Los Angeles, Calif.	Ballast.		9,562	6,604
Austrand ²⁵	1	1.45	1	7.25	1	15.28	1	21.26	British.	Amer. & Australian Line	410.5	54.2	22.0	New York, N. Y.	Brisbane Australia.	General.	4,826	6,903	5,155
City of ²⁶																			
Panama ²⁷	6	14.55	1	11.50	1	18.35	1	20.00	American.	Panama Mail S. S. Co.	296.1	46.0	18.9	Cristobal, C. Z.	San Francisco, Cal.	General.	1,485	3,848	2,603
Caldas ²⁸	30	18.56	1	13.30	1	22.50	2	2.00	Colombian.	National Navigation Co.	116.0	21.0	7.10	Cristobal, C. Z.	Buenaventura, Col.	General.	84	211	124
Spencer-Kellogg ²⁹	1	15.15	1	15.25	1	23.20	2	10.10	American.	N. Y. & Philippine Line	391.8	51.3	21.6	Montreal, Canada.	Los Angeles, Calif.	Ballast.		5,601	3,913
Mallard ³⁰											180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast.			
Lincoln ³¹																			
Ellsworth ³²	1	16.50	2	6.08	2	13.03	2	15.45	Norwegian.	Standard Oil Co.	381.0	55.0	18.6	London, England.	Los Angeles, Calif.	Ballast.		5,786	3,627
Tashino ³³	1	17.20	2	6.10	2	14.00	2	15.45	American.	Nelson Line.	324.0	46.2	24.3	Baltimore, Md.	Seattle, Wash.	General.	4,700	3,984	2,628
Edward ³⁴																			
Nuckanbach ³⁵	2	00.15	2	7.20	2	14.07	2	15.15	American.	Lukenbach Line.	436.6	57.0	20.6	Boston, Mass.	Seattle, Wash.	General.	3,634	8,543	6,427
Nbracken ³⁶	2	9.00	2	9.30	2	16.28	2	17.30	American.	Amer-Hawaiian Line.	471.1	59.1	18.7	Boston, Mass.	Seattle, Wash.	General.	3,232	9,032	6,638
Santa Teresa ³⁷	2	3.40	2	10.40	2	17.16	3	00.35	American.	Grace Line.	360.2	51.6	21.3	New York, N. Y.	Talcahuano, Chile.	General.	1,216	5,726	4,086

¹ Tanker.² Motorship.³ Yacht.⁴ Launch.⁵ Mine planter.⁶ Mine sweeper.⁷ Towing launches.

Marine	2	5	10	2	15	25	3	00	10	American	Ore S. S. Corp.	550	3	72	2	22	3	New York, N. Y.	Cruz Grande, Chile	Ballast	15	551	4	297	
Pacific Cedar	2	19	30	3	6	00	3	13	01	American	Dimon S. S. Corp.	399	0	54	7	19	3	Philadelphia, Pa.	Seattle, Wash.	General	3	985	6	138	
Willapa	3	6	22	3	7	15	3	14	34	American	Williams S. S. Line	415	0	56	7	16	7	Baltimore, Md.	Seattle, Wash.	General	1	400	7	731	
W. H. Tilford	3	12	05	3	12	15	3	18	58	American	Standard Shipping Co.	411	6	53	4	20	0	Wilmington, N. C.	Los Angeles, Calif.	Ballast	6	205	5	805	
Pacific	2	6	48	3	17	30	4	9	19	British	Furness, Withy & Co.	435	9	60	0	18	3	Glasgow, Scotland	Vancouver, B. C.	General, bananas	1	101	9	644	
Dilworth	3	22	30	4	6	15	4	12	57	American	Tidewater Oil Co.	435	0	56	0	21	0	New York, N. Y.	Los Angeles, Calif.	Ballast	7	441	5	077	
Colombia	3	8	23	4	6	55	4	14	21	American	Panama Mail S. S. Co.	380	0	49	0	25	4	New York, N. Y.	San Francisco, Cal.	General, coffee	3	257	6	015	
Seattle	4	5	00	4	8	23	4	15	00	German	Hamburg-American Line	461	0	61	6	22	0	Hamburg, Germany	Portland, Ore.	General	4	783	9	267	
Teno	3	17	15	4	9	25	4	16	17	Chilean	Cia. Sud. Amer. de Vap.	422	0	54	0	25	8	New York, N. Y.	Valparaiso, Chile	General	2	927	7	764	
Cid	3	16	00	4	10	35	4	17	14	German	North German Lloyd	393	0	50	0	19	9	Hamburg, Germany	Valparaiso, Chile	General	2	733	6	542	
Liverpool Maru	4	2	40	4	12	55	4	20	46	British	Pacific Steam Nav. Co.	264	3	41	2	16	0	New York, N. Y.	Pacasmayo, Peru	General	6	932	5	919	
San Lucas	4	13	00	4	13	10	4	20	26	Japanese	Kokusa Kisen Kaisha	385	0	51	0	26	0	Boston, Mass.	Nagoya, Japan	General	6	932	5	919	
Silverwillow	4	8	30	4	13	50	4	22	35	American	Quaker Line	415	1	55	7	21	5	Philadelphia, Pa.	Seattle, Wash.	General	4	237	7	643	
Toba Maru	4	13	45	4	14	30	4	22	40	British	S. & J. Thompson	451	0	51	0	20	0	New York, N. Y.	Manila, P. I.	General	1	502	9	311	
Eagle	4	14	30	4	15	05	4	22	56	Japanese	Nippon Yusen Kaisha	445	0	58	0	23	6	New York, N. Y.	Kobe, Japan	General	6	188	8	058	
Saramaca	3	20	05	5	6	10	5	8	22	American	Standard Transp. Co.	410	0	56	0	21	6	New York, N. Y.	Los Angeles, Calif.	Ballast	8	201	6	226	
Point Reyes	5	6	25	5	7	05	5	14	31	American	United Fruit Co.	336	0	42	0	17	0	Cristobal, C. Z.	San Francisco, Cal.	General	137	3	668	2	308
Panama	5	6	20	5	9	35	5	17	18	American	Swayze & Hoyt	324	0	46	2	19	0	Corpus Christi, Tex.	Vancouver, B. C.	General	2	420	3	984	
Port Bowen	4	23	15	5	10	55	5	18	02	American	Amer-Hawaiian Line	497	7	54	0	18	0	New York, N. Y.	Portland, Ore.	General	2	338	7	098	
Oaknar	5	11	45	5	14	30	5	21	40	British	Com'ith & Dom. Line	480	7	62	4	26	0	London, England	Pt. Chalmers, N. Z.	General	2	800	10	744	
Chinese	5	11	45	5	14	30	5	23	08	American	Calmar S. S. Corp.	384	0	51	2	20	3	Baltimore, Md.	Seattle, Wash.	General, steel	4	014	6	327	
Prince	5	18	50	5	19	40	6	9	19	British	Prince Line, Ltd.	442	0	60	0	21	0	Boston, Mass.	Manila, P. I.	General	3	202	9	254	

* Scrap iron and wheat.

* General, shell piling, and lumber.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Nitro	27	14	45	29	6	20	29	12	59	30	13	05	American	U. S. Navy	433	1	61	1	22	0	San Diego, Calif.	Hampton Rds., Va.	Navy gen. cargo	841	8	426	5	270
Meton	28	21	00	29	6	49	29	14	30	29	14	30	American	Penn. Shipping Co.	425	8	57	0	26	0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,300	7	484	5	212
Larry Doherty	28	22	00	29	7	20	29	15	45	29	15	45	American	Richfield Oil Co. of Cal.	430	0	59	2	27	0	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,500	7	494	5	198
S-17	29	9	12	29	9	12	29	16	30	30	13	45	American	U. S. Navy	231	0	20	0	20	0	Balboa, C. Z.	Cristobal, C. Z.	Raw sugar	3,333	2	823	1	740
Santa Isabel	29	19	20	30	6	21	30	13	45	30	13	45	American	Isthmian S. S. Lines	251	0	43	6	23	0	Honolulu, T. H.	New York, N. Y.	Gasoline	7,610	6	925	5	014
New Jersey	30	4	50	30	6	36	30	14	10	30	14	10	American	The Texas Co.	416	8	56	1	27	0	Los Angeles, Calif.	Houston, Texas	General	1,426	5	954	4	139
Canadian	29	18	40	30	7	14	30	15	00	30	22	18	British	Can. Nat. Steamships	400	4	52	3	16	0	Auckland, N. Z.	Montreal, Canada	General	1,426	5	954	4	139
Conqueror	29	18	40	30	7	14	30	15	00	30	22	18	British	Can. Nat. Steamships	400	4	52	3	16	0	Auckland, N. Z.	Montreal, Canada	General	1,426	5	954	4	139
Donnauder	29	23	05	30	7	54	30	15	40	1	00	05	American	U. S. Navy	303	0	43	0	14	0	Balboa, C. Z.	Gatun Lake, C. Z.	Launch	782	2	844	1	748
McCauley	29	23	05	30	7	54	30	15	40	1	00	05	American	U. S. Navy	303	0	43	0	14	0	Balboa, C. Z.	Gatun Lake, C. Z.	Launch	782	2	844	1	748
Alvarado	30	4	00	30	8	38	30	16	15	30	22	55	Dutch	Pacific Steam Nav. Co.	400	6	58	2	20	0	Pacasmayo, Peru	New York, N. Y.	General	3,660	7	817	6	097
Booskoop	30	6	20	30	8	50	30	17	40	1	11	09	German	Royal Neth. S. S. Co.	520	8	63	6	26	0	Corral, Chile	Hamburg, Germany	General	9,470	11	007	7	698
Donau	30	7	30	30	9	34	30	18	25	30	18	25	American	North German Lloyd	404	6	53	9	10	0	Vancouver, B. C.	Bremen, Germany	General	5,574	6	745	4	562
Santa Cecilia	30	7	30	30	9	34	30	18	25	30	18	25	American	Argonaut S. S. Co.	404	6	53	9	10	0	Longview, Wash.	Portsmouth, Eng.	Lumber	5,574	6	745	4	562
Caldas	29	22	35	30	9	52	30	18	56	1	13	30	Colombian	National Nav. Co.	116	0	40	1	10	0	Buenaventura, Col.	Cristobal, C. Z.	General	203	211	124	124	
Suberland	29	23	20	30	10	11	30	19	15	1	18	10	American	Charles Nelson & Co.	380	0	53	2	21	0	Pt. Townsend	Baltimore, Md.	Lumber, general	4,399	5	654	4	123
Chippewa	25	17	45	30	16	44	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581
George W.	28	14	45	30	16	05	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581
Bond	28	14	40	30	16	05	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581
Olio	28	14	40	30	16	05	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581
California	28	14	40	30	16	05	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581
Tanker	28	14	40	30	16	05	1	21	35	1	21	35	American	Standard Dredging Co.	251	0	43	6	15	0	Buenaventura, Col.	New Orleans, La.	Dredging mat'l.	1,320	2	615	1	581

* Tug.

* Motor ship.

* Submarine.

* Tanker.

* Tug.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Salt water draft.	Nature.			Tons.	Gross.	Net.		
California	30	13.15	1	6.20	1	13.30	1	14.20	American...	Panama-Pacific Line...	574.4	80.3	30.0	San Francisco, Cal.	New York, N. Y.	General.....	6,300	24,506	17,565	
Samuel Q. Brown ¹	30	14.20	1	7.06	1	15.00	1	15.00	American...	Tidewater Oil Co.....	424.4	58.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	9,213	7,333	5,183	
Coptic ¹⁴	30	15.30	1	7.39	1	16.20	1	16.20	British...	Shaw, Savill & Albion...	499.6	64.3	25.2	Bluff, N. Z.	London, England.	Frozen, general...	5,517	11,819	8,366	
Virgilio ¹⁴	1	4.49	1	7.53	1	16.25	1	16.25	Italian...	Nav. Gen. Italiana...	502.7	61.8	23.3	Talcahuano, Chile	Genoa, Italy	General.....	1,023	12,941	9,320	
Robin Gray.	30	22.00	1	9.09	1	15.45	1	17.45	American...	Seas Shipping Co.....	440.0	55.0	27.4	Vancouver, B. C.	Avonmouth, Eng.	Grain, lumber...	8,560	7,472	5,512	
Georgian.	1	7.20	1	9.25	1	18.45	1	18.45	American...	Amer.-Hawaiian Line...	434.3	57.7	21.0	Portland, Oreg.	Boston, Mass.	General.....	5,125	7,983	5,912	
Pacific Fir.	1	7.40	1	10.48	1	20.05	2	2.30	American...	Dimon S. S. Corp.....	410.5	54.0	24.0	Tacoma, Wash.	Philadelphia, Pa.	Lumber.....	7,275	6,624	4,883	
President ¹⁴	1	8.00	1	11.05	1	19.15	1	19.15	British...	Furness-Pacific Line...	450.4	60.8	28.0	Vancouver, B. C.	Glasgow, Scotland.	General.....	8,463	10,086	7,226	
Brinswiek ¹⁴	30	18.15	1	11.34	1	20.30	1	20.30	Panamanian...	Atlantic Refining Co...	471.1	63.3	28.0	San Francisco, Cal.	Lands End, Eng. ¹⁶	Gasoline.....	12,817	9,178	6,450	
Willkeno.	1	9.15	1	11.52	1	21.45	1	21.45	American...	Williams S. S. Corp...	415.0	55.7	22.0	Los Angeles, Calif.	Charleston, S. C.	General.....	3,972	7,750	5,805	
Corinto.	28	5.00	1	12.17	1	21.40			American...	Panama Mail S. S. Co.	261.1	40.0	14.0	San Francisco, Cal.	Cristobal, C. Z.	General.....	466	2,352	1,549	
Horace	1	10.20	1	13.10	1	22.35	1	22.35	American...	Luckenbach Line.....	445.0	58.0	26.0	Portland, Oreg.	Boston, Mass.	General.....	7,161	8,699	6,363	
Ferncliff ¹⁴	1	3.00	1	14.23	1	23.00	1	23.00	Norwegian...	Fern Line.....	352.7	53.4	24.4	Whyalla, Australia.	Baltimore, Md.	Iron ore.....	6,921	6,112	4,284	
Gen. M. H. Sherman.	30	19.33	1	14.44	2	11.43	2	11.43	American...	Sudden & Christensen...	402.6	53.0	27.0	Pt. Alberni, B. C.	Baltimore, Md.	Lumber.....	7,698	6,575	4,912	
No. 102 ¹⁵	29	23.05	1	14.48	2	15.00	2	15.00	American...	Standard Dredging Co.	156.0	30.0		Buenaventura, Col.	New Orleans, La.	Ballast ¹⁷	6,354	6,932	5,024	
Mabine.	1	16.25	1	17.07	2	11.00	2	11.00	American...	Seas Shipping Co.....	402.0	34.2	26.0	Tacoma, Wash.	Baltimore, Md.	Lumber, general...	11,236	9,700	6,804	
Broad Arrow ¹	1	16.15	2	5.54	2	14.05	2	14.05	American...	Standard Oil Co. of N.Y.	467.6	62.7	27.3	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	11,308	9,001	5,927	
Callopie ¹⁴	1	19.10	2	6.38	2	14.45	2	14.45	Danish...	W. Tamschiff Rhederer	470.2	63.2	27.0	Talara, Peru.	Hamburg, Germany	Gasoline.....	9,100	6,706	4,639	
Hadnot ¹⁴	1	21.00	2	7.08	2	15.10	2	15.10	American...	Cities Service Trans. Co.	416.9	56.2	27.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	7,200	6,079	4,534	
Suestad ¹⁴	2	6.40	2	7.35	2	15.55	2	16.30	Norwegian...	A. F. Klavness & Co.	377.6	54.0	25.0	Kolschbang, Siam.	La Guaira, Venez.	Rice.....	1,031	1,572	1,011	
Cenigo.	2	6.45	2	8.12	2	16.25			German...	Hamburg-American Line	227.2	34.4	15.0	Guayaquil, Ecuador ¹⁸	Cristobal, C. Z.	Rice.....	1,031	1,572	1,011	
Baldhill ¹	2	9.50	2	11.25	3	8.55	3	8.55	American...	Penn. Shipping Co.....	416.8	58.1	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	9,136			
Venezuela.	2	7.15	3	6.28	3	13.15	4	5.20	American...	Panama Mail S. S. Co.	389.0	46.7	23.0	San Francisco, Cal.	New York, N. Y.	General.....	2,994	6,033	4,353	
Chester	2	14.05	3	7.10	3	15.05	3	16.25	American...	Sun Oil Co.....	480.6	66.0	29.0	Los Angeles, Calif.	Chester, Pa.	Gasoline.....	13,360	9,607	6,548	
Sun ¹⁴	2	18.30	3	7.24	3	15.50	3	15.50	American...	Standard Oil Co. of Cal.	513.5	68.2	30.0	Los Angeles, Calif.	London, England.	Gasoline.....	15,365	11,719	8,619	
Standard ¹⁴	3	1.05	3	7.55	3	16.10	3	16.10	American...	Par-Amer. Pet. & Tr. Co.	435.0	56.2	28.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	9,300	7,406	5,111	
Doheny ¹⁴	3	5.30	3	8.15	3	16.55	3	16.55	American...	The Texas Co.....	416.8	56.0	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	8,540	6,589	5,030	
Ocidental ¹	2	20.25	3	8.35	3	17.20	3	17.20	British...	R. S. Dalglough, Ltd...	401.6	53.2	24.0	Iniquike, Chile.	Novorossiok, U.S.S.R.	Nitrates.....	7,300	5,534	3,688	
Farmworth.	2	22.45	3	8.50	3	17.50	3	17.50	American...	McCormick S. S. Co.	410.5	54.3	25.0	Seattle, Wash.	Buenos Aires, Arg.	Lumber, general...	5,354	6,583	5,014	
West Nohus.	3	3.30	3	9.38	3	18.25	3	18.25	American...	Anglo-Saxon Pet. Co.	449.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	Steel ore.....	12,303	7,808	5,139	
Feltore.	3	6.30	3	10.12	3	19.25	4	7.35	French...	Ore S. S. Corp.....	425.0	57.0	27.0	Los Angeles, Calif.	Lands End, Eng. ¹⁶	Kerosene.....	9,134	7,178	5,072	
Miriam ¹	3	4.05	3	11.55	3	20.05	5	6.10	American...	United Fruit Co.....	336.7	42.0	19.5	San Francisco, Cal.	Cristobal, C. Z.	General.....	526	3,668	2,308	
Sarawacca.	3	4.05	3	11.55	3	20.05	5	6.10	American...	United Fruit Co.....	336.7	42.0	19.5	San Francisco, Cal.	Cristobal, C. Z.	General.....	526	3,668	2,308	
Tanker.																			18 Cocoa, ivory nuts, and coffee.	
																			17 Towed through the Canal.	
																			16 For orders.	

¹⁴Motor ship.¹⁵Towed through the Canal.¹⁶For orders.¹⁷Barge.¹⁸Tanker.

Achata ¹	3	18	30	4	6	10	4	13	45	4	16	25	British.....	Anglo-Saxon Pet. Co.....	412	0	53	4	25	0	Los Angeles, Calif.....	Lands End, Eng. ¹⁶	Gasoline.....	6,900	6,218	4,248
Alban Allen.....	3	17	50	4	6	49	4	14	40	4	20	45	American.....	Tampa Inter-ocean Co.....	455	0	50	0	25	0	Pulpanadan, P. I.....	New Orleans, La.....	Sugar, copra, gen.....	8,843	8,978	6,585
Castlemoor.....	3	23	00	4	7	10	4	15	00	4	16	25	British.....	Ore S. S. Corp.....	420	0	54	0	20	0	Cruz Grande, Chile.....	Baltimore, Md.....	Iron ore.....	8,860	6,624	4,685
El Clervo.....	3	20	40	4	8	13	4	16	20	4	17	40	British.....	C. I. Bowring & Co.....	497	4	52	2	25	4	La Libertad, Peru.....	Philadelphia, Pa.....	Crude oil.....	7,916	6,016	4,136
Port Hou ¹⁴	3	20	00	4	8	38	4	19	20	4	19	20	British.....	Comith & Dom. Line.....	472	0	63	3	21	0	Auckland, N. Z.....	London, England.....	General, frozen.....	4,780	10,723	7,692
Mexican.....	4	3	25	4	9	01	4	19	40	4	19	40	American.....	Amor-Hawatan Line.....	472	3	57	2	24	0	Tacoma, Wash.....	Boston, Mass.....	General.....	6,024	9,253	6,944
Lumina.....	4	8	50	4	9	47	4	20	43	5	6	50	British.....	Anglo-Saxon Pet. Co.....	407	6	52	3	25	0	Los Angeles, Calif.....	United Kingdom.....	Gasoline.....	7,052	5,940	4,108
Georgie.....	4	9	20	4	10	06	4	21	45	5	29	45	French.....	French Line.....	422	2	52	2	19	0	Corral, Chile.....	Le Havre, France.....	(²⁰).....	3,776	6,830	4,932
Soley.....	4	9	30	4	10	40	4	21	40	4	21	40	Norwegian.....	Edine H. Samuelsen.....	381	9	54	0	26	0	Endwood, B. C.....	New York, N. Y.....	Lumber.....	7,409	6,509	4,910
Vernar.....	4	12	37	4	13	52	4	22	05	4	22	05	American.....	Calmar S. S. Corp.....	410	5	54	2	21	0	Seattle, Wash.....	Baltimore, Md.....	Lumber.....	6,016	6,593	4,791
Aegha.....	4	16	45	4	17	36	5	10	37	5	11	30	German.....	North German Lloyd.....	330	9	46	0	10	4	Charapico, Chile.....	New Orleans, La.....	Ballast.....	20,000	14,325	4,685
Lobore.....	5	5	15	5	6	25	5	16	25	5	16	25	American.....	Ore S. S. Corp.....	549	6	72	2	35	0	Cruz Grande, Chile.....	Baltimore, Md.....	(²¹).....	5,638	8,086	5,918
Ruhr.....	4	22	05	5	7	11	5	15	00	6	1	10	German.....	Hamburg-American Line.....	454	0	58	3	20	0	Corral, Chile.....	New York, N. Y.....	General.....	4,993	7,763	
Santa Clara.....	5	6	20	5	7	50	5	15	00	6	00	15	American.....	Grac-Amer. Ship. Co.....	483	3	63	9	25	5	Valparaiso, B. C.....	London, England.....	Wheat, lumber.....	7,763		
Trapani Law.....	5	3	55	5	8	28	5	16	30	5	16	30	British.....	Panamaian Govt.....	405	3	53	4	21	4	Vancouver, C. Z.....	London, England.....	Wheat, lumber.....	7,763		
Almirante.....	5	6	40	5	8	36	5	12	45	6	12	45	Panamaian.....	Panamaian Govt.....	400	7	54	2	22	8	Balboa, C. Z.....	Gatun Lake, C. Z.....	Lumber, piling.....	5,929	6,623	4,668
Munystic.....	5	7	40	5	9	20	5	17	40	5	17	40	American.....	Munson, McCor k Line.....	399	5	52	3	25	0	Pt. Towns d, Wash.....	Baltimore, Md.....	Wheat.....	7,119	5,054	3,999
King Edward.....	5	8	45	5	9	57	5	18	30	5	18	30	British.....	King Line, Ltd.....	471	1	59	2	27	0	Vancouver, B. C.....	United Kingdom.....	General, lumber.....	8,733	9,027	6,539
Luckenbach.....	4	11	00	5	14	47	5	22	10	5	22	10	American.....	U. S. Army.....	448	0	53	0	25	4	Portland, Oreg.....	Mobile, Ala.....	General, lumber.....	8,733	9,027	6,539
Cambal.....	4	11	00	5	14	47	5	22	10	5	22	10	American.....	Luckenbach-Gulf Line.....	448	0	53	0	25	4	Portland, Oreg.....	Mobile, Ala.....	General, lumber.....	8,733	9,027	6,539

¹ Tanker.

¹⁰ Launch.

²⁰ Copper, cotton, and general.

²¹ Cotton, lead, and sugar.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 29	Pastores.....	United Fruit Co.....	Port Limon, C. R.....	July 29	No. 9670 ²²	Pan American Airways.....	San Salvador via waypts.
June 29	Tela.....	United Fruit Co.....	Puerto Colombia.....	June 29	Pastores.....	United Fruit Co.....	New York via Habana.
June 29	Rugia.....	Hamburg-American Line.....	Tampico and wayports.	June 29	Parishina.....	United Fruit Co.....	New Orleans & wayports.
June 29	Atlantian.....	Leyland S. S. Line.....	Liverpool via wayports.	June 30	Rugia.....	Hamburg-American Line.....	Cartagena, Colombia.
June 30	No. 9688 ²²	Pan American Airways.....	Guatemala via wayports.	June 30	Tela.....	United Fruit Co.....	Port Limon via Bocas.
June 30	Teutonia.....	Hamburg-American Line.....	Hamburg via wayports.	July 1	Teutonia.....	Hamburg-American Line.....	Tampico via wayports.
June 30	Ulua.....	United Fruit Co.....	New York via Habana.	July 1	Cryssen.....	Royal Netherlands S. S. Co.....	Port Limon, C. R.
June 30	Darien C-35 ²²	Seadta Airplane Co.....	Barraquilla & wayports.	July 2	Ulua.....	United Fruit Co.....	Port Limon, C. R.
June 30	N. C. 976 ²²	Pan American Airways.....	Miami via wayports.	July 2	Cayna.....	Elders & Fyffes Line.....	Avonmouth via wayports.
July 1	N. C. 29 ²²	Crode Petroleum Co.....	Maracaibo, Venezuela.	July 2	Neura Espana ²¹	Diez & Garcia.....	Colon, R. P.
July 1	Cryssen.....	Royal Netherlands S. S. Co.....	Hamburg via wayports.	July 2	No. 9688 ²²	Pan American Airways.....	San Salvador and waypts.
July 1	Cristobal.....	Pan American Airways.....	Talara via wayports.	July 3	No. 144-M ²²	Pan American Airways.....	Puerto Cabello & waypts.
July 2	Cavina.....	Elders & Fyffes.....	New York via Hanti.	July 3	Skaola.....	United Fruit Co.....	New York via wayports.
July 2	Ulua.....	United Fruit Co.....	Avonmouth via wayports.	July 3	Irona.....	United Fruit Co.....	Puerto Colombia.
July 2	Swifarrow.....	Shell Oil Co.....	New York via Kingston.	July 3	Inapaquia ²¹	A. Tagaropulos.....	Colon, R. P.
July 2	Ulua.....	United Fruit Co.....	Curacao, D. W. I.	July 3	Annetta I. ²¹	A. Tagaropulos.....	Colon, R. P.
July 2	Ulua.....	United Fruit Co.....	New Orleans, La.	July 3	Anachucua ²¹	United Fruit Co.....	Colon, R. P.
July 2	Ulua.....	Pan American Airways.....	Miami via wayports.	July 4	Swifarrow.....	Shell Oil Co.....	Curacao, D. W. I.
July 3	Ulua.....	Papi & Conolly.....	El Bluff, Nicaragua.	July 4	No. 9670 ²²	Pan American Airways.....	San Salvador via waypts.

²² Air mail carrier. ²³ Motor boat. ²⁴ Motor schooner.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 3.....	No. 9670 ²⁵	Pan American Airways.....	San Salvador and waypts	July 4.....	Darien C-35 ²⁵	Sendita Airplane Co.....	Baranquilla via waypts.
July 3.....	Bolivar.....	Colombian S. S. Line.....	New York via wayports.	July 4.....	No. 9770 ²⁵	Pan American Airways.....	Miami via wayports.
July 3.....	Inapaquina ²⁶	A. Tagaropulos.....	Colon, R. P.....	July 4.....	Bolivar.....	Colombian S. S. Line.....	New York via wayports.
July 3.....	Annetta I. ²⁶	A. Tagaropulos.....	Colon, R. P.....	July 5.....	Dora K. ²⁷	A. L. Surgeon.....	Bluefields and Limon.
July 3.....	Anachucuna ²⁶	United Fruit Co.....	Port Limon, C. R.....	July 5.....	Escape Fuego ²⁸	Pani & Conolly.....	Bluefields, Nicaragua.
July 4.....	Crysgen.....	Royal Netherlands S. S. Co.....	New Orleans & Habana.	July 5.....	Tela.....	United Fruit Co.....	New Orleans and waypts.
July 4.....	Atlantida.....	Standard Fruit & S. S. Co.....	Bocas, R. P.....	July 5.....	Atlantida.....	Standard Fruit & S. S. Co.....	New Orleans and waypts.
July 4.....	Tela.....	United Fruit Co.....	Talara via wayports.	July 5.....	Crysgen.....	Royal Netherlands S. S. Co.....	Amsterdam and waypts.
July 4.....	No. 945-M ²⁵	Pan American Airways.....	Puerto Cabello & waypts.				
July 5.....	No. 144-M ²⁵	Pan American Airways.....	New Orleans & Habana.				
July 5.....	Heredia.....	United Fruit Co.....	Colon, R. P.....				
July 5.....	Dora K. ²⁷	A. L. Surgeon.....	Miami via wayports.				
July 5.....	No. 8000 ²⁵	Pan American Airways.....	San Salvador & wayports.				
July 5.....	No. 9688 ²⁵	Pan American Airways.....					

²² Air mail carrier.²⁶ Motor boat.²⁷ Motor ship.²⁸ Motor schooner.

PORT OF BALBOA.

June 3.....	Epoca ²⁹	Grace Line.....	Buenaventura, Colombia.	July 3.....	Epoca ²⁹	Grace Line.....	Talara, Peru.
July 1.....	Romulus.....	Latin America Line.....	Vancouver, B. C.....	July 3.....	Romulus.....	Latin America Line.....	Callao, Peru.
July 3.....	Real ³⁰	Hans Elliot.....	Panama Bay, R. P.....	July 3.....	Real ³⁰	Hans Elliot.....	Panama Bay, R. P.
July 5.....	Sambu ³⁰	Hans Elliot.....	Panama Bay, R. P.....	July 5.....	Sambu ³⁰	Hans Elliot.....	Panama Bay, R. P.

²⁹ Motor ship.³⁰ Motor schooner.

* Other than ships passing through the Canal.

Tanker Traffic Through the Panama Canal in June, 1930.

During the month of June, 1930, 109 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 591,413, on which tolls of \$508,640.24 were paid. Cargo amounted to 460,933 tons, which included 452,431 tons of mineral oil and 8,502 tons of creosote oil. In point of net tonnage, tanker traffic increased 9.4 per cent as compared with the same traffic for the corresponding month a year ago, while cargo tonnage decreased 12.4 per cent.

Tanker traffic comprised 22.8 per cent of the total commercial transits through the Canal during the month; made up 25.1 per cent of the total Panama Canal net tonnage; were the source of 24.2 per cent of the tolls collected; and carried 21.5 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of June, 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for June, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>Atlantic to Pacific.</i>				
Argentine.....	1	3,816	\$2,747.52	.....
British.....	14	69,543	53,417.83	16,760
Danzig.....	2	13,315	9,946.83	.....
French.....	3	14,318	10,338.96	.....
Norwegian.....	5	23,662	17,036.64	.....
Swedish.....	1	6,295	4,532.40	.....
United States.....	39	214,447	159,003.97	11,212
Total, June, 1930.....	65	345,896	256,991.09	27,972
Total, May, 1930.....	48	272,155	202,856.35	33,928
Total, April, 1930.....	39	213,878	162,405.20	28,454
Total, June, 1929.....	52	284,668	216,210.04	60,059
<i>Pacific to Atlantic.</i>				
Belgian.....	1	4,976	5,710.00	9,127
British.....	11	51,298	55,072.50	95,511
Danish.....	1	5,695	5,910.00	10,769
Danzig.....	1	6,127	6,585.00	11,200
French.....	1	6,997	8,283.40	11,538
United States.....	29	170,514	170,083.25	294,816
Total, June, 1930.....	44	245,517	251,649.15	432,961
Total, May, 1930.....	44	236,762	242,891.54	422,174
Total, April, 1930.....	46	264,438	264,724.95	455,872
Total, June, 1929.....	47	255,980	261,993.75	465,875

* Includes 8,502 tons of creosote oil.

The following tabulation shows the tanker traffic through the Canal during June, 1930, classified according to trade routes:

ATLANTIC TO PACIFIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal.....	37	209,029	\$153,577.24	2,710
United States to Canada.....	1	5,312	3,824.64	.....
United States to South America.....	1	4,326	3,114.72	.....
Canada to South America.....	1	5,278	3,830.16	.....
Cristobal to United States.....	1	4,927	3,547.44	.....
West Indies to United States.....	1	4,840	3,434.80	.....
West Indies to South America.....	1	3,326	3,590.00	4,476
West Indies to Australasia.....	1	6,227	6,635.00	12,284
Europe to United States.....	19	92,883	68,402.13	8,502
United States to South America.....	2	9,743	7,014.96	.....

* Creosote oil.

PACIFIC TO ATLANTIC.

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States intercoastal	27	156,551	\$158,143.50	281,211
United States to Canada	1	4,413	4,710.00	9,000
United States to West Indies	3	17,997	18,088.15	20,641
United States to Europe	8	42,450	44,557.50	76,159
South American to United States	2	7,652	8,223.75	14,032
South America to Canada	2	10,327	11,341.25	20,718
South American to Europe	1	6,127	6,585.00	11,200

Of the tanker traffic passing through the Canal in June, 1930, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for June, 1929:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
<i>To Los Angeles.</i>				
June, 1930	56	300,724	\$219,484.66	9,782
May, 1930	33	190,213	139,975.35	14,359
April, 1930	29	160,376	116,391.53	300
June, 1929	38	204,823	150,165.87	10,212
<i>From Los Angeles.</i>				
June, 1930	33	189,882	191,944.40	330,780
May, 1930	32	173,014	177,384.65	311,898
April, 1930	33	181,662	182,359.75	321,197
June, 1929	40	215,723	218,943.75	384,793

* Includes 8,502 tons of creosote oil.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending July 5, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Charles Nelson	Charles Nelson & Co.	June 22	June 25	1,285	
Chateau Thierry	U. S. Government	June 22	June 24	1,195	504
Tsuyama Maru	Nippon Yusen Kaisha	June 22	June 23	73	
Annie Johnson	Johnson Line	June 23	June 25	53	
Somme	U. S. Government	June 24	June 25	91	74
Knute Nelson	Fred Olsen & Co.	June 25	June 26	996	
Santa Maria	Grace Line	June 25	June 25	3	
Bodegraven	Royal Netherlands S. S. Co.	June 26	June 26	86	
La Placencia	Union Oil Co.	June 27	June 28	11,428	
San Jose	United Fruit Co.	June 27	June 28	470	
Virginia	Panama Mail S. S. Co.	June 27	June 27		213
Kellerwald	Hamburg-American Line	June 27	June 28	218	67
Frost	Hans Ericson	June 28	June 29	250	
Prince Albert	Pan American Shipping Co.	June 29	June 30	7	143
Alvarado	Pacific Steam Navigation Co.	June 30	June 30	342	
City of Panama	Panama Mail S. S. Co.	July 1	July 1	1	2
Romulus	Latin American Line	July 1	July 3	842	
Santa Teresa	Grace Line	July 2	July 2	30	125
Venezuela	Panama Mail S. S. Co.	July 2	July 3	240	139
Ethan Allen	Tampa Intercean S. S. Co.	July 3	July 4	352	
Saramacca	United Fruit Co.	July 3	July 3	88	
Colombia	Panama Mail S. S. Co.	July 4	July 4	8	15

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 15 years of operation.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1930 of passenger vessels in the New York-Cristobal service of the Panama Railroad Steamship Line, in which the steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 4 P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive Cristobal A. M.	Leave Cristobal P. M.	Arrive Port au Prince A. M. Leave P. M.	Arrive New York A. M.
<i>Ancon</i>	July 8.....	July 13.....	July 16.....	July 20.....	July 23.....	July 28.
<i>Cristobal</i>	July 22.....	July 27.....	July 30.....	August 3.....	August 6.....	August 11.
<i>Ancon</i>	August 5.....	August 10.....	August 13.....	August 17.....	August 20.....	August 25.
<i>Cristobal</i>	August 19.....	August 24.....	August 27.....	August 31.....	September 3.....	September 8.
<i>Ancon</i>	September 5.....	September 8.....	September 11.....	September 15.....	September 18.....	September 23..
<i>Cristobal</i>	September 16.....	September 21.....	September 24.....	September 28.....	October 1.....	October 6.
<i>Ancon</i>	September 30.....	October 5.....	October 8.....	October 12.....	October 15.....	October 20.
<i>Cristobal</i>	October 15.....	October 20.....	October 23.....	October 25.....	October 31.....	November 5.
<i>Ancon</i>	October 28.....	November 2.....	November 5.....	November 9.....	November 12.....	November 17..
<i>Cristobal</i>	November 11.....	November 16.....	November 19.....	November 23.....	November 26.....	December 1.
<i>Ancon</i>	November 25.....	November 30.....	December 3.....	December 7.....	December 10.....	December 15.
<i>Cristobal</i>	December 9.....	December 14.....	December 17.....	December 21.....	December 24.....	December 29.
<i>Ancon</i>	December 23.....	December 28.....	December 31.....	January 4.....	January 7.....	January 12.

* Effective April 30, steamers sail daylight saving time.

* Due to discontinuance of the daylight saving time, departure after *S. S. Cristobal*, Sept. 16th, will be at 4 p. m., standard time.

Steamers sail at 4 p. m. from pier 65, North River, Foot of West 25th St., New York.

On both southward and northward voyages the vessels call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of vessels at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., July 16, 1930. No. 50.

Panama Canal Traffic During the Fiscal Year 1930, Segregated by Nationality of Vessels.

Commercial traffic through the Panama Canal in the fiscal year 1930, was made up of vessels of 24 nationalities. Transits of vessels of United States registry, totaling 2,885, exceeded those of any other nationality, with British, German, Norwegian, Japanese, Dutch, and Swedish following in the order named. The vessels of these seven nationalities made up 90.5 per cent of the total transits, and 92.3 per cent of the net tonnage, Panama Canal measurement, and paid 92.2 per cent of the tolls collected during the fiscal year 1930.

The following statement shows the commercial traffic through the Canal during the fiscal year 1930, segregated according to registry of vessels, with the grand totals for the two preceding fiscal years:

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentine.....	2	3,816	3,370	5,518	3,146	\$4,015.52	.....
Belgian.....	23	119,499	104,655	157,678	92,751	122,440.19	155,484
British.....	1,536	8,006,962	5,956,033	9,846,150	6,010,792	7,197,979.33	7,572,969
Chilean.....	46	164,152	124,006	244,828	136,389	153,998.86	105,511
Colombian.....	74	13,026	12,556	20,114	12,560	15,371.33	12,543
Costa Rican.....	2	662	666	971	531	646.95	600
Danish.....	91	381,766	292,501	460,016	292,989	352,788.65	505,914
Danzig.....	36	221,382	188,995	319,530	178,950	195,633.92	192,734
Dutch.....	141	671,250	462,224	774,225	462,418	571,860.62	618,718
Finnish.....	2	3,810	3,774	4,159	3,497	4,572.00	5,450
French.....	124	627,760	490,320	785,888	481,648	583,153.10	576,753
German.....	377	1,433,074	993,841	1,669,706	999,680	1,236,213.16	1,388,022
Greek.....	22	89,231	62,291	99,844	61,276	77,863.75	160,219
Italian.....	66	429,091	312,421	552,721	326,862	385,299.89	264,223
Japanese.....	163	803,182	671,105	1,013,948	663,821	851,013.31	1,009,735
Mexican.....	1	2,159	1,569	2,876	1,892	1,961.25	1,140
Nicaraguan.....	1	140	151	270	237	113.25	.....
Norwegian.....	371	1,660,101	1,211,296	1,990,102	1,207,188	1,410,130.81	1,808,278
Panamanian.....	60	87,826	56,725	96,983	58,307	68,027.22	73,821
Peruvian.....	2	8,959	7,848	11,836	7,462	9,724.50	13,107
Spanish.....	2	4,209	3,658	5,853	3,613	6,264.00	8,250
Swedish.....	125	571,535	415,854	1,040,789	507,904	473,278.45	832,273
United States.....	2,885	14,534,495	11,192,317	18,152,776	11,174,868	13,220,662.70	14,499,233
Yugoslav.....	33	142,537	109,830	173,876	108,790	133,886.25	225,255
Total, 1930.	6,185	29,980,614	22,683,006	37,430,657	22,797,619	27,076,890.01	30,030,232
Total, 1929.	6,413	29,837,794	22,793,847	37,464,792	22,900,317	27,127,376.91	30,663,006
Total, 1928.	6,456	29,458,634	22,863,796	37,292,874	22,847,683	26,944,499.77	29,630,709

* Includes supplemental bill amounting to \$12.50.

* Includes supplemental bills amounting to \$475.

As related to the total traffic and as compared with the fiscal year 1929, the classification by nationality is more clearly shown in the following tabulation in which the percentage of the fiscal year's traffic (1929 and 1930) is substituted for actual figures. In this tabulation figures are shown for only those nationalities contributing 500,000 or more net tons, Panama Canal measurement, others being grouped as "all others":

Nationality.	Percentage of total traffic in fiscal year.							
	No. of ships.		Panama Canal net tonnage.		Tolls.		Tons of cargo.	
	1929.	1930.	1929.	1930.	1929.	1930.	1929.	1930.
United States.....	42.1	47.0	44.6	48.5	45.4	49.0	45.5	48.3
British.....	27.8	25.0	30.1	26.7	29.6	26.6	27.2	25.2
German.....	6.3	6.1	4.7	4.8	4.5	4.6	4.8	4.6
Norwegian.....	5.3	6.0	4.3	5.5	4.1	5.2	4.9	6.0
Japanese.....	2.4	2.6	2.6	2.7	3.0	3.1	3.2	3.4
Dutch.....	2.3	2.3	2.3	2.2	2.2	2.1	2.2	2.1
French.....	1.7	2.0	1.8	2.1	2.0	2.2	1.1	1.9
Swedish.....	2.2	2.0	2.1	1.9	1.9	1.7	2.8	2.8
All others.....	9.9	7.0	7.5	5.6	7.3	5.5	8.3	5.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Foreign naval vessels, other than transports, colliers, hospital ships, and supply ships, pay tolls at the rate of \$0.50 per displacement ton. Included in the above tabulations of transits and tolls, but not of tonnages are the following foreign naval vessels transiting the Canal during the fiscal year 1930, and paying tolls on the basis of displacement:

Nationality.	No. of ships.	Displacement tonnage.	Tolls.
Argentine.....	1	2,536	\$1,268.00
British.....	9	40,212	20,106.00
Chilean.....	3	4,725	2,362.50
German.....	1	6,053	3,026.50
Japanese.....	4	40,520	20,260.00
Spanish.....	1	3,383	1,691.50
Total.....	19	97,429	48,714.50

Transits of vessels of United States and British registry contributed the larger portion of the traffic through the Canal during 1930. As compared with the number of transits during 1929, United States vessels showed 185 more and British vessels 247 fewer transits. Norwegian and Japanese vessels increased by 31 and 8, respectively, and French vessels showed an increase of 9. German and Swedish shipping decreased 25 and 19 transits, respectively, while transits of Dutch vessels showed a decrease of 8.

Revised Air Mail Schedule.

The air mail schedule to and from the Canal Zone, which was printed in THE PANAMA CANAL RECORD for May 21, 1930, has been changed, commencing July 1, 1930, to put important improvements into effect. The keynote of these improvements is faster and more frequent service. The flying time to and from Miami, via Central America, has been reduced by eight hours, and to and from Brownsville, Texas, by one full day. This establishes a three-day service to the central United States, and a four-day service to the western United States by that route.

Express service between Miami and Cristobal, connecting with planes to and from South America, has been augmented to a semi-weekly basis instead of weekly. There has been no change in the frequency of service to the east coast of South America, *i. e.*, Colombia, Curacao, and Venezuela.

The following is a summary of air mail schedules to and from Cristobal:

DISPATCHES.

- (a) *Express service to Miami*: Semiweekly, on Sundays and Wednesdays.
 (b) *Regular service to Miami*: Weekly, on Fridays.
 (c) *Regular service to Brownsville, via Central America*: Triweekly, on Sundays, Wednesdays, and Fridays.
 (d) *Regular service to Colombia (west coast), Ecuador, Peru, Chile, Argentina, and Uruguay*: Semiweekly, on Sundays and Thursdays.
 (e) *Regular service to Colombia (east coast), Curacao, and Venezuela*: Weekly on Thursdays.

ARRIVALS.

- (a) *Express service from Miami*: On Wednesdays and Saturdays.
 (b) *Regular service from Miami*: On Mondays and Saturdays.
 (c) *Regular service from Brownsville*: On Mondays, Wednesdays, and Saturdays.
 (d) *Regular service from South America (west coast)*: On Tuesdays and Saturdays.
 (e) *Regular service from South America (east coast)*: On Saturdays.

Mail destined for Miami by the Wednesday express plane should be posted at least one-half hour before scheduled departure of morning train from Panama, except at Cristobal, where mail is closed at 8.15 a. m. Mail for the Sunday plane should be posted Saturday afternoon, or at Ancon before 6.30 a. m. Sunday. Letters may be mailed on trains if desired.

Dispatches to Brownsville on Sunday and Wednesday are restricted to mail destined for Central America and the State of Texas. On such days, mail for other states, or foreign via U. S. A., will be forwarded by the Miami express plane.

Supplementary dispatches will be made up at Ancon post office closing at 8 p. m. Thursdays only, for Miami and Brownsville. The plane leaves Friday morning, connecting at San Salvador with planes for Brownsville and Miami.

Mail for the west coast of South America closes at all post offices except Cristobal about one-half hour before scheduled departure of evening train from Panama on Wednesday and Saturday. Planes leave Cristobal at 6 a. m. Thursday and Sunday for Colombia (west coast), Ecuador, Peru, Chile, Argentina, and Uruguay.

Mail for east coast of Colombia, Curacao, and Venezuela closes same as above, on Wednesdays only. Planes leave Cristobal Thursday at 6 a. m.

All mail for Central America and David, R. P., is dispatched from Cristobal. Mail must be posted about one-half hour before scheduled departure of evening train from Panama on Tuesdays, Thursdays, and Saturdays, to connect with planes leaving the following days.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending July 12, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Cambrai	U. S. Government	July 4	July 5	818	108
Saramacca	United Fruit Co.	July 5	July 5		6
Santa Elisa	Grace Line	July 7	July 8		2
Cerigo	Hamburg-American Line	July 7	July 7		5
Santa Barbara	Grace Line	July 9	July 9	1	
Nosa Prince	N. O. & S. A. S. S. Line	July 10	July 10		1
Pennsylvania	Panama-Pacific Line	July 11	July 11		152
San Mateo	United Fruit Co.	July 11	July 12	541	15
Montebello	Union Oil Co.	July 11	July 12	4,000	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 12, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.		Gross.	Net.
Tai Ping ²	5	18.25	6	6.10	6	13.04	6	14.10	Norwegian.	Barber S. S. Line.	461.0	60.0	21.10	New York, N. Y.	Chingwangtao, China	General.	3,918	9,894	6,829
City of Vancouver.....	5	20.35	6	8.05	6	15.20	6	15.50	British.	Can-Amey, S. S. Co.	427.0	54.0	22.6	Sydney, C. B.	N. Westminster, B. C.	R.R. material.	6,234	6,614	4,995
Astral ²	6	10.48	6	11.05	6	17.17	6	18.22	American.	Standard Transp. Co.	439.5	58.0	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast.	8,913	8,913	6,210
Eleanor Christenson.....	6	12.28	6	12.40	6	19.40	6	20.55	American.	Arrow Line.	410.0	54.3	17.0	Baltimore, Md.	Seattle, Wash.	General.	2,323	6,572	4,788
Corinthia.....	6	00.30	6	13.45	6	20.58	6	22.00	British.	Shaw, Savill & Albion.	500.3	63.3	27.7	London, England.	Auckland, N. Z.	General.	6,338	12,821	9,507
Mayebashi Maru.....	6	15.45	6	16.00	7	9.50	7	10.53	Japanese.	Nippon Yusen Kaisha.	445.0	58.0	25.0	Boston, Mass.	Kobe, Japan.	General.	8,549	8,012	5,749
Rolling Stone ²	6	7.30	6	7.30	6	13.10	6	13.10	American.	Robert Wilcox.	48.0	11.6		Colon, R. P.	Balboa, C. Z.	Ballast.	142	1,572	20
Cerigo.....	2	16.25	7	6.10	7	13.24	7	13.26	German.	Hamburg-American Line	227.0	34.4	14.2	Cristobal, C. Z.	Guayaquil, Ecuador	General.	2,124	2,692	1,808
Lake Gorm.....	6	21.40	7	6.15	7	15.06	7	15.06	American.	Ford Motor Co.	250.0	43.6	18.0	Chester, Pa.	Seattle, Wash.	Automobile parts			
Manhattan.....	7	5.45	7	9.15	7	17.25	7	18.40	American.	Redwood Line.	386.0	52.0	23.0	New Orleans, La.	Seattle, Wash.	(⁷)	5,776	5,096	4,125
Island.....	26	17.50	7	9.40	7	18.20	7	19.30	American.	U. S. Navy.	225.0	41.0		Bluefields, Nic.	Gatun, C. Z.	Ballast.	7,498	7,022	5,250
Ashville ⁴	7	8.50	7	10.05	7	18.20	7	22.26	British.	Reardon Smith Line.	427.0	55.0	24.0	Houston, Texas	Yavata, Japan	General, cotton.	3,102		
Cragness.....	7	6.35	7	11.50	7	18.40	7	19.35	British.	Com'lth & Dom. Line.	431.0	53.0	18.0	New York, N. Y.	Dundee, N. Z.	General.			
Henzada.....	7	8.40	7	12.50	7	19.55	7	21.30	Norwegian.	Caucasian Oil Co.	408.3	55.3	17.3	Gothenburg, Swed.	Los Angeles, Calif.	Ballast.			
Chr. Th. Boe ²	7	14.55	7	15.05	7	21.55	7	23.20	American.	Union Sulphur Co.	409.0	54.2	24.2	Galveston, Texas	Everett, Wash.	Sulphur.	7,250	6,581	4,784
Herman F. Whitton.....	7	17.15	7	19.00	8	9.33	8	11.20	American.	Richfield Oil Co.	430.2	59.2	20.0	Baltimore, Md.	Long Beach, Calif.	General.	5,320	7,978	5,839
Pat Doheny ²	7	18.25	8	6.17	8	13.20	8	14.45	Japanese.	Ozaka Shosen Kaisha.	400.0	53.0	24.0	New York, N. Y.	Moji, Japan.	General.	9,002	6,539	4,773
Hayre Maru.....	7	21.30	8	6.28	8	14.33	8	15.50	American.	Ishimura S. S. Lines	424.0	55.0	27.6	Baltimore, Md.	Tacoma, Wash.	General, steel.			
Robin.....	8	3.35	8	7.27	8	14.47	8	15.20	American.	Sun Oil Co.	429.3	59.2	19.0	Chester, Pa.	Los Angeles, Calif.	Ballast.	7,568	5,283	
Goodfellow.....	8	10.45	8	10.55	8	17.25	8	18.30	American.	Richfield Oil Co.	500.0	71.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	11,667	8,542	
Tamihua ²	8	20.20	8	11.45	8	19.50	8	20.04	American.	U. S. Navy.	292.0	44.0	18.1	Cristobal, C. Z.	Gatun, C. Z.	Ballast.	6,393	7,611	5,454
Denver ²	8	13.20	8	13.25	8	21.00	8	22.10	American.	Ishimura S. S. Lines	425.0	56.2	23.0	Baltimore, Md.	Singapore, Stra. Set.	General, steel.	2,781	10,494	7,146
Steel Seafarer.....	8	18.17	8	14.05	8	21.00	8	22.10	French.	French Line.	470.0	61.3	20.9	Antwerp, Belgium.	Vancouver, B. C.	General.	2,800	3,872	2,568
Wisconsin.....	8	14.20	8	14.30	8	22.10	8	22.10	American.	Nelson Line.	321.7	50.0	17.6	New York, N. Y.	Seattle, Wash.	Ort, general.			
Castletown.....	8	19.10	8	19.30	8	16.22	8	16.22	American.	George Herman.	434.3	57.7	17.4	Cristobal, C. Z.	Gatun, C. Z.	Ballast.	2,440	7,983	5,916
Corsair ⁶	8	6.40	9	6.05	9	13.35	9	14.45	Dutch.	Amer.-Hawaiian Line.	449.0	58.0	19.2	Boston, Mass.	Seattle, Wash.	General.	3,500	7,849	5,806
Arizona.....	9	00.20	9	7.15	9	14.35	9	15.49	British.	Royal Nether. S. S. Co.	400.0	52.0	23.0	Hamburg, Germany	Corral, Chile.	General.	6,204	5,618	4,116
Bennekon.....	9	4.35	9	8.25	9	15.19	9	16.16	American.	F & W. Risson.	448.9	60.2	21.0	Newcastle, Eng.	Seattle, Wash.	General.	4,000	9,294	6,865
Maple Branch.....	9	7.40	9	12.00	9	18.14	10	1.10	American.	Luckenbach Line.	466.0	64.0	23.7	Boston, Mass.	Valparaiso, Chile.	General.	2,556	10,087	6,633
Lillian.....										Grace Line.				New York, N. Y.					
Santa Barbara ²										⁵ Cruiser.					⁶ Launch.				
Tanker.....										⁷ General, sulphur, and coke.					⁸ For orders.				

¹ Tanker.² Motor ship.³ Yacht.⁴ Gunboat.⁵ Cruiser.⁶ Launch.⁷ General sulphur, and coke.⁸ For orders.

Patrick Henry..	9	19, 20	9	19, 45	10	9, 11	10	10, 30	American...	Tampa Intercoean Co.	439.6	60.2	26.6	New Orleans, La.	Cebu, P. I.	Case oil, cotton.	7, 049	8, 987	6, 612
Hilda																			
Knudsen 1 2	9	23, 55	10	6, 30	10	13, 32	10	14, 55	Norwegian.	Anglo-Mexican Oil Co.	470.0	64.3	23.0	London, England	Los Angeles, Calif.	Ballast.	9, 474	6, 480	
Champerico	18	15, 25	10	10, 45	10	17, 32	10	21, 05	British.	Pacific Steam Nav. Co.	397.0	51.7	17.9	Cristobal, C. Z.	Champerico, Gat.	General.	928	2, 597	1, 587
Saint Jean	1	1, 00	10	10, 45	10	18, 20	10	20, 55	French.	French Line	299.0	50.0	20.0	Havre, France.	Sta. Rosalia, Mex.	General.	1, 854	5, 849	4, 101
Amerikland 2	9	10, 55	10	11, 05	10	18, 36	10	23, 30	Swedish.	Ore S. S. Corp.	561.0	72.2	22.2	Baltimore, Md.	Cruz Grande, Chile	Ballast.	15, 560	4, 066	
Nesa Prince	9	15, 45	10	12, 05	10	20, 56	11	3, 52	American.	N. O. & S. A. S. Co.	321.0	46.2	21.3	New Orleans, La.	Talcahuano, Chile	General.	3, 135	3, 983	2, 570
S. C. T. Dodd	10	11, 35	10	13, 00	10	21, 25	10	22, 35	American.	Standard Oil Co.	425.0	57.2	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast.	7, 481	4, 975	
Peru 2	10	2, 50	10	14, 00	10	21, 53	10	23, 08	Danish.	East Asiatic Co.	425.0	55.0	21.9	Copenhagen, Den.	Vancouver, B. C.	General.	5, 611	7, 407	5, 600
Florence																			
Luckenbach.	10	14, 20	10	14, 35	10	22, 17	10	23, 25	American.	Luckenbach Line.	401.8	52.0	23.0	Houston, Texas	Tacoma, Wash.	General.	5, 617	6, 002	4, 621
Western Sun 2	10	14, 45	10	15, 25	10	22, 47	11	4, 14	American.	Sun Oil Co.	489.6	60.0	24.0	Chesler, Pa.	Los Angeles, Calif.	Ballast.	9, 607	6, 551	
Pennsylvania.	11	5, 55	11	6, 50	11	14, 50	12	0, 55	American.	Panama-Pacific Line.	586.4	80.3	26.0	New York, N. Y.	San Francisco, Cal.	General.	2, 549	25, 262	18, 194
President																			
Polk.	11	6, 25	11	7, 45	11	15, 11	11	21, 25	American.	Dollar Line.	592.4	62.6	22.0	New York, N. Y.	San Francisco, Cal.	Gen., machinery.	3, 200	12, 660	9, 254
Guayaquil.	10	21, 55	12	13, 11	12	13, 54	12	15, 30	American.	Panama R. R. S. S. Line	251.0	43.0	17.6	New York, N. Y.	Guayaquil, Ecuador	General.	470	2, 874	1, 944
K. R.	12	5, 45	12	7, 25	12	14, 59	12	16, 10	American.	Standard Oil Co.	440.0	58.2	22.0	Paulsboro, N. J.	San Francisco, Cal.	Ballast.	9, 033	5, 938	
Chag. R.																			
McCormick.	12	7, 25	12	7, 45	12	15, 36	12	16, 40	American.	Munson, McCor'k Line.	401.0	53.2	20.0	Baltimore, Md.	Seattle, Wash.	General.	4, 000	7, 082	5, 167
McClarence 2	12	1, 55	12	8, 35	12	16, 15	12	17, 15	British.	Caucasian Oil Co.	410.0	53.0	20.0	Preston, Cuba.	Los Angeles, Calif.	Ballast.	5, 987	4, 072	
Ohioan.	12	8, 00	12	8, 40	12	16, 36	12	17, 50	American.	Amer-Hawaiian Line.	407.7	53.7	20.6	Boston, Mass.	Portland, Oreg.	General.	2, 342	7, 103	4, 991
Cal.	8	18, 15	12	9, 00	12	16, 57	12	18, 20	German.	North German Lloyd	216.6	32.0	13.2	Cristobal, C. Z.	Guayaquil, Ecuador	General.	190	1, 105	698
San Pedro	12	6, 50	12	9, 55	12	17, 41	12	18, 45	American.	Pacific-Atlantic S. S. Co.	395.0	55.0	22.6	Wilmington, Del.	Seattle, Wash.	General.	5, 539	7, 330	5, 233
Athelduke 2	12	11, 10	12	11, 20	12	18, 19	12	23, 14	British.	Asiatic Petroleum Co.	475.0	63.0	18.0	Birkenhead, Eng.	Los Angeles, Calif.	Ballast.	9, 589	6, 416	
W. S. Rheem 2	12	12, 55	12	13, 05	12	19, 10	12	20, 17	American.	Standard Oil Co.	500.0	68.3	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast.	11, 224	7, 895	
West Camargo.	12	7, 15	12	13, 40	12	20, 45	12	22, 00	American.	McCormick S. S. Co.	410.0	54.0	20.10	Rosario, Argentine.	Seattle, Wash.	General.	5, 047	6, 624	5, 040
Poljana.	12	17, 00	12	20, 15	13	11, 17	13	12, 30	Norwegian.	Knut Knutsen	360.7	52.2	24.6	Antwerp, Belgium.	Corral, Chile.	General.	6, 100	5, 451	3, 820

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Virginia 2	5	13, 25	6	6, 30	6	13, 55	6	13, 55	American.	The Texas Co.	416.8	56.1	26.0	Los Angeles, Calif.	New York, N. Y.	Natural, gasoline	8, 018	6, 784	4, 913
Levant Arrow 2	5	16, 00	6	7, 00	6	14, 30	6	14, 30	American.	Standard Transp. Co.	468.3	63.7	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	11, 200	9, 841	6, 946
Hadiotis	5	14, 00	6	6, 40	6	16, 00	6	21, 15	Greek.	Rith'mia & Kulkundis.	396.6	52.4	24.0	Portland, Oreg.	Norfolk, Va.	Wheat	1, 093	5, 819	4, 099
Buenaventura.	6	6, 15	6	7, 41	6	16, 55	6	23, 15	American.	Panama R. R. S. S. Line	251.0	43.0	18.0	Guayaquil, Ecuador	New York, N. Y.	General.	1, 474	2, 873	1, 776
Kelkku Maru.	6	9, 50	6	10, 28	6	17, 40	6	20, 40	Japanese.	Kokusa Kisen Kaisha	355.0	51.0	27.3	Itoilo, P. I.	Atlantic ports.	Sugar, hemp.	7, 813	6, 213	4, 670
Caucaser.	6	13, 00	6	13, 35	6	20, 25	6	21, 45	Belgian.	Compagnie Maritime.	450.0	58.0	24.0	Los Angeles, Calif.	St. Thomas, V. I.	General.	7, 971	6, 625	4, 841
Sea Thrush.	6	13, 30	6	13, 43	6	20, 55	6	20, 55	American.	Shepard S. S. Co.	410.0	54.2	25.0	Portland, Oreg.	Philadelphia, Pa.	Lumber, general.	7, 600	6, 625	4, 841
Canadian																			
Planter.	6	16, 00	6	17, 34	7	14, 30	7	14, 30	British.	Can. Nat. Steamships.	400.3	52.4	24.0	Vancouver, B. C.	Montreal, Canada.	Lumber, general.	6, 221	5, 858	4, 108
Targis.	6	16, 45	6	18, 05	7	12, 00	7	15, 50	German.	Reland Line	428.6	55.1	24.3	Talcahuano, Chile	Hamburg, Germany	General.	6, 996	7, 533	5, 413
Thomas H.																			
Wheeler 2	6	20, 40	7	6, 02	7	14, 05	7	14, 05	American.	Standard Shipping Co.	425.0	57.2	26.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline.	9, 326	7, 481	5, 004
Markland 2	6	20, 50	7	6, 37	7	15, 10	7	15, 10	Norwegian.	Standard Shipping Co.	408.3	55.3	26.0	Los Angeles, Calif.	Avonmouth, Eng.	Gasoline.	8, 548	6, 474	4, 321
Ville de																			
Verdun.	6	21, 00	7	7, 08	7	16, 45	8	00, 40	French.	French Line.	409.3	53.5	22.5	Noumea, N. Calif.	Dunkirk, France.	General.	3, 707	7, 603	5, 629
Robert E.																			
Hopkins 2	7	5, 32	7	7, 52	7	16, 50	7	18, 30	American.	Tidewater Oil Co.	424.4	58.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	9, 226	7, 333	5, 182

Motor ship.

2 Tanker.

2 Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Benedict	6	17	45	7	18	00	British	Can.-Amer. Ship. Co.	410	54	24	Portland, Oreg.	Rotterdam, Holl'd.	Gas oil.	7,750	6,221	4,227
Olivia	6	19	45	7	18	55	British	Davies & Newman.	430	57	26	Los Angeles, Calif.	Devonport, Eng.	Gas oil.	9,271	7,348	5,182
Tiger	7	6	00	7	19	15	American	Standard Transp. Co.	410	59	27	Corinto, N. Y.	New York, N. Y.	Gas oil.	8,650	8,201	6,207
Danvers	6	17	50	7	20	20	American	U. S. Navy.	292	44	0	Corinto, Nicaragua	Cristobal, C. Z.	Cruiser.			
Pinn	6	20	55	7	19	50	Swedish	Islandsen Moller Co.	271	41	3	Iloilo, P. I.	New Orleans, La.	Sugar.	2,400	2,472	1,513
Pennyworth	7	6	20	7	21	15	British	R. S. Delisleh.	410	53	5	Vancouver, B. C.	Irishwich, England.	Lumber, wheat.	7,100	6,179	4,377
Yrmore	7	9	05	7	21	25	American	Ore S. S. Corp.	449	57	29	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	11,600	7,847	5,185
Santa Elisa	7	20	10	8	6	31	American	Grace Line	360	51	7	San Antonio, Chile	New York, N. Y.	General.	2,981	5,957	4,325
San Teodoro	7	19	10	8	6	57	British	Anglo-Mexican Pot. Co.	360	51	7	San Antonio, Chile	New York, N. Y.	General.	7,146	6,006	4,077
Tynesfield	8	4	30	8	15	25	British	Hunting & Sons, Ltd.	395	54	25	Los Angeles, Calif.	Lizards, Eng.	Gasoline.	7,983	6,056	4,159
San Francisco	8	4	30	8	15	25	British	Hamburg-American Line	432	59	1	Los Angeles, Calif.	Elizemere Pt., Eng.	Gasoline.	6,183	8,454	6,344
Acapulco	7	23	58	8	2	01	German	Pacific Steam Nav. Co.	215	33	15	Vancouver, B. C.	Cristobal, C. Z.	General.	544	1,273	706
Cal	8	5	30	8	18	15	German	Roland Line	216	32	9	Guayaquil, Ecuador	Cristobal, C. Z.	General.	617	1,105	698
F. J.	8	2	10	8	18	45	American	Lukenbach Line	446	46	1	Portland, Oreg.	Boston, Mass.	General, lumber.	5,511	8,508	6,179
Pennyworth	8	10	20	8	19	15	American	Amer.-Hawaiian Line	407	53	7	Portland, Oreg.	Boston, Mass.	General.	5,163	7,107	5,041
Aconcagua	8	21	15	9	12	50	Chilean	Chilean Line	422	56	2	Valparaiso, Chile	New York, N. Y.	General.	4,227	7,764	4,705
Sun	8	17	50	9	15	35	American	Sun Oil Co.	480	66	0	Los Angeles, Calif.	Chester, Pa.	Gasoline.	13,596	9,620	6,476
America	9	6	00	9	18	05	Danish	East Asiatic Co.	484	62	0	Vancouver, B. C.	Copenhagen, Den.	General.	9,368	11,060	8,076
Stjerneborg	8	20	00	9	14	30	Danish	C. K. Hansen.	380	53	9	Vancouver, B. C.	Preston, Eng.	General.	6,372	6,219	4,691
Constance	8	23	00	9	17	20	American	Arrow Line	409	54	2	Grays Har., Wash.	Portland, Me.	Lumber, piling.	6,660	6,621	4,891
Lochkatrine	9	1	10	9	17	10	British	Royal Mail S. P. Co.	485	62	3	Victoria, B. C.	Rotterdam, Holl'd.	General.	9,384	10,802	7,995
Bennob	9	5	15	9	17	55	British	Wm. Thomson & Co.	429	53	9	Vancouver, B. C.	London, England.	Wheat, lumber.	8,400	6,526	4,227
Nesa Queen	9	12	35	9	19	40	American	N. O. & A. S. S. Co.	324	46	2	San Antonio, Chile	New Orleans, La.	Beans, nitrates	1,795	3,981	2,690
Wellington	9	13	45	9	21	10	British	United British S. S. Co.	405	55	5	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	8,500		
Court	9	15	45	9	21	10	British	Seas S. S. Co., Ltd.	365	51	6	Portland, Oreg.	Hampton Rds.	Wheat.	7,150	5,401	3,842
Portsea	9	20	00	9	17	15	British	Anglo-Saxon Pot. Co.	412	53	3	Los Angeles, Calif.	Cruceado, D. W. I.	Gasoline.	7,504	6,239	4,312
Pabunia	9	16	20	10	14	35	American	Ford Motor Co.	250	45	8	Seattle, Wash.	Chester, Pa.	Lumber, Ford pis.	2,653	2,676	1,797
Lake Pembow	10	7	10	10	16	05	German	Hamburg-American Line	227	34	4	Guayaquil, Ecuador	Cristobal, C. Z.	Sugar.	3,633	1,632	1,041
Durazzo	10	7	10	10	16	05	Swedish	Amer.-Cuban Line	251	43	0	Alunkur, T. H.	New York, N. Y.	Wheat, general.	3,328	3,823	1,730
Santa Eulalia	10	23	30	10	18	36	Swedish	Johnson Line	426	56	2	Vancouver, B. C.	Stockholm, Swed.	Wheat, general.	7,550	7,476	5,485
Canada	10	2	50	10	15	48	British	N. Z. Shipping Co.	531	70	2	Wellington, N. Z.	London, England.	Frozen, general.	9,118	206	13,500
Rangitika	10	3	00	10	16	00	American	Ore S. S. Corp.	550	72	3	Cruz Grande, Chile	Baltimore, Md.	Iron ore.	21,457	15,476	7,354
Bethore	11	2	30	11	16	00	American	Standard Transp. Co.	468	62	7	Los Angeles, Calif.	Boston, Mass.	Gasoline.	11,268	9,744	7,140
Dixie Arrow	10	17	50	11	15	25	American	States S. S. Co.	468	58	8	Seattle, Wash.	New York, N. Y.	Lumber, general.	9,195	8,469	6,162
San Julian	10	23	45	11	17	55	American	Redwood Line, Inc.	386	52	2	Seattle, Wash.	New Orleans, La.	Lumber, general.	3,904	5,708	4,131
Dio	11	2	30	11	16	50	American	F. & W. Risdon.	370	51	7	Corral, Chile	Liverpool, England	General.	4,668	5,112	3,511
Apple Branch	11	3	00	11	17	05	British										

14 Coffee, cocoa, and hides.

15 Grain, lumber, and coffee.

16 Lumber, wheat, and zinc.

17 For orders.

18 Motor ship.

19 Tanker.

Columbian.....	11	6.05	11	8.44	11	18.15	11	18.15	American.....	Amor-Hawaiian Line.....	404.6	54.0	24.5	Seattle, Wash.	Boston, Mass.....	General.....	4,877	6,760	4,450
Forbes Hauptman.....	11	14.45	11	15.42	11	22.30	11	22.30	American.....	Munson, McCor'k Line.....	409.8	54.2	26.0	Portland, Ore.	Portland, Me.....	Lumber, general.....	8,500	6,831	4,969
Point Fernin.....	11	15.00	11	16.06	12	8.46	12	8.45	American.....	Swayne & Hoyt.....	324.0	46.2	21.0	Seattle, Wash.	New Orleans, La.....	General.....	3,479	3,984	2,617
Illinois.....	11	19.50	12	6.16	12	13.45	12	13.45	American.....	The Texas Co.....	416.8	56.1	25.0	Los Angeles, Calif	Pt. Arthur, Tex.....	Gasoline.....	7,614	6,945	5,032
Pacific Sun.....	11	16.45	12	6.44	12	18.00	12	17.30	American.....	Sun Oil Co.....	480.6	62.0	28.2	Long Beach, Calif	New York, N. Y.....	Ethyl gasoline.....	13,260	9,609	6,551
Castor.....	11	23.50	12	7.44	12	17.30	12	15.10	Swedish.....	F. Malinos.....	482.1	66.0	28.0	Curacao, D. W. I.....	Curacao, D. W. I.....	Gasoline.....	12,132	8,900	6,295
Huntingdon.....	11	14.50	12	7.53	12	15.10	12	16.10	British.....	Federal Steam Nav. Co.....	520.4	64.2	25.0	Lyttleton, N. Z.....	London, England.....	Frozen, general.....	6,681	12,945	9,378
Oroya.....	12	6.20	12	8.32	12	16.45	13	1.25	British.....	Pacific Steam Nav. Co.....	520.4	64.2	25.0	Talchhuano, Chile	Liverpool, England.....	General.....	4,431	13,137	9,067
Betterton.....	12	10.00	12	10.50	12	16.40	12	18.40	American.....	Associated Oil Co.....	431.0	59.2	24.0	Los Angeles, Calif	Baltimore, Md.....	Clear gasoline.....	9,244	7,863	5,104
Robin Adair.....	12	10.30	12	11.05	12	19.05	12	19.05	American.....	Seas Shipping Co., Inc.....	424.8	55.2	22.0	Tacoma, Wash.	Baltimore, Md.....	Lumber, pulp, gen.....	7,770	7,470	5,523
Kofuku Maru.....	12	10.30	12	11.25	12	19.45	12	20.55	Japanese.....	Kokusai Kaisha, Inc.....	385.0	51.0	27.0	Hilo, P. I.....	U. S. Atlantic ports.....	(15)	8,960	6,209	4,763
Budhans.....	12	10.40	12	11.37	12	20.10	12	20.20	British.....	Reardon Smith Line.....	401.6	54.3	24.0	N. Westminster, B. C.	Liverpool, England.....	General.....	7,350	6,056	4,954
Caldas.....	12	2.40	12	14.23	12	22.10	14	22.10	Colombian.....	National Navigation Co.....	116.0	21.1	9.6	Buenaventura, Col.	Cristobal, C. Z.....	General.....	123	211	124

1 Tanker.

15 Centrifugal sugar.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 6.....	Ulua.....	United Fruit Co.....	Port Limon, C. R.....	July 8.....	No. 9664 ¹⁶	Pan American Airways.....	San Salvador & wayports.
July 6.....	No. 300-M ¹⁶	Pan American Airways.....	Guayaquil and wayports.	July 6.....	Cristobal.....	Panama R. R. S. S. Line.....	New York via Haiti.
July 6.....	Davision.....	Leyland S. S. Line.....	Cienfuegos, Cuba.....	July 6.....	Ulua.....	United Fruit Co.....	New York via Habana.
July 7.....	Calamares.....	United Fruit Co.....	New York via Habana.	July 6.....	Hereda.....	United Fruit Co.....	New Orleans and waypts.
July 7.....	Flandre.....	French Line.....	Havre via wayports.	July 7.....	No. 142-M ¹⁶	Pan American Airways.....	Miami via wayports.
July 7.....	Cundinamarca C-33 ¹⁶	Scadta Airplane Co.....	Barraquilla via waypts.	July 7.....	Davision.....	Leyland S. S. Line.....	Liverpool via wayports.
July 8.....	No. 9670 ¹⁶	Pan American Airways.....	San Salvador via waypts.	July 9.....	No. 9088 ¹⁶	Pan American Airways.....	San Salvador & wayports.
July 8.....	No. 945-M ¹⁶	Pan American Airways.....	Talara via wayports.	July 9.....	Calamares.....	Pan American Airways.....	Miami via wayports.
July 8.....	Swiftwind.....	Shell, Eastern Oil Co.....	Curacao, D. W. I.....	July 9.....	Orinoco.....	United Fruit Co.....	Port Limon, C. R.
July 9.....	Orinoco.....	Hamburg-American Line.....	Hamburg via wayports.	July 9.....	Margaret Lykes.....	Hamburg-American Line.....	Galveston.
July 9.....	Castilla.....	United Fruit Co.....	Cartagena, Colombia.....	July 10.....	No. 144-M ¹⁶	Pan American Airways.....	Pto. Cabello & wayports.
July 9.....	Margaret Lykes.....	Lykes S. S. Co.....	Galveston.....	July 10.....	Castilla.....	United Fruit Co.....	Puerto Colombia.
July 9.....	No. 9664 ¹⁶	Pan American Airways.....	Miami via wayports.	July 10.....	Flandre.....	French Line.....	Havre via wayports.
July 9.....	No. 9776 ¹⁶	Pan American Airways.....	New York via wayports.	July 11.....	No. 9070 ¹⁶	Pan American Airways.....	San Salvador & wayports.
July 10.....	Baraca.....	Colombian S. S. Line.....	New York via wayports.	July 11.....	Baraca.....	Colombian S. S. Line.....	New York via wayports.
July 10.....	Zacapa.....	United Fruit Co.....	New Orleans & wayports.	July 11.....	Cundinamarca C-33 ¹⁶	Scadta Airplane Co.....	Barraquilla and waypts.
July 11.....	Anapala.....	Standard Fruit & S. S. Co.....	New Orleans & wayports.	July 11.....	Zacapa.....	United Fruit Co.....	New York via wayports.
July 12.....	Orinoco.....	Pan American Airways.....	Port Limon, C. R.....	July 12.....	Iriona.....	United Fruit Co.....	New Orleans & wayports.
July 12.....	No. 144-M ¹⁶	Pan American Airways.....	Puerto Cabello & waypts.	July 12.....	Amapala.....	Standard Fruit & S. S. Co.....	New Orleans & wayports.
July 12.....	Coritago.....	United Fruit Co.....	New Orleans & Habana.				
July 12.....	T. & J. Harrison.....	United Fruit Co.....	Liverpool via wayports.				
July 12.....	Thetfield.....	Pan American Airways.....	Miami via wayports.				
July 12.....	No. 142-M ¹⁶	Pan American Airways.....	San Salvador via waypts.				
July 12.....	No. 9685 ¹⁶	Pan American Airways.....	San Salvador via waypts.				

16 Air mail carrier.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 11.....	San Mateo.....	United Fruit Co.....	San Francisco, Calif.....	July 12.....	San Mateo.....	United Fruit Co.....	San Francisco, Calif.
July 11.....	Montebello.....	Union Oil Co. of California.....	Long Beach, Calif.....	July 12.....	Montebello.....	Union Oil Co. of California.....	Corinto, Nicaragua.

* Other than ships passing through the Canal.

(Continued on page 728, column 2.)

Tanker Traffic Through the Panama Canal During Fiscal Year 1930.

During the fiscal year ended June 30, 1930, 1,218 tank ships transited the Canal, carrying 6,071,378 tons of cargo, principally mineral oil products. These vessels had a total net tonnage, Panama Canal measurement, of 6,564,138 tons, and paid \$5,768,963.28 in tolls.

Tank ships comprised 19.7 per cent of the total commercial transits; made up of 21.9 per cent of the total Panama Canal net tonnage; paid 21.3 per cent of the total tolls collected; and carried 20.2 per cent of the total cargo in transit through the Canal.

Tanker traffic through the Canal in 1930 was higher than in 1929, both relatively and in actual traffic; there were 1,083 transits in 1929, totaling 5,844,263 net tons, paying \$5,145,632.19 in tolls, and carrying 5,512,481 tons of cargo.

Expressed in terms of percentage, the following tabulation shows the volume of tanker traffic through the Canal in the past five years:

	Per cent of total traffic.			
	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Fiscal year 1930.....	19.7	21.9	21.3	20.2
Fiscal year 1929.....	16.8	19.6	18.9	17.9
Fiscal year 1928.....	17.3	21.2	20.1	19.7
Fiscal year 1927.....	24.2	23.1	27.4	26.1
Fiscal year 1926.....	20.9	25.6	24.5	23.3

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the fiscal year 1930, segregated by direction of transit and nationality of vessels, are shown in the following tabulation, with comparative totals for the preceding four fiscal years:

	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Argentine.....	1	3,816	\$2,747.52	.....
Belgian.....	10	51,496	52,295.62	63,288
British.....	242	1,210,004	1,095,379.32	1,231,529
Chilean.....	2	4,176	3,006.72	.....
Danish.....	10	58,110	52,957.62	67,453
Danzig.....	34	209,328	186,955.04	192,734
Dutch.....	7	31,335	28,593.10	30,379
French.....	26	132,052	117,242.90	102,846
German.....	12	49,288	45,256.89	54,209
Japanese.....	1	1,658	1,193.76	.....
Norwegian.....	99	500,844	437,498.16	425,303
Swedish.....	16	77,068	69,748.03	69,701
United States.....	758	4,234,963	3,676,088.60	3,833,936
Total, fiscal year 1930.....	1,218	6,564,138	5,768,963.28	6,071,378
Total, fiscal year 1929.....	1,083	5,844,263	5,145,632.19	5,512,481
Total, fiscal year 1928.....	1,121	6,243,969	5,436,437.16	5,829,722
Total, fiscal year 1927.....	1,324	7,624,112	6,658,806.90	7,250,579
Total, fiscal year 1926.....	1,090	6,343,240	5,626,167.93	6,073,779

The number of tank ships passing through the Canal each month during the fiscal year ended June 30, 1930, the tons of cargo carried, and the percentage which the tanker traffic formed of transits, net tonnage, tolls, and cargo, are summarized in the following table:

Tanker traffic.			Percentages which tanker traffic formed of—			
Month.	Transits.	Tons of cargo.	Transits.	Panama Canal net tonnage.	Tolls collected.	Cargo.
1929.						
July.....	111	482,427	21.0	23.7	22.4	18.6
August.....	109	601,263	20.1	22.7	22.5	22.4
September.....	101	476,653	19.3	23.5	21.7	19.6
October.....	117	635,258	25.2	23.6	23.5	22.3
November.....	102	510,352	19.4	22.6	22.0	20.1
December.....	100	515,658	19.2	21.2	20.4	20.4
1930.						
January.....	112	595,279	21.1	22.5	22.3	22.8
February.....	93	422,973	18.9	20.3	19.7	17.8
March.....	87	430,154	16.9	17.7	17.4	16.8
April.....	85	484,326	17.4	19.3	19.1	19.7
May.....	92	456,102	19.2	21.0	20.6	20.2
June.....	109	460,933	22.8	25.1	24.2	21.5
Total.....	1,218	6,071,378	19.7	21.9	21.3	20.2

Transits per month of tankers ranged from a minimum of 85 (April, 1930) to a maximum of 117 (October, 1929). Cargo carried in tankers varied from 422,973 tons (February, 1930) to 635,258 tons (October, 1929). The average per month for the year were 101.5 transits, 505,948 tons of cargo.

Of the 6,071,378 tons of tanker cargo passing through the Canal, 283,243 tons were from the Atlantic to the Pacific, and 5,788,135 tons from the Pacific to the Atlantic. The 283,243 tons from the Atlantic included 9,200 tons of coal tar products from the east to the west coast of the United States, 67,698 tons of creosote and creosote oil from Europe to the west coast of the United States, and 206,345 tons of mineral oils from the West Indies, the east coast of South America, and Gulf of Mexico ports; destined to the west coast of the United States, Canada, and South America, and to Australasia and the Far East. The 5,788,135 tons from the Pacific included 72,430 tons of coconut oil from the Philippine Islands, and 14,250 tons of molasses from the Hawaiian Islands, to the east coast of the United States, and 30,238 tons of whale oil, of which 10,238 tons went to the United States and the balance to Europe. Mineral oils from the Pacific aggregated 5,671,717 tons. Approximately 85 per cent of this originated in California, and 15 per cent in Peru and Ecuador. The cargo was destined as follows: 64 per cent to the east coast of the United States, 27 per cent to Europe, 6 per cent to the east coast of Canada, and the balance to the West Indies and the east coast of South America.

Of the total mineral oil tonnage carried in tankers through the Canal during the fiscal year 1930, approximately 68 per cent was gasoline, benzine, or naphtha; 14 per cent crude oil; 10 per cent gas and fuel oils; and the remainder lubricating oils and kerosene.

Cargo Through the Canal During June, 1930.

On pages 720 and 721 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in June, 1930. This cargo, segregated according to direction, as compared with June, 1929, and the differences, is shown in the following tabulation:

	June, 1929.	June, 1930.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Atlantic to Pacific.....	899,386	699,652	-199,734
Pacific to Atlantic.....	1,524,616	1,447,529	-77,087
Total.....	2,424,002	2,147,181	-276,821

It will be noted from the above that the Atlantic to Pacific tonnage decreased 199,734 tons, or 22.2 per cent, as compared with June, 1929, and that from the Pacific to Atlantic 77,087 tons, or 5.1 per cent, making a total decrease of cargo tonnage in both directions of 276,821 tons, or 11.4 per cent. The heavy decrease was accounted for by curtailment in shipments of several important commodities as indicated under "Principal commodities," most notably, manufactured iron and steel, mineral oils, and cement from the Atlantic, and nitrates, lumber, and mineral oils from the Pacific.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five and four-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboard of the United States, and 25.3 per cent in Europe. Tonnage from the United States decreased 114,765 tons, or 20.1 per cent, as compared with June, 1929, but the proportion to the total in June, 1930, was higher. The amount originating in Europe decreased 53,029 tons, or 23.1 per cent, and the percentage of the whole was slightly lower in June of this year.

Destination.—Forty-three and five-tenths per cent of the Pacific-bound tonnage was destined to the United States; 14.3 per cent to South America; 18.4 per cent to Asia; 14.3 per cent to Australasia. Cargo tonnage to all these areas declined as compared with June, 1929, in actual tonnage as follows: To the United States, 60,729, or 16.6 per cent; to South America, 61,414, or 38.0 per cent; to Australasia, 34,664, or 25.7 per cent, and to Asia 33,629 tons, or 20.8 per cent. In point of the relation of cargo destined to the aforementioned areas to the total tonnage in this direction, that to the United States and Asia increased, while that to South America and Australasia showed a loss.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 52.2 per cent came from the United States; 23.9 per cent from South America; 12.3 per cent from Canada; 4.7 per cent from Asia; and 5.5 per cent from Australasia. As compared with the corresponding month a year ago, tonnage from the United States decreased 50,391 tons, or 6.3 per cent, and the percentage of the total was slightly lower in June, 1930. Cargo tonnage from South America decreased 66,075 tons, or 16.0 per cent, and also showed a reduced percentage in its relations to the total cargo. Tonnage from Canada increased 42,576 tons, or 31.6 per cent, with an increase in the percentage of the total. Asia showed a cargo decrease of 28,762 tons, or 29.8 per cent, while Australasia showed an increase of 20,353 tons, or 34.6 per cent. Asia showed a decrease in its percentage to the total cargo and Australasia an increase. The decrease in cargo tonnage from South America was due to lessened nitrate shipments, and that from Asia to a reduced amount of sugar from the Philippine Islands. The gain from Canada was due to wheat shipments, and that from Australasia to shipments of iron ore from Australia to the east coast of the United States.

Destination.—Segregated according to destination, 61.0 per cent of the cargo in this direction went to the United States, and 30.9 per cent to Europe. Tonnage to the United States decreased in its proportion to the total tonnage, and also decreased in actual tonnage 88,343 tons, or 9.1 per cent. That to Europe showed an increase in its relation to the total cargo as well as an actual increase of 15,472 tons, or 3.6 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 87.1 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12.9 per cent consists, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific bound commodities which aggregated more than 10,000 tons for June, 1929, or June, 1930, are listed in the following tabulation, showing differences:

Commodity.	June, 1929.	June, 1930.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Automobiles.....	22,751	12,533	-10,218
Cement.....	50,649	24,487	-26,162
Coal and coke.....	16,745	23,892	+7,147
Cotton.....	13,504	8,885	-4,619
Manufactured goods:			
Iron and steel.....	200,102	146,205	-53,897
Machinery.....	17,682	13,807	-3,875
Railroad material.....	10,093	15,016	+4,923
Textiles.....	12,701	8,471	-4,227
Tinplate.....	23,100	28,599	+5,499
Miscellaneous.....	14,368	13,400	-968
Metal, scrap (principally iron).....	4,430	12,481	+8,051
Oils, mineral.....	92,467	57,318	-35,149
Paper.....	29,086	16,525	-12,561
Phosphates.....	41,402	35,866	-5,536
Slag.....	11,894	1,094	-10,800
Sugar.....	17,925	15,728	-2,197
Sulphur.....	28,743	18,058	-10,685

The above 17 commodity groups comprise 64.7 per cent of the cargo moving from the Atlantic to the Pacific during June, 1930. As will be noted, 4 of the items increased and 13 decreased as compared with June, 1929. Manufactured iron and steel, cement, and paper showed heavy decreases, while the gains were in scrap metal, tinplate, railroad material, and coal and coke.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify 98.8 per cent of all cargo moving from the Pacific to Atlantic during the month of June, 1930. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month in 1929, are listed below:

Commodity.	June, 1929.	June, 1930.	Difference.
	<i>Long tons.</i>	<i>Long tons.</i>	<i>Long tons.</i>
Barley.....	11,321	21,742	+10,421
Canned goods (fish, fruit, vegetables, etc.).....	36,844	33,328	-3,516
Coffee.....	10,309	12,166	+1,857
Cold storage (food products) ¹	22,073	20,697	-1,376
Fruit, dried.....	11,062	12,783	+1,721
Fruit, fresh.....	13,058	10,217	-2,841
Lumber.....	283,568	250,235	-33,333
Metals, various.....	47,603	50,993	+3,390
Nitrates.....	109,146	44,847	-64,299
Oils, mineral.....	466,328	425,710	-40,618
Ores (principally iron).....	177,326	208,440	+31,114
Sugar.....	101,606	77,752	-23,854
Wheat.....	79,934	114,888	+34,954
Wool.....	9,593	13,708	+4,115

¹ Fresh fruit not included.

The above 14 commodity groups comprise 89.6 per cent of the cargo moving from the Pacific to the Atlantic during June, 1930. Seven of the items show increases, and 7 decreases. Iron ores, barley, and wheat showed the greatest increases, while lumber, nitrates, sugar, and mineral oils decreased heavily.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, June, 1930.

(Figures represent tons of 2,240 pounds.)

From—	NORTH AMERICA.						SOUTH AMERICA.						AUSTRALASIA.				ASIA.				Grand total.	Per cent of total cargo.	
	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z. 2	Hawaiian Islands.	Total, North America.	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. 1	Total, South America.	Australia.	New Zealand.	Australasia. 1	Total, Australasia.	Philippine Islands.	China.	Japan.	Far East. 1			Total, Asia.
NORTH AMERICA:																							
UNITED STATES—																							
North Atlantic ports.....	180,886	2,554	635	6513,445	197,585	14,976	297	412	4,050	5,000	24,735	12,809	10,313			23,122	7,180	20,381	25,745	18,791	72,097	317,539	45.4
South Atlantic ports.....	53,356	5				5,361											300	190	11,338	933	12,521	17,882	2.6
Gulf ports.....	39,806	9,025	1,280			70,111	976	1	171	311	307	1,706				7,900	751	5,001	31,937	4,725	42,414	122,191	17.4
Total, United States.....	246,048	11,584	635	1,345	13,445	273,057	15,932	298	583	4,361	5,307	26,501	12,809	10,313	7,900	31,022	8,021	25,572	88,990	24,449	127,082	457,612	65.4
East coast of Canada.....		1,623				1,623							3,105	4,575		7,680						9,303	1.3
East coast of Central America.....			1,672	89		5,500	534				534											2,295	0.3
Cristobal, C. Z. 2	3,233	102,257				7,611	756*	887	772	860	1,204	4,479			101	101						10,080	1.4
West Indies.....	119	7,492					11		4,476			4,487		19,844		19,844		1				31,943	4.6
Total, North America.....	249,400	20,709	4,564	1,434	13,445	289,552	17,233	1,185	5,831	5,221	6,511	36,001	15,914	34,732	8,001	58,647	8,021	25,573	88,990	24,449	127,083	511,233	73.0
EUROPE:																							
British Isles.....	21,815	6,709				28,524	25,992	66	308	2,382		28,748		33,435	3,880	37,315						94,587	13.5
Belgium.....	6,248	3,282	205	10	1,412	11,157	4,894		53	241	1,608	6,706										17,863	2.6
Denmark.....	33					33																33	
France.....	415	549	3	52	4,658	967	1,505		123	63	1,696				923	923						3,586	0.5
Germany.....	4,672	729				10,111	3,168	492	329	802	2,407	7,193										17,309	2.5
Holland.....	2,174	680		33		2,887	455	53	304	302	216	1,330										4,217	0.6
Italy.....	588	40	43			671	255				934	1,169										1,840	0.2
Norway and Sweden.....	2,797	37	19	922		3,775	1,554		58	92	2,189	3,893	2,201	1,000	3,201							10,869	1.6
Spain and Portugal.....	446	210	5			661	77		16	33	126											787	0.1
Europe 1.....	8,910	1,018	2,582			12,510	359		773	12,132	13,264											25,774	3.7
Total, Europe.....	48,065	13,287	2,857	1,017	6,070	71,290	38,149	611	1,052	4,731	19,587	64,130	2,201	34,435	4,803	41,439						176,865	25.3
East coast of South America.....	7,739	2,417				10,156		23				23					19	120	1,214	22	1,375	11,554	1.7
Grand total.....	305,204	36,413	7,421	2,451	19,515	371,004	55,402	1,819	6,883	9,952	26,098	100,154	18,115	69,167	12,804	100,086	8,040	25,693	70,204	24,471	128,408	699,652	100.0
Per cent of total cargo:																							
June, 1930.....	43.5	5.2	1.1	0.4	2.8	53.0	7.9	0.3	1.0	1.4	3.7	14.3	2.6	9.9	1.8	14.3	1.5	3.7	10.0	3.5	18.4	100.0	.....
June, 1929.....	40.7	3.0	2.1	1.4	1.8	49.0	9.0	0.6	0.6	1.4	6.4	18.0	5.5	8.3	1.2	15.0	2.1	4.3	8.9	2.7	18.0	100.0	.....
June, 1928.....	43.4	4.4	1.9	0.1	0.5	50.3	5.2	1.3	0.3	1.8	4.5	13.1	5.7	7.4	1.8	14.9	1.5	4.1	10.4	5.7	21.7	100.0	.....

* General cargo not routed so as to allow segregation between definite ports.

† Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, June, 1930.

(Figures represent tons of 2,240 pounds.)

From—	North America.										Europe.										Grand total.	Per cent of total cargo.					
	United States.					Central America.					Europe.																
	United States.					Central America.					Europe.																
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	East coast of Central America.	Cristobal, C. Z. ²	West Indies.	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Union of Soviet Republics.	Spain and Portugal.	Europe. ¹			Total, Europe.	East coast of South America.	Egypt.	Africa.	
NORTH AMERICA:																											
W. coast U. S.	487,874	12,096	26,130	526,100	9,435	1,192	1,819	22,338	560,884	93,534	2,530	1,021	9,509	27,800	17,334	960	15,124		62	22,706	190,640	3,596			755,120	52.2	
Chile	23,134																								177,521	12.3	
W. coast Can.	87																								6,280	0.4	
W. coast C. A.	15,139																								15,142	1.0	
Hawaiian Is.																											
Total, N. A.	526,234	12,096	26,149	564,479	27,450	1,225	6,598	23,835	623,587	156,474	11,070	1,471	9,904	34,808	25,474	960	15,833		62	69,486	325,602	4,874			954,063	65.9	
SOUTH AMERICA:																											
Chile	176,858	7,450	5,738	190,046			147	3,050	3,314	197,057	17,810	596	11	2,438	1,611	132	670	6,270	146	16,824	46,508		15,530		259,095	17.9	
Colombia	2,747		1,320	4,067				3,286	15	7,368															7,368	0.5	
Ecuador	15,290							3,492	2	18,784															19,137	1.3	
Peru	7,371							20	23,109	10,811	1,114			2,416	1,195	140				14,367	30,043				58,152	4.0	
W. coast S. A.	1,420							943	2,363	2	11									372	385				2,748	0.2	
Total, S. A.	203,686	7,450	7,058	218,194	20,718		147	10,791	3,831	253,681	28,698	1,724	23	4,889	2,875	313	10	670	6,270	146	31,593	77,211		78,155		346,500	23.9
AUSTRALASIA:																											
Australia	30,880																									32,557	2.2
New Zealand	2,714						117		3,273	28,705				15	891						1,050	30,661				33,934	2.3
Australasia																					331	12,721				12,721	0.9
Total, Aus. Asia	33,594						117		35,242	41,683				15	891						1,381	43,970				79,212	5.5
ASIA:																											
Philippine Is.	50,605		8,724	59,329					59,329																	59,329	4.1
China			30	30			138	21	189																	189	0.1
Japan	4,636						3	75	4,714																	4,714	0.3
Far East	1,848								1,848	1,674																3,522	0.2
Total, Asia	57,089		8,754	65,843			141	96	66,080	1,674																67,754	4.7
Grand total	820,693	19,546	41,961	882,110	49,699	1,372	17,647	27,762	978,590	228,529	12,794	1,494	14,853	37,698	26,678	970	16,503	6,270	208	102	460	448	457	4,952	15,530	1,447,529	100.0
Per cent of total cargo:																											
June, 1930	56.7	1.4	2.9	61.0	3.4	0.1	1.2	2.0	67.7	15.9	0.9	0.1	1.0	2.6	1.8		1.1	0.4		7.1	30.9	0.3	1.1			100.0	.....
June, 1929	58.9	1.3	3.5	63.7	3.5	0.1	0.9	2.4	70.6	16.1	1.3	0.1	1.7	2.1	0.8	1.0	0.9		0.5	4.8	28.4	1.0				100.0	.....
June, 1928	56.8	0.8	3.5	61.1	2.1	0.2	2.8	2.8	69.0	16.8	1.5	0.2	0.8	2.3	3.2	1.3	0.6		0.7	2.4	29.8	0.1	0.6	0.5		100.0	.....

¹ General cargo not routed so as to allow segregation between definite ports.

² Includes both local and transit cargo.

Commercial Traffic Through the Panama Canal in June, 1930, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of June, 1930, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for June, 1929 and 1928. The amount of cargo shown is the amount carried by vessels operating over the respective routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States.....	88	460,476	355,428	574,529	356,844	\$391,157.68	213,897
East coast of United States to west coast of South America:							
British.....	6	24,725	20,217	33,819	20,776	22,031.67	13,248
Chilean.....	1	4,705	3,466	7,310	3,976	4,332.50	1,920
Swedish.....	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States.....	16	72,703	59,373	101,891	59,318	57,693.99	13,522
Total.....	25	111,050	90,542	173,696	92,832	90,478.40	28,690
Europe to west coast of United States:							
British.....	8	35,018	28,714	47,441	28,902	25,974.73	4,067
French.....	3	14,318	12,370	19,713	11,420	10,308.96	.....
Norwegian.....	4	18,350	15,428	25,533	15,253	13,212.00	.....
Swedish.....	2	9,827	7,600	13,011	9,736	7,075.44	.....
United States.....	4	23,191	19,037	31,430	18,718	18,220.29	8,502
Total.....	21	100,704	83,149	137,128	84,029	74,791.42	12,569
Europe to west coast of South America:							
Argentine.....	1	3,816	3,370	5,518	3,146	2,747.52	.....
British.....	6	35,004	27,475	45,006	27,714	34,343.75	30,530
Chilean.....	2	7,597	5,469	10,018	6,417	5,620.93	780
Danzig.....	1	5,927	5,207	8,744	5,026	4,267.44	.....
Dutch.....	2	9,825	5,355	9,164	5,565	6,693.75	5,938
French.....	1	5,020	4,196	6,798	4,268	5,245.00	3,210
German.....	4	16,742	11,953	19,078	11,572	14,941.25	17,193
Italian.....	1	9,373	5,223	11,669	6,779	6,528.75	2,238
Norwegian.....	1	3,879	2,962	4,854	2,950	3,702.50	5,162
Total.....	19	97,183	71,210	120,849	73,437	84,090.89	65,051
Europe to west coast of Canada:							
British.....	6	31,731	20,411	33,918	20,691	25,513.75	6,559
Danish.....	2	10,966	9,411	13,550	9,441	11,763.75	12,866
Dutch.....	2	14,332	11,060	17,875	11,184	13,825.00	6,121
French.....	1	7,466	4,438	7,759	4,677	5,547.50	2,884
German.....	3	20,645	13,521	22,982	13,935	16,901.25	11,563
Italian.....	1	6,497	4,905	8,124	5,123	6,131.25	1,398
Norwegian.....	2	11,491	9,186	14,584	9,217	11,482.50	8,010
Swedish.....	1	4,919	2,890	4,960	3,665	3,612.50	2,944
Total.....	18	108,047	75,822	123,752	77,938	94,777.50	52,345
East coast of United States to Far East:							
British.....	2	10,636	7,315	11,992	7,353	9,143.75	6,457
Japanese.....	6	30,788	26,390	39,633	25,971	32,584.40	40,304
Norwegian.....	2	8,903	4,983	8,612	4,977	6,228.75	10,611
United States.....	3	16,809	12,675	20,316	12,658	15,843.75	23,377
Total.....	13	67,136	51,363	80,553	50,959	63,800.65	80,749
East coast of United States to Philippine Islands:							
British.....	4	22,299	15,501	26,087	15,674	19,376.25	18,885
Danish.....	2	7,706	4,822	7,963	4,903	6,027.50	9,010
Panamanian.....	1	6,967	3,963	6,604	4,057	4,953.75	4,135
United States.....	3	16,737	12,627	20,175	12,509	15,783.75	21,435
Total.....	10	53,709	36,913	60,829	37,143	46,141.25	53,465

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to Australasia:							
British.....	7	58,485	43,994	72,035	44,866	\$53,384.57	37,315
French.....	1	5,633	4,305	7,138	4,380	5,381.25	1,024
Swedish.....	1	6,098	3,302	5,819	4,061	4,127.50	3,201
Total.....	9	70,216	51,601	84,992	53,307	62,893.32	41,540
East coast of United States to west coast of Canada:							
British.....	2	6,325	4,445	7,376	4,436	4,513.71	3,000
Norwegian.....	2	9,873	7,402	12,246	7,192	7,478.39	6,485
United States.....	3	17,013	11,773	18,962	11,719	14,716.25	23,607
Total.....	7	33,211	23,620	38,584	23,347	26,708.35	33,092
East coast of United States to Australasia:							
British.....	5	26,349	18,543	29,702	18,638	23,178.75	26,311
United States.....	2	10,419	7,650	12,412	7,679	9,562.50	4,711
Total.....	7	36,768	26,193	42,114	26,317	32,741.25	31,022
Cristobal to west coast of South America:							
Dutch.....	1	742	294	780	323	367.50	99
German.....	6	4,930	3,497	6,421	3,590	4,371.25	2,055
Total.....	7	5,672	3,791	7,201	3,913	4,738.75	2,154
Foreign vessels in ballast— United States inter- coastal:							
British.....	2	15,274	11,604	21,184	12,518	10,713.45	7,598
Danzig.....	1	7,883	5,410	9,006	3,111	5,679.36	.....
Total.....	3	23,162	17,014	30,190	15,629	16,392.81	7,598
Cristobal to west coast of United States:							
British.....	1	4,927	4,225	6,996	4,111	3,547.44	.....
United States.....	2	4,402	4,181	6,907	4,102	4,119.75	164
Total.....	3	9,329	8,406	13,903	8,213	7,667.19	164
West Indies to west coast of Canada:							
British.....	3	8,002	5,210	12,689	6,715	9,187.50	7,000
Europe to west coast of Cen- tral America:							
German.....	2	5,967	4,717	6,426	3,701	5,766.25	3,049
Norwegian.....	1	2,080	1,305	2,166	1,298	1,631.25	1,672
Total.....	3	8,047	6,022	8,592	4,999	7,397.50	4,721
Around the world:							
United States.....	2	17,702	12,461	21,030	12,428	15,576.25	7,940
East coast of Canada to Australasia:							
British.....	2	8,529	6,567	10,773	6,573	8,208.75	7,680
East coast of Central America to Balboa:							
Panamanian.....	2	94	94	172	94	112.80	89
East coast of South America to west coast of Canada:							
Norwegian.....	1	5,308	2,894	4,873	2,984	3,617.50	5,148
United States.....	1	4,967	3,670	5,785	3,664	4,587.50	3,331
Total.....	2	10,275	6,564	10,658	6,648	8,205.00	8,479
East coast of South America to Far East:							
Japanese.....	2	13,175	10,128	16,722	10,289	12,660.00	3,983
Cristobal to west coast of Central America:							
British.....	2	1,441	1,286	2,298	1,304	1,620.00	1,563
West Indies to west coast of South America:							
British.....	1	3,326	2,872	4,800	2,949	3,590.00	4,476
Yugoslav.....	1	4,701	3,706	5,948	3,783	3,384.72	.....
Total.....	2	8,027	6,578	10,748	6,732	6,974.72	4,476

* Includes naval vessel of 5,350 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West Indies to Australasia:							
British.....	2	10,786	8,128	13,439	8,052	\$10,160.00	19,844
Canadian intercoastal:							
British.....	1	4,186	3,322	5,465	3,400	4,152.50	1,623
East coast of United States to Hawaii:							
United States.....	1	4,723	3,645	6,034	4,381	4,556.25	3,858
East coast of Canada to west coast of South America:							
British.....	1	5,278	4,678	8,932	5,144	3,800.16	.....
East coast of South America to west coast of United States:							
British.....	1	4,119	3,215	5,162	3,205	2,965.68	.....
West Indies to west coast of United States:							
British.....	1	4,840	4,571	7,006	4,255	3,484.80	.....
Europe to Hawaii:							
Swedish.....	1	5,661	3,406	5,642	4,320	4,257.50	6,060
Cristobal to Balboa:							
United States.....	1	55	67	98	67	66.00	.....
Grand total, June, 1930..	259	1,291,603	980,994	1,633,780	992,514	1,099,764.87	699,652
Grand total, June, 1929..	272	1,287,393	977,989	1,604,457	981,038	1,117,940.01	899,386
Grand total, June, 1928..	270	1,257,739	946,939	1,547,357	948,858	1,079,160.72	765,234

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States.....	71	391,395	300,050	484,561	300,244	\$374,952.25	535,960
West coast of South America to east coast of United States:							
British.....	6	21,400	17,333	29,343	17,893	21,666.25	24,642
Chilean.....	2	8,964	6,153	11,659	6,662	7,691.25	12,396
Swedish.....	3	13,931	10,824	36,067	12,810	13,530.00	53,446
United States.....	16	63,508	50,062	88,368	50,026	62,253.02	131,000
Total.....	27	107,803	84,372	165,437	87,391	105,140.52	221,484
West coast of Canada to Europe:							
British.....	10	53,151	35,332	57,289	35,443	44,165.00	78,815
Danish.....	1	5,317	4,219	6,645	4,244	5,273.75	8,611
Dutch.....	4	28,286	20,965	33,698	20,913	26,206.25	36,965
French.....	2	12,702	7,991	13,699	8,122	9,988.75	13,915
German.....	4	23,190	18,694	31,336	19,140	23,367.50	33,184
Italian.....	1	5,992	4,354	7,061	4,460	5,442.50	8,695
Norwegian.....	1	6,140	5,261	8,513	5,339	6,576.25	8,489
Swedish.....	1	4,860	2,781	4,960	3,665	3,476.25	5,506
United States.....	1	5,450	3,465	5,687	3,450	4,331.25	7,440
Total.....	25	150,088	103,062	168,798	104,776	128,827.50	201,620
West coast of United States to Europe:							
Belgian.....	1	4,976	4,568	7,138	3,988	5,710.00	9,127
British.....	9	43,609	33,995	55,897	33,827	42,493.75	75,309
Danish.....	1	5,695	4,728	7,691	4,713	5,910.00	10,769
Swedish.....	1	5,533	3,430	5,554	4,225	4,287.50	7,433
United States.....	1	7,913	6,067	9,836	6,007	7,583.75	13,605
Total.....	13	67,726	52,788	86,116	52,760	65,985.00	116,243
West coast of South America to Europe:							
British.....	6	39,214	30,499	51,234	31,616	38,123.75	35,683
Danzig.....	1	6,127	5,268	8,939	5,007	6,585.00	11,200
Dutch.....	2	9,757	5,420	9,227	5,611	6,775.00	5,443
Finnish.....	1	2,135	2,126	2,342	1,974	2,562.00	2,400
French.....	1	4,187	3,353	5,505	3,366	4,191.25	7,378
German.....	2	9,563	6,860	11,329	6,899	8,575.00	12,579
Norwegian.....	1	3,797	3,039	5,041	3,101	3,798.75	6,400
Swedish.....	1	3,967	3,072	5,065	4,065	3,840.00	1,960
Total.....	15	78,747	59,637	98,682	61,639	74,450.75	83,043

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Philippine Islands to east coast of United States:							
British.....	1	4,837	4,168	6,661	4,140	\$5,210.00	7,230
Danish.....	1	2,510	1,938	3,252	1,985	2,422.50	4,707
Japanese.....	4	20,609	17,447	25,701	17,073	21,644.55	27,944
Norwegian.....	3	15,669	8,703	14,744	8,830	10,878.75	16,361
United States.....	1	6,183	5,780	7,717	5,791	7,225.00	8,869
Total.....	10	49,808	38,036	58,075	37,869	47,380.80	65,081
West coast of South America to Cristobal:							
Colombian.....	2	287	277	440	275	346.25	389
Dutch.....	1	742	294	780	323	367.50	864
German.....	5	4,240	2,879	5,398	2,974	3,598.75	4,497
Total.....	8	5,269	3,450	6,618	3,572	4,312.50	5,750
Australia to Europe:							
British.....	8	62,419	44,463	73,312	45,198	55,578.75	35,696
Norwegian.....	1	1,676	928	1,733	968	1,160.00	2,900
Total.....	9	64,095	45,391	75,045	46,166	56,738.75	38,596
West coast of Canada to east coast of United States:							
British.....	1	4,203	3,005	4,803	2,976	3,756.25	6,900
United States.....	2	9,832	7,806	12,559	7,775	9,757.50	9,152
Total.....	3	14,035	10,811	17,362	10,751	13,513.75	16,052
West coast of United States to Cristobal:							
United States.....	3	7,005	5,532	9,342	5,452	6,861.95	2,156
West coast of South America to Egypt:							
British.....	1	3,955	3,142	5,209	3,135	3,927.50	7,530
German.....	1	6,712	4,452	7,232	4,484	5,565.00	8,030
Total.....	2	10,667	7,594	12,441	7,619	9,492.50	15,530
Australia to east coast of United States:							
British.....	2	10,135	6,919	11,312	6,810	8,648.75	17,010
Norwegian.....	1	4,168	2,644	4,301	2,696	3,395.00	6,092
United States.....	4	10,450	7,621	12,539	7,634	9,305.16	13,893
Total.....	7	24,753	17,184	28,152	17,050	21,258.91	36,995
Australia to east coast of Canada:							
British.....	4	16,939	13,180	21,891	13,377	16,475.00	5,569
Hawaii to east coast of United States:							
United States.....	4	10,499	7,932	13,997	8,417	9,315.93	15,139
West coast of United States to West Indies:							
British.....	1	5,040	4,355	7,267	4,405	5,443.75	9,103
French.....	1	6,907	6,693	9,117	6,732	8,238.40	11,538
United States.....	1	6,050	5,140	8,207	5,092	4,356.00	.....
Total.....	3	17,997	16,188	24,591	16,229	18,088.15	20,641
Canadian intercoastal:							
British.....	3	12,629	10,159	16,753	10,399	12,698.75	18,015
West coast of Central America to Cristobal:							
British.....	3	3,028	2,568	4,831	2,715	3,210.00	1,569
West coast of South America to east coast of Canada:							
British.....	2	10,327	9,073	16,135	9,526	11,341.25	20,718
Balboa to Cristobal:							
Panamanian.....	2	94	94	172	94	91.65	.....
West coast of Canada to West Indies:							
German.....	1	4,116	3,208	5,198	3,197	4,010.00	6,681
West coast of United States to east coast of Canada:							
British.....	1	4,413	3,768	7,115	3,586	4,710.00	9,000

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of Canada to east coast of South Amer- ica:.....	1	5,246	2,949	4,883	2,999	\$3,686.25	3,693
Norwegian.....	1	4,773	3,516	5,652	3,451	4,395.00	1,003
Far East to east coast of United States:	1	5,182	3,434	5,485	3,425	4,292.50	7,000
Danzig.....	1	5,182	3,434	5,485	3,425	4,292.50	7,000
Far East to Europe:	1	5,182	3,434	5,485	3,425	4,292.50	7,000
British.....	1	5,182	3,434	5,485	3,425	4,292.50	7,000
Grand total, June, 1930..	219	1,066,634	803,976	1,337,332	812,704	1,001,229.66	1,447,529
Grand total, June, 1929..	231	1,065,038	809,790	1,341,724	815,965	1,009,865.96	1,524,616
Grand total, June, 1928..	211	970,126	750,666	1,230,149	751,298	937,050.37	1,374,331

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending July 5, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Parismina	United Fruit Co.	June 29	June 29		52
Delftdijk	Holland-American Line	June 29	June 29		303
Leme	Nav. Libera-Triestina	June 29	June 29	140	(²)
Pastores	United Fruit Co.	June 29	June 29	4	23
Tela	United Fruit Co.	June 29	June 30	(¹)	80
Rugia	Hamburg-American Line	June 29	June 30	5	368
Miguel de Larrinaga	Larrinaga & Co.	June 29	June 30	76	(²)
Atlantian	Leyland S. S. Line	June 29	July 1	396	(²)
Sutherland	Nelson S. S. Line	June 30	July 1	231	(²)
Boskoop	Royal Netherlands S. S. Co.	June 30	June 30	123	21
Alvarado	Pacific Steam Navigation Co.	June 30	June 30	370	145
Canadian Conqueror	Canadian National Steamships	June 30	June 30	108	(²)
Teutonia	Hamburg-American Line	June 30	July 1	67	(²)
Caldas	National Navigation Co.	June 30	July 1	204	83
Donau	North German Lloyd	June 30	July 1	(¹)	647
Ulua	United Fruit Co.	June 30	July 2	583	41
Corinto	Panama Mail S. S. Co.	July 1	July 1	466	
Crijnsen	Royal Netherlands S. S. Co.	July 1	July 2	6	19
Virgilio	Italian Line	July 1	July 3	226	1,282
Cristobal	Panama R. R. S. S. Line	July 2	July 2	3,838	
Santa Teresa	Grace Line	July 2	July 2	40	70
Sixaola	United Fruit Co.	July 2	July 3	275	27
Irioua	United Fruit Co.	July 2	July 3	954	79
Pacific Reliance	Furness, Withy & Co.	July 2	July 3	(¹)	546
Cerigo	Hamburg-American Line	July 2	July 2	1,144	
Swiftarrow	C. D. Mallory & Co.	July 2	July 4	11,782	(²)
Anagir	North German Lloyd	July 3	July 4	472	(²)
Teno	Chilean S. S. Line	July 3	July 4	(¹)	7
Bolivar	Colombian S. S. Line	July 3	July 4	79	768
Venezuela	Panama Mail S. S. Co.	July 3	July 4	455	252
Colombia	Panama Mail S. S. Co.	July 3	July 4	609	605
Saramacca	United Fruit Co.	July 3	July 5	741	339
Escape Fuego	A. A. Conolly & A. Papi	July 3	July 5	(¹)	47
Cid	Pacific Steam Navigation Co.	July 4	July 4	47	59
Ethan Allen	Tampa Intercoastal Co.	July 4	July 4	118	(²)
San Lucas	Quaker S. S. Line	July 4	July 4	100	95
Georgie	French Line	July 4	July 5	320	202
Crijnsen	Royal Netherlands S. S. Co.	July 4	July 5	(¹)	566
Tela	United Fruit Co.	July 5	July 5	410	196
Atlantida	Standard Fruit & S. S. Co.	July 5	July 5	61	155½
Santa Clara	Grace Line	July 5	July 5	67½	5
Heredia	United Fruit Co.	July 5	July 5	322	
Aegina	North German Lloyd	July 5	July 5	1	(²)
Ruhr	Hamburg-American Line	July 5	July 5	51	
City of Panama	Panama Mail S. S. Co.	July 5	July 1		1,488

¹ No cargo discharged.² No cargo laded.³ 230 pounds.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a Complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost plus 25 per cent surcharge which covers local freight, handling, and other costs.

Tolls Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement. \$1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity as determined by the Panama Canal Rules of Measurement.72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton.50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton. 1.20
5. Tolls may not exceed the equivalent of \$1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of \$0.75 per net registered ton so determined.
6. Vessels returning from Gatun Lake or original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, Semi-private, white male.	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat patients.	Tuesdays, Thursdays and Saturdays, 2.30 to 4.30 p. m. 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 4, Private rooms.	Daily, same as Ward 2 (above).
Section "B:"	
Ward 5, Male, private rooms, American boys.	} Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls.	
Ward 7, White females, private rooms.	
Ward 8, Obstetrical department, white females.	} No visitors permitted in nursery.
Nursery.	
Section "C:"	
Ward 9, Colored, male.	} Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 10, White foreign, male.	
Ward 11, Colored, male (surgical).	
Ward 12, Colored, male (medical).	
Ward 13, Colored, male, G. U.	} Tuesdays, Thursdays, Saturdays, Sundays, and holidays, 2.30 to 4.30 p. m.
Ward 14, White, male, G. U.	
Section "D:"	
Ward 15, American, male (surgical).	} Tuesdays, Thursdays, Saturdays, Sundays and holidays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11.00 a. m.
Ward 16, American, male (medical).	
Ward 17, Colored children.	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3.00 p. m.
Ward 18, White children.	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Ward 19, Colored, female (medical).	} Wednesdays, Fridays, Sundays and holidays, 1.30 to 3.00 p. m.
Ward 20, Colored, female, surgical, obstetrical.	
Isolation section.	No visitors permitted except to visit tuberculosis patients Thursdays, Sundays and holidays, 1.30 to 3.00 p. m.

Permission to visit outside of visiting hours may be granted upon application to the Superintendent's Office.
Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.20 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 15 years of operation.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hind-quarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 715.

PORT OF BALBOA.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 11.....	La Union ¹⁷	A. Valdez	Panama Bay, R. P.	July 11.....	La Union.....	A. Valdez.....	Panama Bay, R. P.
July 11.....	Des Hermanos ¹⁷	A. Valdez	Panama Bay, R. P.	July 11.....	Dos Hermanos ¹⁷	A. Valdez.....	Panama Bay, R. P.
July 11.....	Libertador ¹⁷	A. Valdez	Panama Bay, R. P.	July 11.....	Libertador ¹⁷	A. Valdez.....	Panama Bay, R. P.
July 11.....	Real ¹⁷	Hans Elliot	Panama Bay, R. P.	July 12.....	Real ¹⁷	Hans Elliot.....	Panama Bay, R. P.
July 11.....	A. B. Obarrio ¹⁷	Hans Elliot	Panama Bay, R. P.	July 11.....	A. B. Obarrio ¹⁷	Hans Elliot.....	Panama Bay, R. P.
July 11.....	Sambu ¹⁷	Hans Elliot	Panama Bay, R. P.	July 12.....	Sambu ¹⁷	Hans Elliot.....	Panama Bay, R. P.

* Other than ships passing through the Canal.

¹⁷ Motor schooner.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address

The Panama Canal Record, Balboa Heights, Canal Zone, or

The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office

at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII. Balboa Heights, C. Z., July 23, 1930. No. 51.

Canal Traffic During the First Fifteen Days of July.

During the first 15 days of July, 242 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated \$1,076,085.57, and on the launches \$14.25, or a total tolls collection of \$1,076,099.82.

The daily average of commercial vessels was 16.13, and the average tolls collection was \$71,739.04, as compared with 16.07 transits and \$72,210.04 in tolls for the first 15 days of the preceding month. The average amount of tolls paid by each of the commercial transits was \$4,446.63, as compared with \$4,494.40 for the first 15 days of June.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 6½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 6½ months of the calendar years 1929 and 1928:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January.....	531	\$2,360,211.24	17.13	\$76,135.84
February.....	491	2,131,386.12	17.54	76,120.93
March.....	515	2,260,002.36	16.61	72,903.30
April.....	489	2,232,763.00	16.30	74,425.43
May.....	479	2,162,898.60	15.45	69,770.92
June.....	478	2,100,994.53	15.93	70,033.15
July.....	242	1,076,085.57	16.13	71,739.04
Total, first 6½ months calendar year 1930.....	3,225	14,324,341.42	16.45	73,033.37
Total, first 6½ months calendar year 1929.....	3,488	14,872,662.16	17.79	75,880.93
Total, first 6½ months calendar year 1928.....	3,394	14,007,606.80	17.22	71,104.60

As compared with the first 6½ months of the calendar year 1929, the corresponding period this year has had 263 fewer transits and \$548,320.74 less tolls.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 11, 1930.

No. 724.

RADIO BEACON, KILONEA, HAWAIIAN ISLANDS.

The following was received by the Hydrographic Office from Washington, D. C., through the Balboa Radio:

The lighthouse services announces about July 15, a radio beacon at Kilonea Light Station, Hawaiian Islands, will begin transmitting on a frequency of 300 kilocycles, groups of two dashes for 60 seconds, silent 120 seconds, the second 15 minutes of each hour.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS. Week ending at midnight, July 19, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Baralt	6-21	16.50	13	5.55	13	13.17	13	14.40	Dutch	Royal Neth. S. S. Co.	200.0	33.1	11.0	Cristobal, C. Z.	Guayaquil, Ecuador	General	9	1,183	742
Durazo	10	16.05	13	6.06	13	13.27	13	14.40	German	Hamburg-American Line	270.1	34.0	14.3	Cristobal, C. Z.	Guayaquil, Ecuador	General	87	1,633	1,041
Thyra	12	19.05	13	6.15	13	14.00	13	16.00	Norwegian	William Hansen	227.0	38.1	17.0	Philadelphia, Pa.	Callao, Peru	Coke	1,740	1,910	1,192
Maersk ^{1 2}	12	23.20	13	7.25	13	14.18	13	18.00	Danish	Anglo-Saxon Pet. Co.	466.3	61.8	17.6	Falmouth, England	Los Angeles, Calif.	Ballast		8,645	6,054
Aden Maru	13	5.25	13	7.15	13	15.02	13	16.30	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	26.7	Three Rivers, Can.	Moji, Japan	(⁶)	7,786	6,203	4,672
Ipswich	13	7.20	13	8.30	13	15.33	13	17.17	American	Argonaut S. S. Co.	400.7	54.0	24.6	Baltimore, Md.	Vancouver, B. C.	Steel, general	7,851	6,616	4,614
Margaret Johnson ²	12	21.45	13	10.09	13	16.08	13	20.05	Swedish	Johnson Line	405.0	54.0	22.3	Stockholm, Sweden	Vancouver, B. C.	General	4,408	7,048	5,337
Canadian Cruiser	13	11.05	13	11.15	13	18.05	13	23.53	British	Can. Nat. Steamships	430.0	55.0	25.0	Montreal, Canada	Dunedin, N. Z.	General	3,671	7,680	5,518
Pacific Oak	13	11.05	13	12.05	13	18.50	13	20.05	American	Dimon S. S. Corp.	409.7	54.2	19.0	Philadelphia, Pa.	Seattle, Wash.	General	3,706	6,687	4,883
Roy ¹			13	9.58	13	9.58			American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.	Towing barge		2	2
Armosa ⁴			13	9.58	13	9.58			American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.	Towing barge		8	8
No. 4848 ⁴			13	9.58	13	9.58			American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		106	106
Schwaben	13	16.00	14	6.20	14	15.07	14	16.10	German	North German Lloyd	491.0	63.8	22.3	Bremen, Germany	Portland, Oreg.	Ballast		106	106
S-14 ⁵			14	6.00	14	14.20	15	9.25	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-16 ⁵			14	6.00	14	14.20	15	9.25	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-15 ⁵			14	6.10	14	14.23	15	9.10	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-17 ⁵			14	6.10	14	14.23	15	9.10	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
Vancolite ²	14	3.50	14	7.20	14	16.00	14	21.12	British	Imperial Oil Co.	510.2	68.2	23.0	Montreal, Canada	Talara, Peru	Ballast		11,573	7,711
Canadian Miller	14	4.50	14	8.25	14	16.55	14	18.10	British	Can. Nat. Steamships	400.3	52.3	17.6	Montreal, Canada	Vancouver, B. C.	General	2,700	5,892	4,186
S-11 ⁵			14	7.00	14	15.28	15	8.45	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-10 ⁵			14	7.00	14	15.28	15	8.45	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-12 ⁵			14	7.00	14	15.28	15	8.45	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-13 ⁵			14	7.00	14	15.28	15	8.45	American	U. S. Navy	231.0	21.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
S-20 ⁵			14	7.00	14	15.28	15	8.45	American	U. S. Navy	219.3	20.8		Cristobal, C. Z.	Balboa, C. Z.	Ballast		106	106
Seminole ²	14	5.15	14	9.10	14	17.48	14	23.15	British	Anglo-American Oil Co.	425.0	57.0	18.6	Bowling, Scotland	Los Angeles, Calif.	Ballast		7,012	5,022
Pomona	14	5.30	14	10.20	14	18.25	14	23.15	American	Islandian S. S. Lines	400.0	56.0	20.0	Newark, N. J.	Seattle, Wash.	Steel, general	3,149	8,334	6,036
El Lobo ¹	14	11.10	14	11.15	14	19.20	14	20.28	British	Atlantic Refining Co.	385.2	51.0	18.0	Philadelphia, Pa.	La Libertad, Ecua.	Ballast		4,851	3,326
Cities Service																			
Oklahoma ¹	14	13.10	14	13.20	14	19.47	14	21.12	American	Richfield Oil Co.	430.0	59.2	20.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		8,003	5,847
Rhodops	14	1.50	14	14.05	14	21.37	15	14.15	German	Hamburg-Germany	435.5	53.0	26.2	Hamburg, Germany	Valparaiso, Chile	General	5,184	7,525	5,184
Caldas ²	12	22.10	14	14.25	14	23.10	15	2.04	Colombian	National Navigation Co.	116.0	21.0	9.3	Cristobal, C. Z.	Buenaventura, Col.	General	218	211	121
Bradburn	14	13.30	14	14.55	14	23.20	15	3.11	British	Leeds Shipping Co.	400.4	54.2	23.6	Pt. Arthur, Tex.	Hankow, China	Cas oil	7,620	6,969	5,373
Motor Sailor			14		14	10.52			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.	Ballast			

¹ Tanker.² Motor ship.³ Launch.⁴ Barge.⁵ Submarine.⁶ Phosphate, rosin, aluminum, and wheat.

Biscaya ¹	14	16.30	14	16.55	15	8.56	15	12.55	German	Anglo-American Oil Co.	412.0	55.0	20.0	Hamburg, Germany	Los Angeles, Calif.	Ballast.	6,585	4,435
Lesmar	14	19.10	15	6.05	15	13.13	15	14.15	American	Calmar S. S. Corp.	410.5	54.0	18.5	Baltimore, Md.	Seattle, Wash.	Steel, general	3,603	4,795
Willard	14	00.10	15	6.15	15	13.39	15	14.45	American	Williams S. S. Line	386.6	52.3	21.0	Baltimore, Md.	Seattle, Wash.	General coal	4,062	4,070
Sacramento	15	1.20	15	7.20	15	14.49	15	16.25	American	Nelson Line	389.0	53.3	19.0	New York, N. Y.	Los Angeles, Calif.	General	1,007	5,653
Benholm	14	21.25	15	9.20	15	16.18	15	17.50	British	Australia & Amer. Line	407.0	53.5	20.6	New York, N. Y.	Los Angeles, Calif.	General	4,083	6,103
Ecuador	14	14.55	15	10.50	15	17.32	16	17.35	American	Amex-Mail S. S. Co.	389.6	48.7	21.2	New York, N. Y.	San Francisco, Cal.	General	5,926	4,160
Minnesotan	14	14.55	15	13.05	15	17.24	15	20.55	American	Panama-Hawaiian Line	407.7	54.0	18.0	Boston, Mass.	Seattle, Wash.	General	2,151	5,024
Hugeton	15	13.25	15	13.35	15	20.53	15	22.48	American	Richfield Oil Line	434.8	56.2	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,394	5,099
Flotbek	15	13.55	15	14.50	15	21.45	15	23.48	German	Knohl & Burckhard	280.0	40.0	13.0	Guantanamo, Cuba	Yavares, Mexico	Ballast	2,221	1,469
Unity	15	16.55	15	6.30	15	14.37	15	16.09	American	H. A. Bodden	417.0	56.0	20.0	Cristobal, C. Z.	Balboa, C. Z.	Ballast	3	3
New Jersey ²	15	16.55	15	17.05	16	8.51	16	10.09	American	The Texas Co.	410.0	54.0	20.0	Pt. Arthur, Tex.	Los Angeles, Calif.	Ballast	6,925	5,014
Edwin	16	1.05	16	7.10	16	13.15	16	14.40	American	Arrow Line	410.0	54.2	18.0	Jacksonville, Fla.	Portland, Ore.	General	2,129	6,603
Christenson	16	00.25	16	7.30	16	14.15	16	15.25	American	Luckenbach Line	446.5	56.1	23.0	Boston, Mass.	Portland, Ore.	General	3,440	8,785
Lukenbach	16	00.25	16	7.30	16	14.15	16	15.25	American	Andrew Weir & Co.	371.0	51.4	24.4	Sagua La Grande	Auckland, N. Z.	Sugar	7,290	6,567
Pennybryn	16	8.35	16	10.35	16	17.57	16	19.18	Norwegian	Donaldson Line	425.0	56.0	18.3	Glasgow, Scotland	Vancouver, B. C.	General	961	7,827
Gregalia	13	17.13	16	11.05	16	18.39	16	20.00	British	Gracia Line	370.0	52.0	19.0	New York, N. Y.	Talcahuano, Chile	General	1,188	6,255
Santa Rita ²	16	4.50	16	12.20	16	19.18	17	4.08	American	Pacific Steam Nav. Co.	303.4	43.0	10.4	New York, N. Y.	Corral, Chile	General	1,097	2,826
Almagro	16	3.09	16	14.05	16	21.51	16	23.05	British	Cau. Nat. Steamships	400.0	52.3	20.3	Montreal, Canada	Adelaide, Australia	General, autos	2,670	5,853
Canadian	16	9.15	16	14.10	15	21.46	16	23.05	British	Fred Olsen & Co.	425.5	55.3	17.0	Antwerp, Belgium	Vancouver, B. C.	Iron, general	1,870	7,553
Explorer	16	17.50	16	20.25	17	9.25	17	12.25	Norwegian	N. Z. Shipping Co.	531.0	70.0	27.6	London, England	Wellington, N. Z.	General	3,900	18,197
George	16	19.40	17	6.10	17	14.18	17	21.15	British	National Navigation Co.	107.2	42.0	10.9	Cristobal, C. Z.	Pto. Armuellas R.P.	Ties and pilings	380	232
Rangitiki ²	6-21	16.50	17	6.55	17	16.00	18	7.15	Colombian	Antong Trading Corp.	314.4	49.6	17.8	Newport News, Va.	Viad'ok, U. S. S. R.	Ballast	4,472	3,089
Canea ²	16	18.50	17	19.12	18	9.48	18	11.15	(³)	Pacific Steam Nav. Co.	215.0	33.0	15.0	Cristobal, C. Z.	Champerico, Guat.	General	735	1,270
Eastport	6-27	15.50	18	6.00	18	13.40	18	15.10	British	Com'ith & Dom. Line	470.0	58.3	23.2	New York, N. Y.	Brisbane, Australia	General	2,815	9,336
Salvador	18	8.30	18	8.45	18	15.51	18	17.09	British	Standard Oil Co.	408.3	62.7	20.0	Boston, Mass.	Los Angeles, Calif.	Ballast	9,841	6,946
Port Victor	18	9.15	18	9.30	18	16.56	18	18.15	American	Kerr Line	450.9	61.0	18.0	New York, N. Y.	Belawan Deli.	General	2,012	9,309
Empire Arrow	18	11.55	18	12.05	18	18.11	18	19.12	British	Furness, Withy & Co.	420.0	58.0	19.6	Glasgow, Scotland	Vancouver, B. C.	General bananas	1,463	7,892
Silverew ²	15	18.55	18	13.00	18	19.38	18	23.25	British	Nippon Yusen Kaisha	405.0	53.0	20.0	Baltimore, Md.	Yawata, Japan	Scrap iron, gen.	3,632	7,025
Pacific	18	12.00	18	13.55	18	20.40	18	21.48	Japanese	Blue Star Line	400.0	55.6	13.5	Baltimore, Md.	N. Westm'cr, B. C.	Ballast	7,075	5,308
Kako Maru	18	17.15	18	20.20	19	9.30	19	10.43	British	East Asiatic Co.	300.0	41.0	19.0	Rio de Janeiro	Los Angeles, Calif.	Ballast	.....	.....
Crossing	18	14.55	18	20.50	19	9.14	19	13.05	Danish	U. S. Army	436.0	58.2	25.5	New York, N. Y.	Balboa, C. Z.	General	576	7,494
Court ²	18	2.30	19	6.00	19	14.05	19	15.30	American	Richfield Oil Co.	330.0	46.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast	2,832	3,984
Mexico ²	18	22.45	19	6.15	19	15.34	19	16.25	American	Swayne & Hoyt	477.3	63.0	23.3	Tampa, Florida	Seattle, Wash.	General, lumber	5,670	10,984
Chateau	19	4.30	19	7.15	19	14.04	19	15.30	American	North & Dom. Line	216.5	32.9	12.6	London, England	Wellington, N. Z.	General	3,350	1,132
Thierry ⁷	17	15.45	19	10.20	19	16.48	19	23.39	British	Com'ith & Dom. Line	401.5	58.2	21.0	Cristobal, C. Z.	Guayaquil, Ecuador	General	2,800	10,491
Larry Doheny	17	15.45	19	10.20	19	16.48	19	23.39	British	Amer-Hawaiian Line	436.7	41.9	19.7	Boston, Mass.	Portland, Ore.	General	324	3,667
Point Gorda	19	12.00	19	12.45	19	20.40	20	4.05	American	United Fruit Co.	406.0	54.2	23.6	Cristobal, C. Z.	San Francisco, Cal.	General	6,485	7,216
Point Alma	18	14.15	19	13.20	19	20.40	20	3.30	British	Pacific Steam Nav. Co.	449.1	57.2	19.6	Hull, England	Corral, Chile	General	7,808	5,139
Manizales	19	2.35	19	14.15	19	21.23	20	3.30	British	Ore S. S. Corp.	449.1	57.2	19.6	Baltimore, Md.	Cruz Grande, Chile	Ballast	.....	.....
Virginian	19	8.05	19	14.49	19	21.48	19	22.50	American	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sarumne	19	8.05	19	14.49	19	21.48	19	22.50	American	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Paz ²	19	8.05	19	14.49	19	21.48	19	22.50	American	.....	.....	.....	.....	.....	.....	.....	.....	.....
Santora	19	8.05	19	14.49	19	21.48	19	22.50	American	.....	.....	.....	.....	.....	.....	.....	.....	.....

² Tanker.

⁷ Transport.

⁸ Nondocumentary.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
France Maru.....	13	3.20	13	6.37	13	13.30	13	13.30	Japanese.....	Kokusai Kisen Kaisha.....	385.0	51.0	27.1	Cebu, P. I.....	Atlantic coast U. S.	Sugar.....	7,760	6,209	4,658
Nosa Chief.....	13	6.00	13	7.06	13	14.45	14	9.45	American.....	N. O. & S. A. S. Co.....	299.4	45.0	16.0	Talcahuano, Chile.	New Orleans, La.	Coffee.....	592	3,256	2,010
San Francisco Maru.....	13	7.15	13	8.08	13	15.45	13	15.45	Japanese.....	Kokusai Kisen Kaisha.....	385.0	51.0	27.0	Manila, P. I.....	Atlantic coast U. S.	Sugar.....	7,850	6,213	4,672
Scottish.....	13	14.55	13	15.30	13	21.25	13	21.25	American.....	Williams S. S. Line.....	386.8	52.2	20.5	Seattle, Wash.....	Baltimore, Md.	Sugar (12).....	3,495	5,719	4,023
Borderer 10.....	14	6.00	14	6.45	14	14.05	14	2.05	British.....	Anglo-Saxon Pet. Co.....	426.5	58.9	26.0	Los Angeles, Calif.	Curacao, D. W. I.	Natural gasoline	8,680	7,149	4,927
Shakespear.....	13	23.00	14	6.58	14	14.30	14	16.35	British.....	Shakespear S. S. Co.....	407.0	59.0	25.0	Talcahuano, Chile.	Azores 11.....	Nitrates.....	8,171	6,837	4,510
Chloro.....	14	6.50	14	7.33	14	16.55	14	16.35	American.....	Ore S. S. Corp.....	349.6	72.2	23.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore.....	20,000	14,338	9,348
Calmar.....	14	2.00	14	8.00	14	16.10	14	15.10	American.....	Calmar S. S. Corp.....	384.0	51.2	23.0	Pt. Alberni, B. C.	Baltimore, Md.	Lumber.....	6,120	6,347	4,453
Heffron.....	14	11.35	14	12.29	14	19.50	14	19.50	American.....	Heffron S. S. Co.....	440.0	56.0	26.0	Everett, Wash.	Baltimore, Md.	Lumber.....	9,455	6,312	6,097
Dakota.....	14	13.32	14	14.39	14	21.45	14	21.45	American.....	Amer-Hawaiian Line.....	407.0	53.7	20.0	San Francisco, Cal.	Boston, Mass.	General.....	5,799	7,156	5,094
Atlantic City.....	14	14.35	14	15.18	14	23.05	14	23.05	British.....	Reardon Smith Line.....	411.7	54.5	27.0	Portland, Oreg.....	Queensdown, Eng. 11	Wheat.....	8,580	6,555	4,659
Arcturus.....	14	21.59	15	6.31	15	13.55	15	13.55	American.....	Roosevelt S. S. Co., S.B.	401.4	53.2	24.0	Whyalla, Australia.	Boston, Mass.	(11).....	6,600	7,043	5,167
R. J. Hanna 11.....	15	1.45	15	6.55	15	14.25	15	14.25	American.....	Standard Oil Co. of Cal.	435.0	56.2	28.1	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.....	8,507	7,639	5,135
Idarvald.....	14	23.30	15	7.31	15	15.35	16	2.00	German.....	Hamburg-American Line	399.6	54.2	27.0	Corral, Chile.....	Leinograd, U.S.S.R.	Nitrates, general.	7,952		
Harry.....	15	8.15	15	9.04	15	16.45	15	16.45	American.....	Luckenbach Line.....	448.9	60.2	30.0	Seattle, Wash.....	Boston, Mass.	Lumber, general.	5,962	9,262	6,853
Innesmoor 12.....	15	12.50	15	13.39	15	20.35	15	23.25	British.....	W. Rundman & Co.....	375.0	52.5	25.1	Vancouver, B. C.	Avonmouth, Eng.	Wheat.....	7,400	6,055	4,615
Salotawau.....	15	18.30	15	19.10	16	11.15	16	11.15	American.....	Redwood Line.....	386.8	52.2	21.0	Seattle, Wash.....	Mobile, Ala.	General.....	5,889	5,708	4,138
Malana.....	15	18.35	15	19.30	16	10.50	16	13.40	British.....	Shaw, Savill & Albion.....	500.9	63.3	23.0	Auckland, N. Z.....	London, England	Frozen, general.	4,704	12,083	8,503
Villager 9.....	14	9.00	16	6.13	16	12.35	16	15.30	Norwegian.....	Westfal, Larsen & Co.....	398.0	51.7	24.0	Vancouver, B. C.	Buenos Aires, Arg.	Lumber, general.	5,276	6,839	5,131
Masunda.....	15	18.30	16	6.55	16	14.10	16	14.10	British.....	McClay & McIntyre.....	402.0	55.0	24.6	N. Westminster, B. C.	Pt. Talbot, Eng.	(14).....	8,291	6,085	4,289
Gracia.....	16	8.30	16	9.00	16	16.35	16	22.58	British.....	Donaldson Bros., Ltd.	415.5	54.2	28.0	Victoria, B. C.	Glasgow, Scotland	General.....	6,351	6,809	4,842
Kiritwake 10.....	11	15.00	16	9.59	16				American.....	L. C. Wright.....	36.8	14.4	6.0	San Francisco, Cal.	New York, N. Y.	Ballast.....		25	22
Argon Maru.....	16	4.15	16	10.44	16	17.45	16	23.25	Japanese.....	Osaka Shosen Kaisha.....	415.0	55.5	21.0	Hongkong, China.	Boston, Mass.	(15).....	3,732	7,273	5,294
Texas.....	16	10.45	16	11.37	16	19.20	16	20.40	American.....	The Texas Co.....	416.8	56.1	23.1	Los Angeles, Calif.	Baltimore, Md.	Gasoline.....	8,433	6,782	4,964
Fernhill 10.....	16	11.30	16	15.25	16	22.03	16	23.35	Norwegian.....	Fern Line.....	377.6	54.0	25.0	Whylla, Australia.	Baltimore, Md.	Iron ore.....	2,800	6,081	4,538
Guatemala.....	16	6.20	17	6.34	17	13.00	18	11.35	American.....	Panama Mail S. S. Co.....	360.2	51.6	23.0	San Francisco, Cal.	New York, N. Y.	General, coffee.	6,390	5,776	4,081
Pacific Trader 9.....	16	21.20	17	6.49	17	14.45	17	14.45	British.....	Furness, Withy & Co.....	420.0	58.0	27.0	Vancouver, B. C.	Glasgow, Scotland	Lumber, general.	8,000	7,979	5,916
Selma.....	17	4.00	17	6.50	17	15.25	17	15.23	American.....	Associated Oil Co.....	419.5	56.5	27.0	San Francisco, B. C.	New York, N. Y.	Gasoline, lub. oil.	9,377	7,060	5,025
Steel Exporter.....	17	3.37	17	7.55	17	16.45	18	5.10	American.....	Isthmian S. S. Lines.....	424.2	56.2	27.0	Vancouver, B. C.	Avonmouth, Eng.	Wheat, general.	7,334	7,611	5,450
Manitacs.....	17	5.00	17	8.12	17	15.45	19	10.20	German.....	Roland Line.....	216.5	32.9	15.0	Guayaquil, Ecuador	Cristobal, C. Z.....	Gasoline.....	931	1,132	741
Republic.....	17	11.00	17	11.35	17	18.25	17	22.40	American.....	Petroleum Nav. Co.....	391.8	51.3	24.0	Los Angeles, Calif.	Norfolk, Va.....	Gasoline.....	6,833	5,551	3,881
Democracy.....	16	12.50	17	13.39	17	21.00	17	21.00	American.....	Charles Nelson & Co.....	377.0	52.0	25.0	Seattle, Wash.....	N. Bedford, Conn.	Lumber, general.	6,000	5,434	3,969
Australia 12.....	16	21.38	18	6.20	18	15.48	18	15.48	American.....	The Texas Co.....	509.7	70.3	31.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.....	16,800	12,514	8,427
William Penn 9.....	14	23.03	18	7.31	18	18.45	18	16.53	American.....	Roosevelt S. S. Co., S.B.	431.6	63.2	24.0	Sagay, P. I.....	New York, N. Y.	Lumber, general.	6,349	9,019	6,226
Suriname.....	17	13.40	18	7.14	18	14.15	19	13.20	American.....	United Fruit Co.....	336.7	41.9	18.3	San Francisco, Cal.	Cristobal, C. Z.....	General.....	587	3,667	2,323

11 Lumber, grain, and spelter.

12 Ore, wool, and pearl shell.

13 Lumber, pulp, copper, and general.

14 For orders.

15 Yacht.

16 Motor ship.

17 Tanker.

18 Wood oil, bean oil, rice, and general.

City of San Francisco ?	17	14.50	18	7.17	18	14.15	18	20.15	19	13.10	Norwegian.	Panama Mail S. S. Co.	314 6	45 9	16.0	San Francisco, Cal.	Cristobal, C. Z.	(*)	286	3,848	2,606
Edgar F.	17	20.45	18	8.08	18	16.53	18	18.45	American.	18	23.40	Lockenbach Line	425 0	57 3	24.4	Portland, Oreg.	New Orleans, La.	General	4,102	8,568	6,648
Lockenbach.	17	20.45	18	8.20	18	17.45	18	20.00	American.	18	23.40	Scand-So. Pacific Co.	368 5	53 7	18.0	Corral, Chile.	Norfolk, Va.	General	3,839	5,413	3,965
Vinland ?	18	6.15	18	9.50	18	18.00	18	18.00	Norwegian.	18	23.40	Stenersen & Wages.	408 3	55 3	26.0	Los Angeles, Calif.	Ellesmere Pt., Eng.	General	8,600	6,466	4,336
Sveider ?	18	4.00	18	9.38	18	19.25	19	00.25	Dutch.	19	00.25	Royal Neth. S. S. Co.	340 9	48 2	22.0	Valparaiso, Chile.	Europe.	(*)	4,851	4,385	3,195
Laurits	18	5.30	18	10.11	18	20.15	19	13.10	Norwegian.	19	13.10	Fred Olsen & Co.	435 9	56 2	26.0	Vancouver, B. C.	Oslo, Norway	General	8,886	7,963	5,837
Swenson ?	18	7.55	18	10.37	18	20.55	18	23.40	British.	18	23.40	Can. Nat. Steamships.	400 4	52 3	23.0	Vancouver, B. C.	Montreal, Canada.	General	5,850	5,879	4,121
Ranger.	18	10.25	18	11.40	18	21.00	18	21.00	American.	18	21.00	Sun Oil Co.	480 6	66 0	28.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline.	13,290	9,607	6,551
Eastern Sun ?	18	10.35	18	11.49	18	21.30	18	21.30	American.	18	21.30	Amer-Hawaiian Line	420 5	53 9	24.0	Seattle, Wash.	Boston, Mass.	General	5,353	6,779	4,921
Kansan.	18	16.30	18	17.21	19	11.10	19	13.15	American.	19	13.15	Dimer S. S. Corp.	410 5	54 0	25.0	Bellingham, Wash.	Philadelphia, Pa.	Lumber	7,500	6,624	4,757
Pacific Spruce.	19	3.15	19	6.11	19	15.30	19	15.30	American.	19	15.30	Ore S. S. Corp.	550 3	72 2	35.0	Cruz Grande, Chile	New York, N. Y.	Iron ore.	21,949	15,551	4,297
Steele.	19	3.18	19	6.40	19	15.00	19	22.15	British.	19	22.15	Shaw, Savill & Albion.	477 8	61 1	25.0	Wellington, N. Z.	London, England.	Frozen, general.	4,338	10,657	7,617
Lundia ?	19	8.50	19	9.35	19	18.50	20	00.40	British.	20	00.40	H. E. Innes & Co.	420 0	54 4	26.0	Los Angeles, Calif.	Lands End, Eng. ?	Kerosene.	8,375	6,665	4,631
Arana.	19	10.50	19	11.35	19	19.05	20	1.00	British.	20	1.00	Pacific Steam Nav. Co.	303 4	43 0	16.0	Calao, Peru	New York, N. Y.	(*)	834	2,851	1,776
Santa Maria ?	19	9.10	19	11.48	19	17.35	20	00.10	American.	20	00.10	Grace Line	466 0	64 0	23.0	Valparaiso, Chile.	New York, N. Y.	General	2,373	10,626	6,680
Zeriba.	19	16.00	19	16.48	20	11.15	20	11.15	British.	20	11.15	Isthmian S. S. Lines	400 4	52 3	14.0	San Antonio, Chile.	Hampton Rds., Va.	Ballast.	5,725	3,973	

* Coffee, logs, and hides.

* Nitrates, copper, and general.

* Coffee, cocoa, and ivory nuts.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

* DEPARTURES.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 13.	Calamarea.	United Fruit Co.	Port Limon, C. R.	July 13.	No. 9664 ¹⁹ .	Pan American Airways	San Salvador via wayp'ts.
July 13.	Castilla.	United Fruit Co.	Puerto Colombia.	July 13.	Orinoco.	Hamburg-American Line	Hamburg via wayp'ts.
July 13.	Stuyvesant.	Royal Netherlands S. S. Co.	Amsterdam via wayp'ts.	July 13.	Calamarea.	United Fruit Co.	New York via wayp'ts.
July 13.	No. 300-N ¹⁹ .	Pan American Airways.	Talara via wayp'ts.	July 13.	No. 9776 ¹⁹ .	Pan American Airways.	Miami via wayp'ts.
July 14.	Tolosa.	United Fruit Co.	New York via Habana.	July 13.	Cartago.	United Fruit Co.	New Orleans and wayp'ts.
July 14.	Cundinamarca-33 ¹⁹ .	Pan American Airways.	San Salvador via wayp'ts.	July 14.	Tactician.	T. & J. Harrison	Cienfuegos, Cuba.
July 14.	Juan Sebastian Elcano	Spanish Line.	Barcelona via wayp'ts.	July 14.	Castilla.	United Fruit Co.	Port Limon and Bocas.
July 15.	No. 945-M ¹⁹ .	Pan American Airways.	Talara via wayp'ts.	July 15.	Stuyvesant.	Royal Netherlands S. S. Co.	Port Limon, C. R.
July 15.	Inapaquena ²⁰ .	A. Tagarapulos.	Colon, R. P.	July 15.	Inapaquena ²⁰ .	United Fruit Co.	Colon, R. P.
July 15.	Annetta I. ²⁰ .	A. Tagarapulos.	Colon, R. P.	July 15.	Annetta I. ²⁰ .	A. Tagarapulos.	Colon, R. P.
July 15.	Anachueuna ²⁰ .	Panama R. S. S. Line.	New York via Haiti.	July 16.	No. 142-M ¹⁹ .	Pan American Airways.	Miami via wayp'ts.
July 16.	Ancon.	Leyland S. S. Line.	Palo Alto, Cuba.	July 16.	No. 9670 ¹⁹ .	Pan American Airways.	San Salvador via wayp'ts.
July 16.	Atlantian.	Elders & Fyfes, Ltd.	Avonmouth via wayp'ts.	July 16.	Tolosa.	United Fruit Co.	Port Limon, C. R.
July 16.	Arguani.	New Orleans, La.	Avonmouth via wayp'ts.	July 16.	Arguani.	United Fruit Co.	Avonmouth via wayp'ts.
July 16.	Tela.	United Fruit Co.	New Orleans, La.	July 17.	Inapaquena ²⁰ .	A. Tagarapulos.	Colon, R. P.
July 16.	Santa Marta.	Pan American Airways.	New York via Kingston.	July 17.	Inapaquena ²⁰ .	Pan American Airways.	Talara via wayp'ts.
July 16.	No. 9664 ¹⁹ .	Pan American Airways.	San Salvador and wayp'ts.	July 17.	No. 300-N ¹⁹ .	Pan American Airways.	Puerto Cabezas & wayp'ts
July 16.	No. 9776 ¹⁹ .	Pan American Airways.	Miami via wayp'ts.	July 17.	No. 300-N ¹⁹ .	Pan American Airways.	New York via wayp'ts.
July 17.	Inapaquena ²⁰ .	A. Tagarapulos.	Colon, R. P.	July 17.	Santa Marta.	United Fruit Co.	Cartagena.
July 17.	Inapaquena ²⁰ .	United Fruit Co.	Colon, R. P.	July 17.	Tela.	United Fruit Co.	

* Other than ships passing through the Canal.

* Air mail carrier.

* Motor boat.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 17.....	Curslack.....	Aluminum Line.	New Orleans and wayp'ts.	July 18.....	No. 9664 ²⁴	Pan American Airways.	San Salvador and wayp'ts.
July 17.....	Stuyvesant.....	Royal Netherlands S. S. Co.	Port Limon, C. R.	July 18.....	Bogota.....	Colombian S. S. Line.	New York via wayports.
July 17.....	Bogota.....	Colombian S. S. Line.	New York via wayports.	July 18.....	Annetta I. ²⁴	A. Tagaropoulos	Colon, R. P.
July 18.....	Atlantida.....	Standard Fruit & S. S. Co.	New Orleans and Habana.	July 18.....	Cundinamarca C-33 ²⁴	Seadta Airplane Co.	Barranquilla and wayp'ts.
July 18.....	Castilla.....	United Fruit Co.	Port Limon, C. R.	July 19.....	Juan Sebastian Elcano	Spanish S. S. Line.	Barcelona and wayports.
July 18.....	Annetta I. ²⁴	A. Tagaropoulos	Colon, R. P.	July 19.....	Castilla.....	United Fruit Co.	New Orleans & wayports.
July 19.....	Pasajero ²⁴	Gough Brothers	Port Limon, C. R.	July 19.....	Curslack.....	Aluminum Line.	La Guayra and wayports.
July 17.....	Dora K. ²⁴	A. L. Surgeon	Colon, R. P.	July 19.....	Atlantida.....	Standard Fruit & S. S. Co.	New Orleans and wayp'ts.
July 19.....	Parismina.....	United Fruit Co.	New Orleans and Habana.	July 19.....	Stuyvesant.....	Royal Netherlands S. S. Co.	Amsterdam and wayports.
July 19.....	No. 9670 ²⁴	Pan American Airways.	San Salvador and wayp'ts.	July 19.....	Pasajero ²²	Gough Brothers	Port Limon, C. R.
July 19.....	No. 300-N ²⁴	Pan American Airways.	Miami via wayports.	July 19.....	Dora K. ²⁴	A. L. Surgeon	Bluefields and wayports.
July 19.....	No. 309-N ²⁴	Pan American Airways.	Talara via wayports.	.....	.....	.....	.....
July 19.....	.....	Pan American Airways.	Puerto Cabello via wayp'ts	.....	.....	.....	.....

* DEPARTURES.

PORT OF CRISTOBAL.				PORT OF BALBOA.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 14.....	Sambu ²⁵	Hans Elliot.	Panama Bay, R. P.	July 15.....	Sambu ²⁵	Hans Elliot.	Panama Bay, R. P.
July 14.....	Real ²⁵	Hans Elliot.	Panama Bay, R. P.	July 15.....	Real ²⁵	Hans Elliot.	Panama Bay, R. P.
July 16.....	Elg ²⁶	Thorwald Hansen.	Corral, Chile.	July 16.....	Elg ²⁶	Thorwald Hansen.	Puntarenas, C. R.
July 18.....	Anyo Maru.....	Nippon Yusen Kaisha.	Hongkong, China.	July 18.....	Anyo Maru.....	Nippon Yusen Kaisha.	Valparaiso, Chile.
July 18.....	Heiyo Maru ²⁶	Nippon Yusen Kaisha.	Valparaiso, Chile.	July 19.....	Heiyo Maru ²⁶	Nippon Yusen Kaisha.	Hongkong, China.
July 19.....	Real ²⁵	Hans Elliot.	Panama Bay, R. P.	July 20.....	Real ²⁵	Hans Elliot.	Panama Bay, R. P.

* Other than ships passing through the Canal.

²⁵ Motor schooner. ²⁶ Motor ship.²⁴ Air mail carrier.

PORT OF BALBOA.

United States Intercoastal Traffic by Commodities for June, 1930.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the total for June, 1930, and the totals for June, 1929 and 1928. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Agricultural implements.....	630	.....	630
Alfalfa.....	.....	197	197
Alfalfa meal.....	.....	122	122
Ammonia.....	152	.....	152
Asbestos.....	36	.....	36
Asphalt.....	56	73	129
Automobiles.....	6,240	119	6,359
Automobile accessories.....	3,014	63	3,077
Bark.....	20	251	271
Barley.....	.....	131	131
Beans.....	25	2,177	2,202
Borax.....	.....	390	390
Bricks.....	236	.....	236
Burlap.....	122	66	188
Calcium carbide.....	75	.....	75
Camphor.....	.....	112	112
Canned:			
Fish.....	86	5,053	5,139
Fruit.....	325	12,200	12,525
Meat.....	153	294	447
Milk.....	.....	247	247
Soup.....	1,415	.....	1,415
Vegetables.....	710	2,919	3,629
Miscellaneous.....	2,841	3,532	6,373
Carbon black.....	15	.....	15
Celite filtercd.....	.....	240	240
Cement.....	312	.....	312
Charcoal.....	300	.....	300
Chemicals.....	2,230	159	2,389
China and fire clay.....	164	92	256
Coal.....	2,247	.....	2,247
Cocoa.....	75	17	92
Cocoanuts.....	.....	312	312
Coffee.....	74	86	160
Coke.....	500	.....	500
Cold storage:			
Beef.....	10	.....	10
Butter.....	.....	136	136
Cheese.....	.....	46	46
Eggs.....	.....	35	35
Fish.....	37	.....	37
Other.....	380	126	506
Confectionery.....	895	.....	895
Cork.....	154	.....	154
Corn.....	26	.....	26
Cotton.....	156	2,003	2,159
Cottonseed oilcake.....	35	.....	35
Cottonseed meal.....	.....	421	421
Drugs.....	2,050	29	2,079
Earthenware.....	112	17	129
Eggs, dried.....	.....	75	75
Explosives.....	128	.....	128
Fertilizer.....	25	160	185
Flour.....	158	4,056	4,214
Fruit:			
Dried.....	5	5,600	5,605
Fresh.....	.....	1,265	1,265
Fuller's earth.....	550	152	702
Furniture.....	250	191	441
General.....	42,212	6,806	49,018
Glass and glassware.....	2,667	82	2,749
Glue.....	37	47	84
Granite.....	100	.....	100
Graphite.....	37	.....	37
Guano.....	.....	14	14

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Gum.....	18	17	35
Hair.....		27	27
Hardwoods.....	785	27	812
Hay.....		133	133
Hemp.....		1,269	1,269
Honey.....		36	36
Hops.....		150	150
Infusorial earth.....		172	172
Ink.....	5		5
Jute.....	12		12
Lard substitute.....	2,639		2,639
Leather.....	5		5
Lime.....	13		13
Linoleum.....	605	89	694
Liquors.....	66		66
Lumber.....	2,202	134,223	136,425
Malt.....	119		119
Manufactured goods:			
Iron and steel.....	88,268	1,630	89,898
Machinery.....	3,240	1,349	4,589
Railroad material.....	6,023	20	6,043
Tinplate.....	14,265		14,265
Textiles.....	3,939	116	4,055
Miscellaneous.....	9,651	2,411	12,062
Marble.....	322	89	411
Matches.....	207	60	267
Metals:			
Antimony.....		17	17
Copper.....	1,667	6,826	8,493
Iron.....	995		995
Lead.....	104	547	651
Scrap.....	585	917	1,502
Zinc.....	58	986	1,044
Other.....	58	15	73
Milk, powdered.....	56	294	350
Molasses.....	85		85
Nitrates.....	40		40
Nuts.....		38	38
Oats.....	106		106
Oils:			
Cottonseed.....	36	7,793	7,829
Crude.....	200		200
Gas oil, fuel oil.....	14	27,499	27,513
Gasoline, benzine, naphtha.....	34	231,374	231,408
Kerosene.....		10,186	10,186
Linseed.....	20		20
Lubricating and greases.....	4,655	3,279	7,934
Olive.....	20	645	665
Vegetable.....	89		89
Wood.....		30	30
Other.....	280		280
Ores:			
Chrome.....	23		23
Copper.....	1,000		1,000
Magnesite.....		1,515	1,515
Manganese.....	154		154
Tin.....	18		18
Other.....	13	172	185
Paint.....	495	1,407	1,902
Paper.....	5,265	8,887	14,152
Paper pulp.....	71	6,241	6,312
Paper roofing.....	20	80	100
Peanuts.....	272	239	511
Peas.....		44	44
Phosphates.....	8,775		8,775
Plaster.....	12	10	22
Porcelain.....	233	898	1,131
Rags.....	8	223	231
Rice.....	18	65	83
Rope.....	160	159	319
Rosin.....	882		882
Rubber:			
Manufactured.....	698	132	830
Raw.....		50	50
Scrap.....		6	6
Salt.....	349		349
Seeds:			
Canary.....	14		14
Hemp.....		130	130
Other.....		284	284
Shells.....	2,199	28	2,227
Silk.....		427	427
Skins and hides.....		2,274	2,274
Slag.....	1,094		1,094
Slate.....	77		77

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Soap.....	1,405	254	1,659
Soda.....	266	.....	266
Soda ash.....	615	.....	615
Soda, bicarbonate.....	164	.....	164
Soda, caustic.....	255	.....	255
Starch.....	60	.....	60
Sugar.....	.....	8,765	8,765
Sulphur.....	5,443	.....	5,443
Syrup.....	167	39	206
Talc.....	.....	117	117
Tallow.....	.....	404	404
Tar.....	20	.....	20
Tobacco.....	1,271	125	1,396
Toys.....	63	179	242
Turpentine.....	318	.....	318
Vegetables.....	27	436	463
Waste.....	200	114	314
Wax.....	273	149	422
Wheat.....	.....	673	673
Wine.....	.....	172	172
Wool.....	20	9,025	9,045
Zinc oxide.....	68	.....	68
Total, June, 1930.....	246,048	526,100	772,148
Total, June, 1929.....	274,074	582,630	856,704
Total, June, 1928.....	246,570	535,928	782,498

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending July 19, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Cristobal.....	Panama R. R. S. S. Line.....	.....	July 6.....	.....	931
Cerigo.....	Hamburg-American Line.....	.....	July 6.....	.....	144
Heredia.....	United Fruit Co.....	.....	July 6.....	.....	3
Ruhr.....	Hamburg-American Line.....	.....	July 6.....	.....	466
Ulua.....	United Fruit Co.....	July 6.....	July 6.....	43	99
Buenaventura.....	Panama R. R. S. S. Line.....	July 6.....	July 6.....	399	(²)
Davisian.....	Leyland S. S. Line.....	July 6.....	July 7.....	(¹)	135
Targis.....	North German Lloyd.....	July 7.....	July 7.....	9	55
Calamares.....	United Fruit Co.....	July 7.....	July 9.....	504	3
Flandre.....	French Line.....	July 7.....	July 10.....	120	586
Wisconsin.....	French Line.....	July 8.....	July 8.....	35	100
Santa Elisa.....	Grace Line.....	July 8.....	July 8.....	244	10
San Francisco.....	Hamburg-American Line.....	July 8.....	July 8.....	89	(²)
Swiftwind.....	C. D. Mallory & Co.....	July 8.....	July 9.....	11,930	(²)
Bennekom.....	Royal Netherlands S. S. Co.....	July 8.....	July 9.....	192	44
Cali.....	North German Lloyd.....	July 8.....	July 12.....	719½	153½
Acajutla.....	Pacific Steam Navigation Co.....	July 8.....	.....	545	.....
Santa Barbara.....	Grace Line.....	July 9.....	July 9.....	90	87
Orinoco.....	Hamburg-American Line.....	July 9.....	July 9.....	139	28
Aconagua.....	Chilean Line.....	July 9.....	July 9.....	9	87
Lochkatrine.....	Royal Mail Steam Packet Co.....	July 9.....	July 9.....	(²)	149
Nosa Prince.....	N. O. & S. A. S. S. Co.....	July 9.....	July 10.....	156	675
Margaret Lykes.....	Lykes Brothers.....	July 9.....	July 10.....	342	(²)
St. Jerneborg.....	Canadian Transport Co.....	July 9.....	July 10.....	479	(²)
Castilla.....	United Fruit Co.....	July 9.....	July 10.....	386	87
Irióna.....	United Fruit Co.....	July 9.....	July 12.....	106	38
Saint Jean.....	French Line.....	July 10.....	July 10.....	23	(²)
Champerico.....	Pacific Steam Navigation Co.....	.....	July 10.....	.....	928
Peru.....	Danish-East Asiatic Line.....	July 10.....	July 10.....	97	265
Canada.....	Johnson S. S. Line.....	July 10.....	July 11.....	(²)	206
Baracoa.....	Colombian S. S. Line.....	July 10.....	July 11.....	13	419
Guayaquil.....	Panama R. R. S. S. Line.....	July 10.....	July 12.....	1,150	18
Zacapa.....	United Fruit Co.....	July 10.....	July 12.....	742	193
Durazzo.....	Hamburg-American Line.....	July 10.....	.....	173	.....
Amapala.....	Standard Fruit & S. S. Co.....	July 11.....	July 12.....	128	174
West Camargo.....	McCormick S. S. Line.....	July 12.....	July 12.....	150	(²)
San Pedro.....	Pacific-Atlantic S. S. Co.....	July 12.....	July 12.....	6	(²)
Cartago.....	United Fruit Co.....	July 12.....	.....	430	.....
Caldas.....	National Navigation Co.....	July 12.....	.....	134	.....
Orinoco.....	Hamburg-American Line.....	July 12.....	.....	15	.....
Poljana.....	Knut Knutsen.....	July 12.....	July 12.....	19	(²)
Margaret Johnson.....	Johnson S. S. Line.....	July 12.....	.....	158	.....
Tacitician.....	T. & J. Harrison.....	July 12.....	.....	405	.....
Oroya.....	Pacific Steam Navigation Co.....	July 12.....	.....	10	.....

¹ No cargo discharged.

² No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Orinoco.....	Hamburg-American Line.....	July 13.....	July 13.....	.....	575
Baralt.....	Royal Netherlands S. S. Co.....	July 13.....	July 13.....	.....	9
Durrazzo.....	Hamburg-American Line.....	July 13.....	July 13.....	.....	88
Cartago.....	United Fruit Co.....	July 13.....	July 13.....	.....	2
Margaret Johnson.....	Johnson S. S. Line.....	July 13.....	July 13.....	.....	73
Nosa Chief.....	N. O. & S. A. S. S. Co.....	July 13.....	July 13.....	609	54
Calamarc.....	United Fruit Co.....	July 13.....	July 13.....	32	257
Schwaben.....	North German Lloyd.....	July 13.....	July 14.....	27	326
Stuyvesant.....	Royal Netherlands S. S. Co.....	July 13.....	July 14.....	10	19
Castilla.....	United Fruit Co.....	July 13.....	July 14.....	5	73
Gregalia.....	Donaldson Brothers.....	July 13.....	July 15.....	(²)	350
Ecuador.....	Panama Mail S. S. Co.....	July 14.....	July 14.....	335	299
Rhodopis.....	Hamburg-American Line.....	July 14.....	July 14.....	66	106
Caldas.....	National Navigation Co.....	July 14.....	July 14.....	.....	218
Toledo.....	United Fruit Co.....	July 14.....	July 16.....	247	(⁴)
Idarwald.....	Hamburg-American Line.....	July 15.....	July 16.....	196	34
Pacific Shipper.....	Furness, Withy & Co.....	July 15.....	July 17.....	(²)	554
Juan Sebastian Elcano.....	Spanish S. S. Line.....	July 15.....	July 18.....	194	244
Santa Rita.....	Grace Line.....	July 16.....	July 16.....	67	324
Ancon.....	Panama R. R. S. S. Line.....	July 16.....	July 16.....	2,755	.....
Argun Maru.....	Osaka Shosen Kaisha.....	July 16.....	July 16.....	120	148
Mahana.....	Shaw, Savill & Albion.....	July 16.....	July 16.....	32	(²)
Almagro.....	Pacific Steam Nav. Co.....	July 16.....	July 16.....	1	32
Tela.....	United Fruit Co.....	July 16.....	July 17.....	568	102
Santa Marta.....	United Fruit Co.....	July 16.....	July 17.....	527	101
Cauca.....	National Navigation Co.....	July 16.....	July 17.....	.....	285
Guatemala.....	Panama Mail S. S. Co.....	July 17.....	July 18.....	609	423
Bogota.....	Colombian S. S. Line.....	July 17.....	July 18.....	198	978
Curlack.....	Aluminum Line.....	July 17.....	July 19.....	303	439
Manizales.....	North German Lloyd.....	July 17.....	July 19.....	935½	305
Stuyvesant.....	Royal Netherlands S. S. Co.....	July 17.....	July 19.....	(²)	517
Pasajero.....	Gough Brothers.....	July 17.....	July 19.....	(²)	8
Salvador.....	Pacific Steam Navigation Co.....	July 17.....	July 18.....	.....	732
Suriname.....	United Fruit Co.....	July 18.....	July 19.....	182	299
City of San Francisco.....	Panama Mail S. S. Co.....	July 18.....	July 18.....	286	.....
Ares.....	Royal Netherlands S. S. Co.....	July 18.....	July 19.....	140	10
Atlantida.....	Standard Fruit & S. S. Co.....	July 18.....	July 19.....	90	274
Castilla.....	United Fruit Co.....	July 18.....	July 19.....	389	96
Vinland.....	Scandinavian-South Pacific Line.....	July 18.....	July 19.....	20	(²)
Laurits Swenson.....	Fred. Olsen & Co.....	July 18.....	July 19.....	(²)	232
Parismina.....	United Fruit Co.....	July 19.....	July 19.....	692	.....
Santa Maria.....	Grace Line.....	July 19.....	July 19.....	11	.....
Dora K.....	R. Feuillebois.....	July 19.....	July 19.....	(²)	24
Arana.....	Pacific Steam Navigation Co.....	July 19.....	July 19.....	529	.....
Essequibo.....	Pacific Steam Navigation Co.....	July 19.....	July 19.....	105	.....
La Paz.....	Pacific Steam Navigation Co.....	July 19.....	July 19.....	21	201

¹ No cargo discharged.² No cargo laded.³ One package.⁴ Nine packages.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending July 19, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				<i>Tons.</i>	<i>Tons.</i>
Rhodopis.....	Hamburg-American Line.....	July 14.....	July 15.....	77	102
William Penn.....	Roosevelt S. S. Co., S. B.....	July 14.....	July 18.....	132	.....
Ecuador.....	Panama Mail S. S. Co.....	July 15.....	July 16.....	25	4
Guatemala.....	Panama Mail S. S. Co.....	July 16.....	July 17.....	146	.....
Democracy.....	Charles Nelson & Co.....	July 16.....	July 17.....	580	.....
Argun Maru.....	Osaka Shosen Kaisha.....	July 16.....	July 16.....	72	.....
Elg.....	Thorwald Hansen.....	July 16.....	July 16.....	152	.....
Santa Rita.....	Grace Line.....	July 16.....	July 16.....	55	83
Vinland.....	Scandinavian-South Pacific Line.....	July 17.....	July 18.....	37	.....
Suriname.....	United Fruit Co.....	July 17.....	July 18.....	343	.....
City of San Francisco.....	Panama Mail S. S. Co.....	July 17.....	July 18.....	27	.....
Anyo Maru.....	Nippon Yusen Kaisha.....	July 18.....	July 18.....	162	.....
La Paz.....	Pacific Steam Navigation Co.....	July 19.....	July 19.....	.....	50
Heiyo Maru.....	Nippon Yusen Kaisha.....	July 19.....	July 19.....	.....	22

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Low Water Yield from Gatun Lake Watershed During June, 1930.

The water yield from the Gatun Lake watershed during June, 1930, was the least since the lake was formed in 1914, establishing a new low record for the month of June. It amounted to 3,961 cubic feet per second and was 38 per cent below the average June yield of 6,435 cubic feet per second. The previous low record was for June, 1920, when the yield amounted to 4,670 cubic feet per second. The evaporation from Gatun Lake water surface was 666 cubic feet per second, leaving a net yield of 3,295 cubic feet per second available for water uses and storage. Hydroelectric power and lockages used 1,521 and 1,350 cubic feet per second, respectively, and an insignificant amount was used for sanitary purposes. The remaining 424 cubic feet per second available for storage raised the lake elevation from 83.24 feet to 83.37 feet, or 0.13 foot.

Executive Order.**Transfer of Operation of the Hotel Tivoli, Canal Zone.**

The action of the Governor of the Panama Canal, in transferring the operation of the Hotel Tivoli from the Panama Canal to the Panama Railroad Co. under the terms and conditions as expressed in his memorandum dated July 1, 1929, is hereby approved.

HERBERT HOOVER

THE WHITE HOUSE,
June 24, 1930.

[No. 5381]

Executive Order.**Authorizing the Paymaster of The Panama Canal to Advance Funds to Bonded Employees.**

The Paymaster of the Panama Canal, under the direction of the Auditor of the Panama Canal, is authorized to advance small sums of cash to bonded employees of the Panama Canal on the Isthmus of Panama, for the purpose of making petty cash disbursements: *Provided*, That not more than \$200 is to be advanced to any one bonded employee at one time. The Paymaster of the Panama Canal will remain responsible for the proper disbursement of such cash and shall render an accounting therefor under his bond as Paymaster.

HERBERT HOOVER

THE WHITE HOUSE,
June 24, 1930.

[No. 5382]

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound, and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery, or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Pacific-Atlantic Line and Quaker Line.

Announcement has been made of the establishment in August of a cargo service of United States vessels from the west coast of North America to England, under the name of the Pacific-Atlantic Line, in which some of the vessels of the Quaker line will be used. These ships will sail from Vancouver, B. C., via Puget Sound, Gray's Harbor, Columbia River, San Francisco, and Los Angeles, for London, Liverpool, and Manchester at 26-day intervals. Returning, they will proceed to Philadelphia and load in the Quaker Line service for passage to the west coast in the intercoastal trade. The new line is scheduled to begin with the sailing of the *Jefferson Myers* from Vancouver on August 19, 1930, and the other vessels are to be the *San Julian*, *Peter Kerr*, *San Lucas*, and *San Pedro*.

The Quaker Line, which inaugurated its United States intercoastal service in January, 1926, with seven vessels, has expanded, and now maintains a fleet of twelve cargo-carrying vessels in this trade. The vessels are the *San Bernardino*, *San Simeon*, *Peter Kerr*, *San Rafael*, *San Clemente*, *San Lucas*, *San Pedro*, *Jefferson Myers*, *San Vincente*, *San Felipe*, *San Marcos*, and *San Julian*. The present schedule calls for weekly sailings from Philadelphia, Wilmington, Delaware, and Camden, N. J., to Cristobal, Canal Zone, thence to Pacific Coast ports of the United States and Puget Sound.

Three New Vessels for Colon Line of Royal Netherlands Steamship Company.

Three new vessels will be placed in the Colon Line service of the Royal Netherlands Steamship Company, which is at present maintained by the steamers *Simon Bolivar*, *Venezuela*, *Crynssen*, *Van Rensselaer*, and *Stuyvesant*, plying between Europe and the Panama Canal, via the West Indies, Venezuelan, and Colombian ports. The *Van Rensselaer*, *Stuyvesant*, and *Crynssen* will be replaced by two new steamships, the *Costa Rica* and *El Salvador*, and a new motor ship, the *Colombia*.

The *Costa Rica* is scheduled to arrive at Cristobal for the first time on November 8. Her principal dimensions are approximately 472 feet length, 55 feet beam, 26 feet draft; displacement is to be 13,700 tons and speed 15 knots. There are accommodations for 124 first-class passengers, 34 intermediate, 56 second, and 56 third class.

The *Colombia* is due on her maiden voyage at Cristobal on December 20. Her principal dimensions are approximately: Length over all 457 feet, beam 61 feet, draft 26 feet, displacement 14,000 tons, speed 15 knots. The ship has accommodations for 147 first-class passengers, 30 intermediate, 69 second, and 58 third class.

The *El Salvador* will replace the *Crynssen* in the middle of 1931. She is to be a sister ship of the *Costa Rica*.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference. It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, \$0.50 per year; foreign, \$1.00; address
The Panama Canal Record, Balboa Heights, Canal Zone, or
The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office
at Cristobal, C. Z., under the Act of March 3, 1879.



Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXIII.

Balboa Heights, C. Z., July 30, 1930.

No. 52.

Death of Admiral Rousseau.

Rear Admiral Harry H. Rousseau, C. E. C., United States Navy, a former member of the Isthmian Canal Commission, died of apoplexy on July 23, 1930, on board the steamship *Cristobal*, en route from New York to Cristobal. The vessel was diverted to the lightship off Charleston, S. C., and the body transferred to a Navy vessel, the *Cristobal*, then continuing to Port-au-Prince and Cristobal.

Admiral Rousseau was appointed a member of the Isthmian Canal Commission by Executive Order dated March 16, 1907. In August of that year he was placed in charge of the Department of Municipal Engineering, Motive Power and Machinery, and Building Construction in the Department of Construction and Engineering. On September 16, 1908, he was assigned to duty as Assistant to the Chief Engineer. On December 13, 1912, he was placed in charge of the Second Division in the Department of Construction and Engineering, in charge of the work on the Pacific terminal facilities, and, subsequently, of terminal facilities at the Atlantic end. When the Isthmian Canal Commission was succeeded by The Panama Canal on April 1, 1914, Admiral Rousseau was appointed Engineer of Terminal Construction in the Department of Operation and Maintenance. He continued in this position until July 7, 1916, when he was relieved from duty with The Panama Canal. Admiral Rousseau was made a director of the Panama Railroad Company at the annual election held in April, 1907, resigned July 24, 1916, was reelected December 28, 1917, and remained a director until the time of his death.

New Record for Largest Cargo Carried by a Vessel through the Panama Canal.

The British motor tanker *C. O. Stillman*, operated by the International Petroleum Company, Ltd., transited the Canal on July 20, 1930, with a cargo of 23,000 long tons of crude oil, bound from Talara, Peru, to Bayonne, N. J.

This is the largest cargo carried through the Canal on any ship to date. The previous record was 22,244 long tons, made on January 2, 1930, by the Swedish motor ship *Svealand*, carrying iron ore.

The *C. O. Stillman* is 565.7 feet long, 75.6 feet beam, of 16,436 gross and 9,643 net tons, national registered tonnage, and 9,885 net tons, Panama Canal measurement. The tolls paid for the transit on July 20, 1930, amounted to \$10,908.75. They were equivalent to 47.43 cents per ton of cargo. The tolls per ton of cargo on the *Svealand* prorated 21.03 cents, which is to date the lowest pro rata cost of tolls per ton of cargo carried through the Canal.

Proportion of Traffic by Frequency, Fiscal Year 1930.

The following tabulation shows for the fiscal year ended June 30, 1930, the number of vessels making the indicated number of transits through the Panama Canal, the per cent which each class formed of the total number of individual vessels (1,741), their aggregate number of transits, and their per cent of the total commercial transits (6,185):

Number of transits.	Number of vessels.	Per cent of individual vessels (1,741)	Total number of transits.	Per cent of total Canal transits.
1.....	523	30.2	523	8.5
2.....	419	24.1	838	13.6
3.....	220	12.6	660	10.6
4.....	152	8.7	608	9.8
5.....	96	5.5	480	7.8
6.....	63	3.6	378	6.1
7.....	75	4.3	525	8.5
8.....	64	3.6	512	8.1
9.....	46	2.6	414	6.7
10.....	19	1.1	190	3.1
11.....	10	0.6	110	2.0
12.....	8	0.5	96	1.6
13.....	11	0.6	143	2.3
14.....	5	0.3	70	1.1
15.....	3	0.2	45	0.7
16.....	3	0.2	48	0.8
17.....	6	0.3	102	1.6
18.....	3	0.2	54	0.9
19.....	3	0.2	57	0.9
20.....	2	0.1	40	0.6
21.....	2	0.1	42	0.7
25.....	1	0.05	25	0.4
26.....	1	0.05	26	0.4
28.....	1	0.05	28	0.5
30.....	1	0.05	30	0.5
32.....	1	0.05	32	0.5
34.....	1	0.05	34	0.5
36.....	1	0.05	36	0.6
39.....	1	0.05	39	0.6
Total.....	1,741	100.0	6,185	100.0

FREQUENCY OF TRANSITS OF VESSELS THROUGH THE PANAMA CANAL.

During the fiscal year 1930, 1,741 individual commercial vessels representing 24 nationalities, passed through the Panama Canal. The number of transits per individual ship varied from 1 to 39, the 1,741 vessels making a total of 6,185 transits, or an average of 3.55 transits per vessel.

The highest number of transits made by any vessel during the fiscal year was 39, made by the steamship *Cauca*, owned and operated by the National Navigation Company. This vessel is of Colombian registry, and operates between Cristobal and the west coast of the Republics of Colombia and Panama. It is a vessel of 163 net tons, Panama Canal measurement, 107.2 feet long by 22.0 feet beam.

Vessels of United States registry led in aggregate number of transits, though not in number of individual ships. While representing 32 per cent of the individual vessels passing through the Canal, they made up 47 per cent of the total transits. Ships of British registry ranked first in total number of vessels transiting and second in number of total transits, with 623 individual ships making 1,536 transits. Norway had 150 ships making 371 transits, and Germany 87 ships making 377 transits.

The following table shows the number of individual ships, the frequency of transit per vessel, and total transits for the year, segregated by nationality:

NATIONALITY, NUMBER, AND TRANSITS OF VESSELS THROUGH THE PANAMA CANAL, FISCAL YEAR 1930.

Nationality of vessels.	Vessels making indicated number of transits per vessel during fiscal year 1930.																																				Total ships.	Total transits.	Average number of transits.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	25	26	28	30	32	34	36	39										
Argentine.....	2																														2	2	1.00						
Belgian.....	6		1	2		1																									10	23	2.30						
British.....	260	173	72	39	33	24	4	6	4	1			2		1				1	1	1	1									623	1,536	2.47						
Chilean.....	12							1					2																		15	46	3.07						
Colombian.....	1			1									2												1						4	74	18.50						
Costa Rican.....	2																														2	2	1.00						
Danish.....	12	9	9	6	2																										38	91	2.39						
Danzig.....	1	1		1			1				1		1																		6	36	6.00						
Dutch.....	3	6		4	10	2	2					1		1														1			28	141	5.04						
Finnish.....	2																														2	2	1.00						
French.....	3	22	10	7	2					1																						45	124	2.76					
German.....	19	21	15	12	5	3	6	2																1	1		1	1			87	377	4.33						
Greek.....	11	2	1	1																											15	22	1.47						
Italian.....	3	5	1		3	2	1	2																							17	66	3.88						
Japanese.....	24	27	8	14	1																										74	163	2.20						
Mexican.....	1																														1	1	1.00						
Nicaraguan.....	1																														1	1	1.00						
Norwegian.....	49	47	19	19	8	3	3	2																							150	371	2.47						
Panamanian.....	7	4	3	2			1															1									18	60	3.33						
Peruvian.....	2																														2	2	1.00						
Spanish.....	2																														2	2	1.00						
Swedish.....	6	7	3	6	2	4														2											30	125	4.17						
United States.....	86	86	77	37	30	24	57	51	41	17	10	7	7	5	3	2	6	3		1											550	2,885	5.25						
Yugoslav.....	8	9	1	1																											19	33	1.74						
Total.....	523	419	220	152	96	63	75	64	46	19	10	8	11	5	3	3	6	3	3	2	2	1	1	1	1	1	1	1	1	1	1,741	6,185	3.55						

From the above it will be noted that 523, or approximately 30 per cent of the individual vessels using the Canal during the year, made but one transit. Two hundred and seventy-six of these were from the Pacific to Atlantic and 247 from the Atlantic to Pacific. Approximately 46 per cent made 3 transits or more; and less than 5 per cent made 10 or more transits.

Supplement No. 19.—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., July 1, 1930.

Regulation 152.5 is amended to read as below:

(This regulation should be inserted in Chapter XI, page 51, of "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.")

Regulation 152.5. Sick or injured American seamen, after discharge from the hospital, shall be maintained and returned to the United States at the expense of the vessel or line by which such seamen are employed. The discharge of such seamen may be refused until provision has been made to comply with this regulation.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending July 26, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Suriname.....	United Fruit Co.....	July 19.....	July 19.....		1
Santa Maria.....	Grace Line.....	July 19.....	July 19.....		1
Aauka Maru.....	Nippon Yusen Kaisha.....	July 21.....	July 21.....	247	
La Placentia.....	Union Oil Co.....	July 21.....	July 22.....	11,426	
Hanover.....	American Gulf Orient Line.....	July 21.....	July 22.....	286	
St. Mihiel.....	U. S. Government.....	July 22.....	July 22.....	222	
Nosa King.....	N. O. & S. A. S. S. Co.....	July 23.....	July 23.....		27
Jason.....	Royal Netherlands S. S. Co.....	July 24.....	July 25.....	88	
Nora.....	Grace Line.....	July 24.....	July 25.....	13,339	
California.....	Panama-Pacific Line.....	July 25.....	July 25.....		168

CANAL WORK IN JUNE, 1930.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of June, 1930.

BALBOA HEIGHTS, C. Z., July 18, 1930.

*The Honorable, the Secretary of War,
Washington, D. C.*

SIR: I have the honor to submit the following report of The Panama Canal for the month of June, 1930, which closed the fiscal year ended June 30, 1930:

CANAL TRAFFIC FOR FISCAL YEAR.

The fiscal year 1930 was the sixteenth fiscal year of Canal operation. The number of vessels transiting the Canal, and the revenues collected in tolls for the year are as follows:

	No. of transits.	Tolls collected.
Commercial vessels.....	6,185	\$27,076,890.01
Launches (under 20 tons).....	91	517.77
Noncommercial vessels:		
United States Government.....	545	.....
Panamanian Government.....	21	.....
Transiting for repairs.....	34	.....
Total.....	6,876	27,077,407.78

If the 600 noncommercial vessels that transited the Canal during the year had paid tolls at commercial rates, the revenue would have been increased approximately as follows:

United States Government vessels.....	\$1,134,545.06
All other.....	41,636.37
Total.....	\$1,179,181.43

The 6,185 commercial vessels carried 30,030,232 long tons of cargo, and the 691 noncommercial vessels and launches carried 134,232 long tons, making the total cargo through the Canal for the year 30,164,464 long tons, or an average of 2,513,705 tons per month.

The commercial traffic during the fiscal year 1930, as compared with the fiscal year 1929, shows a slight decrease in the number of transits, tolls collected, cargo carried, and ship tonnage (except net tonnage under Panama Canal rules of measurement). While the number of transits, 6,185, was 228, or 3.6 per cent less than in the fiscal year 1929, the net tonnage, Panama Canal measurement, 29,980,614 tons, was 142,820 tons, or 0.5 per cent more than in the preceding year. The record for net tonnage, Panama Canal measurement, was established during the calendar year 1929, when the aggregate net tonnage amounted to 30,353,189 tons.

Cargo tonnage, 30,030,232 long tons, showed a decrease of 632,774 tons, or 2.1 per cent. The tolls collection from commercial vessels, \$27,076,890.01, was \$50,486.90, or 0.2 per cent less than the tolls collected in the fiscal year 1929.

The decrease in the number of transits for the year as compared with the preceding fiscal year was principally in the trade routes between Europe and the west coast of North and South America and between the east coast of the United States and Australasia. An increase in the number of transits occurred in the United States intercoastal trade, between the east coast of the United States and the Far East, and between Europe and Australasia. The decrease in the cargo tonnage was distributed among the principal trade routes, with only the trade between the east coast of the United States and the Far East (including the Philippine Islands) showing an increase.

The following tabulation gives a comparison of the traffic for the fiscal year 1930, as compared with the two previous fiscal years:

	Fiscal year, 1930.	Fiscal year, 1929.	Fiscal year, 1928.
Number of transits.....	6,185	6,413	6,456
Panama Canal net tonnage.....	29,980,614	29,837,794	29,458,634
United States net tonnage.....	22,683,006	22,793,847	22,863,796
Registered gross tonnage.....	37,430,657	37,464,792	37,202,874
Registered net tonnage.....	22,797,619	22,900,317	22,847,689
Tolls.....	\$27,076,890.01	\$27,127,376.91	\$26,944,499.77
Tons of cargo.....	30,030,232	30,663,006	29,630,709

COMMERCIAL TRAFFIC.¹

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1930, to the end of June, 1930, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1928-9	1929-30	1928-29.	1929-30.	1928-29.	1929-30.	1923-29.	1929-30.
July.....	509	527	2,318,395	2,468,280	2,291,955	2,598,162	\$2,109,083.19	2,259,582.37
August....	526	541	2,437,246	2,558,739	2,425,336	2,680,730	2,199,069.31	2,327,437.86
September..	487	523	2,295,053	2,425,261	2,313,011	2,432,783	2,111,230.56	2,201,789.40
October....	557	564	2,515,380	2,747,949	2,582,477	2,845,643	2,274,945.30	2,485,897.71
November..	527	525	2,468,297	2,498,906	2,501,630	2,534,631	2,225,937.43	2,244,895.94
December..	579	522	2,698,140	2,548,771	2,714,987	2,524,934	2,443,029.39	2,309,030.83
January....	603	531	2,771,289	2,601,628	2,858,835	2,611,632	2,502,815.12	2,360,211.24
February...	522	491	2,428,530	2,369,255	2,550,498	2,377,900	2,211,961.20	2,131,386.12
March.....	536	515	2,567,961	2,505,859	2,743,768	2,558,238	2,343,865.55	2,260,002.36
April.....	540	489	2,488,176	2,479,096	2,719,668	2,456,782	2,281,087.27	2,232,763.00
May.....	524	479	2,496,905	2,418,633	2,536,839	2,261,616	2,296,546.57	2,162,893.60
June.....	503	478	2,352,431	2,358,237	2,424,002	2,147,181	2,127,805.97	2,100,934.53
Total.....	6,413	6,185	29,837,794	29,980,614	30,663,006	30,030,232	27,127,376.91	27,076,899.01

¹ Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panamanian, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

CANAL TRAFFIC FOR JUNE, 1930.

NUMBER OF TRANSITS.

During the month, 478 commercial vessels and 14 small nonseagoing launches measuring under 20 tons transited the Canal. In addition to these there were 73 vessels belonging to the United States Government and 2 transits of a Panamanian Government vessel, making a total of 567 transits for the month, or a daily average of 18.9.

Tolls on the 478 commercial vessels amounted to \$2,100,994.53, and on the launches to \$113.64, a total of \$2,101,108.17, or a daily average on all traffic of \$70,036.94.

Commercial traffic for the past month as compared with May, 1930, shows a decrease of 1 transit and \$61,904.07 in tolls, and in comparison with the traffic in June, 1929, a decrease of 25 transits and \$26,811.44 in tolls.

The total numbers of craft of all kinds transiting the Canal during the month of June, 1930, as compared with the same month in 1929 and 1928, are shown in the following tabulation:

	June, 1930.	June, 1929.	June, 1928.
Commercial vessels.....	478	503	491
Launches (under 20 tons).....	14	10	10
Noncommercial vessels:			
United States Government.....	73	30	39
Panamanian Government.....	2	2	3
Vessels for repairs.....		2	6
Total.....	567	547	539

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun.....	13	7	20
Pedro Miguel.....	20	18	38
Miraflores.....	21	19	40
Total.....	54	44	98

The following is a summary of the commercial traffic for June, 1930, as compared with the corresponding month in 1929 and 1928, and the monthly averages for the fiscal year 1930:

	June, 1930.	June, 1929.	June, 1928.	Average per month for fiscal year, 1930.
Number of vessels.....	478	503	481	515
Panama Canal net tonnage.....	2,358,237	2,352,431	2,227,865	2,498,385
United States net tonnage.....	1,784,970	1,787,779	1,697,605	1,890,255
Registered gross tonnage.....	2,971,112	2,946,181	2,777,506	3,119,221
Registered net tonnage.....	1,805,218	1,797,003	1,700,156	1,899,802
Tolls.....	\$2,100,994.53	\$2,127,805.97	\$2,016,211.09	\$2,256,407.50
Tons of cargo carried.....	2,147,181	2,424,002	2,139,565	2,592,519

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year, 1930.
	June, 1930.	June, 1929.	June, 1928.	
Number of transits.....	15.93	16.76	16.03	16.95
Panama Canal net tonnage.....	78,608	78,414	74,265	82,139
Tolls.....	\$70,033.15	\$70,926.87	\$67,206.43	\$74,183.26
Tons of cargo carried.....	71,573	80,800	71,318	82,275

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of June, 1930, as compared with June, 1929 and 1928, are shown in the following tabulation:

	Average per vessel.		
	June, 1930.	June, 1929.	June, 1928.
Panama Canal net tonnage.....	4,934	4,677	4,631
United States net tonnage.....	3,734	3,554	3,529
Registered gross tonnage.....	6,216	5,857	5,774
Registered net tonnage.....	3,777	3,572	3,534
Tolls.....	\$4,395.39	\$4,230.23	\$4,191.67
Tons of cargo (including vessels in ballast).....	4,492	4,819	4,448
Tons of cargo (laden vessels only).....	5,506	5,598	5,349

NATIONALITY OF VESSELS.

Nineteen nationalities were represented in the commercial traffic passing through the Canal in June, 1930. Vessels of United States registry, with 230, led in the number of transits, while those of British registry, with 122, were second; these two nationalities made 73.6 per cent of the total transits for the month. Germany and Norway were next with 28 and 21 transits, respectively. Japan and Sweden each had 13 transits.

CARGO AND PRINCIPAL COMMODITIES.

The total cargo carried through the Canal during the month of June, 1930, was 2,147,181 tons. Cargo from the Atlantic to the Pacific aggregated 699,652 tons, as compared with 681,073 tons in May, 1930, and 899,386 tons in June, 1929. From the Pacific to Atlantic there were 1,447,529 tons, as compared with 1,580,543 tons in May, 1930, and 1,524,616 tons in June, 1929.

From the Atlantic to Pacific, various manufactured goods, 225,501 tons, constituted the heaviest item, followed by mineral oils with 57,318 tons, phosphates with 35,866 tons, and cement with 24,487 tons.

From the Pacific to Atlantic, mineral oil shipments totaling 425,710 tons were the heaviest item, followed by lumber with 250,235 tons, ores (principally iron) with 208,440 tons, wheat with 114,888 tons, and sugar with 77,752 tons.

TOLLS.

At present tolls are collected at rates of \$1.20 per net ton for laden vessels and \$0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed \$1.25 per net ton nor be less than \$0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged \$0.927 per net ton, Panama Canal measurement, and tolls on vessels in

ballast averaged \$0.719 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of June, 1930, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of \$1 laden and \$0.60 ballast with no added charges for deck loads. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of \$1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Argentine.....	\$2,747.52	\$2,289.60		\$457.92
Belgian.....	5,710.00	4,976.00		734.00
British.....	* 560,632.46	* 590,798.50	\$30,166.04	
Chilean.....	14,244.68	15,346.40	1,101.72	
Colombian.....	346.25	287.00		59.25
Danish.....	31,397.50	32,194.00	796.50	
Danzig.....	16,531.80	14,416.00		2,115.80
Dutch.....	54,235.00	63,684.00	9,449.00	
Finnish.....	2,562.00	2,135.00		427.00
French.....	48,951.11	50,505.80	1,554.69	
German.....	87,096.25	101,105.00	14,008.75	
Greek.....	3,400.00	4,292.00	892.00	
Italian.....	18,102.50	21,862.00	3,759.50	
Japanese.....	71,233.95	69,345.00		1,938.95
Norwegian.....	76,757.89	87,115.20	10,357.31	
Panamanian.....	5,158.20	7,136.20	1,978.00	
Swedish.....	50,626.93	56,215.40	5,588.47	
United States.....	1,047,825.77	1,067,180.80	19,355.03	
Yugoslav.....	3,384.72	2,820.60		564.12
Total.....	2,100,994.53	2,193,704.50	99,007.01	6,297.04
Net increase for all traffic.....			92,709.97	

* Includes \$2,675 collected for naval vessel at \$0.50 per displacement ton and \$12.50 collected on supplemental bill.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade.....	\$13,269.07
United States foreign trade.....	6,565.06
United States—Canal Zone trade.....	* 479.10
Net increase.....	19,355.03

* Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in June, 1930, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Belgian.....		1.83	1.83
British.....	.83	1.20	1.03
Chilean.....	.33	.86	.52
Colombian.....		1.36	1.36
Danish.....	1.17	1.78	1.43
Danzig.....		1.83	1.83
Dutch.....	.49	1.12	.87
Finnish.....		1.12	1.12
French.....	.39	1.38	.95
German.....	.70	1.23	.98
Greek.....		1.96	1.96
Italian.....	.23	1.45	.56
Japanese.....	1.01	1.14	1.06
Norwegian.....	1.02	1.20	1.11
Panamanian.....	.60		.60
Swedish.....	.73	2.42	1.79
United States.....	.80	1.45	1.16
Averages, June, 1930.....	.79	1.37	1.11
Averages, June, 1929.....	.94	1.44	1.20
Averages, June, 1928.....	.87	1.43	1.16

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of June is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden.....	5	24,344	\$25,407.50	43	239,467	\$247,293.15
Ballast.....	60	321,552	231,583.59	1	6,050	4,356.00
General cargo ships:						
Laden.....	171	858,281	777,685.80	168	817,946	747,266.10
Ballast.....	19	87,293	62,267.33	2	497	365.16
Noncargo-carrying ships:						
Dredges.....				1	976	702.72
Launches.....	1	47	56.40	2	94	91.65
Naval.....	1		2,675.00			
Tugs.....				1	35	25.20
Yachts.....	2	86	89.25	1	1,569	1,129.68
Total.....	259	1,291,603	1,009,764.87	219	1,066,634	1,001,229.66
Method of propulsion:						
Steam.....	193	938,238	818,316.25	165	807,621	764,911.61
Motor.....	66	353,365	281,448.62	51	255,708	232,906.33
Motor schooner.....				1	194	147.00
Sail.....				1	2,135	2,562.00
Nonpropelled.....				1	976	702.72
Total.....	259	1,291,603	1,099,764.87	219	1,066,634	1,001,229.66

Of the 358 steam-driven vessels, 271 were oil burning, 79 coal burning, and 8 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of June, 1930. If the tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft carriers.....	3	^a 78,700	\$39,350.00			
Ammunition ships.....				1	^a 4,405	\$5,506.25
Auxiliary.....	1	^a 11,450	5,725.00			
Battleships.....	9	^a 275,800	137,900.00	1	^a 32,000	16,000.00
Cruisers.....	1	^a 3,200	1,600.00			
Destroyers.....	8	^a 9,720	4,860.00			
Hospital ships.....	1	^a 9,800	4,900.00			
Mine layers.....	1	^a 3,800	1,900.00			
Mine sweepers.....	4	^a 3,800	1,900.00	1	^a 950	475.00
Motor sailers.....	2	^a 10	5.00			
Submarines.....	10	^a 11,114	5,557.00	11	^a 9,460	4,730.00
Submarine tenders.....	1	^a 13,400	6,700.00			
Supply ships.....	1	^a 3,415	4,268.75	1	^a 3,434	4,292.50
Survey ships.....	1	^a 2,600	1,300.00	1	^a 2,600	1,300.00
Tankers.....	1	^a 5,004	6,004.80			
Tankers.....	1	^a 4,860	6,075.00			
Transports.....	1	^a 3,908	2,931.00			
Tugs.....	2	^a 2,000	1,000.00	2	^a 2,000	1,000.00
U. S. Army vessels:						
Mine planters.....	1	^a 1,208	604.00			
Transports.....	3	^a 11,724	14,655.00	2	^a 7,838	9,797.50
Tugs.....	1	^a 15	11.25			
Total, U. S. Government.....	53		247,246.80	20		43,101.25
Panamanian Government vessels:						
Transports.....	1	^a 101	72.72	1	^a 101	72.72
Grand total.....	54		247,319.52	21		43,173.97

^a Indicates displacement tonnage.

^a Indicates Panama Canal net tonnage

^a Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of June, 1930, carried cargo as follows: Atlantic to Pacific, 9,723 tons; Pacific to Atlantic, 3,835 tons; total 13,558 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement (Panama Canal net), transiting the Canal during the month of June, 1930. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number of transits.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific.....	9	79	\$59.25
Pacific to Atlantic.....	5	48	54.39
Total.....	14	127	113.64

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of June, 1930, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving..... tons..	52,785	57,092	109,877
Local cargo shipped..... tons..	8,652	1,377	10,029
Transit cargo arriving..... tons..	2,169,878	2,154,977	4,324,855
Transit cargo clearing..... tons..	2,155,783	2,154,708	4,310,491
Cargo received for transshipment..... tons..	28,657	8,490	37,057
Cargo transshipped..... tons..	28,131	3,916	32,047
"Canal Zone for Orders" cargo:			
Number of receipts issued.....	89	29	118
Number of withdrawals.....	629	414	1,043
Tons received.....	2,827	219	3,046
Tons withdrawn.....	2,443	429	2,872
Packages received.....	10,224	1,510	11,734
Packages withdrawn.....	12,694	5,259	17,953
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company.....	44	4	48
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company..... tons..	14,360	63	14,423
Coal issued, miscellaneous:			
Panama Canal departments..... tons..	65	7	72
U. S. Army, including vessels..... tons..	508		508
Individuals and companies..... tons..	134		134
Panama Railroad Company..... tons..		5	5
Transferred to Navy..... tons..	10,075		10,075
Total sales and issues..... tons..	25,142	75	25,217
Coal on hand, June 1, 1930..... tons..	139,663		139,663
Coal on hand, July 1, 1930..... tons..	114,521		114,521
Coal received from Navy..... tons..		75	75
Fuel oil issued from Panama Canal tanks:			
Panama Canal Departments..... bbls..	6,718.12	10,975.42	26,693.54
Panama Railroad Company..... bbls..	127.47		127.47
U. S. Army and Navy..... bbls..	545.50	129.34	674.84
Individuals and companies..... bbls..		163.35	163.35
Total sales and issues..... bbls..	7,391.09	20,268.11	27,659.20
Fuel oil on hand, July 1, 1930..... bbls..	80,354.10	40,023.36	120,377.46
Diesel oil sold during June..... bbls..	241.41	2,098.34	2,339.75
Diesel oil on hand, July 1, 1930..... bbls..	13,129.47	18,701.11	31,830.58
Miscellaneous transfers..... bbls..	256.41	491.11	747.52
Gasoline and kerosene pumped for The Panama Canal..... bbls..	7,835.16	13,759.02	21,594.18
Gasoline pumped for individuals and companies..... bbls..	623.63	22,765.79	23,389.42
Oil pumped for individuals and companies..... bbls..	478,177.99	643,585.31	1,121,763.30
Total fuel oil, gasoline, and kerosene handled..... bbls..	494,525.69	702,967.68	1,197,493.37
Admeasurement of vessels:			
U. S. equivalent certificates issued.....	24	6	30
Measured for Panama Canal net tonnage.....	6	1	7
Remeasured for Panama Canal net tonnage.....	18	2	20
Panama Canal net tonnage corrected.....	5	6	11
U. S. equivalent tonnage corrected.....	10	9	19

	Cristobal.	Balboa.	Total.
Services of harbor equipment:			
Tugs, total operating hours.....	399½	360½	759½
Launches, total operating hours.....	1,318	1,628	2,946
Revenue from tug service, pilotage, etc.:			
Tug revenue.....	\$12,656.25	\$12,622.50	\$25,278.75
Pilotage.....	17,838.00	10,096.00	27,934.00
Seamen.....	12,192.00	10,204.00	22,396.00
Launch service.....	1,950.50	2,994.00	4,944.50
Wharfage.....	15,636.97	7,265.74	22,902.71
Ships measured.....	65.00	50.00	115.00
Miscellaneous.....	1,075.00	496.50	1,571.50
Ships repaired at Panama Canal shops:			
Commercial.....	56	9	65
U. S. Army and Navy.....	6	17	23
Panama Canal equipment.....	6	4	10
Total.....	68	30	98
Vessels dry-docked:			
Commercial.....	8	3	11
Panama Canal equipment.....	1	8	9
Total.....	9	11	20
Clearances issued.....	271	262	533
Bills of health issued.....	294	295	589

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
<i>Ships entering.</i>						
All vessels, including those transiting Canal.	573	3,861,808	2,534,751	535	3,539,479	2,323,362
Vessels entering port, but not transiting Canal.	67	342,138	201,821	9	44,212	27,037
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	111	695,925	419,615	101	664,612	393,062
<i>Ships clearing.</i>						
All vessels, including those transiting Canal.	574	3,857,884	2,532,209	532	3,521,768	2,311,121
Vessels clearing port, but not transiting Canal.	68	336,109	197,873	9	46,388	28,372
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	108	684,944	413,128	100	654,665	387,589

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports.....	1,360	790	2,150	142	244	386
From Pacific ports.....	134	249	383	270	185	455
Total disembarking.....	1,494	1,039	2,533	412	429	841
Embarking:						
For Atlantic ports.....	1,451	725	2,176	157	336	493
For Pacific ports.....	142	240	382	366	319	685
Total embarking.....	1,593	965	2,558	523	655	1,178
Remaining on board:						
From Atlantic to Pacific ports.....	1,759	2,335	4,094	2,062	2,197	4,259
From Pacific to Atlantic ports.....	1,533	1,730	3,263	1,752	1,924	3,676
From Atlantic to Atlantic ports.....	912	167	1,079	.....	.....	.....
From Pacific to Pacific ports.....	.....	.....	.....	15	327	342
Total remaining on board.....	4,204	4,232	8,436	3,829	4,448	8,277
Total arriving.....	5,698	5,271	10,969	4,241	4,877	9,118
Total departing.....	5,797	5,197	10,994	4,352	5,103	9,455

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific.....	259	46	18.0
Pacific to Atlantic.....	219	40	18.3
Total.....	478	86	36.3

In addition to the aforesaid, 59 passenger-carrying vessels called at the port of Cristobal and 4 at Balboa without transiting the Canal, making a total of 149 passenger-carrying vessels calling at Canal ports during the month.

AIRCRAFT ENTERING AND CLEARING.

During the month of June, 1930, 34 commercial airplanes entered and 30 cleared at the port of Cristobal, and 1 entered and cleared at Balboa.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of June, 1930:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Total.
Sales at Cristobal to:						
Commercial vessels.....	\$2,274.75	\$11,917.28	\$25,463.80	\$103.83	\$6,754.65	\$46,514.31
Government vessels.....	231.93	1,174.24	7,642.05	20.17	2,901.74	11,970.13
P. R. R. vessels.....	5.40	184.38	968.51	737.21	47.56	1,943.06
Total sales, June, 1930.....	2,512.08	13,275.90	34,074.36	861.21	9,703.95	60,427.50
Total sales, June, 1929.....	2,521.65	11,150.19	37,449.22	1,040.04	5,316.35	57,477.45
Total sales, June, 1928.....	1,924.66	9,061.12	28,958.14	842.89	5,848.02	46,634.83
Sales at Balboa to:						
Commercial vessels.....	863.67	1,898.24	14,967.83	681.76	12,293.13	30,704.63
Government vessels.....	789.95	2,453.02	27,462.27	347.31	14,239.40	45,291.95
P. R. R. vessels.....				30.25		30.25
Total sales, June, 1930.....	1,653.62	4,351.26	42,430.10	1,059.32	26,532.53	76,026.83
Total sales, June, 1929.....	1,067.48	11,022.62	23,328.69	924.96	3,620.98	39,964.73
Total sales, June, 1928.....	1,605.62	12,586.38	30,195.92	952.02	4,100.16	49,440.10

The aggregate sales to Government vessels during the month was \$57,262.08; to Panama Railroad vessels, \$1,973.31; and to other commercial vessels, \$77,218.94, making the total sales to all vessels, \$136,454.33.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of June, 1930, as compared with the corresponding month in 1929 and 1928:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. ^a					
	North.	South.	Total.	North.	South.	Total.	June, 1930.	June, 1929.	June, 1928.
Gatun.....	210	246	456	11	32	43	499	496	473
Pedro Miguel.....	216	252	468	16	39	55	523	523	497
Miraflores.....	216	251	467	16	36	52	519	520	496
Number of vessels put through locks.									
Gatun.....	218	259	477	43	70	113	590	572	553
Pedro Miguel.....	221	259	480	45	73	118	598	640	589
Miraflores.....	221	259	480	46	76	122	602	631	592

^a Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels.....	77	72	74
Panama Canal equipment.....	20	38	40
Panamanian Government vessels.....	2	2	2
Launches (under 20 tons).....	14	6	6

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in June, 1930, as compared with the preceding month and the corresponding month in 1929:

	Gatun.	Pedro Miguel.	Miraflores.
	<i>Cubic feet.</i>	<i>Cubic feet.</i>	<i>Cubic feet.</i>
Lockages.....	1,929,080,000	1,555,860,000	1,532,580,000
Leakage.....	40,000,000	12,000,000	20,000,000
Maintenance.....	13,280,000		
Total, June, 1930.....	1,982,360,000	1,567,860,000	1,552,580,000
Total, May, 1930.....	1,922,370,000	1,477,540,000	1,494,830,000
Total, June, 1929.....	1,935,760,000	1,845,570,000	1,552,940,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of June, 1930, are shown in comparative form, in the following tabulations:

	June.		June—Years of record.		
	1930.	1929.	Maximum.	Minimum.	Mean.
	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>	<i>C. f. s.</i>
Discharge of Chagres River at Alhajuela.....	2,015	2,146	4,870	1,363	2,522
Maximum momentary discharge for the month.....	7,398	15,391	63,900		
Gatun Lake watershed, total yield.....	3,961	5,268	10,391	3,961	6,435
Gatun Lake watershed, net yield.....	3,295	4,715	9,863	3,295	5,863
Draft on Gatun Lake for lockages and power.....	¹ 2,871	2,947	2,947	² 1,138	³ 2,221

¹ June, 14, 1909.

² June, 1914 not included.

³ No water saving.

The discharge of the Chagres River at Alhajuela was 20 per cent below the 29-year average, or 2,015 c. f. s., compared with an average of 2,522 c. f. s. The maximum momentary discharge for the month was 7,398 c. f. s. at elevation 96.08 feet on the 3d. The minimum discharge was 1,065 c. f. s. at elevation 92.29 feet on the 27th. The maximum mean monthly discharge on record for the month of June is 4,870 c. f. s. in 1909, and the minimum 1,363 c. f. s. in 1906. The maximum momentary discharge on record for June is 63,900 c. f. s. at elevation 109.0 feet on June 14, 1909.

The total yield of the Gatun Lake watershed for June was 3,961 c. f. s., or 38 per cent below the 17-year average for June of 6,435 c. f. s., and was the lowest June yield on record. Maximum and minimum total yields of record for June are 10,391 c. f. s. in 1927, and the previous low record was 4,670 c. f. s. in 1920. The lake varied in elevation from 83.17 feet on the 27th to a maximum of 83.49 feet on the 13th, and ended at elevation 83.37 feet.

Miraflores Lake varied between elevations 53.15 feet on the 26th and 54.34 feet on the 2d, averaged 53.73 feet, and ended at elevation 53.82 feet.

SEISMOLOGY.

Two seismic disturbances were recorded during the month, on the 25th and 26th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,006,700 kilowatt hours, and the computed water consumption was 3,942,944,977 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 23,800 kilowatt hours, and the fuel oil consumption was 60.80 barrels. The station was operated only for peak-load service during the month.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were made on 35 vessels during the month. There were 474 work orders issued during the month, as compared with 431 issued during the previous month.

MECHANICAL DIVISION.

During the month of June, 1930, miscellaneous repairs were made on 68 vessels at Cristobal and 30 at Balboa. Nine vessels were dry-docked at Cristobal and 11 at Balboa. Work was completed and carried forward on several pieces of equipment of The Panama Canal, the United States Army and Navy, and commercial steamship lines.

MUNICIPAL ENGINEERING DIVISION.

On the Madden Road, work was continued installing drainage, shaping the shoulders of the road and constructing the bridges over the Chilibre and Chilibrillo Rivers. The gravel plant continued in operation for supplying gravel for the roads to the saddles in the Madden Dam area and for storage pile. Work on the oiled macadam road to the Cerro Tigres magazine was continued.

On the Balboa-Arraijan Road the work of moving camp and equipment from the Madden Road and the erection of Camp No. 1 and storage shed on the west side of the Canal was continued during June.

Work on several improvement projects in the cities of Colon and Panama, and in the Canal Zone, was carried on.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 718,302,500 gallons.

DREDGING DIVISION.

The general movement along the waterfront of West Culebra slide continued during June with an average movement of 2.4 feet toward the Canal between stations 1770-00 and 1797-00 W. The reference points on this slide showed no movement. There was a slight surface movement of the Southwest La Pita slide throughout the month. The West Lirio slide showed a slight movement between stations 1722-50 and 1724-50 W. A break occurred on this slide on the 11th, between stations 1736-50 and 1739-50 W., showing a drop of 30 feet, 150 feet west of the west prism line at station 1737-50, a depth of 30 feet on the west prism line at station 1738-00, and a depth of 35 feet, 65 feet east of the west prism line at station 1738-40. The dredge *Gamboa* worked six and one-half days on this slide and removed 17,100 cubic yards of material. The total excavation from West Lirio slide to June 30, 1930, was 2,237,520 cubic yards.

There were a few small bank breaks during the month.

The total excavation during June, 1930, was 831,270 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
	<i>Cubic yds.</i>	<i>Cubic yds.</i>	<i>Cubic yds.</i>
Work excavation:			
Gaillard Cut—			
Southwest La Pita slide.....	100	400	500
Project No. 3.....	11,200	42,600	53,800
West Lirio Slide.....	1,550	15,550	17,100
Maintenance.....	3,400	13,600	17,000
Pacific entrance—			
Project No. 1.....	246,000	143,250	389,250
Maintenance.....	313,900	6,000	319,900
Auxiliary.....	1,500	1,700	3,200
Plant excavation:			
Dredging sand at Chame.....	1,520	.....	1,520
France Field.....	29,000	.....	29,000
Total.....	608,170	223,100	831,270

The ferry crossing at the north end of Pedro Miguel Lock operated 30 days during the month. One thousand three hundred and twenty trips were made, and 187 Panama Canal, 88 U. S. Army, and 4,123 other vehicles, a total of 4,398, were ferried across the Canal.

MADDEN DAM PROJECT.

The survey covering certain additional areas of land for the project and the mapping of the townsite area of 24.4 acres were completed. Work was continued on the Azote Caballo Ridge Road.

Designs and estimates were prepared of the main dam, with spillway over dam and with spillway over ridge, with alternative spillway omitting work at lower end.

Studies were made of construction plant and care and diversion of river during construction. Well log sheets were checked and traced and pressure tests plotted. A plan and profile of sink hole No. 20 was drawn.

Studies were made of intake structures and head works. Designs and estimates were prepared of needle valves and ground sluices, power plant, exclusive of substation (three developments), outdoor substations (three developments) at Madden Dam and Summit, and transmission line.

In the Madronal area, sink holes were excavated a total of 211 feet in five sink holes, making a total of 535 feet to the end of June. The mouth of sink hole No. 20 has been cribbed and braced and the hole will be used as the main shaft for the six mining locations that have been planned.

One thousand six hundred and eleven linear feet of drilling of all types was performed during the month.

SCHOOLS.

The white school year terminated June 20, 1930; colored school year terminated June 30, 1930. There were 96 graduates from the high schools, 73 at Balboa and 23 at Cristobal. Of the 93 American teachers, 12 resigned at the end of the school year, and the remaining teachers were granted 92 days leave of absence without pay.

The following brief summary shows the enrollment, average attendance, etc., in the white and colored schools of the Canal Zone for the years ended June 20th and 30th, 1930, as compared with the year ending June, 1929:

	White.		Colored.		Totals.	
	1930.	1929.	1930.	1929.	1930.	1929.
Net enrollment.....	2,790	2,762	4,080	3,103	6,870	5,865
Average daily attendance.....	2,393.3	2,355.4	3,562.4	2,581.2	5,955.7	4,936.6
Number of teachers.....	96	95	85	61	181	156

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on June 30, 1930, was 22,615, composed of 7,794 Americans, 2,809 of whom were men, 2,309 women, and 2,676 children; 251 Europeans, 98 of whom were men, 38 women, and 115 children; 14,570 West Indians, 4,255 of whom were men, 2,668 women, and 7,647 children. The total number of persons in quarters on June 30, 1929, was 21,819.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of June 18, 1930, with a comparison of the working force for the preceding month and for June, 1929:

	As of June 18, 1930.			Total employ ees.	
	Gold.	Silver.	Total.	May, 1930.	June, 1929.
Operation and Maintenance:					
Office.....	55	85	140	136	106
Electrical.....	158	177	335	388	312
Municipal Engineering.....	88	674	762	1,034	1,712
Lock Operation.....	239	702	941	947	1,004
Dredging.....	198	981	1,179	1,272	1,204
Madden Project.....	50	619	669	920	.....
Mechanical.....	504	884	1,388	1,405	1,327
Marine.....	203	596	799	897	856
Fortifications.....	24	141	165	158	365
Total.....	1,519	4,859	6,378	7,157	6,886
Supply Department:					
Quartermaster.....	225	1,978	2,203	2,275	2,145
Commissary.....	228	1,324	1,552	1,546	1,511
Cattle Industry—Plantations.....	2	98	100	96	161
Hotel Tivoli.....	8	108	116	115	111
Hotel Washington.....	9	95	104	111	107
Transportation.....	74	251	325	331	289
Total.....	546	3,854	4,400	4,474	4,324

	As of June 18, 1930.			Total employees.	
	Gold.	Silver.	Total.	May, 1930.	June, 1929.
Accounting Department.....	204	6	210	211	210
Health Department.....	293	862	1,155	1,179	1,136
Executive Department.....	537	328	865	863	819
Total.....	1,034	1,196	2,230	2,253	2,165
Panama Railroad Company:					
Superintendent.....	50	252	302	332	328
Transportation.....	64	124	188	184	188
Receiving and Forwarding Agency.....	88	1,289	1,377	1,348	1,537
Coaling Stations.....	43	206	249	318	284
Total.....	245	1,871	2,116	2,182	2,337
Grand total, June, 1930.....	3,344	11,780	15,124	.....	.....
Grand total, May, 1930.....	.....	.....	.....	16,066	.....
Grand total, June, 1929.....	.....	.....	.....	.....	15,712

Additions to the gold force on the Isthmus in June were as follows: Employed in the United States, 11; reemployed in the United States, 3; employed on the Isthmus, 9; reemployed on the Isthmus, 12; total, 35. Separations from the gold force totaled 49, as follows: Resigned, 27; discharged, 22. At the end of the month there were on file 513 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 203 deaths occurred during the month of June, 1930, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 16.96 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 27; pneumonia (broncho and lobar), 21; organic diseases of the heart, 20; nephritis (chronic and acute), 17; diarrhea and enteritis, 13. There were 12 deaths from apoplexy, 10 from cancer, 8 from syphilis, 1 from dysentery, and 1 from erysipelas. There were 13 deaths among nonresidents. These are not included in the above statistics.

There were 289 live births and 22 stillbirths reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 25.98. Deaths among children under 1 year of age numbered 33, giving an infant mortality rate based on the number of live births reported, of 114.19.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during the month of June, 1930, was 427, of whom 83 were employees (13 white and 70 colored), 59 were members of employees' families (13 white and 46 colored), 23 were Canal Zone agriculturists, 112 were other civilian nonemployees, and 150 were Army and Navy personnel. Of the 142 employees and members of employees' families, 66 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick.

There were no deaths from malaria among residents.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions for which invoices were received on the Isthmus during the month totaled \$401,468.62, of which \$374,836.97 was for the Department of Operation and Maintenance, and \$26,631.65 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to \$44,985.58.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of May, 1930, as compared with May, 1929, with the figures for the first 11 months of the current fiscal year as compared with the same period in the fiscal year 1929.

It is impossible to submit figures for the month of June at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	May, 1930.	May, 1929.	To end of May.	
			This year.	Last year.
Tolls.....	\$2,163,009.90	\$2,296,679.18	\$24,976,009.19	\$24,995,682.49
Other receipts.....	440,996.58	365,232.86	4,140,550.75	3,666,130.75
Total transit revenues.....	2,604,006.48	2,661,912.04	29,116,559.94	28,661,813.24
Total transit expenses.....	1,209,253.85	1,161,631.49	12,299,156.87	12,213,878.36
Net transit revenues.....	1,394,752.63	1,500,280.55	16,817,403.07	16,447,934.88
Three per cent capital charge....	621,966.53	615,491.05	6,835,046.44	6,773,085.55
Transit surplus.....	772,786.10	884,789.50	9,982,356.63	9,674,849.33
Business revenues.....	1,506,519.97	1,423,458.25	18,105,459.76	15,722,727.25
Business expenses.....	1,689,888.07	1,331,192.44	17,355,796.72	14,737,222.14
Net revenues.....	(183,368.10)	92,262.81	749,663.04	985,485.11
Three per cent capital charge.....	64,131.07	62,670.92	731,085.50	712,286.14
Business surplus or deficit.....	(247,499.17)	29,591.89	18,577.54	273,198.97
Combined revenues.....	4,110,526.45	4,085,370.29	47,222,019.70	44,384,540.49
Combined expenses.....	2,899,141.92	2,492,826.93	29,654,953.59	26,951,120.50
Net revenues.....	1,211,384.53	1,592,543.36	17,567,066.11	17,433,419.99
Three per cent capital charge.....	686,097.60	678,161.97	7,566,131.94	7,485,371.69
Combined surplus.....	525,286.93	914,381.39	10,000,934.17	9,948,048.30

Respectfully,

H. BURGESS,
Governor.**Additional Storage Tanks for Gasoline and Kerosene.**

The Supply Department of The Panama Canal has recently placed in service two new tanks of 10,000 barrels capacity each at the Balboa Oil Handling Plant and two new tanks of 5,000 barrels capacity each at the Mt. Hope Oil Handling Plant, for use in storing gasoline and kerosene. The addition of these tanks increases the capacity for such storage from 1,000,000 gallons to 2,260,000 gallons. A comparison of the present storage facilities with those previously available is presented in the following tabulation:

GASOLINE AND KEROSENE TANKS IN GALLONS.

	Gasoline.	Tank No.	Kerosene.	Tank No.
<i>Previous storage.</i>				
Mt. Hope.....	225,000	160*	168,000	161
Balboa.....	225,000	110	213,000	113
Balboa.....	169,000	112		
Total.....	619,000		381,000	
<i>Recapitulation.</i>				
Mt. Hope.....	225,000		168,000	
Balboa.....	394,000		213,000	
Total.....	619,000		381,000	
Total gasoline.....			619,000	
Total gasoline and kerosene, previous storage.....			1,000,000	
<i>New storage.</i>				
Mt. Hope.....	210,000	156	168,000	161
Mt. Hope.....	210,000	157	225,000	160
Balboa.....	225,000	110	213,000	113
Balboa.....	420,000	123	169,000	112
Balboa.....	420,000	124		
Total.....	1,485,000		775,000	
<i>Recapitulation.</i>				
Mt. Hope.....	420,000		393,000	
Balboa.....	1,065,000		382,000	
Total.....	1,485,000		775,000	
Total gasoline.....			1,485,000	
Total gasoline and kerosene, new storage.....			2,260,000	

The new tanks are Nos. 123 and 124 at Balboa and 156 and 157 at Mt. Hope. The gasoline and kerosene tanks belonging to the Panama Canal are used primarily for storing these commodities for the use of the Government organizations in the Canal Zone and sale to employees of those organizations. Such consumption amounts to about 2,500,000 gallons of gasoline and 500,000 gallons of kerosene per year. The additional tanks will enable the making of purchases of larger quantities and the maintenance of larger reserves.

Tanks Nos. 123, 124, 156, and 157 were built of steel, welded together on the site by portable electric arc welding machinery. This is a new departure in construction of tanks at Balboa and Cristobal, as previously all tanks were riveted. The new tanks are fitted with floating roofs manufactured to order in the United States and are surrounded by fire-walls so constructed as to contain one and one-half times the volume of the tank enclosed.

Handling of Tankers.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 22, 1930.

NOTICE TO STEAMSHIP OWNERS AND AGENTS:

1. In view of the increase in volume of transportation in seaborne commerce of bulk petroleum products of low flash point, and the resulting increase in danger of serious accident where proper precautions are not taken, a study is being made of what revisions, if any, should be made of the Rules and Regulations Governing Navigation of The Panama Canal.

2. Meantime, the practices stated below, which are now in use in the Panama Canal in handling tankers, but which are not prescribed in the Rules and Regulations, will be carefully followed:

(a) The pilot, immediately upon boarding a tanker, will ascertain whether any of the tanks contain gasoline or whether any of the empty tanks which last contained gasoline have not been cleaned. If so, he will immediately report the fact to the Port Captain, who will see that the information is promptly transmitted to all the locks. If the grade of gasoline involved is the grade commonly known as casinghead gasoline, that fact will also be reported.

(b) Tankers with any of their tanks containing casinghead gasoline or with empty tanks which last contained casinghead gasoline and which have not since been cleaned will be placed on the first, second, or third schedule of transit, except as noted below for partial transits, and will be given a "clear cut." Such vessels will not be permitted to transit the Canal at night, but may be brought into either terminal, day or night, at the discretion of the Port Captain concerned, except when overdraft. Northbound partial transits of tankers of this category will not be permitted, as tying them up at the locks endangers Panama Canal property, but at the discretion of the Port Captain, Cristobal, partial transits southbound will be permitted to such tankers as may be able to anchor in Gatun Lake before dark, it being understood that they must anchor clear of all other shipping.

(c) Tankers with any of their tanks containing gasoline of any grade or with empty tanks which last contained gasoline of any grade and which have not since been cleaned will be handled in the locks by manila or other satisfactorily insulated cable extensions on the towing cables.

H. BURGESS,
Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 26, 1930.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.				Nature.	Tons.			Gross.	Net.		
Esequibo	19	20 07	20	6 05	20	13 04	20	14 05	British	Pacific Steam Nav. Co.	450.0	57.0	23.0	New York, N. Y.	Talcahuano, Chile.	General	3,916	9,158	6,176
Tuscaloosa City	20	4 45	20	6 25	20	13 28	20	14 40	American	Isthmian S. S. Lines	424.2	56.2	25.2	New York, N. Y.	Seattle, Wash.	General, steel	7,142	7,611	5,450
Meton	20	5 10	20	7 30	20	14 24	20	15 45	American	Tidewater Oil Co.	425.8	57.0	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,484	7,484	5,212
Santa Veronica	20	6 15	20	7 20	20	15 18	20	16 45	American	Isthmian S. S. Lines	251.0	43.6	25.6	Philadelphia, Pa.	Honolulu, T. H.	General, steel	3,229	2,823	1,740
City of Lille	20	6 30	20	8 15	20	16 16	20	21 55	British	Ellerman Bucknall Line	467.0	57.0	19.6	New York, N. Y.	Shanghai, China.	General	2,425	8,955	6,167
Sally Maersk	20	20 25	21	6 20	21	14 13	21	15 25	Danish	Isbrandtsen Moller Co.	332.0	44.2	19.0	Baltimore, Md.	Manila, P. I.	General	3,500	3,518	2,510
Marsdak	21	5 25	21	6 35	21	13 59	21	15 05	American	Nelson Line	324.0	46.2	15.6	Baltimore, Md.	Tacoma, Wash.	General	2,005	3,984	2,628
Siamese	21	1 15	21	7 20	21	14 34	21	16 00	British	Prince Line, Ltd.	458.0	60.0	20.10	New York, N. Y.	Manila, P. I.	General	2,614	9,233	6,401
Samuel Q.	21	00 50	21	8 30	21	15 31	21	16 50	American	Tidewater Oil Co.	424.4	58.0	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast	7,333	7,333	5,183
Brown	21	11 15	21	11 30	21	18 48	21	19 50	British	Sir W. R. Smith & Sons	415.0	54.0	25.0	Manchester, Eng.	Shanghai, China.	General	7,800	6,752	5,161
West Lynn	21	13 50	21	13 35	21	21 41	21	23 12	British	W. Runciman & Co.	399.8	53.0	20.6	St. Kitts, B. W. I.	Vancouver, B. C.	Sugar	7,341	5,958	4,246
Eastmoor	21	14 20	21	15 35	21	22 30	22	2 01	British	Andrew Weir & Co.	426.0	57.4	23.0	Baltimore, Md.	Hongkong, China.	Cass oil, general	7,210	7,623	5,412
Lesliebank	21	14 20	21	15 35	21	22 30	22	2 01	American	Stand. Fruit & S. S. Co.	426.0	57.4	23.0	Cristobal, C. Z.	Gatun, C. Z.	Towing barges	7,210	7,623	5,412
Crichto	21	14 20	21	15 35	21	22 30	22	2 01	American	Stand. Fruit & S. S. Co.	426.0	57.4	23.0	Cristobal, C. Z.	Gatun, C. Z.	Towing barges	7,210	7,623	5,412
Barge No. 16									American	Stand. Fruit & S. S. Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast			15
C. Z. No. 3848									American	Stand. Fruit & S. S. Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast			15
Barge No. 38									American	Stand. Fruit & S. S. Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast			13
Tyr	21	18 45	21	19 20	22	11 41	22	13 00	Norwegian	W. L. Comyn	357.0	51.3	13.6	Cristobal, C. Z.	Gatun, C. Z.	Ballast	4,828	3,489	13
Feltre	22	00 40	22	6 10	22	14 50	22	16 00	American	Ore S. S. Corp.	449.0	57.2	19.2	Cardiff, England	Los Angeles, Calif.	Ballast	7,808	5,139	4,246
Middlesex	22	6 55	22	7 20	22	15 48	22	17 00	British	Federal Steam Nav. Co.	460.0	62.6	27.0	Baltimore, Md.	Cruz Grande, Chile	General	7,400	10,663	7,727
Lalla	22	6 15	22	11 05	22	17 32	22	18 40	Norwegian	William Hansen	265.0	42.1	12.0	Liverpool, England	Auckland, N. Z.	General	430		
Brunaire	20	16 05	22	12 00	22	19 30	22	20 47	French	Comp. Nat. Nav.	427.0	56.0	20.0	New Orleans, La.	Callao, Peru	General			
American	21	11 20	22	13 05	22	20 20	22	21 23	American	Amer-Hawaiian Line	405.0	54.0	17.6	Harve, France	Los Angeles, Calif.	Ballast	2,383	6,777	4,761
Arkansas	21	22 35	23	6 05	23	13 23	23	16 50	French	French Line	458.0	53.0	22.0	Boston, Mass.	Tacoma, Wash.	General	3,564	7,678	5,563
Henry County	22	00 55	23	6 00	23	14 35	23	17 55	American	U. S. Navy	251.0	43.6	17.0	Antwerp, Belgium	Corral, Chile	General	625		
Nosa King	22	3 10	23	6 00	23	14 31	23	17 55	American	U. S. Navy	324.0	46.2	21.6	Norfolk, Va.	San Francisco, Cal.	General	2,739	3,978	2,560
Feltre	22	15 00	23	7 10	23	15 07	23	16 15	Italian	N. O. & S. A. S. Co.	430.0	55.0	13.0	New Orleans, La.	Magallanes, Chile.	General	2,468	7,795	6,041
Dorothy	22	17 25	23	7 15	23	16 08	23	17 20	American	Nav. Libera-Tristina	448.9	60.2	20.6	Trieste, Italy	Vancouver, B. C.	General	3,500	9,294	6,861
Jefferson	22	17 25	23	7 15	23	16 08	23	17 20	American	Luckenbach Line	448.9	60.2	20.6	Boston, Mass.	Seattle, Wash.	General	3,825	8,300	6,020
Myers	22	22 15	23	9 50	23	16 31	23	17 38	American	States S. S. Co.	440.0	56.0	18.7	Philadelphia, Pa.	Seattle, Wash.	General	3,825	8,300	6,020
Lehore	23	00 35	23	10 30	23	18 02	23	19 04	American	Ore S. S. Corp.	549.6	72.0	20.9	Baltimore, Md.	Cruz Grande, Chile	Ballast	14,325	4,635	
Abdon	23	4 20	23	11 10	23	18 30	23	19 30	American	Redwood Line	381.0	52.2	25.0	Lake Charles, La.	Tacoma, Wash.	General	5,405	7,732	4,131
Brinkenhead	23	7 15	23	11 55	23	19 15	23	20 25	American	Richfield Oil Co.	425.0	57.2	20.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast	7,502	5,042	
Lady Royal	21	7 50	23	6 15	23	16 10			British	E. A. Wilson	62.5	15.0	9.6	Kingston, Jamaica	Victoria, B. C.	Ballast			25
Tanker.									Supply ship.										

* Yacht.

* Supply ship.

* Lanch.

* Motor ship.

* Tanker.

	23	4 30	23	14 13	23	20 20	24	2 15	American	Grace Line	483.0	63.9	23.5	New York, N. Y.	Valparaiso, Chile	General	2,435	11,680	7,442
Santa Clara	23	17.50	23	15.05	23	21 26	23	22 30	British	Can. Nat. Steamships	365.0	57.0	13.9	Liverpool, England	Yancouver, B. C.	Ballast	7,006	3,787	
Penelope	23	17.50	23	15.05	23	21 26	23	22 30	Danzig	W. Tanker Shipping	470.0	57.0	20.4	Hamburg, Germany	Talara, Peru	Ballast	9,302	6,127	
Cambrai	23	21.15	24	6.20	24	15 23	27	12 10	American	U. S. Army	436.9	58.2	25.6	Brooklyn, N. Y.	San Francisco, Cal.	General	222		
Chapel Point	23	16.10	24	6.20	24	15 23	27	12 10	British	E. O. Fudge	122.6	58.2	14.0	St. Pierre Miquelon	Ensenada, Mexico	Liquors	175	277	193
El Panquiao	23	6.15	24	6.15	24	15.04	24	16.05	Panamanian	Panamanian Gov't	125.0	67.0		Colon, R. P.	Balboa, C. Z.	Ballast	288		101
Orduna	23	14.05	24	7.15	24	15.20	24	16.05	British	Pacific Steam Nav. Co.	550.3	63.0	29.3	Liverpool, England	Talcahuano, Chile	General	5,506	17,146	12,015
Jacob	22	17.55	24	7.15	24	15.52	24	16.50	American	Luckenbach Line	434.0	57.7	22.7	Houston, Texas	Tacoma, Wash.	General	4,840	7,982	5,922
Lukenbach	23	18.40	24	8.20	24	16.13	25	2.50	Dutch	Royal Mail S. S. Co.	347.0	48.5	21.5	Hamburg, Germany	Corral, Chile	General	3,996	4,321	3,120
Jason	23	15.20	24	9.55	24	16.58	24	18.15	British	Royal Mail S. P. Co.	450.0	58.0	23.0	Rotterdam, Holland	Yancouver, B. C.	General	8,746	8,874	6,558
Nichteroy	24	8.40	24	11.10	24	17.48	24	18.49	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.6	Baltimore, Md.	Kobe, Japan	(*)	5,559	8,015	5,849
Lisbon Maru	24	12.10	24	12.25	24	19.23	24	20.40	British	Anglo-Benard Oil Co.	407.0	52.0	19.0	Philadelphia, Pa.	La Libertad, Ecua.	Ballast	6,046	4,326	
El Cervo	24	14.30	24	14.00	24	21.20	25	00.52	Danish	Standard Oil Co.	466.0	61.6	18.7	Falmouth, Eng.	Valparaiso, Calif.	Ballast	8,646	6,024	
Emma	24	9.05	24	9.05	25	13.22	25		Panamanian	United Fruit Co.	105.0	15.3		Cristobal, C. Z.	Balboa, C. Z.	Bananas	30	32	47
Maersk	24	15.55	24	16.15	25	13.33	25	14.50	Norwegian	Anglo-Saxon Pet. Co.	451.8	59.0	19.9	Newcastle, Eng.	Los Angeles, Calif.	Ballast	8,099	5,383	
Anachuetta	24	15.25	25	6.15	25	13.33	25	14.50	American	Calmar S. S. Corp.	399.7	56.2	21.0	Baltimore, Md.	Seattle, Wash.	Steel, general	5,193	7,351	5,995
Lion	24	19.30	25	6.20	25	14.26	25	15.35	British	James Chambers & Co.	428.0	56.0	24.0	New York, N. Y.	Shanghai, China	General	4,324	7,506	5,179
Alamar	25	4.20	25	7.20	25	14.55	25	21.35	American	Dollar Line	502.0	62.0	25.0	Naples, Italy	Round the world	General	2,777	12,512	9,178
Greystoke	25	5.50	25	7.40	25	15.55	26	2.37	American	Panama-Pacific Line	574.4	80.3	26.0	New York, N. Y.	San Francisco, Cal.	General	3,077	24,506	17,565
Castle	24	22.45	25	8.05	25	15.58	25	17.00	American	Shepard S. S. Co.	409.8	54.2	16.6	Boston, Mass.	Seattle, Wash.	General	2,485	6,602	4,754
Adams	25	9.00	25	9.05	25	17.54	25	22.04	American	Standard Transp. Co.	438.3	62.7	22.6	New York, N. Y.	Los Angeles, Calif.	Ballast	9,841	6,046	
Levant Arrow	25	9.45	25	9.55	25	16.50	25	20.34	Norwegian	Westfal, Larsen & Co.	381.6	54.8	12.6	New York, N. Y.	Arica, Chile	Ballast	5,292	4,723	
Hoyanger	25	00.20	25	11.45	25	18.44	25	19.55	American	McCormick S. S. Co.	410.5	58.0	22.0	Buenos Aires, Arg.	Los Angeles, Calif.	General	5,502	6,753	5,011
Murla	24	18.05	25	11.45	25	19.26	26	13.40	German	Roland Line	450.0	58.0	16.0	Hamburg, Germany	Valparaiso, Chile	General	4,233	7,736	5,378
West Ira	25	16.50	25	17.20	26	12.31	26	14.00	British	Ore S. S. Corp.	420.0	54.0	16.0	Baltimore, Md.	Cruz Grande, Chile	Ballast	6,624	4,085	
Castlemoor	24	17.45	26	6.20	26	13.38	26	14.55	German	Hamburg-American Line	462.2	61.2	23.0	Vancouver, B. C.	Vancouver, B. C.	General	6,385	9,139	6,066
Portland	24	20.20	26	6.20	26	14.33	26	16.00	American	Dimon S. S. Corp.	390.2	54.2	21.6	Philadelphia, Pa.	Seattle, Wash.	General	4,200	6,102	4,433
Willmorio	25	23.05	26	7.10	26	15.30	26	23.55	British	Amer. & Australian Line	410.0	54.0	20.0	New York, N. Y.	Sydney, Australia	General	3,581	6,953	5,210
Armadale	26	1.45	26	8.25	26	16.22	26	17.25	American	Williams S. S. Line	376.2	52.3	16.0	Baltimore, Md.	Seattle, Wash.	General	1,539	2,884	3,902
San Domingo	24	8.50	26	12.45	26	19.25	26	20.25	American	Kanchatka Co.	359.4	51.3	15.9	Baltimore, Md.	Viadrivk, U. S. S. R.	Ballast	5,055	3,441	
Eastern Cross	24	8.50	26	12.45	26	19.25	26	20.25	American	Kanchatka Co.	359.4	51.3	15.9	Baltimore, Md.	Viadrivk, U. S. S. R.	Ballast	5,055	3,441	

* Tanker. * Transport. * Motor schooner. * Coast guard. * Motor boat. * Phosphate, scrap iron, etc.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

	20	2 10	20	5 58	20	13 35	20	14 35	American	The Texas Co.	416.8	56.1	26.0	Los Angeles, Calif.	Wilmington, Del.	Gasoline	8,352	6,931	5,026
Roanoke	20	00.30	20	6.43	20	13.55	20	14.55	British	Reardon Smith Line	400.0	54.3	25.0	Portland, Oreg.	Cobb, Ireland	Wheat	7,920	6,977	5,383
Prince Rupert	20	3.00	20	7.11	20	15.10	20	20.00	Italian	Nav. Libera-Treestina	436.6	55.4	27.1	Vancouver, B. C.	Trieste, Italy	(*)	8,910		
Celina	20	3.00	20	12.13	20	19.25	20	19.25	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	12,147	10,084	7,388
China Arrow	20	12.15	20	13.16	20	22.05	21	1.35	British	International Pet. Co.	565.7	75.6	34.0	Talara, Peru	New York, N. Y.	Crude oil	23,000	16,780	9,885
C. O.	20	16.35	20	17.32	21	11.55	21	13.45	British	W. Hartlepool St. Nav.	399.6	53.0	26.0	Corral, Chile	Philadelph, Pa.	Nitrates	8,264	5,852	4,112
Stillman	20	30.20	21	6.30	21	13.00	21	13.00	American	Calmar S. S. Corp.	410.5	54.2	23.0	Seattle, Wash.	Philadelphia, Pa.	Lumber	6,148	6,604	4,655
Hendon Hall	21	6.25	21	10.15	21	16.55	21	17.45	British	Can. Nat. Steamships	400.0	52.4	16.0	Adelaide, Australia	Montreal, Canada	General	1,267	6,192	4,402
Flomar	21	7.05	21	11.58	21	19.15	21	19.15	Norwegian	Anglo-Saxon Pet. Co.	441.6	57.0	28.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	9,446	7,616	5,268
Canadian	21	7.05	21	11.58	21	19.15	21	19.15	Norwegian	Anglo-Saxon Pet. Co.	441.6	57.0	28.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	9,446	7,616	5,268
Highlander	21	7.05	21	11.58	21	19.15	21	19.15	Norwegian	Anglo-Saxon Pet. Co.	441.6	57.0	28.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	9,446	7,616	5,268
Spinnaker	21	7.05	21	11.58	21	19.15	21	19.15	Norwegian	Anglo-Saxon Pet. Co.	441.6	57.0	28.0	Los Angeles, Calif.	Lands End, Eng.	Gasoline	9,446	7,616	5,268

** For orders.

** Wheat, lumber, and canned goods.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Nationality.	Operator.	Length.	Beam, water draft.		From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.				Beam.	Water draft.			Nature.	Tons.	Gross.	Net.
Asuka Maru ¹¹	21	7 20	21	13 17	21	20 55	21	23 20	Japanese	440.4	57.0	23.0	Hilo, P. I.	Sugar, general.	8,355	8,139	5,400
Chateau	21	11 26	22	6 09	22	13 10	22	14 22	American	585.4	80.3	29.0	San Francisco, Cal.	General.	6,990	25,254	13,170
Therry																	
H. M. Storey ¹²	21	9 40	22	6 41	22	16 35	22	16 35	American	448.0	56.0	23.0	Balboa, C. Z.	Army supplies.	88		
Santa Inez ¹³	21	12 50	22	7 41	22	15 45	22	22 00	American	500.0	53.2	22.0	Talcahuano, Chile	Gasoline.	14,100	11,224	7,849
Belgian										370.0				(¹⁴)	3,075	6,255	4,016
Gulf ¹⁵	21	22 00	22	8 25	22	17 45	22	17 45	Belgian	449.4	61.3	27.1	Los Angeles, Calif.	Gasoline.	9,517	8,767	5,410
San Quirino ¹⁶	21	1 00	22	8 36	22	17 07	22	19 10	British	407.0	52.4	25.3	London, England.	Gasoline.	9,361	6,156	4,212
El Lobo ¹⁷	21	15 50	22	9 14	22	18 00	22	19 20	British	385.2	51.0	24.0	London, Eng.	Crude oil.	6,088	4,851	3,326
Wassengald ¹⁸	21	22 20	22	10 08	22	19 10	22	20 50	German	399.4	52.4	25.0	Philadelphia, Pa.	Crude oil.	7,031	4,856	4,516
Pont Montreux ¹⁹	21	22 30	22	10 32	22	19 15	22	19 15	American	324.0	46.2	23.0	Corral, Chile.	Lumber, general.	3,582	3,984	2,612
Lechmonar ²⁰	22	2 15	22	11 07	22	20 10	22	2 17	British	485.6	66.2	29.0	Vancouver, B. C.	General.	8,495	10,772	7,581
Trave ²¹	22	2 15	22	11 21	22	21 00	22	2 50	German	471.6	60.3	22.0	Vancouver, B. C.	General.	10,125		
Nelson Traveler	22	11 30	22	12 10	22	21 55	22	14 50	American	404.6	53.1	23.0	Seattle, Wash.	Lumber, general.	4,978	5,657	4,133
Oregonian ²²	22	2 15	22	12 21	22	21 50	22	20 30	American	404.6	53.9	23.0	Portland, Oreg.	General.	5,250	6,754	4,800
Hanover ²³	22	13 25	22	14 06	22	22 35	22	23 20	British	405.0	52.4	16.0	Legaspi, P. I.	Ballast.	5,026	7,952	5,911
Cape Ortega ²⁴	22	4 30	22	14 50	22	23 20	22	11 05	American	448.0	58.0	24.0	San Francisco, Cal.	Army supplies.	242		
St. Michel ²⁵	22	14 30	22	15 36	22	11 55	22	11 55	Danish	470.6	60.2	28.0	Cabo Blanco, Peru.	Crude oil.	12,100	9,346	6,063
Leda ²⁶																	
Robert																	
Luckenbach.	22	15 30	22	17 00	22	10 50	22	10 50	American	445.0	58.0	25.0	Portland, Oreg.	Lumber, general.	6,257	8,095	6,375
Monique ²⁷	22	16 35	23	5 58	23	14 40	24	00 45	French	425.8	56.7	27.0	Los Angeles, Calif.	Gasoline.	8,942	7,106	5,068
Sinoel ²⁸	22	18 50	23	6 24	23	15 25	23	15 25	American	389.6	66.0	29.0	Los Angeles, Calif.	General.	13,486	9,619	6,356
Pum Branch.	22	18 25	23	7 53	23	16 00	23	16 00	British	430.5	53.8	23.2	Avonmouth, Eng.	General.	6,326	5,761	3,881
Amstion City.	22	23 00	23	7 41	23	17 10	23	17 10	American	424.2	56.2	23.0	Boston, Mass.	Lumber, general.	6,326	7,611	5,841
General Smuts.	23	3 00	23	8 08	23	18 25	23	21 30	British	386.7	52.8	23.0	Vancouver, B. C.	Wheat, lumber.	5,769	5,466	3,450
Norfolk.	23	5 30	23	8 12	23	18 50	23	20 40	American	459.6	64.2	22.0	New Plymouth, N. Z.	Frozen, general.	5,265	12,963	9,251
Tai Ping Yang ²⁹	23	6 30	23	9 12	23	19 40	24	1 15	Panamanian	459.6	60.7	20.4	Manila, P. I.	General.	2,494	9,866	6,955
Pacific																	
Redwood.	23	6 50	23	9 56	23	20 00	24	20 00	American	409.6	54.2	25.0	Seattle, Wash.	Lumber.	7,600	6,537	4,845
Chilol.	23	9 35	23	10 23	23	20 40	24	20 40	American	391.8	51.3	25.0	San Francisco, Cal.	Dark gas oil.	6,872	5,548	3,955
Turakina.	23	10 25	23	11 28	23	21 15	24	21 15	British	501.0	62.7	22.0	London, Eng.	Frozen, general.	3,551	10,618	7,306
Svealand ³⁰	23	8 00	23	16 34	24	13 05	24	13 05	Swedish	561.0	72.2	35.0	Sparrows Pt., Md.	Iron ore.	22,140	15,424	4,921
Vancouver ³¹	23	16 15	23	17 15	24	11 30	24	12 20	British	510.2	65.2	30.0	Halifax, N. S.	Crude oil.	16,199	15,573	7,711
Cambridge.	23	18 35	24	6 26	24	14 05	24	14 05	British	524.5	68.7	21.0	Lobos, Peru	Frozen, general.	3,397	12,455	8,854
Lio ³²	23	23 00	24	7 06	24	15 30	24	15 30	American	431.0	59.1	28.0	Pt. Chalmers, N. Z.	Frozen, general.	9,430	7,846	5,112
Harvester ³³	23	23 00	24	7 06	24	16 05	24	17 00	American	416.8	56.1	26.0	Los Angeles, Calif.	Gasoline.	8,457	6,832	5,077
Oregon ³⁴	24	9 35	24	10 16	24	17 10	25	11 20	French	470.3	61.2	29.0	Vancouver, B. C.	General.	8,468	10,332	7,466

¹⁴Copper, lead, cotton, and coffee.¹⁵Copper, lead, cotton, and coffee.¹⁶Copper, lead, cotton, and coffee.¹⁷Copper, lead, cotton, and coffee.¹⁸Copper, lead, cotton, and coffee.¹⁹Copper, lead, cotton, and coffee.²⁰Copper, lead, cotton, and coffee.²¹Copper, lead, cotton, and coffee.²²Copper, lead, cotton, and coffee.²³Copper, lead, cotton, and coffee.²⁴Copper, lead, cotton, and coffee.²⁵Copper, lead, cotton, and coffee.²⁶Copper, lead, cotton, and coffee.²⁷Copper, lead, cotton, and coffee.²⁸Copper, lead, cotton, and coffee.²⁹Copper, lead, cotton, and coffee.³⁰Copper, lead, cotton, and coffee.³¹Copper, lead, cotton, and coffee.³²Copper, lead, cotton, and coffee.³³Copper, lead, cotton, and coffee.³⁴Copper, lead, cotton, and coffee.

Kenyon	23	12	15	24	13	17	24	20	00	26	11	00	American	U. S. Army	390 0	54.2	17.0	San Francisco, Cal.	New York, N. Y.	Army supplies	1,236
New York	25	5	05	25	6	05	25	13	55	25	13	55	American	The Texas Co.	416 8	53.1	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,070
Peter Kerr	24	20	30	25	6	55	25	15	00	25	15	00	American	Quaker Steam Nav. Co.	415 0	55.7	27.0	N. West ster, B. C.	New York, N. Y.	Lumber, oil, gen	6,457
Oreoma	24	20	30	25	7	50	25	15	50	25	15	50	British	Pacific Steam Nav. Co.	511 6	62.0	29.0	Colonel, Chile	Liverpool, England	(*)	4,013
Ebro	25	1	00	25	8	14	25	16	35	23	18	45	British	Pacific Steam Nav. Co.	450 3	57.8	24.0	Talcahuano, Chile	New York, N. Y.	General	7,157
	25	3	35	25	8	13	25	16	35	23	16	35	American	American-Hawaiian Line	471 0	57.2	24.0	Seattle, Wash.	Boston, Mass.	General	8,480
Fresno City	25	5	00	25	9	13	25	17	10	25	17	10	British	Reardon Smith Line	415 6	55.5	26.0	N. West ster, B. C.	Liverpool, England	General	5,174
Herman Frisch	25	8	30	25	9	53	25	17	45	25	17	45	American	Union Sulphur Co.	356 0	51.6	27.0	Longview, Wash.	New York, N. Y.	General	8,506
Lionel	25	8	30	25	10	25	19	00	25	19	00	25	Norwegian	Aif Mohn, Oslo	356 0	51.6	27.0	N. West ster, B. C.	London, England	Lumber	2,950
S-14	25	11	28	25	11	28	25	18	25	25	18	25	American	U. S. Navy	356 0	51.6	27.0	Balboa, C. Z.	Cristobal, C. Z.	General	3,451
S-16	25	11	28	25	11	28	25	18	25	25	18	25	American	U. S. Navy	356 0	51.6	27.0	Balboa, C. Z.	Cristobal, C. Z.	General	3,451
S-17	25	11	28	25	11	28	25	18	25	25	18	25	American	U. S. Navy	356 0	51.6	27.0	Balboa, C. Z.	Cristobal, C. Z.	General	3,451
Sir Osborn	25	18	10	25	6	02	26	13	50	26	13	50	Norwegian	A. F. Klavness & Co.	471 8	64.4	25.0	Los Angeles, Calif.	Curacao, D. W. I.	Gasoline	12,314
Holnden	25	20	25	26	6	47	26	15	00	26	15	00	American	Associated Oil Co.	424 4	58.2	27.0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,153
Paul Shoup	25	21	50	26	7	10	24	16	50	26	16	50	American	Petroleum Nav. Co.	340 0	49.0	24.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	5,527
Pueblo	25	21	50	26	7	10	24	16	50	26	16	50	American	Petroleum Nav. Co.	340 0	49.0	24.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	4,246
S-10	26	7	10	26	7	19	26	16	05	26	16	05	American	U. S. Navy	419 8	57.8	24.0	Balboa, C. Z.	Cristobal, C. Z.	General	6,000
S-11	26	7	19	26	7	19	26	16	05	26	16	05	American	U. S. Navy	419 8	57.8	24.0	Balboa, C. Z.	Cristobal, C. Z.	General	6,000
S-12	26	7	19	26	7	19	26	16	05	26	16	05	American	U. S. Navy	419 8	57.8	24.0	Balboa, C. Z.	Cristobal, C. Z.	General	6,000
S-13	26	7	19	26	7	19	26	16	05	26	16	05	American	U. S. Navy	419 8	57.8	24.0	Balboa, C. Z.	Cristobal, C. Z.	General	6,000
S-15	26	7	19	26	7	19	26	16	05	26	16	05	American	U. S. Navy	419 8	57.8	24.0	Balboa, C. Z.	Cristobal, C. Z.	General	6,000
Pacific	25	20	05	26	8	25	26	17	25	26	17	25	American	Argonaut S. S. Co.	399 0	56.2	24.0	Port Allen, T. H.	New York, N. Y.	Sugar	8,750
Caldas	26	3	45	26	8	21	26	17	40	26	17	40	Colombian	Cia. Nacional Nav.	116 0	21.1	11.0	Buenaventura, Col.	Cristobal, C. Z.	General	6,034
S-20	26	8	31	26	8	31	26	18	00	26	18	00	American	U. S. Navy	213 9	35.2	11.0	Balboa, C. Z.	Cristobal, C. Z.	General	231
Epoca	26	6	00	26	8	45	26	18	25	27	4	45	Swedish	Nordstrom & Thulin	213 9	35.2	11.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee	113
Albert Vogler	26	8	30	26	10	01	26	18	50	27	4	45	German	Hamburg-American Line	409 8	53.8	24.0	Talcahuano, Chile	Hamburg, Germany	General	582
Acachueña	25	13	22	26	9	26	26	16	05	26	16	05	Panamanian	United Fruit Co.	110 0	15	10	Balboa, C. Z.	Cristobal, C. Z.	Ballast	6,624
Gundule	25	22	50	26	10	30	26	19	35	26	30	50	Yugoslav	Yugoslav Lloyd Co.	409 0	55.1	27.0	Antofagasta, Chile	Azores	Nitrates	5,710
Hegira	26	7	10	26	11	20	26	19	45	26	19	45	American	Hegira S. S. Co.	440 0	58.0	23.0	Longview, Wash.	Port Neward, N. J.	Lumber	105
Reuland	26	7	30	26	11	20	27	11	00	27	11	00	German	North German Lloyd	377 8	50.10	23.0	Valparaiso, Chile	Hamburg, Germany	Nitrates	5,271
Henri	26	8	05	26	12	56	26	21	40	27	2	15	French	Davies Newman	400 5	51.2	25.0	Los Angeles, Calif.	Le Havre, France	Gasoline	3,296
Demarais	26	11	45	26	14	12	26	21	25	26	21	25	American	Timountain S. S. Corp.	416 9	56.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	7,300
Trinountain	26	12	20	26	14	57	26	22	45	26	22	45	American	Standard Shipping Co.	462 4	60.2	27.0	San Francisco, Cal.	Wilmington, Del.	Gas oil	3,943
Livingston	26	12	20	26	14	57	26	22	45	26	22	45	American	Standard Shipping Co.	462 4	60.2	27.0	San Francisco, Cal.	Wilmington, Del.	Gas oil	3,943
Roe	26	12	20	26	14	57	26	22	45	26	22	45	American	Standard Shipping Co.	462 4	60.2	27.0	San Francisco, Cal.	Wilmington, Del.	Gas oil	3,943

17 Submarine. 18 Motor schooner. 19 Copper, tin, wool, cotton, etc.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 20	Tolosa	United Fruit Co.	Port Limon, C. R.	July 20	No. 945-M ²⁰	Pan American Airways	Talara via waypoints.
July 21	Alamania	Hamburg-American Line.	Caracazo, D. W. I.	July 20	No. 9685	Pan American Airways	San Salvador and waypoints.
July 21	Guadeloupe	French Line.	St. Nazaire via waypoints.	July 20	No. 9776 ²⁰	Pan American Airways	Miami via waypoints.
July 21	Pastores	United Fruit Co.	New York via Habana.	July 20	Tolosa	United Fruit Co.	New York via Habana.
July 21	No. 9664 ²⁰	Pan American Airways.	San Lorenzo and waypoints.	July 20	Ancon	Panama R. R. S. S. Co.	New York via Haiti.
July 21	Darien C-35 ²⁰	Seacla Airplane Co.	Barraququilla, Colombia.	July 20	Paraisina.	United Fruit Co.	New Orleans via waypoints.
21	Air mail carrier.				Paraisina.		
				* Other than ships passing through the Canal.			

20 Air mail carrier.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 22.....	No. 945-M ²¹	Pan American Airways	Talara via wayports.	July 23.....	No. 142-M ²¹	Pan American Airways	Miami via wayports.
July 23.....	Tela ²¹	United Fruit Co.	Cartagena.	July 23.....	No. 9664 ²¹	Pan American Airways	San Salvador and waypts.
July 23.....	Metapan	United Fruit Co.	New York via Kingston.	July 23.....	Guadeloupe	French Line	Havre via wayports.
July 23.....	Irona	United Fruit Co.	New Orleans, La.	July 23.....	Pastores	United Fruit Co.	Port Limon, C. R.
July 23.....	No. 9137 ²¹	Pan American Airways	Miami via wayports.	July 23.....	Anaehuena ²²	United Fruit Co.	Colon, R. P.
July 23.....	Anaehuena ²²	United Fruit Co.	Colon, R. P.	July 23.....	Inapaquin ²²	A. Tagaropoulos	Colon, R. P.
July 23.....	Inapaquina ²²	A. Tagaropoulos	Colon, R. P.	July 23.....	Annetta I. ²²	A. Tagaropoulos	Colon, R. P.
July 23.....	A. Tagaropoulos	A. Papi & A. Connelley	Bluefields, Nicaragua.	July 24.....	Metapan	Pan American Airways	New York via wayports.
July 24.....	Escupe Fuego	Pan American Airways	San Salvador and waypts.	July 24.....	No. 309-N ²¹	United Fruit Co.	Puerto Cabello & waypts.
July 24.....	Bridgetown	Colombian S. S. Line	Puerto Colombia.	July 24.....	Irona	Pan American Airways	Puerto Colombia.
July 24.....	Amapala	Standard Fruit & S. S. Co.	New Orleans and waypts.	July 25.....	No. 9570 ²¹	Colombian S. S. Line	San Salvador and waypts.
July 25.....	Inapaquina ²²	A. Tagaropoulos	Colon, R. P.	July 25.....	Bridgetown	A. Tagaropoulos	New York and wayports.
July 25.....	Annetta I. ²²	A. Tagaropoulos	Colon, R. P.	July 25.....	Darien C-35 ²¹	Scadita Airplane Co.	Barraquilla and waypts.
July 25.....	C. C. Acme ²³	Maxwell & Newball	Cartagena, Colombia.	July 25.....	Annetta I. ²²	A. Tagaropoulos	Colon, R. P.
July 26.....	Tautonia	Hamburg-American Line	Tampico.	July 26.....	C. C. Acme ²³	Maxwell & Newball	Colon, R. P.
July 26.....	No. 309-N ²¹	Pan American Airways	Puerto Cabello & waypts.	July 26.....	Tela	United Fruit Co.	New Orleans and waypts.
July 26.....	No. 300-N ²¹	Pan American Airways	Talara via wayports.	July 26.....	Amapala	Standard Fruit & S. S. Co.	New Orleans and waypts.
July 26.....	No. 9776 ²¹	Pan American Airways	Miami via wayports.				
July 26.....	No. 9664 ²¹	Pan American Airways	San Salvador via waypts.				
July 26.....	Heredia	United Fruit Co.	New Orleans and Habana.				

²¹ Air mail carrier. ²² Motor boat. ²³ Schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 21.....	Real ²⁴	Hans Elliot.	Panama Bay, R. P.	July 21.....	Real ²⁴	Hans Elliot.	Panama Bay, R. P.
July 21.....	La Placencia ¹	Union Oil Co. of California	Los Angeles, Calif.	July 21.....	La Placencia ¹	Union Oil Co. of California	Los Angeles, Calif.
July 24.....	Nora ¹	W. R. Grace & Co.	Los Angeles, Calif.	July 24.....	Nora ¹	W. R. Grace & Co.	Los Angeles, Calif.
July 25.....	La Perla	United Fruit Co.	San Francisco, Calif.	July 25.....	La Perla	United Fruit Co.	San Francisco, Calif.
July 25.....	Canea ²⁵	National Navigation Co.	Pto. Armuelles, Panama.	July 25.....	Canea ²⁵	National Navigation Co.	Buenaventura, Colombia.
July 25.....	Dos Hermanos ²⁴	A. Valdez	Panama Bay, R. P.	July 25.....	Dos Hermanos ²⁴	A. Valdez	Panama Bay, R. P.
July 25.....	La Union ²⁴	A. Valdez	Panama Bay, R. P.	July 25.....	La Union ²⁴	A. Valdez	Panama Bay, R. P.
July 25.....	San Pablo ²⁴	A. Valdez	Panama Bay, R. P.	July 25.....	San Pablo ²⁴	A. Valdez	Panama Bay, R. P.
July 25.....	A. B. Obarrio ²⁴	Hans Elliot.	Panama Bay, R. P.	July 25.....	A. B. Obarrio ²⁴	Hans Elliot.	Panama Bay, R. P.
July 25.....	Sambu ²⁴	Hans Elliot.	Panama Bay, R. P.	July 25.....	Sambu ²⁴	Hans Elliot.	Panama Bay, R. P.

²⁴ Motor schooner. ²⁵ Motor ship.

* Other than ships passing through the Canal.

Transit of "Henry County," to be Nautical Training Ship.

The United States ship *Henry County* transited the Canal on July 23, 1930, and cleared from Balboa on July 28, en route from Norfolk, Va., to San Francisco, Calif., where she will be loaned to the State of California after alterations are completed at the Mare Island Navy Yard to equip the vessel as a nautical training ship. It is stated that the school will have accommodations for 125 cadets from 17 to 21 years of age, who will receive their board and training free.

The *Henry County* is of 2,600 gross tons, 261 feet long, 43 feet beam, and has a draft of 24 feet. The vessel formerly belonged to the United States Shipping Board but was recently turned over to the Navy. Upon loan to the State of California this vessel will be in the same status as the *U. S. S. Annapolis* and the *U. S. S. Newport*, loaned respectively to the States of Pennsylvania and New York for a similar purpose.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., July 23, 1930.

No. 726.

The following notice was received by the Hydrographic Office through the Port Captain at Cristobal:

Panama, Afuera Island Light reported irregular.—The second officer of the American steamer *Corinto* reports that on June 27, 1930, at 12.30 a. m., Afuera Island Light was observed to be showing flashing white every 11 seconds, flash 1 second, eclipse 10 seconds, and not as stated in the Light List. Approximate position: Lat. $7^{\circ} 40' 30''$ N., long. $81^{\circ} 38' 0''$ W.

The following was received from the Panama City Office of Chiriqui Land Company:

A new light has been established on July 17, 1930, on Burica Point, Panama. Approximate position from H. O. Chart 1018, lat. $8^{\circ} 02' 00''$ N., long. $82^{\circ} 53' 32''$ W. Characteristics, flashing white, 60 flashes a minute, 0.1 second light, 0.9 second eclipse. Elevation 105, visibility 11.7 miles.

H. BURGESS,
Governor.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective July 24, 1930.

Commodities.	Unit.	Price.
Brass, bar, average.....	Lb.	\$0.25
Brass, sheet, average.....	Lb.	.31
Bronze, Tobin, average.....	Lb.	.26
Gasoline, motor grade.....	Gal.	.135
Metal, yellow.....	Lb.	.29
Oakum, Navy, spun.....	Lb.	.15
Oakum, Navy, unspun.....	Lb.	.16
Oil, Diesel, at Cristobal only, in bulk, no surcharge.....	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge.....	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder.....	Gal.	.28
Oil, burning, Colza.....	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135.....	Gal.	.36
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250.....	Gal.	.49
Oil, engine, gas, extra heavy, in drums, Gulftriton, No. 2250.....	Gal.	.46
Oil, kerosene, in drums.....	Gal.	.10
Oil, marine engine.....	Gal.	.49
Paint, lead, white, dry.....	Lb.	.14
Paint, lead, white, in oil.....	Lb.	.13
Paint, zinc oxide, dry.....	Lb.	.10
Paint, zinc oxide, in oil.....	Lb.	.13
Grease, gear, chain and wire rope, lubricating.....	Lb.	.05
Grease, yellow, cup, No. 3.....	Lb.	.08
Grease, yellow, cup, No. 5.....	Lb.	.09
Soda, ash.....	Lb.	.03
Waste, cotton, colored.....	Lb.	.14
Waste, cotton, white.....	Lb.	.16

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending July 26, 1930.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	Tons.
Ancon.....	Panama R. R. S. S. Line.....	.....	July 20.....	.....	759
Parismina.....	United Fruit Co.....	.....	July 20.....	.....	90
Santa Maria.....	Grace Line.....	.....	July 20.....	.....	151
Essequibo.....	Pacific Steam Nav. Co.....	.....	July 20.....	.....	11
Cellina.....	Nav. Libera-Triestina.....	July 20.....	July 20.....	(¹)	71
Tolosa.....	United Fruit Co.....	July 20.....	July 20.....	2	51
Asuka Maru.....	Nippon Yusen Kaisha.....	July 21.....	July 21.....	117	(²)
Guadeloupe.....	French Line.....	July 21.....	July 23.....	91	540
Arkansas.....	French Line.....	July 21.....	July 23.....	429	148
Pastores.....	United Fruit Co.....	July 21.....	July 24.....	652	9
Santa Inez.....	Grace Line.....	July 22.....	July 22.....	539	10
Nosa King.....	N. O. & S. A. S. S. Co.....	July 22.....	July 22.....	18½	269
Hanover.....	American-Gulf Orient Line.....	July 22.....	July 23.....	177	(²)
Nelson Traveler.....	Nelson Line.....	July 22.....	July 23.....	238	(²)
Jefferson Myers.....	States S. S. Co.....	July 22.....	July 23.....	6	(²)
Trave.....	North German Lloyd.....	July 22.....	July 23.....	(¹)	142
Feltre.....	Nav. Libera-Triestina.....	July 22.....	July 23.....	108	(²)
Lochmonar.....	Royal Mail S. P. Co.....	July 22.....	July 23.....	(¹)	129
Santa Clara.....	Grace Line.....	July 23.....	July 23.....	153	675
Metapan.....	United Fruit Co.....	July 23.....	July 24.....	961	58
Iriana.....	United Fruit Co.....	July 23.....	July 24.....	483	161
Nietheroy.....	Royal Mail S. P. Co.....	July 23.....	July 24.....	246	355
Orduna.....	Pacific Steam Navigation Co.....	July 23.....	July 24.....	163	(²)
Jason.....	Royal Netherlands S. S. Co.....	July 23.....	July 24.....	128	59
Tai Ping Yang.....	Barber S. S. Line.....	July 23.....	July 24.....	209	(²)
Tela.....	United Fruit Co.....	July 23.....	July 24.....	109	64
Murla.....	North German Lloyd.....	July 24.....	July 25.....	189	127
Bridgetown.....	Colombian S. S. Line.....	July 24.....	July 25.....	(¹)	78
Oregon.....	French Line.....	July 24.....	July 25.....	396	137
Portland.....	Hamburg-American Line.....	July 24.....	July 26.....	33	473
West Ira.....	Pacific-Argentine-Brazil Line.....	July 25.....	July 25.....	122	(²)
C. C. Aeme.....	Maxwell & Newhall.....	July 25.....	.....	11½	.....
Elbro.....	Pacific Steam Nav. Co.....	July 25.....	July 25.....	9	(²)
Amapala.....	Standard Fruit & S. S. Co.....	July 25.....	July 26.....	141	333
Oreoma.....	Pacific Steam Nav. Co.....	July 25.....	July 26.....	5	2
Adolf von Baeyer.....	Hamburg-American Line.....	July 26.....	.....	44	.....
Albert Voegler.....	Hamburg-American Line.....	July 26.....	.....	251	.....
Toutonia.....	Hamburg-American Line.....	July 26.....	.....	25	.....
Epoca.....	Grace Line.....	July 26.....	.....	113	.....
Caldas.....	National Navigation Co.....	July 26.....	.....	255	.....
Heredia.....	United Fruit Co.....	July 26.....	.....	246	.....

* No discharged.

² No cargo laded.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for \$1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at \$1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, \$1.20 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, \$1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers, at \$8 per ton of 2,240 pounds at Cristobal, and \$11 at Balboa. Extra charges are made for delivery from lighters, special trimming in bunkers, trimming on deck, furnishing lump coal for galley use, and run of mine coal in sacks.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at reasonable prices. Beef especially is available at low prices, hind-quarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

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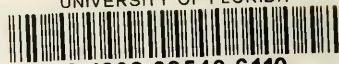
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