

PUB. 151

DISTANCES BETWEEN PORTS

Prepared and published by the
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
Bethesda, Maryland

© COPYRIGHT 2001 BY THE UNITED STATES GOVERNMENT
NO COPYRIGHT CLAIMED UNDER TITLE 17 U.S.C.

**ELEVENTH EDITION
2001**



PREFACE

GENERAL INFORMATION.—The 2001 Edition of Pub. 151, Distances Between Ports, supersedes all previous editions. Distances in this table are in nautical miles based on the International Nautical Mile of approximately 6,076.1 feet. Nautical miles may be converted to statute miles of 5,280 feet by multiplying by 1.15. (See conversion table at back of book). The positions listed for Ports are central positions that most represent each port. The distances are between positions shown for each port and are generally over routes that afford the safest passage. Most of the distances represent the shortest navigable routes, but in some cases, longer routes, that take advantage of favorable currents, have been used. In other cases, increased distances result from routes selected to avoid ice or other dangers to navigation, or to follow required separation schemes.

DESCRIPTION OF THE TABLES.—Departure Ports are listed alphabetically with distances to arrival Ports listed below them; distances to appropriate junction points are also listed. Junction Points are additionally located in the alphabetical sequence with distances to other appropriate Junction Points listed below. Great Lakes distances are given in U.S. Coast Pilot 6.

JUNCTION POINTS.—It is impractical to give all distances for every possible combination of Ports in this volume; therefore, the use of Junction Points greatly increases the number of distances that may be included by affording a means of connecting routes in adjacent oceans. In this book a Junction Point is a position where many routes converge and through which ships pass when sailing from one major area into another. For example, the Junction Point for routes from the Atlantic into the Mediterranean is the Strait of Gibraltar. Junction Points used in this publication are shown on the chartlets in the front part of the book.

ROUTES.—Routes throughout the world are described in the Sailing Directions along with route charts for the area of coverage. Articles on currents and meteorology are also covered in these publications. Additionally, charts are available, such as Pilot Charts and the NGA World Chart, Series 1145, which portray ocean routes worldwide. Any of these products may be used to assist the user in planning a voyage. A chartlet of basic ocean routes is included in the front of this publication for quick reference.

HOW TO USE THE TABLES.—To obtain distances, find the departure port in the alphabetical listing and select the desired arrival port and distance listed below. In most cases, the distances from one port to another and return are reciprocal, but in some cases, the distances differ because different routes were used which

take advantage of favorable currents or weather on one or both of the routes. To obtain a distance over a route that passes through one or more Junction Points, it is necessary to find and add distances for the two or more sections into which the route is divided.

For example: New York to Colombo—Using the Junction Point chartlets at the front of the book, locate all Junction Points between New York and Colombo.

There are two: Strait of Gibraltar and Port Said.

Find New York in the Distance Table: Page 69
Under Junction Points, locate —

Strait of Gibraltar.....	3,180 miles
--------------------------	-------------

Find Strait of Gibraltar in the Distance Table:
Page 108

Under Junction Points, locate —

Port Said, Arab Republic of Egypt.....	1,943 miles
--	-------------

Find Port Said in the Distance Table: Page 85

Under Ports, locate —

Colombo, Sri Lanka.....	3,481 miles
-------------------------	-------------

Total Nautical Miles.....	8,604
---------------------------	-------

If the user wishes to know the westbound route because of enroute cargo commitments, or which route is shorter—proceed as follows:

New York to Panama.....	2,016
-------------------------	-------

Panama to Singapore.....	10,505
--------------------------	--------

Singapore to Colombo.....	1,581
---------------------------	-------

Total Nautical Miles.....	14,102
---------------------------	--------

CORRECTIVE INFORMATION.—Users are requested to forward new or corrective information useful in the correction of this publication to:

MARITIME DIVISION
ST D 44
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
4600 SANGAMORE ROAD
BETHESDA, MARYLAND 20816-5003

THE NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY MARITIME SAFETY INFORMATION WEB SITE

The National Geospatial-Intelligence Agency (NGA) Maritime Safety Information Web site provides worldwide remote query access to extensive menus of maritime safety information, 24 hours a day.

Databases made available for access, query and download include Chart Corrections, Publication Corrections, Hydrographic Catalog Corrections, Chart and Publication Reference Data (current edition number, dates, title, scale), List of Lights, USCG Light Lists, WorldWide Navigational Warning Service (WWNWS) Broadcast Warnings, Maritime Administration (MARAD) Advisories, Department of State Special Warnings, Mobile Offshore Drilling Units (MODUs), Anti-Shipping Activity Messages (ASAMs), World Port Index, and Radio Navigational Aids. Publications that are also made available as PDF files include the US Notice to Mariners, Sailing Directions, US Chart No. 1, The American Practical Navigator (Bowditch), International Code of Signals, Radio Navigational Aids, World Port Index, Distances Between Ports, Sight Reduction Tables for Marine and Air Navigation, and the Radar Navigation and Maneuvering Board Manual.

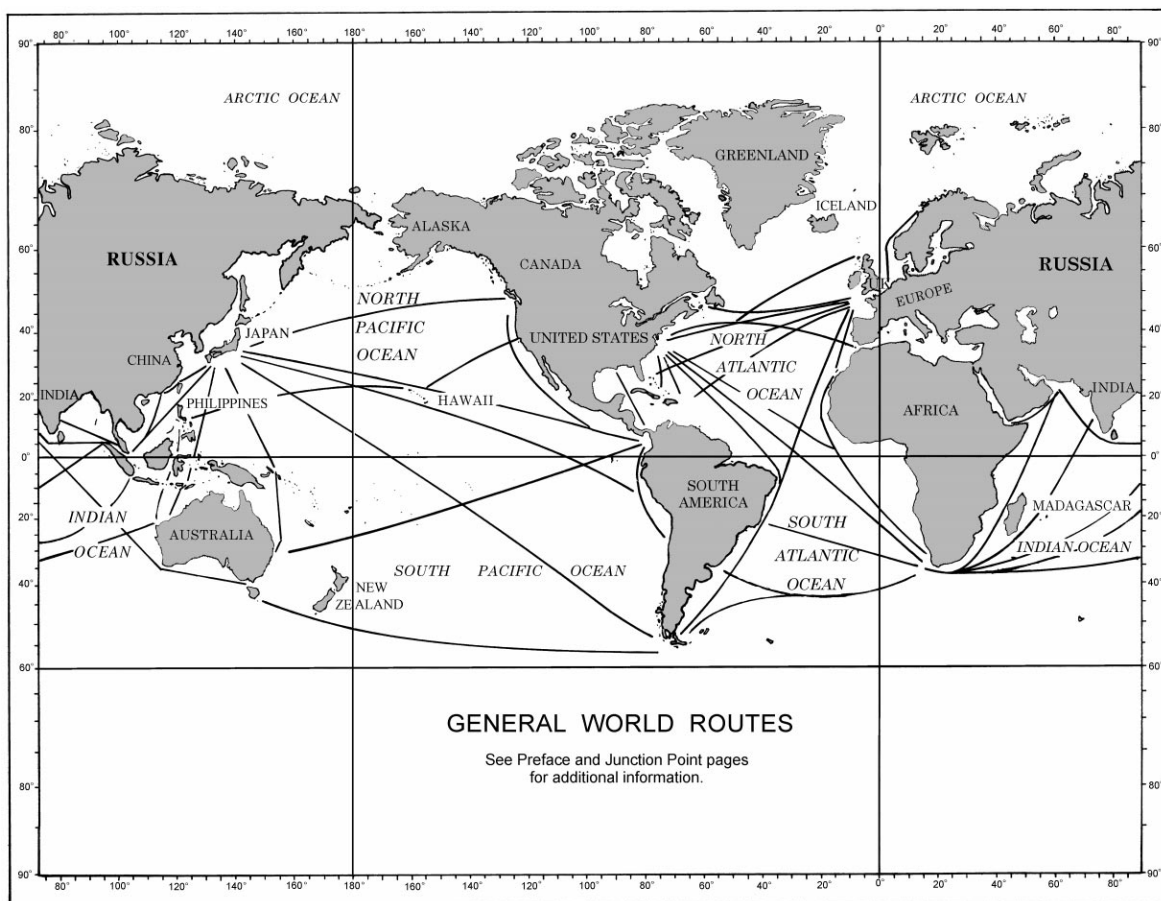
The Maritime Safety Information Web site can be accessed via the NGA Homepage (www.nga.mil) under the *Products and Services* > *Maritime* links, or directly at <http://pollux.nss.nga.mil>. Any questions concerning the Maritime Safety Information Website should be directed to:

MARITIME DIVISION
ST D 44
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
4600 SANGAMORE ROAD
BETHESDA, MD 20816-5003

Telephone: 301-227-3296 or DSN 287-3296
Fax: 301-227-4211
E-mail: webmaster_nss@nga.mil

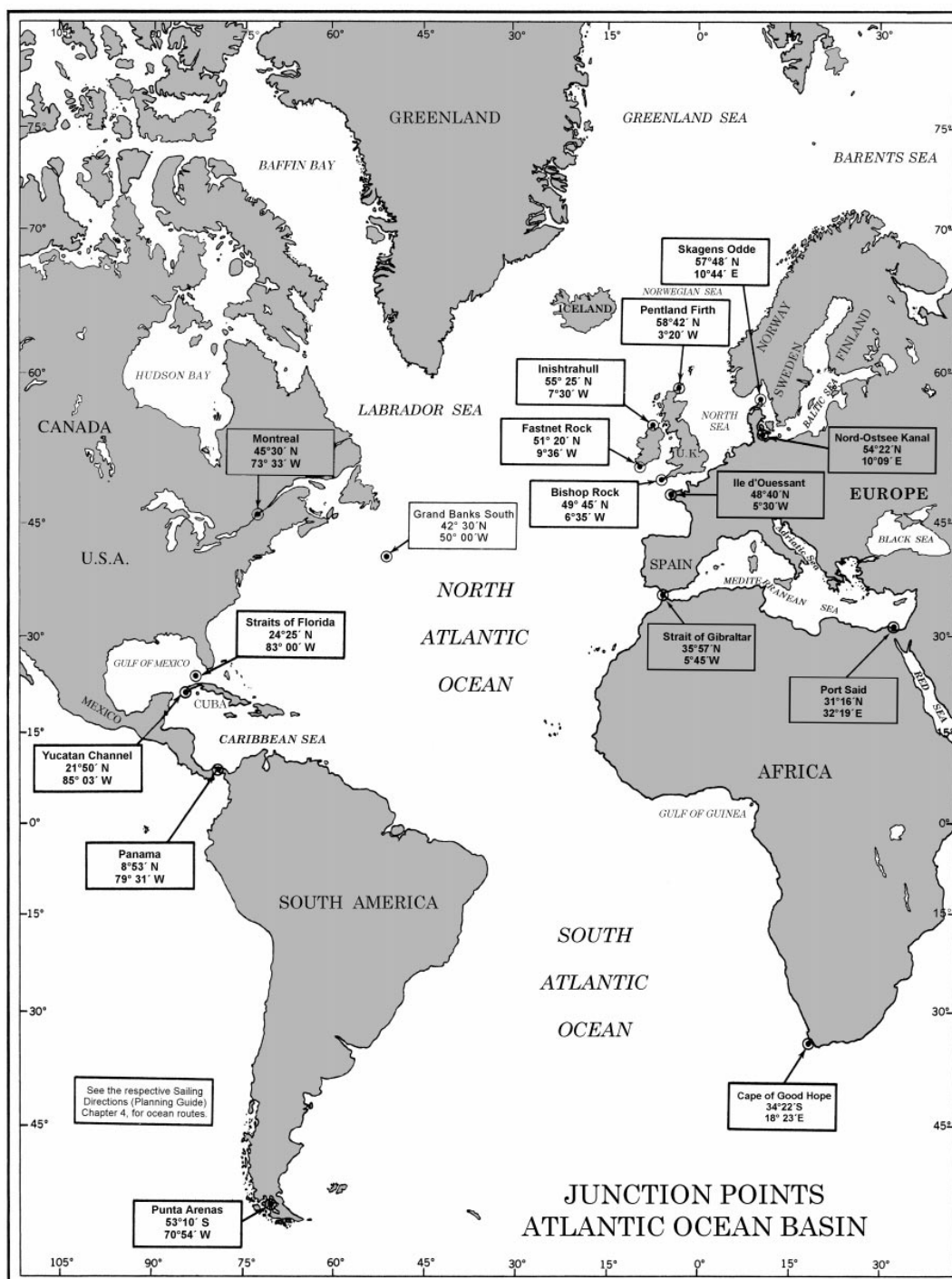
CONTENTS

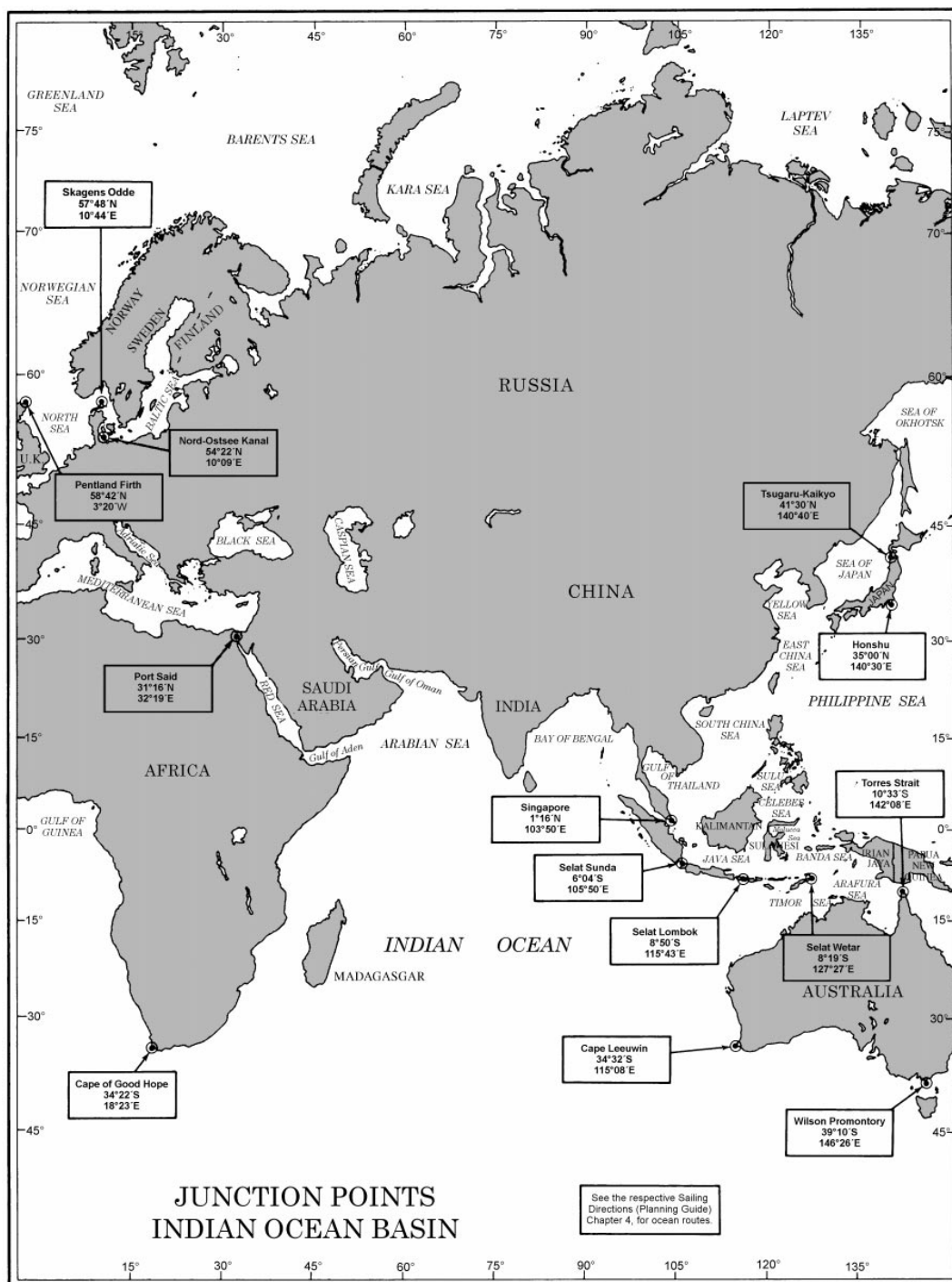
	Page
Preface	I
Chart Showing General World Routes	V
List of Junction Points	VI
Junction Points, Atlantic Ocean Basin	VII
Junction Points, Indian Ocean Basin	VIII
Junction Points, Pacific Ocean Basin	IX
Distance Between Ocean Ports of the World	1
Conversion Table for Nautical and Statute Miles	127
Table for Estimating Time of Transit	128

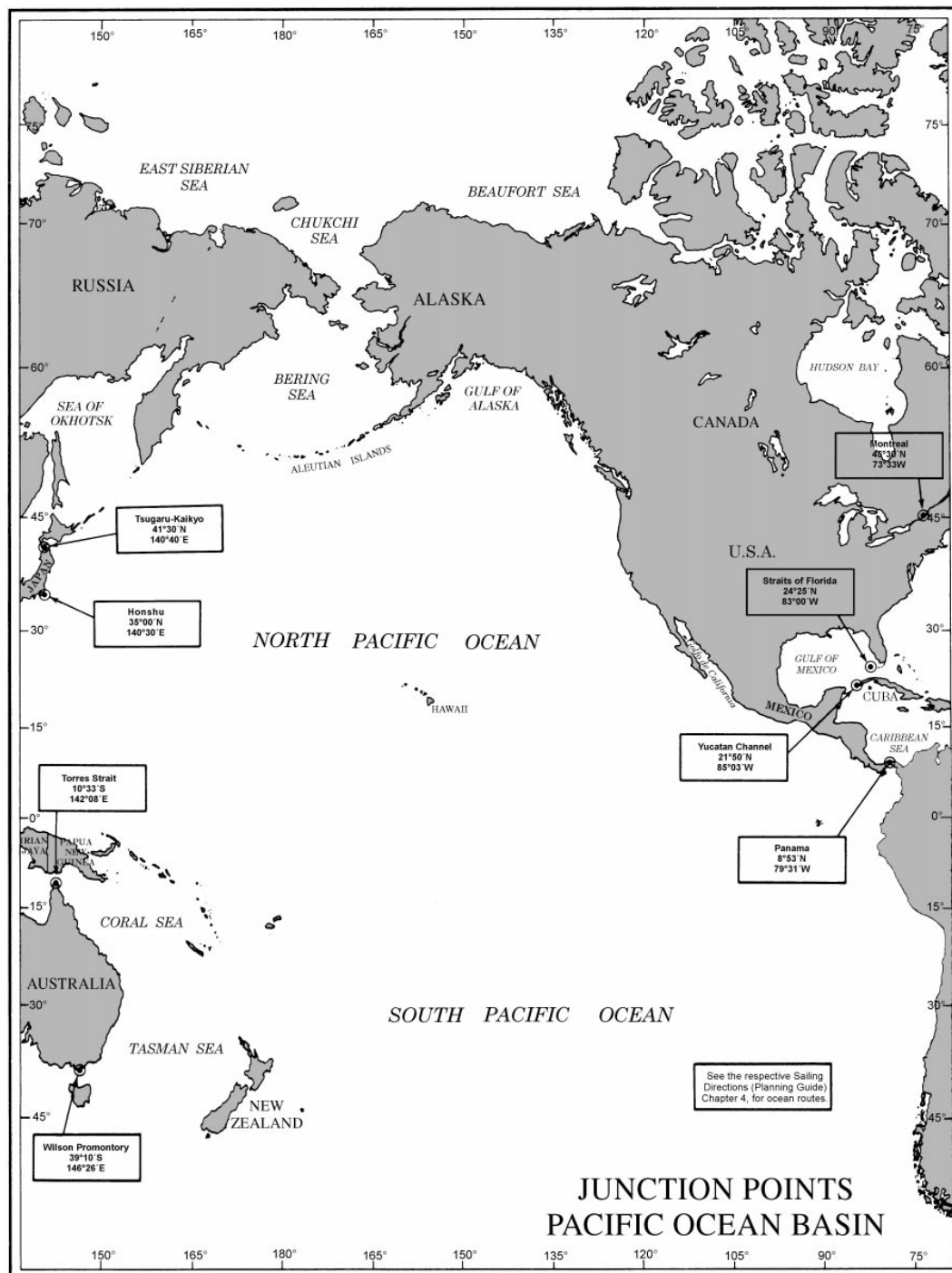


PUB. 151
JUNCTION POINTS

Bishop Rock, England,.....	49°45'00"N., 6°35'00"W.
Cape Leeuwin, Australia,.....	34°32'00"S., 115°08'00"E.
Cape of Good Hope, South Africa,	34°22'00"S., 18°23'00"E.
Fastnet Rock, Ireland,.....	51°20'00"N., 9°36'00"W.
Grand Banks South,.....	42°30'00"N., 50°00'00"W.
Honshu, Japan,	35°00'00"N., 140°30'00"E.
Ile d'Ouessant, France,.....	48°40'00"N., 5°30'00"W.
Inishtrahull, Ireland,	55°25'00"N., 7°30'00"W.
Montreal, Canada,	45°30'00"N., 73°33'00"W.
Nord-Ostsee-Kanal, Germany,	54°22'00"N., 10°09'00"E.
Panama, Panama,.....	8°53'00"N., 79°31'00"W.
Pentland Firth, Scotland,	58°42'00"N., 3°20'00"W.
Port Said, Egypt,.....	31°16'00"N., 32°19'00"E.
Punta Arenas, Chile,.....	53°10'00"S., 70°54'00"W.
Selat Lombok, Indonesia,.....	8°50'00"S., 115°43'00"E.
Selat Sunda, Indonesia,	6°04'00"S., 105°50'00"E.
Selat Wetar, Indonesia,	8°19'00"S., 127°27'00"E.
Singapore,.....	1°16'00"N., 103°50'00"E.
Skagens Odde, Denmark,	57°48'00"N., 10°44'00"E.
Strait of Gibraltar,.....	35°57'00"N., 5°45'00"W.
Straits of Florida,.....	24°25'00"N., 83°00'00"W.
Torres Strait, Australia,	10°33'00"S., 142°08'00"E.
Tsugaru-Kaikyo, Japan,.....	41°30'00"N., 140°40'00"E.
Wilson Promontory, Australia,	39°10'00"S., 146°26'00"E.
Yucatan Channel,.....	21°50'00"N., 85°03'00"W.







AAIUN, WESTERN SAHARA
(27°05'37"N., 13°26'55"W.) to:**Junction Points***

Bishop Rock, England, 1,397
Cape of Good Hope, South Africa, 4,436
Fastnet Rock, Ireland, 1,465
Grand Banks South, 2,003
Ile d'Ouessant, France, 1,356
Inishtrahull, Ireland, 1,753
Panama, Panama, 3,894
Pentland Firth, Scotland, 2,006
Punta Arenas, Chile, 5,684
Strait of Gibraltar, 667
Straits of Florida, 3,712

Ports

Arrecife de Lanzarote, Canary Islands, 111
Casablanca, Morocco, 506
Dakar, Senegal, 793
Monrovia, Liberia, 1,525
New York, New York, U.S.A., 3,065
Porto Grande, Cape Verde Islands, 887

AALBORG, DENMARK
(57°03'30"N., 9°56'00"E.) to:**Junction Points***

Nord-Ostsee-Kanal (East Entrance), Germany, 207
Skagens Odde, Denmark, 87

Ports

Gdynia, Poland (via Store Bael), 476
Gdynia, Poland (via The Sound), 410
Kobenhavn, Denmark, 143
Lubeck, Germany (via Store Bael), 244

AARHUS, DENMARK
(56°09'30"N., 10°13'30"E.) to:**Junction Points***

Nord-Ostsee-Kanal (East Entrance), Germany, 131
Skagens Odde, Denmark, 127

Ports

Abenra, Denmark, 103
Kobenhavn, Denmark, 108
Szczecin, Poland, 268

AASIAAT (EGEDESMINDE), GREENLAND
(68°42'33"N., 52°53'12"W.) to:**Junction Points***

Pentland Firth, Scotland, 1,925
Strait of Gibraltar, 2,772

Ports

Churchill, Canada, 1,485
Reykjavik, Iceland, 1,371
St. John's, Canada, 1,294

ABADAN, IRAN
(30°19'48"N., 48°16'30"E.)
Subtract 30 miles from Al Basrah distances.**ABENRA, DENMARK**
(55°01'36"N., 9°25'50"E.) to:**Junction Points***

Nord-Ostsee-Kanal (East Entrance), Germany, 207
Skagens Odde, Denmark, 87

Ports

Aarhus, Denmark, 114
Helsinki, Finland, 666
Kobenhavn, Denmark, 196
Lubeck, Germany, 138
Lulea, Sweden, 914
Riga, Latvia, 588
Sankt-Peterburg, Russia, 811
Tallinn, Estonia, 646
Umea, Sweden, 792

ABERDEEN, SCOTLAND
(57°08'30"N., 2°04'30"W.) to:**Junction Points***

Ile d'Ouessant, France, 715
Nord-Ostsee-Kanal (West Entrance), 406
Pentland Firth, Scotland, 106
Skagens Odde, Denmark, 416

Ports

Amsterdam, Netherlands, 376
Antwerp, Belgium, 465
Bergen, Norway, 309
Bodo, Norway, 767
Bremerhaven, Germany, 435
Egersund, Norway, 277
Emden, Germany, 401
Esbjerg, Denmark, 380
Hamburg, Germany, 481
Hammerfest, Norway, 1,073
Hornmelvik, Norway, 586
Kristiansand, Norway, 340
Kristiansund, Norway, 498
Le Havre, France, 530
London, England, 431
Murmansk, Russia, 1,363
Oostende, Belgium, 415
Oslo, Norway, 490
Plymouth, England, 642
Portland, England, 564
Portsmouth, England, 514
Rotterdam, Netherlands, 391
Slagen, Norway, 450
Southampton, England, 532
Stavanger, Norway, 278
Torshavn, Faroe Islands, 345
Wilhelmshaven, Germany, 423
Zeebrugge, Belgium, 420

ABIDJAN, IVORY COAST
(5°19'00"N., 4°01'50"W.) to:**Junction Points***

Bishop Rock, England, 3,417
Cape of Good Hope, South Africa, 2,712
Fastnet Rock, Ireland, 3,472
Grand Banks South, 3,539
Ile d'Ouessant, France, 3,375
Inishtrahull, Ireland, 3,755
Panama, Panama, 4,597
Pentland Firth, Scotland, 4,048
Punta Arenas, Chile, 4,910
Strait of Gibraltar, 2,658
Straits of Florida, 4,756
Yucatan Channel, 4,895

Ports

Cape Town, South Africa, 2,679
Dakar, Senegal, 1,166
Freetown, Sierra Leone, 718
Lagos (including Apapa & Tin Can Island), Nigeria, 457
Luanda, Angola, 1,345
Pepel, Sierra Leone, 732
Walvisbaai, Namibia, 2,009

ABRAHAM BAY, MAYAGUANA ISLAND, BAHAMAS
(22°19'00"N., 73°03'20"W.) to:**Junction Points***

Cape of Good Hope, South Africa, 6,237
Grand Banks South, 1,675
Panama, Panama, 922
Punta Arenas, Chile, 6,410
Strait of Gibraltar, 3,552
Straits of Florida, 593

Ports

New York, New York, U.S.A., 1,115
Nuevitas, Cuba, 243
San Juan, Puerto Rico, 476

ABU DHABI, UNITED ARAB EMIRATES
(24°34'13"N., 54°19'49"E.) to:**Junction Points***

Cape of Good Hope, South Africa, 4,812
Cape Leeuwin, Australia, 5,115
Selat Lombok, Indonesia, 4,341
Port Said, Egypt, 2,944
Singapore, 3,517
Selat Sunda, Indonesia, 3,724

Ports

Aden, Yemen, 1,593
Belawan, Indonesia, 3,188
Bombay, India, 1,187
Calcutta, India, 3,175
Colombo, Sri Lanka, 1,954
Darwin, Australia, 5,219
Fremantle, Australia, 5,045
Penang, Malaysia, 3,221
Rangoon, Burma, 3,171

ACAJUTLA, EL SALVADOR
(13°35'00"N., 89°51'00"W.) to:**Junction Points***

Honshu, Japan, 6,908
Panama, Panama, 833
Punta Arenas, Chile, 4,309
Tsugaru-Kaikyo, Japan, 6,750
Torres Strait, Australia, 7,784
Wilson Promontory, Australia, 7,519

Ports

San Francisco, California, U.S.A., 2,444

ACAPULCO, MEXICO
(16°50'30"N., 99°55'30"W.) to:**Junction Points***

Panama, Panama, 1,426

Punta Arenas, Chile, 4,582

Ports

Amapala, Honduras, 763
Antofagasta, Chile, 2,984
Apia, Samoa, 4,638
Arica, Chile, 2,768
Callao, Peru, 2,198
Champerico, Guatemala, 494
Coquimbo, Chile, 3,259
Corinto, Nicaragua, 792
Ensenada, Mexico, 1,369
Esmeraldas, Ecuador, 1,527
Golfito, Costa Rica, 1,123
Guayaquil, Ecuador, 1,708
Guaymas, Mexico, 958
Honolulu, Hawaii, U.S.A., 3,289
Iquique, Chile, 2,834
La Palma, Panama, 1,466
Los Angeles, California U.S.A., 1,501
Lota, Chile, 3,573
Manzanillo, Mexico, 295
Mazatlan, Mexico, 595
Mollendo, Peru, 2,643
Monterey, California, U.S.A., 1,753
Pago Pago, American Samoa, 4,595
Papeete, French Polynesia, 3,595
Pedregal, Panama, 1,184
Pisco, Peru, 2,309
Puerto Masachapa, Nicaragua, 850
Puerto Sandino, Nicaragua, 825
Puntarenas, Costa Rica, 1,011
Quepos, Costa Rica, 1,043
Salina Cruz, Mexico, 314
San Diego, California, U.S.A., 1,431
San Jose, Guatemala, 574
San Lorenzo, Honduras, 791
Santa Barbara, California, U.S.A., 1,568
Santa Rosalia, Mexico, 976
Sasebo, Japan, 6,918
Talara, Peru, 1,696
Talcahuano, Chile, 3,558
Valparaiso, Chile, 3,406

ACCRA, GHANA
(5°31'00"N., 0°12'00"W.) to:**Junction Points***

Straits of Florida (via Northwest Providence Channel), 5,016

Ports

Freetown, Sierra Leone, 955
Grand Bassam, Ivory Coast, 230
Lagos, Nigeria, 229
Lobito, Angola, 1,356
Marshall, Liberia, 671
Pointe Noire, Congo, 952
Porto Grande, Cape Verde Islands, 1,760
Sassandra, Ivory Coast, 362

AD DAMMAN, SAUDI ARABIA
(26°31'00"N., 50°12'00"E.) to:**Junction Points***

Cape of Good Hope, South Africa, 4,960
Port Said, Egypt, 3,142
Singapore, 3,681

* **JUNCTION POINT.**—See Preface for use of junction points

2 ADEN, YEMEN

<p>Ports</p> <p>Al Basrah, Iraq, 304 Bombay, India, 1,373</p> <p>ADEN, YEMEN (12°47'40"N., 44°59'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 3,954 Cape Leeuwin, Australia (north of Chagos Archipelago), 4,958 Cape Leeuwin, Australia (south of Chagos Archipelago), 4,973 Port Said, Egypt, 1,400 Singapore, 3,631 Selat Sunda, Indonesia (via Eight Degree Channel), 3,842 Torres Strait, Australia (via One and Half Degree Channel), 6,022</p> <p>Ports</p> <p>Abadan, Iraq, 1,937 Al Aqabah, Jordan, 1,251 Al Basrah, Iraq, 1,967 Al Gurdagah, Egypt, 1,135 Al Hudaydah, Yemen, 230 Al Mukha, Yemen, 137 Albany, Australia (north of Chagos Archipelago), 5,127 Albany, Australia (south of Chagos Archipelago), 5,132 Assab, Ethiopia, 150 Bandar Abbas, Iran, 1,453 Bassein, Burma, 3,251 Beira, Mozambique, 2,610 Belawan, Indonesia, 3,299 Bhavnagar, India, 1,707 Bombay, India, 1,657 Bur Safaga, Egypt, 1,109 Calcutta, India, 3,308 Colombo, Sri Lanka, 2,094 Dar es Salaam, Tanzania, 1,740 Diego Garcia, Chagos Archipelago, 2,090 Djibouti, Djibouti, 133 Eilat, Israel, 1,247 Fremantle, Australia (north of Chagos Archipelago), 4,921 Hobart, Tasmania, 6,598 Jiddah, Saudi Arabia, 701 Karachi, Pakistan, 1,472 Madras, India, 2,661 Malacca, Malaysia, 3,517 Maputo, Mozambique, 2,953 Massawa, Ethiopia, 400 Mina al Ahmadi, Kuwait, 1,897 Mina Abd Allah, Kuwait, 1,894 Mogadishu, Somalia, 1,106 Mombasa, Kenya, 1,602 Moulmein, Burma, 3,354 Penang, Malaysia, 3,344 Port Darwin, Australia (via Eight Degree Channel), 5,355 Port Louis, Mauritius, 2,341 Port Sudan, Sudan, 658 Rangoon, Burma, 3,318 Ras al Khafji, Saudi Arabia, 1,871 Ras as Sidr, Egypt, 1,282 Ras Gharib, Egypt, 1,207 Ras Tannurah, Saudi Arabia, 1,773 Sabang, Indonesia, 3,033 Suakin, Sudan, 631 Tanga, Tanzania, 1,671 Victoria, Seychelles, 1,416 Wellington, New Zealand (south of Chagos Archipelago and Tasmania), 7,814</p>	<p>Zanzibar, Tanzania, 1,722</p> <p>AGADIR, MOROCCO (30°25'30"N., 9°37'35"W.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,719 Ile d'Ouessant, France, 1,136</p> <p>Ports</p> <p>Abidjan, Ivory Coast, 2,258 Casablanca, Morocco, 257 Dakar, Senegal, 1,109 Escravos, Nigeria, 2,778 Freetown, Sierre Leone, 1,597 Lagos, Nigeria, 2,699 Luanda, Angola, 3,507 Monrovia, Liberia, 1,761 Nouadhibou, Mauritania, 751 Pointe Noire, Congo, 3,321 Port Harcourt, Nigeria, 2,944 Qua Iboe, Nigeria, 2,961 Tangier, Morocco, 414 Walvisbaai, Namibia, 4,075</p> <p>AJACCIO, CORSICA (41°55'40"N., 8°45'07"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,355 Strait of Gibraltar, 778</p> <p>Ports</p> <p>Beirut, Lebanon, 1,437 Catania, Sicily, 464 Civitavecchia, Italy, 180 Genova, Italy, 170 Marseillemarseille, France, 188 Nice, France, 138 Toulon, France, 155 Venezia, Italy, 1,507 Villefranche, France, 138 Volos, Greece (south of Greece), 1,056 Volos, Greece (Corinth Canal), 1,014</p> <p>AKITA, JAPAN (39°45'30"N., 140°02'00"E.) to:</p> <p>Ports</p> <p>Aomori, Japan, 158 Hakodate, Japan, 150 Maizuru, Japan, 352 Shimonoseki, Japan, 586</p> <p>AKUREYRI, ICELAND (65°41'00"N., 18°04'00"W.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 702 Strait of Gibraltar, 2,102</p> <p>Ports</p> <p>Bergen, Norway, 803 Murmansk, Russia, 1,256 St. John's, Canada, 1,616</p> <p>AL AQABAH, JORDAN (29°31'15"N., 34°59'55"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 380</p>	<p>Ports</p> <p>Aden, Yemen, 1,251 Jiddah, Saudi Arabia, 573 Massawa, Ethiopia, 897</p> <p>AL BASRAH, IRAQ (30°31'30"N., 47°50'30"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,211 Port Said, Egypt, 3,371 Singapore, 3,916</p> <p>Ports</p> <p>Ad Damman, Saudi Arabia, 304 Aden, Yemen, 1,979 Bandar Abbas, Iran, 572 Bandar Khomeini, Iran, 154 Belawan, Indonesia, 3,553 Bombay, India, 1,594 Calcutta, India, 3,593 Colombo, Sri Lanka, 2,359 Dumai, Indonesia, 3,824 Fremantle, Australia, 5,440 Karachi, Pakistan, 1,177 Malacca, Malaysia, 3,771 Massawa, Ethiopia, 2,372 Mina al Ahmadi, Kuwait, 140 Penang, Malaysia, 3,598 Port Darwin, Australia, 5,650 Rangoon, Burma, 3,603 Ras Tannurah, Saudi Arabia, 295 Sabang, Indonesia, 3,287 Umm Said, Qatar, 444</p> <p>AL JUBAYL, SAUDI ARABIA (27°01'00"N., 49°42'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,109 Cape Leeuwin, Australia, 5,276 Selat Lombok, Indonesia, 4,577 Port Said, Egypt, 3,164 Singapore, 3,723 Selat Sunda, Indonesia, 3,949 Torres Strait, Australia, 6,107</p> <p>Ports</p> <p>Al Basrah, Iraq, 231 Bandar Abbas, Iran, 366 Colombo, Sri Lanka, 2,157 Fremantle, Australia, 5,248 Melaka, Malaysia, 3,610 Port Darwin, Australia, 5,422 Ra's at Tannurah, Saudi Arabia, 34</p> <p>AL LATAKIA, SYRIA (35°31'40"N., 35°45'35"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 310 Strait of Gibraltar, 2,029</p> <p>Ports</p> <p>Alexandria, Egypt, 402 Iraklion, Kriti, 527 Larnaca, Cyprus, 114 Mersin, Turkey, 94 Napoli, Italy, 1,191 Trieste, Italy (south of Greece), 1,370 Trieste, Italy (via Corinth Canal), 1,337</p>	<p>Tunis, Tunisia, 1,258 Valencia, Spain, 1,765</p> <p>AL MANAMAH, BAHRAIN (26°17'00"N., 50°32'30"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,957 Port Said, Egypt, 3,132 Singapore, 3,652</p> <p>Ports</p> <p>Bandar Khomeini, Iran, 288 Belawan, Indonesia, 3,316 Calcutta, India, 3,355 Fremantle, Australia, 5,203 Malacca, Malaysia, 3,534 Penang, Malaysia, 3,361 Port Darwin, Australia, 5,390 Rangoon, Burma, 3,329 Sabang, Indonesia, 3,050</p> <p>ALBANY, AUSTRALIA (35°02'40"S., 117°54'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,740 Cape Leeuwin, Australia, 168 Singapore, 2,525 Wilson Promontory, Australia, 1,378</p> <p>Ports</p> <p>Aden, Yemen, 5,127 Durban, South Africa, 4,270 Fremantle, Australia, 349 Geraldton, Australia, 525 Hobart, Tasmania, 1,494 Malacca, Malaysia, 2,602 Melbourne, Australia, 1,363 Port Adelaide, Australia, 1,024 Port Darwin, Australia, 2,152 Port Lincoln, Australia, 953 Port Louis, Mauritius, 3,340 Rapid Bay, Australia, 990 Wellington, New Zealand (south of Tasmania), 2,729</p> <p>ALBANY, NEW YORK, U.S.A. (42°37'54"N., 73°45'18"W.) Add 126 miles to New York distances.</p> <p>ALBATROSS BAY, AUSTRALIA (12°41'24"S., 141°32'57"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 6,793 Cape Leeuwin, Australia, 2,677 Selat Lombok, Indonesia, 1,583 Port Said, Egypt, 7,406 Torres Strait, Australia, 156 Selat Wetar, Indonesia, 872</p> <p>Ports</p> <p>Ambon, Indonesia, 1,036 Darwin, Australia, 725 Ho Chi Minh, Vietnam, 2,730 Hong Kong, China, 2,727 Manila, Philippines, 2,166 Tjilatjap, Indonesia, 1,961 Zamboanga, Philippines, 1,681</p>
--	--	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

ALEKSANDROVSK-SAKHALINSKIY, RUSSIA
(50°54'00"N., 142°07'00"E.) to:**Junction Points***

Singapore, 3,608
Selat Sunda, Indonesia, 3,961

Ports

Bangkok, Thailand (outer bar), 3,639
Bukhta Shelikohova, Kuril Islands, Russia, 934
Busan, South Korea, 1,118
Dagu, China, 1,807
Dalian, China (via Maenggol Sudo), 1,648
Hakodate, Japan, 631
Ho Chi Minh, Vietnam, 3,105
Hong Kong, China, 2,250
Honolulu, Hawaii, U.S.A., 3,589
Incheon, South Korea (via Maenggol Sudo), 1,507
Jakarta, Indonesia, 3,942
Kasatka, Japan, 595
Kobe, Japan, 1,384
Lo hsing-ta Mao-ti, China, 1,868
Los Angeles, California, U.S.A., 4,687
Manila, Philippines, 2,507
Matsuga-hana, Japan, 589
Mogpo, South Korea, 1,330
Moskal'vo, Russia, 230
Nagasaki, Japan, 1,253
Nampo, North Korea, 1,601
Nikolayevsk-Na-Amure, Russia, 162
Osaka, Japan, 1,394
Pago Pago, American Samoa, 4,765
Petrovsk-Kamchatskiy, Russia (via Chetvertiy Kuril'skiy Proliv and La Perouse Strait), 1,158
Port Darwin, Australia, 4,041
Qingdao, China, 1,602
Qinhuangdao, China (via San Maenggol, Sudo), 1,750
Diego, California, U.S.A., 4,779
San Francisco, California, U.S.A., 4,373
Seattle, Washington, U.S.A. (via La Perouse Strait and Proliv Kruzenshterna), 4,108
Shanghai, China, 1,597
Tomari, Japan, 542
Vladivostok, Russia, 713
Weihai, China (via Maenggol Sudo), 1,579
Weonsan, South Korea, 972
Xiamen, China, 1,991
Yantai, China (via Maenggol Sudo), 1,613
Yokohama, Japan, 1,143

ALESUND, NORWAY
(62°28'06"N., 6°09'27"E.) to:**Junction Points***

Skagens Odde, Denmark, 450

Ports

Bergen, Norway, 167
London, England, 733
Reykjavik, Iceland, 848

ALEXANDRIA, EGYPT
(31°10'41"N., 29°51'28"E.) to:**Junction Points***

Port Said, Egypt, 164
Strait of Gibraltar, 1,822

Ports

Al Latakia, Syria, 402
Algiers, Algeria, 1,393
Alicante, Spain, 1,560
Ancona, Italy, 1,096
Annaba, Algeria, 1,169
Antalya, Turkey, 349
Ashdod, Israel, 266
Augusta, Sicily, 819
Banghazi, Libya, 541
Banzart, Tunisia, 1,064
Barcelona, Spain, 1,482
Bari, Italy, 890
Beirut, Lebanon, 341
Brindisi, Italy, 831
Cagliari, Sardinia, 1,136
Cartagena, Spain, 1,585
Castellammare di Stabia, Italy, 1,003
Catania, Sicily, 828
Ceuta, Morocco, 1,802
Famagusta, Cyprus, 340
Genova, Italy, 1,316
Gibraltar, 1,805
Haifa, Israel, 295
Iraklion, Kriti, 372
Istanbul, Turkey, 742
Izmir, Turkey, 547
La Spezia, Italy, 1,280
Limassol, Cyprus, 272
Livorno, Italy, 1,244
Malaga, Spain, 1,752
Marseille, France, 1,40
Messina, Sicily, 834
Napoli, Italy, 1,005
Odessa, Ukraine, 1,090
Oran, Algeria, 1,590
Palermo, Sicily, 950
Palma, Balearic Islands, 1,435
Paphos, Cyprus, 256
Piraeus, Greece, 515
Rijeka, Croatia, 1,166
Savona, Italy, 1,326
Sibenik, Croatia, 1,039
Siracusa, Sicily, 809
Soudha, Kriti, 425
Split, Croatia, 1,024
Tarabulus, Libya, 866
Taranto, Italy, 844
Thessaloniki, Greece, 678
Toulon, France, 1,376
Trieste, Italy, 1,200
Tubruq, Libya, 308
Tunis, Tunisia, 1,051
Valencia, Spain, 1,559
Valletta, Malta, 823
Venezia, Italy, 1,208
Volos, Greece, 620

ALEXANDROUPOLIS, GREECE
(40°50'00"N., 25°53'00"E.) to:**Junction Points***

Port Said, Egypt, 699
Strait of Gibraltar, 1,716

Ports

Istanbul, Turkey, 200
Thessaloniki, Greece, 191
Volos, Greece, 205

ALGECIRAS, SPAIN
(36°07'30"N., 5°26'30"W.) to:**Junction Points***

Port Said, Egypt, 1,927
Strait of Gibraltar, 25

Ports

Cartagena, Spain, 238
Oran, Algeria, 229
Palermo, Sicily, 924

ALGIERS, ALGERIA
(36°46'50"N., 3°04'11"E.) to:**Junction Points***

Port Said, Egypt, 1,514
Strait of Gibraltar, 437

Ports

Alexandria, Egypt, 1,393
Alicante, Spain, 198
Ancona, Italy, 1,153
Annaba, Algeria, 246
Arzew, Algeria, 186
Banghazi, Libya, 927
Banzart, Tunisia, 340
Barcelona, Spain, 282
Bari, Italy, 946
Bat'umi, Georgia (via Corinth Canal), 1,963
Beirut, Lebanon, 1,605
Brindisi, Italy, 888
Cagliari, Sardinia, 332
Cannes, France, 446
Cartagena, Spain, 208
Ceuta, Morocco, 417
Genova, Italy, 531
Ghazaouet, Algeria, 278
Gibraltar, 420
Haifa, Israel, 1,602
Iraklion, Kriti, 1,087
Istanbul, Turkey (south of Greece), 1,393
Istanbul, Turkey (via Corinth Canal), 1,376
Izmir, Turkey (via Corinth Canal), 1,221
Kavala, Greece (via Corinth Canal), 1,260
La Spezia, Italy, 540
Livorno, Italy, 528
Mahon, Balearic Islands, 200
Malaga, Spain, 368
Marseille, France, 410
Messina, Sicily, 621
Mostaganem, Algeria, 172
Napoli, Italy, 582
Odessa, Ukraine (via Corinth Canal), 1,724
Oran, Algeria, 205
Palermo, Sicily, 513
Piraeus, Greece (south of Greece), 1,079
Piraeus, Greece (via Corinth Canal), 1,022
Savona, Italy, 518
Sibenik, Croatia, 1,094
Siracusa, Sicily, 626
Skikda, Algeria, 200
Split, Croatia, 1,079
Tarabulus, Libya, 665
Taranto, Italy, 841
Thessaloniki, Greece (via Corinth Canal), 1,270
Toulon, France, 406
Trieste, Italy, 1,254
Tunis, Tunisia, 392
Valencia, Spain, 230
Valletta, Malta, 576
Venezia, Italy, 1,264

Volos, Greece (via Corinth Canal), 1,211

ALICANTE, SPAIN
(38°20'00"N., 0°29'01"E.) to:**Junction Points***

Port Said, Egypt, 1,680
Strait of Gibraltar, 317

Ports

Alexandria, Egypt, 1,560
Algiers, Algeria, 198
Almeria, Spain, 155
Ancona, Italy, 1,308
Annaba, Algeria, 419
Arzew, Algeria, 152
Banghazi, Libya, 1,094
Banzart, Tunisia, 507
Barcelona, Spain, 228
Bari, Italy, 1,100
Beirut, Lebanon, 1,772
Brindisi, Italy, 1,042
Cagliari, Sardinia, 473
Ceuta, Morocco, 299
Civitavecchia, Italy, 616
Genova, Italy, 564
Ghazaouet, Algeria, 209
Gibraltar, 300
Haifa, Israel, 1,769
Iraklion, Kriti, 1,254
Istanbul, Turkey (via Corinth Canal), 1,540
Izmir, Turkey (via Corinth Canal), 1,386
La Spezia, Italy, 588
Livorno, Italy, 585
Malaga, Spain, 248
Marseille, France, 406
Melilla, Morocco, 224
Mers el Kebir, Algeria, 160
Messina, Sicily, 776
Mostaganem, Algeria, 148
Napoli, Italy, 723
Odessa, Ukraine (via Corinth Canal), 1,888
Oran, Algeria, 159
Palermo, Sicily, 667
Palma, Balearic Islands, 173
Piraeus, Greece (south of Greece), 1,246
Piraeus, Greece (via Corinth Canal), 1,186
Savona, Italy, 549
Sibenik, Croatia, 1,249
Siracusa, Sicily, 792
Split, Croatia, 1,234
Tarabulus, Libya, 832
Taranto, Italy, 995
Thessaloniki, Greece (via Corinth Canal), 1,435
Toulon, France, 418
Trieste, Italy, 1,409
Tunis, Tunisia, 558
Valencia, Spain, 98
Valletta, Malta, 743
Venezia, Italy, 1,418
Villa Sanjurjo, Morocco, 260
Volos, Greece (south of Greece), 1,395
Volos, Greece (via Corinth Canal), 1,376

ALMERIA, SPAIN
(36°49'30"N., 2°27'48"W.) to:**Junction Points***

Port Said, Egypt, 1,780
Strait of Gibraltar, 171

* **JUNCTION POINT.**—See Preface for use of junction points

4 ALMIRANTE, PANAMA

<p>Ports</p> <p>Alicante, Spain, 155 Barcelona, Spain, 371 Catania, Sicily, 919 Istanbul, Turkey (via Corinth Canal), 1,642 Kerch, Ukraine (via Corinth Canal), 2,077 Nice, France, 627 Palma, Balearic Islands, 308 Sfax, Tunisia, 881</p> <p>ALMIRANTE, PANAMA (9°17'12"N., 82°23'32"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 198 Yucatan Channel, 814</p> <p>Ports</p> <p>Barranquilla, Colombia, 477 Cienfuegos, Cuba, 788 Kingston, Jamaica, 657</p> <p>ALTAGRACIA, VENEZUELA (10°42'30"N., 71°32'00"W.) Subtract 6 miles from Maracaibo distances.</p> <p>AMAGASAKI, JAPAN (34°41'00"N., 135°23'00"E.) Add 4 miles to Osaka for ports outside the Inland Sea.</p> <p>AMAPALA, HONDURAS (13°18'00"N., 87°39'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 745</p> <p>Ports</p> <p>Acapulco, Mexico, 763 Antofagasta, Chile, 2,460 Callao, Peru, 1,665 Corinto, Nicaragua, 72 Golfito, Costa Rica, 432 Guayaquil, Ecuador, 1,167 Iquique, Chile, 2,303 Mazatlan, Mexico, 1,350 Pearl Harbor, Hawaii, U.S.A., 4,045 Puntarenas, Costa Rica, 329 San Diego, California, U.S.A., 2,181 San Francisco, California, U.S.A., 2,586 San Jose, Guatemala, 204 Seattle, Washington, U.S.A., 3,361</p> <p>AMBON, INDONESIA (3°41'30"S., 128°10'25"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 819 Torres Strait, Australia, 964</p> <p>Ports</p> <p>Manila, Philippines, 1,260 Port Darwin, Australia, 579 Surabaya, Indonesia, 980</p> <p>AMLWCH, WALES (53°26'55"N., 4°18'09"W.) to:</p>	<p>Junction Points*</p> <p>Bishop Rock, England, 259 Fastnet Rock, Ireland, 252 Inishtrahull, Ireland, 183</p> <p>Ports</p> <p>Ardrossan, Scotland, 145 Cobh, Ireland, 190 Milford Haven, Wales, 112 Port Talbot, Wales, 171 Swansea, Wales, 165</p> <p>AMSTERDAM, NETHERLANDS (52°23'00"N., 4°54'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 481 Ile d'Ouessant, France, 465 Nord-Ostsee-Kanal (East Entrance), Germany, 291 Pentland Firth, Scotland, 481 Skagens Odde, Denmark, 422</p> <p>Ports</p> <p>Aberdeen, Scotland, 380 Antwerp, Belgium, 148 Bergen, Norway, 502 Bremerhaven, Germany, 223 Cherbourg, France, 305 Dover, England, 161 Dundee, Scotland, 374 Dunkerque, France, 135 Egersund, Norway, 380 Esbjerg, Denmark, 255 Hamburg, Germany, 274 Hartlepool, England, 260 Harwich, England, 145 Hull, England, 212 Inverness, Scotland, 482 Kristiansand, Norway, 381 Le Havre, France, 273 Leith, Scotland, 372 London, England, 208 Newcastle, England, 286 Oostende, Belgium, 117 Oslo, Norway, 522 Plymouth, England, 390 Portland, England, 316 Portsmouth, England, 266 Rotterdam, Netherlands, 67 Southampton, England, 284 Stavanger, Norway, 424 Wilhelmshaven, Germany, 210 Zeebrugge, Belgium, 104</p> <p>AMUAY, VENEZUELA (11°44'39"N., 70°13'56"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 678 Yucatan Channel, 1,050</p> <p>Ports</p> <p>Barranquilla, Colombia, 325 La Guaira, Venezuela, 276 Santiago de Cuba, Cuba, 600</p> <p>ANACORTES, WASHINGTON, U.S.A. (48°30'48"N., 122°35'18"W.) Subtract 23 miles from Seattle, Washington distances.</p> <p>ANAN, JAPAN (33°52'36"N., 134°44'20"E.) See</p>	<p>Tatibanako, Japan</p> <p>ANCONA, ITALY (43°37'22"N., 13°30'18"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt (south of Greece), 1,206 Strait of Gibraltar, 1,580</p> <p>Ports</p> <p>Alexandria, Egypt, 1,096 Algiers, Algeria, 1,153 Alicante, Spain, 1,308 Annaba, Algeria, 933 Banghazi, Libya, 800 Banzart, Tunisia, 842 Barcelona, Spain, 1,212 Bari, Italy, 216 Barletta, Italy, 199 Beirut, Lebanon (south of Greece), 1,276 Beirut, Lebanon (via Corinth Canal), 1,245 Brindisi, Italy, 274 Cartagena, Spain, 1,338 Ceuta, Morocco, 1,561 Chioggia, Italy, 111 Genova, Italy, 1,017 Gibraltar, 1,563 Haifa, Israel (via Corinth Canal), 1,248 Iraklion, Kriti, 762 Istanbul, Turkey (via Corinth Canal), 962 Izmir, Turkey (south of Greece), 904 Izmir, Turkey (via Corinth Canal), 808 La Spezia, Italy, 979 Livorno, Italy, 946 Malaga, Spain, 1,510 Manfredonia, Italy, 195 Marseille, France, 1,109 Messina, Sicily, 536 Monopoli, Italy, 239 Napoli, Italy, 707 Odessa, Ukraine (south of Greece), 1,407 Odessa, Ukraine (via Corinth Canal), 1,310 Oran, Algeria, 1,349 Palermo, Sicily, 652 Palma, Balearic Islands, 1,170 Piraeus, Greece (south of Greece), 745 Piraeus, Greece (via Corinth Canal), 608 Ploce, Croatia, 167 Rijeka, Croatia, 112 Savona, Italy, 1,028 Shengjin, Albania, 297 Sibenik, Croatia, 115 Siracusa, Sicily, 557 Split, Croatia, 132 Tarabulus, Libya, 820 Taranto, Italy, 415 Thessaloniki, Greece (south of Greece), 953 Thessaloniki, Greece (via Corinth Canal), 857 Toulon, France, 1,077 Trieste, Italy, 130 Tunis, Tunisia, 830 Valencia, Spain, 1,295 Valletta, Malta, 634 Venezia, Italy, 124 Volos, Greece (south of Greece), 894</p>	<p>Volos, Greece (via Corinth Canal), 798 Zadar, Croatia, 87</p> <p>ANECHO, TOGO (6°13'15"N., 1°35'35"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,615 Ile d'Ouessant, France, 3,704</p> <p>Ports</p> <p>Douala, Cameroon, 526 Monrovia, Liberia, 850</p> <p>ANGO ANGO, CONGO (5°50'30"S., 13°26'00"E.) Add 27 miles to Boma distances.</p> <p>ANGRA DOS REIS, BRAZIL (23°01'00"S., 44°18'42"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 4,527 Punta Arenas, Chile, 2,212</p> <p>Ports</p> <p>Montevideo, Uruguay, 1,031 Salvador, Brazil, 902</p> <p>ANNABA, ALGERIA (36°54'00"N., 7°46'19"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,289 Strait of Gibraltar, 675</p> <p>Ports</p> <p>Alexandria, Egypt, 1,169 Algiers, Algeria, 246 Alicante, Spain, 419 Ancona, Italy, 933 Banghazi, Libya, 702 Banzart, Tunisia, 116 Barcelona, Spain, 386 Bari, Italy, 726 Beirut, Lebanon, 1,381 Bejaia, Algeria, 156 Brindisi, Italy, 668 Cartagena, Spain, 440 Ceuta, Morocco, 656 Genova, Italy, 458 Gibraltar, 658 Haifa, Israel, 1,378 Hyeres, Frances, 384 Iraklion, Kriti, 863 Istanbul, Turkey (south of Greece), 1,168 Istanbul, Turkey (via Corinth Canal), 1,151 Izmir, Turkey (south of Greece), 1,014 Izmir, Turkey (via Corinth Canal), 997 La Spezia, Italy, 463 Livorno, Italy, 431 Malaga, Spain, 607 Marseille, France, 409 Messina, Sicily, 401 Napoli, Italy, 388 Odessa, Ukraine (south of Greece), 1,516 Odessa, Ukraine (via Corinth Canal), 1,499 Oran, Algeria, 444</p>
---	--	---	---

* **JUNCTION POINT.**—See Preface for use of junction points

Palermo, Sicily, 292
 Palma, Balearic Islands, 307
 Piraievs, Greece (south of Greece), 854
 Piraievs, Greece (via Corinth Canal), 797
 Port St. Louis du Rhone, France, 419
 Rijeka, Croatia, 1,000
 Savona, Italy, 451
 Sibenik, Croatia, 874
 Siracusa, Sicily, 401
 Sousse, Tunisia, 255
 Split, Croatia, 859
 Tarabulus, Libya, 440
 Taranto, Italy, 620
 Thessaloniki, Greece (south of Greece), 1,063
 Thessaloniki, Greece (via Corinth Canal), 1,046
 Toulon, France, 390
 Trieste, Italy, 1,034
 Tunis, Tunisia, 167
 Valencia, Spain, 426
 Valletta, Malta, 352
 Venezia, Italy, 1,044
 Volos, Greece (south of Greece), 1,004
 Volos, Greece (via Corinth Canal), 987

ANNAPOLIS, MARYLAND, U.S.A.
 (38°59'00"N., 76°28'45"W.) For ocean distance via the Chesapeake Bay, subtract 20 miles from Baltimore distances. For ocean distances via the C & D Canal, add 20 miles to Baltimore distances.

ANTALYA, TURKEY
 (36°50'22"N., 30°38'00"E.) to:

Junction Points*

Port Said, Egypt, 346
 Strait of Gibraltar, 1,822

Ports

Alexandria, Egypt, 349
 Beirut, Lebanon, 322
 Piraievs, Greece, 383

ANTIBES, FRANCE
 (43°35'30"N., 7°08'02"E.) See Nice, France.

ANTILLA, CUBA
 (20°49'30"N., 75°45'00"W.) to:

Junction Points*

Panama, Panama, 887
 Straits of Florida, 491

Ports

Baltimore, Maryland, U.S.A. (via Crooked Island Passage), 1,151
 Boston, Massachusetts, U.S.A., 1,408
 Charleston, South Carolina, U.S.A., 813
 Colon, Panama, 844
 Key West, Florida, U.S.A., 434
 Matanzas, Cuba, 407
 New York, New York, U.S.A., 1,226
 Philadelphia, Pennsylvania, U.S.A., 1,197
 Port Antonio, Jamaica, 288

ANTOFAGASTA, CHILE
 (23°39'00"S., 70°25'20"E.) to:

Junction Points*

Panama, Panama, 2,140
 Punta Arenas, Chile, 1,996

Ports

Acapulco, Mexico, 2,984
 Amapala, Honduras, 2,460
 Arica, Chile, 325
 Caldera, Chile, 215
 Callao, Peru, 813
 Chanaral, Chile, 173
 Coquimbo, Chile, 396
 Corinto, Nicaragua, 2,400
 Esmeraldas, Ecuador, 1,703
 Guayaquil, Ecuador, 1,470
 Guaymas, Mexico, 3,894
 Iquique, Chile, 224
 Los Angeles, California, U.S.A., 4,430
 Lota, Chile, 828
 Matarani, Peru, 423
 Monterey, California, U.S.A., 4,682
 Pago Pago, American Samoa, 5,605
 Pisco, Peru, 713
 Portland, Oregon, U.S.A., 5,383
 Puntarenas, Costa Rica, 2,215
 Salina Cruz, Mexico, 2,799
 San Antonio, Chile, 600
 San Diego, California, U.S.A., 4,360
 San Francisco, California, U.S.A., 4,762
 San Jose, Guatemala, 2,557
 San Juan, Peru, 575
 Santa Barbara, California, U.S.A., 4,497
 Talcahuano, Chile, 802
 Valparaiso, Chile, 576

ANTWERP, BELGIUM
 (51°14'00"N., 4°24'00"E.) to:

Junction Points*

Bishop Rock, England, 449
 Ile d'Ouessant, France, 441
 Nord-Ostsee-Kanal (East Entrance), Germany, 398
 Pentland Firth, Scotland, 553
 Skagens Odde, Denmark, 528

Ports

Aberdeen, Scotland, 450
 Amsterdam, Netherlands, 148
 Belfast, Northern Ireland, 722
 Bergen, Norway, 602
 Bremerhaven, Germany, 333
 Cherbourg, France, 281
 Dover, England, 137
 Dundee, Scotland, 442
 Dunkerque, France, 102
 Egersund, Norway, 484
 Emden, Germany, 276
 Esbjerg, Denmark, 362
 Hamburg, Germany, 382
 Hartlepool, England, 325
 Harwich, England, 97
 Hull, England, 265
 Inverness, Scotland, 554
 Kristiansand, Norway, 488
 Le Havre, France, 244
 Leith, Scotland, 453
 Liverpool, England, 698
 London, England, 193

Narvik, Norway, 1,211
 Newcastle, England, 351
 Oostende, Belgium, 79
 Oslo, Norway, 630
 Plymouth, England, 366
 Portland, England, 292
 Portsmouth, England, 242
 Rotterdam, Netherlands, 121
 Southampton, England, 260
 Stavanger, Norway, 525
 Wilhelmshaven, Germany, 324
 Zeebrugge, Belgium, 64

AOMORI, JAPAN
 (40°50'10"N., 140°44'30"E.) to:

Ports

Akita, Japan, 158
 Bukhta Shelikohova, Kuril Islands, Russia, 899
 Kasatka, Japan, 441
 Komatsushima, Japan, 813
 Matsuga-hana, Japan, 350
 Pago Pago, American Samoa, 4,358
 Shioigama, Japan, 311
 Tomari, Japan, 335

APAPA, NIGERIA
 (6°22'23"N., 3°24'15"E.) to:

Junction Points*

Bishop Rock, England, 3,817
 Cape of Good Hope, South Africa, 3,523
 Fastnet Rock, Ireland, 3,870
 Grand Banks South, 3,969
 Ile d'Ouessant, France, 3,777
 Inishtrahull, Ireland, 4,161
 Panama, Panama, 5,063
 Pentland Firth, Scotland, 4,865
 Punta Arenas, Chile, 5,225
 Strait of Gibraltar, 3,117
 Straits of Florida, 5,222
 Yucatan Channel, 5,346

Ports

Abidjan, Ivory Coast, 490
 Accra, Ghana, 221
 Baltimore, Maryland, U.S.A., 5,085
 Benguela, Angola, 1,284
 Boma, Congo, 933
 Boston, Massachusetts, U.S.A., 4,765
 Calabar, Nigeria, 305
 Charleston, South Carolina, U.S.A., 5,070
 Colon, Panama, 5,155
 Douala, Cameroon, 424
 Georgetown, Ascension Island, 1,368
 Grand Bassam, Ivory Coast, 478
 Douala, Cameroon, 449
 Marshall, Liberia, 903
 Matadi, Congo, 1,002
 Monrovia, Liberia, 928
 Natal, Brazil, 2,432
 New York, New York, U.S.A., 4,885
 Norfolk, Virginia, U.S.A., 4,943
 Philadelphia, Pennsylvania, U.S.A., 4,983
 Pointe Noire, Congo, 838
 Port Harcourt, Nigeria, 319
 Port of Spain, Trinidad, 3,910
 Porto Grande, Cape Verde Islands, 1,981
 Santa Isabel, Bioko, Equatorial

Guinea, 375
 Sao Tome, Sao Tome, Gulf of Guinea, 421
 Sassandra, Ivory Coast, 603
 Sekondi, Ghana, 316
 Tema, Ghana, 209
 Victoria, Cameroon, 400
 Willemstad, Curacao, 4,345

APARRI, PHILIPPINES
 (18°22'15"N., 121°36'45"E.) to:

Junction Points*

Honshu, Japan, 1,418
 Selat Lombok, Indonesia, 2,316
 Panama, Panama, 8,996
 Singapore, 1,518
 Selat Sunda, Indonesia, 1,877
 Torres Strait, Australia, 2,356

Ports

Apra, Guam, Mariana Islands, 1,370
 Ho Chi Minh, Vietnam, 1,413
 Kobe, Japan, 1,222
 Manila, Philippines, 1,386
 San Diego, California, U.S.A., 6,306
 Yap, Caroline Islands, 1,125
 Zamboanga, Philippines, 873

APIA, SAMOA
 (13°49'00"S., 171°45'30"W.) to:

Junction Points*

Panama, Panama, 5,710
 Punta Arenas, Chile, 5,207
 Torres Strait, Australia (via Raine Island entrance), 2,763

Ports

Acapulco, Mexico, 4,638
 Apra, Guam, 3,080
 Auckland, New Zealand, 1,581
 Avarua, Cook Islands, 819
 Baie Taio-Hae, Marquesa Islands, 1,886
 Brisbane, Australia, 2,177
 Callao, Peru, 5,492
 Christmas Island, Line Islands, 1,274
 Enderbury Island, Phoenix Islands, 641
 Funafuti, Tuvalu, 632
 Hakodate, Japan, 4,252
 Hobart, Tasmania, 2,776
 Hong Kong, China, 4,869
 Honolulu, Hawaii, U.S.A., 2,260
 Johnston Island, 1,838
 Levuka, Fiji Islands, 600
 Los Angeles, California, U.S.A., 4,181
 Malakal, Palau Islands, 3,446
 Melbourne, Australia, 2,834
 Midway Island, 2,546
 Nagasaki, Japan, 4,414
 Noumea, New Caledonia, 1,371
 Nukualofa, Tonga Islands, 508
 Pago Pago, American Samoa, 80
 Papeete, French Polynesia, 1,301
 Petropavlovsk-Kamchatskiy, Russia, 4,292
 Ponape, Caroline Islands, 2,189
 Rabaul, Papua New Guinea, 2,232
 Raoul Island, Kermadec Islands, 1,008
 Rotoava, Iles Tuamotu, 1,520
 Salina Cruz, Mexico, 4,886

* **JUNCTION POINT.**—See Preface for use of junction points

6 APRA, GUAM, MARIANA ISLANDS

San Diego, California, U.S.A., 4,195
 San Francisco, California, U.S.A., 4,161
 Seattle, Washington, U.S.A., 4,613
 Selwyn Bay, Solomon Islands, 1,582
 Shanghai, China, 4,715
 Suva, Fiji Islands, 647
 Sydney, Australia, 2,355
 Talomako, Vanuatu, 1,255
 Valparaiso, Chile, 5,453
 Vancouver, Canada, 4,675
 Wellington, New Zealand, 1,872
 Yap, Caroline Islands, 3,303
 Yokohama, Japan, 4,057

APRA, GUAM, MARIANA ISLANDS

(13°27'00"N., 144°37'00"E.) to:

Junction Points*

Panama, Panama, 7,988
 Punta Arenas, Chile, 8,144
 Singapore (via Sulu Sea), 2,585

Ports

Apia, Samoa, 3,080
 Auckland, New Zealand, 3,497
 Avarua, Cook Islands, 3,889
 Baie Taio-Hae, Marquesa Islands, 4,698
 Barbers Point, Hawaii, U.S.A., 3,303
 Bikini, Marshall Islands, 1,263
 Brisbane, Australia, 2,659
 Callao, Peru, 8,372
 Canton, Phoenix Islands, 2,789
 Cebu, Philippines, 1,344
 Chimbote, Peru, 8,264
 Chimu Wan, Ryukyu Islands, 1,228
 Christmas Island, Line Islands, 3,518
 Dagu, China, 2,133
 Dalian, China, 1,974
 Dutch Harbor, Alaska, U.S.A., 3,403
 Enderbury Island, Phoenix Islands, 2,827
 Eniwetak, Marshall Islands, 1,066
 Funafuti, Tuvalu, 2,455
 Guayaquil, Ecuador, 8,147
 Hakodate, Japan, 1,739
 Ho Chi Minh, Vietnam, 2,304
 Hobart, Tasmania, 3,683
 Hong Kong, China, 1,822
 Honolulu, Hawaii, U.S.A., 3,318
 Iloilo, Philippines, 1,366
 Incheon, South Korea (via Tokara Kaikyo), 1,837
 Iwakuni, Japan, 1,437
 Jakarta, Indonesia (via Makassar Strait), 2,639
 Johnston Island, 2,665
 Kaneohe Bay, Hawaii, U.S.A., 3,354
 Kiska, Alaska, U.S.A., 2,822
 Kobe, Japan, 1,386
 Kodiak, Alaska, U.S.A., 3,928
 Kure, Japan, 1,460
 Kwajalein, Marshall Islands, 1,405
 Lae, Papua New Guinea, 1,315
 Levuka, Fiji Islands, 2,847
 Lo hsing-ta Mao-ti, China, 1,617
 Malakal, Palau Islands, 706
 Manila, Philippines (north of Luzon), 1,742
 Manila, Philippines (via San Bernardino Strait), 1,499

Melbourne, Australia, 3,631
 Midway Island, 2,301
 Nagasaki, Japan, 1,445
 Nagoya, Japan, 1,378
 Naha, Ryukyu Islands, 1,236
 Nakagusuku, Ryukyu Islands, 1,216
 Nandi Bay, Fiji Islands, 2,886
 Nome, Alaska, U.S.A., 3,686
 Noumea, New Caledonia, 2,528
 Nukualofa, Tonga Islands, 3,202
 Olongapo, Philippines (north of Luzon), 1,663
 Pago Pago, American Samoa, 3,156
 Papeete, French Polynesia, 4,335
 Petropavlovsk-Kamchatskiy, Russia, 2,475
 Ponape, Caroline Islands, 906
 Port Darwin, Australia (via Selat Sele), 1,925
 Prince Rupert, Canada, 4,586
 Qingdao, China, 1,900
 Rabaul, Papua New Guinea, 1,187
 Raoul Island, Kermadec Islands, 3,369
 Rongelap, Marshall Islands, 1,341
 Rotoava, Iles Tuamotu, 4,513
 San Diego, California, U.S.A., 5,379
 San Francisco, California, U.S.A., 5,053
 Seattle, Washington, U.S.A., 4,948
 Selwyn Bay, Solomon Islands, 1,762
 Semarang, Indonesia, 2,464
 Seward, Alaska, U.S.A., 4,079
 Shanghai, China, 1,687
 Shimizu, Honshu, Japan, 1,351
 Shimonoseki, Japan, 1,451
 Sitka, Alaska, U.S.A., 4,407
 Sorong, Irian Jaya, Indonesia, 1,171
 Sukarnopura, Irian Jaya, Indonesia, 1,010
 Surabaya, Indonesia, 2,334
 Suva, Fiji Islands, 2,784
 Sydney, Australia, 3,006
 Talomako, Vanuatu, 2,177
 Tinian, Mariana Islands, 127
 Tokuyama, Japan, 1,427
 Truk, Caroline Islands, 590
 Valdivostok, Russia (via Tsugaru-Kaikyo), 2,155
 Valparaiso, Chile, 8,510
 Vinh Cam Ranh, Vietnam, 2,112
 Vladivostok, Russia (via Shimonoseki Kaikyo), 2,019
 Wake Island, 1,334
 Wei-hae-wei, China (via Tokara Kaikyo), 1,901
 Wotho, Marshall Islands, 1,294
 Wotje Island, Marshall Islands, 1,547
 Xiamen, China, 1,669
 Yap, Caroline Islands, 458
 Yantai, China (via Tokara Kaikyo), 1,935
 Yokkaichi, Japan, 1,364
 Yokohama, Japan, 1,352
 Zamboanga, Philippines (south of Mindanao), 1,467
 Zamboanga, Philippines (via Surigao Strait), 1,484

ARACAJU, BRAZIL
 (10°58'53"S., 36°59'26"W.) to:

Junction Points*

Bishop Rock, England, 4,021
 Cape of Good Hope, South

Africa, 3,324
 Fastnet Rock, Ireland, 4,046
 Grand Banks South, 3,436
 Ile d'Ouessant, France, 3,988
 Inishtrahull, Ireland, 4,320
 Panama, Panama, 3,526
 Pentland Firth, Scotland, 4,602
 Punta Arenas, Chile, 3,045
 Strait of Gibraltar, 3,366
 Straits of Florida, 3,822
 Yucatan Channel, 3,869

Ports

Accra, Ghana, 2,411
 Baltimore, Maryland, U.S.A., 4,040
 Belem, Brazil, 1,442
 Bridgetown, Barbados, 2,324
 Buenos Aires, Argentina, 2,016
 Cape Town, South Africa, 3,321
 Colon, Panama, 3,536
 Dakar, Senegal, 1,944
 Freetown, Sierra Leone, 1,841
 La Habana, Cuba, 3,775
 Lisboa, Portugal, 3,394
 Miami, Florida, U.S.A., 3,785
 New York, New York, U.S.A., 4,034
 Portland, Maine, U.S.A., 3,977
 Salvador, Brazil, 161
 Washington, D.C., U.S.A., 4,024

ARBATAX, ITALY

(39°56'40"N., 9°42'45"E.) to:

Junction Points*

Port Said, Egypt, 1,248
 Strait of Gibraltar, 810

Ports

Alexandria, Egypt, 1,142
 Algiers, Algeria, 389
 Ayios, Nikolaos, Kriti, 846
 Barcelona, Spain, 294
 Beirut, Lebanon, 1,320
 Ceuta, Morocco, 784
 Derince, Turkey, 1,139
 Iraklion, Kriti, 804
 Kerch, Ukraine, 1,546
 Marseille, France, 306
 Sibenik, Croatia, 771
 Tarabulus, Lebanon, 1,332

ARDROSSAN, SCOTLAND

(55°38'30"N., 4°49'30"W.) to:

Junction Points*

Bishop Rock, England, 350
 Fastnet Rock, Ireland, 348
 Inishtrahull, Ireland, 95
 Pentland Firth, Scotland, 282

Ports

Dublin, Ireland, 153
 Glasgow, Scotland, 43
 Liverpool, England, 180

ARENDAL, NORWAY

(58°27'30"N., 8°46'30"E.) to:

Junction Points*

Pentland Firth, Scotland, 452

Ports

Bergen, Norway, 254

London, England, 551
 Oslo, Norway, 120

ARGENTIA, CANADA

(47°18'00"N., 53°59'00"W.) to:

Junction Points*

Bishop Rock, England, 1,949
 Cape of Good Hope, South Africa, 6,294
 Fastnet Rock, Ireland, 1,819
 Inishtrahull, Ireland, 1,874
 Montreal, Canada, 943
 Pentland Firth, Scotland, 2,012
 Strait of Gibraltar, 2,302
 Straits of Florida, 2,011

Ports

Arkhangel'sk, Russia, 3,306
 Boston, Massachusetts, U.S.A., 801
 Charleston, South Carolina, U.S.A., 1,489
 Colon, Panama, 2,640
 Guantanamo, Cuba, 1,976
 Halifax, Canada, 448
 Ivittuut, Greenland, 1,023
 Key West, Florida, U.S.A., 1,953
 Lisboa, Portugal, 2,101
 New York, New York, U.S.A., 1,009
 Norfolk, Virginia, U.S.A., 1,189
 Philadelphia, Pennsylvania, U.S.A., 1,159
 Portsmouth, New Hampshire, U.S.A., 779
 Reykjavik, Iceland, 1,584
 San Juan, Puerto Rico, 1,840

ARGOSTOLION, GREECE

(38°08'23"N., 20°27'35"E.) to:

Junction Points*

Port Said, Egypt, 754
 Strait of Gibraltar (via Strait of Messina), 1,292

Ports

Algiers, Algeria, 862
 Alicante, Spain, 1,015
 Arzew, Algeria, 1,038
 Benghazi, Libya, 366
 Barcelona, Spain, 923
 Bat'umi, Georgia, 1,183
 Beirut, Lebanon, 811
 Ceuta, Morocco, 1,268
 Iraklion, Kriti, 299
 Izmir, Turkey, 444
 Marseille, France, 827
 Napoli, Italy, 423
 Oran, Algeria, 1,058

ARICA, CHILE

(18°28'00"S., 70°20'00"W.) to:

Junction Points*

Panama, Panama, 1,921
 Punta Arenas, Chile, 2,301

Ports

Acapulco, Mexico, 2,768
 Antofagasta, Chile, 325
 Caldera, Chile, 522
 Callao, Peru, 593
 Chanaral, Chile, 478
 Coquimbo, Chile, 702

* **JUNCTION POINT.**—See Preface for use of junction points

AUCKLAND, NEW ZEALAND 7

Corinto, Nicaragua, 1,711
Esmeraldas, Ecuador, 1,484
Guayaquil, Ecuador, 1,251
Guaymas, Mexico, 3,681
Iquique, Chile, 110
Los Angeles, California, U.S.A., 4,219
Lota, Chile, 1,134
Monterey, California, U.S.A., 4,471
Pisco, Peru, 492
Puntarenas, Costa Rica, 1,996
Salina Cruz, Mexico, 2,579
San Diego, California, U.S.A., 4,149
San Francisco, California, U.S.A., 4,551
San Jose, Guatemala, 2,338
Santa Barbara, California, U.S.A., 4,286
Talara, Peru, 1,103
Talcahuano, Chile, 1,108
Valparaiso, Chile, 882

ARKHANGEL'SK, RUSSIA
(64°32'00"N., 40°31'00"E.) to:

Junction Points*

Bishop Rock, England, 2,263
Inishtrahull, Ireland, 1,900
Pentland Firth, Scotland, 1,663
Strait of Gibraltar, 3,225
Straits of Florida, 5,208

Ports

Argentia, Canada, 3,306
Berlevag, Norway, 540
Boston, Massachusetts, U.S.A., 4,014
Charleston, South Carolina, U.S.A., 4,692
Colon, Panama, 5,820
Dikson, Russia, 1,105
Frederikshavn, Denmark, 1,805
Guantanamo, Cuba, 5,156
Halifax, Canada, 3,663
Hull, England, 1,926
Iokan'ga, Russia, 271
Ivittuut, Greenland (direct), 2,573
Ivittuut, Greenland (via 75 miles off Kap Farvel), 2,683
Key West, Florida, U.S.A., 5,150
Liverpool, England, 2,075
London, England, 2,061
Longyearbyen, Svalbard, 1,051
Mys Chelyuskin, Russia, 1,469
New York, New York, U.S.A. (clear of general maximum winter solid pack ice in vicinity of Iceland), 4,320
New York, New York, U.S.A., 4,216
Norfolk, Virginia, U.S.A., 4,399
Philadelphia, Pennsylvania, U.S.A., 4,369
Portsmouth, New Hampshire, U.S.A., 3,992
Reykjavik, Iceland (direct), 1,874
Reykjavik, Iceland (south of Iceland), 1,901
San Juan, Puerto Rico, 5,001

ARRECIFE DE LANZAROTE, CANARY ISLANDS
(28°57'15"N., 13°32'11"W.) to:

Junction Points*

Bishop Rock, England, 1,289

Cape of Good Hope, South Africa, 4,530
Fastnet Rock, Ireland, 1,355
Grand Banks South, 1,934
Ile d'Ouessant, France, 1,248
Inishtrahull, Ireland, 1,643
Panama, Panama, 3,891
Pentland Firth, Scotland, 1,896
Punta Arenas, Chile, 5,777
Strait of Gibraltar, 576
Straits of Florida, 3,681

Ports

Aaiun, Western Sahara, 111
Casablanca, Morocco, 435
Dakar, Senegal, 912
Lagos, Nigeria, 2,547
Monrovia, Liberia, 1,622
New York, New York, U.S.A., 3,005
Recife, Brazil, 2,540
Savannah, Georgia, U.S.A., 3,496

ARUBA
See Sint Nicolaashaven.

ARZEW, ALGERIA
(35°51'30"N., 0°18'00"W.) to:

Junction Points*

Port Said, Egypt, 1,692
Strait of Gibraltar, 275

Ports

Algiers, Algeria, 186
Alicante, Spain, 152
Bejaia, Algeria, 294
Melilla, Morocco, 146

AS SALIF, YEMEN
(15°18'00"N., 42°40'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,181
Cape Leeuwin, Australia, 5,204
Selat Lombok, Indonesia, 4,684
Port Said, Egypt, 1,127
Singapore (north of Scorta and Strait of Malacca), 3,887
Selat Sunda, Indonesia, 4,673
Torres Strait, Australia, 6,247

Ports

Aden, Yemen, 249
Aseb, Ethiopia, 138
Jubail, Saudi Arabia, 2,059
Mitsiwa, Ethiopia, 186

AS SUKHAYRAH, TUNISIA
(34°18'00"N., 10°09'00"E.) to:

Junction Points*

Port Said, Egypt, 1,156
Strait of Gibraltar, 1,072

Ports

Banghazi, Libya, 523
Messina, Sicily, 406
Tunis, Tunisia, 301

ASH SHUWAYKH, KUWAIT
(29°21'21"N., 47°56'08"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,258
Cape Leeuwin, Australia, 5,426
Selat Lombok, Indonesia, 4,688
Port Said, Egypt, 3,212
Singapore, 3,872
Selat Sunda, Indonesia, 4,098
Torres Strait, Australia, 6,256

Ports

Belawan, Indonesia, 3,606
Calcutta, India, 3,581
Fremantle, Australia, 5,429
Port Darwin, Australia, 5,701
Rangoon, Burma, 3,641
Sabang, Indonesia, 3,340

ASHDOD, ISRAEL
(31°51'00"N., 34°39'00"E.) to:

Junction Points*

Port Said, Egypt, 126
Strait of Gibraltar, 2,031

Ports

Alexandria, Egypt, 266
Beirut, Lebanon, 136
Famagusta, Cyprus, 203
Fethiye, Turkey, 416
Izmir, Turkey, 668

ASSAB, ETHIOPIA
(13°00'00"N., 42°45'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,056
Port Said, Egypt, 1,258
Singapore, 3,769

Ports

Aden, Yemen, 150
Port Sudan, Sudan, 524

ASSENS, DENMARK
(55°16'15"N., 9°53'07"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 65
Skagens Odde, Denmark, 187

Ports

Gdansk, Poland, 370
Goteborg, Sweden, 197
Lubeck, Germany, 127

ASTORIA, OREGON, U.S.A.
(46°11'40"N., 123°50'00"W.)
Subtract 83 miles from Portland distances.

ATUCHA, ARGENTINA
Add 80 miles to Buenos Aires distances (via Mitre Channel).

ATUMI, JAPAN
(34°39'47"N., 137°04'54"E.)
Subtract 32 miles from Nagoya distances.

AU-AO CHAING, TAIWAN
(24°36'00"N., 121°52'00"E.) See

Su-ao Kang, Taiwan.

AUCKLAND, NEW ZEALAND
(36°50'00"S., 174°47'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 3,029
Panama, Panama, 6,516
Punta Arenas, Chile (via 30°S.), 6,132
Punta Arenas, Chile (via 49°S.), 4,814
Torres Strait, Australia (via Raine Island entrance), 2,485
Wilson Promontory, Australia, 1,503

Ports

Apia, Samoa, 1,581
Apra, Guam, 3,497
Avarua, Cook Islands, 1,631
Brisbane, Australia, 1,340
Callao, Peru, 5,834
Dagu, China, 5,648
Dalian, China (via Vitiaz Strait), 5,489
Dalian, China (west of New Ireland), 5,469
Dutch Harbor, Alaska, U.S.A., 5,578
Fanning Island, 2,854
Guayaquil, Ecuador, 6,087
Hakodate, Japan, 5,104
Hobart, Tasmania, 1,521
Hong Kong, China, 5,060
Honolulu, Hawaii, U.S.A., 3,820
Jaluit, Marshall Islands, 2,595
Kobe, Japan, 4,875
Kodiak, Alaska, U.S.A., 5,942
Levuka, Fiji Islands, 1,175
Los Angeles, California, U.S.A., 5,658
Melbourne, Australia, 1,649
Midway Island, 3,937
Nagasaki, Japan (via Tanegashima Kaiyo and Koshiki Kaiyo), 4,930
Nagasaki, Japan (via Tokara Kaiyo), 4,963
Nandi Bay, Fiji Islands, 1,224
Nelson, New Zealand, 633
Nome, Alaska, U.S.A., 6,159
Nukualofa, Tonga Islands, 1,009
Pago Pago, American Samoa, 1,565
Papeete, French Polynesia, 2,216
Petropavlovsk-Kamchatskiy, Russia, 5,466
Ponape, Caroline Islands, 2,813
Portland, Oregon, U.S.A., 6,075
Prince Rupert, Canada, 6,209
Qingdao, China, 5,378
Rabaul, Papua New Guinea, 2,345
Raoul Island, Kermadec Islands, 592
San Diego, California, U.S.A., 5,655
San Francisco, California, U.S.A., 5,680
Seattle, Washington, U.S.A., 6,170
Seward, Alaska, U.S.A., 6,093
Shanghai, China (via Vitiaz Strait), 5,149
Shanghai, China (west of New Ireland), 5,148
Shimonoseki, Japan, 4,944
Sitka, Alaska, U.S.A., 6,176
Suva, Fiji Islands, 1,149
Sydney, Australia, 1,280
Truk, Caroline Islands, 3,000

* **JUNCTION POINT.**—See Preface for use of junction points

8 AUGUSTA, SICILY

Valparaiso, Chile, 5,247
Vancouver, Canada, 6,191
Vladivostok, Russia, 5,516
Wake Island, 3,409
Wellington, New Zealand, 563
Xiamen, China, 4,990
Yokohama, Japan, 4,789

AUGUSTA, SICILY

(37°13'36"N., 15°12'55"E.) to:

Junction Points*

Port Said, Egypt, 932
Strait of Gibraltar, 1,065

Ports

Alexandria, Egypt, 819
Baniyas, Syria, 1,028
Palermo, Sicily, 187
Sete, France, 703
Taranto, Italy, 243
Valencia, Spain, 801
Valletta, Malta, 98

AVARUA, COOK ISLANDS

(21°11'30"S., 159°46'00"W.) to:

Junction Points*

Panama, Panama, 5,092
Punta Arenas, Chile, 4,429

Ports

Apia, Samoa, 819
Apra, Guam, 3,889
Auckland, New Zealand, 1,631
Brisbane, Australia (via Howe Channel and Main Channel), 2,618
Callao, Peru, 4,733
Hakodate, Japan, 5,022
Hobart, Tasmania, 2,962
Hong Kong, China, 5,674
Honolulu, Hawaii, U.S.A., 2,553
Levuka, Fiji Islands, 1,268
Los Angeles, California, U.S.A., 4,064
Melbourne, Australia (via South Channel), 3,090
Midway Island, 3,140
Nagasaki, Japan, 5,219
Noumea, New Caledonia, 1,887
Pago Pago, American Samoa, 750
Papeete, French Polynesia, 618
Petropavlovsk-Kamchatskiy, Russia, 4,951
Ponape, Caroline Islands, 3,001
Rabaul, Papua New Guinea, 2,993
San Francisco, California, U.S.A., 4,124
Seattle, Washington, U.S.A., 4,700
Shanghai, China, 5,533
Suva, Fiji Islands (via Oneata Passage), 1,256
Sydney, Australia, 2,690
Valparaiso, Chile, 4,632
Wellington, New Zealand, 1,804
Yokohama, Japan, 4,849

AVEIRO, PORTUGAL

(40°39'20"N., 8°47'40"W.) to:

Junction Points*

Bishop Rock, England, 568
Cape of Good Hope, South Africa, 5,266
Fastnet Rock, Ireland, 644
Grand Banks South, 1,834

Ile d'Ouessant, France, 536
Inishtrahull, Ireland, 942
Panama, Panama, 4,186
Pentland Firth, Scotland, 1,194
Punta Arenas, Chile, 6,513
Strait of Gibraltar, 416
Straits of Florida, 3,778

Ports

Argentina, Canada, 2,006
Bathurst, Gambia, 1,740
Belem, Brazil, 3,327
Bordeaux, France, 573
Boston, Massachusetts, U.S.A., 2,735
Buenos Aires, Argentina, 5,435
Cadiz, Spain, 375
Cape Town, South Africa, 5,270
Casablanca, Morocco, 457
Charleston, South Carolina, U.S.A., 3,360
Charlotte Amalie, Virgin Islands, 3,194
Colon, Panama (via Mona Passage), 84,17
Dakar, Senegal, 1,623
El Ferrol del Caudillo, Spain, 229
Freetown, Sierra Leone, 2,134
Funchal, Madeira Island, 619
Georgetown, Guyana, 3,323
Guantanamo, Cuba, 4,105
Halifax, Canada, 2,420
Jacksonville, Florida, U.S.A., 3,512
Le Havre, France, 783
Monrovia, Liberia, 2,336
New York, New York, U.S.A., 2,898
Port Castries, St. Lucia, 3,149
Recife, Brazil, 3,261
San Juan, Puerto Rico, 3,209
Takoradi, Ghana, 2,923

AVILES, SPAIN

(43°45'00"N., 5°55'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 307
Strait of Gibraltar, 722

Ports

Bordeaux, France, 303
El Ferrol del Caudillo, Spain, 133
St. Nazaire, France, 274

AVONMOUTH, ENGLAND

(51°30'30"N., 2°43'00"W.) to:

Junction Points*

Bishop Rock, England, 191
Fastnet Rock, Ireland, 202
Pentland Firth, Scotland, 624

Ports

Barrow in Furness, England, 288
Belfast, Northern Ireland, 308
Dublin, Ireland, 220
Fishguard, Wales, 145
Glasgow, Scotland, 390
Holyhead, Wales, 217
Liverpool, England, 282
Londonderry, Northern Ireland, 384

AYIOS NIKOLAOS, GREECE

(35°11'38"N., 25°43'20"E.) to:

Junction Points*

Port Said, Egypt, 431
Strait of Gibraltar, 1,554

Ports

Alexandria, Egypt, 343
Antibes, France, 1,063
Arzew, Algeria, 1,295
Bat'umi, Georgia, 1,035
Cartagena, Spain, 1,313
Castellammare di Stabia, Italy, 712
Corinth Canal (west side, Korinthos), Greece, 416
Genova, Italy, 1,026
Istanbul, Turkey, 449
Limassol, Greece, 376
Mersin, Turkey, 457
Oran, Algeria, 791
Tangier, Morocco, 1,554
Toulon, France, 1,084
Venezia, Italy, 912

AYN SUKHNAH, EGYPT

(29°33'47"N., 32°25'43"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,204
Cape Leeuwin, Australia, 6,228
Port Said, Egypt, 102
Singapore, 4,911
Selat Sunda, Indonesia, 5,697
Torres Strait, Australia, 7,271

Ports

Aden, Yemen, 1,273
Assab, Ethiopia, 1,150
Colombo, Sri Lanka, 3,361
Jubail, Saudi Arabia, 3,083
Tulear, Madagascar, 3,873

AZ ZARQA ISLAND, UNITED ARAB EMIRATES

(25°00'00"N., 53°03'20"E.) See Zirku Petroleum Port.

BACHAQUERO, VENEZUELA

(9°56'45"N., 71°09'00"W.) Add 124 miles to Maracaibo distances.

BAGNOLI, ITALY

(40°48'15"N., 14°10'00"E.) See Napoli.

BAHIA BLANCA, ARGENTINA

(38°47'45"S., 62°16'00"W.) to:

Junction Points*

Panama, Panama, 5,776
Punta Arenas, Chile, 1,004

Ports

Baltimore, Maryland, U.S.A., 6,228
Boston, Massachusetts, U.S.A., 6,125
Buenos Aires, Argentina, 564
Montevideo, Uruguay, 466
New York, New York, U.S.A., 6,154
Philadelphia, Pennsylvania, U.S.A., 6,201
Santos, Brazil, 1,292

BAHIA DE LAS CALDERAS, DOMINICAN REPUBLIC

(18°13'30"N., 70°31'30"W.) to:

Junction Points*

Panama, Panama, 810

Ports

Barranquilla, Colombia, 508
Kingston, Jamaica, 378
San Juan, Puerto Rico, 273
Willemstad, Curacao, 392

BAHIA DE SAMANA, DOMINICAN REPUBLIC

(19°10'00"N., 69°13'00"W.) to:

Junction Points*

Panama, Panama, 1,015
Straits of Florida, 864

Ports

New York, New York, U.S.A., 1,328
Nuevitas, Cuba, 510
San Juan, Puerto Rico, 185

BAHIA HONDA, CUBA

(22°57'20"N., 83°10'30"W.) to:

Ports

Guantanamo, Cuba (via west end of Cuba), 723
Guantanamo, Cuba (via Old Bahama Channel and Windward Passage), 643
New York, New York, U.S.A. (via outside route), 1,226

BAIE TAIO-HAE, MARQUESA ISLANDS

(8°56'00"S., 140°05'00"W.) to:

Junction Points*

Panama, Panama, 3,826

Ports

Apia, Samoa, 1,886
Apra, Guam, 4,698
Honolulu, Hawaii, U.S.A., 2,102
Los Angeles, California, U.S.A., 2,858
Noumea, New Caledonia, 3,183
Papeete, French Polynesia, 761
San Francisco, California, U.S.A., 2,987

BAJO GRANDE, VENEZUELA

(10°30'30"N., 171°36'00"W.) Add 8 miles to Maracaibo distances.

BAKER ISLAND, NORTH PACIFIC

(0°13'30"N., 176°28'00"W.) to:

Ports

Howland Island, 37
Noumea, New Caledonia, 1,707
Suva, Fiji Islands, 1,202
Sydney, Australia, 2,752

BALBOA, PANAMA

(8°57'30"N., 79°34'15"W.) See

* JUNCTION POINT.—See Preface for use of junction points

Panama, Panama, to which add 5 miles for Pacific Ocean distances, and from which subtract 5 miles for Atlantic Ocean distances.

**BALIKPAPAN,
KALIMANTAN, INDONESIA**
(1°16'00"S., 116°48'30"E.) to:

Junction Points*

Selat Lombok, Indonesia, 472
Singapore (via Selat Riouw), 1,053
Selat Sunda, Indonesia, 837
Selat Wetar, Indonesia, 870

Ports

Belawan, Indonesia, 1,422
Manila, Philippines, 1,057
Mogpo, South Korea, 2,308

**BALTIMORE, MARYLAND,
U.S.A.**
(39°16'00"N., 76°34'30"W.) to:

Junction Points*

Bishop Rock, England, 3,224
Fastnet Rock, Ireland, 3,102
Inishtrahull, Ireland, 3,206
Montreal, Canada (via Strait of Canso), 1,769
Panama, Panama, 1,944
Pentland Firth, Scotland, 3,401
Punta Arenas, Chile, 7,021
Strait of Gibraltar, 3,466
Straits of Florida, 1,102

Ports

Antilla, Cuba, 1,151
Bahia Blanca, Argentina, 6,228
Banes, Cuba, 1,140
Baracoa, Cuba, 1,153
Belem, Brazil, 2,953
Belize, Belize (via Straits of Florida), 1,625
Bocas del Toro, Panama (via Crooked Island Passage and Windward Passage), 1,975
Bordeaux, France, 3,308
Brest, France, 3,308
Bridgetown, Barbados, 1,853
Buenos Aires, Argentina, 5,945
Cadiz, Spain, 3,434
Cap-Haitien, Haiti, 1,227
Cape Town, South Africa, 6,912
Charlotte Amalie, Virgin Islands, 1,417
Charlottetown, Canada, 1,134
Cienfuegos, Cuba (via Windward Passage), 1,589
Colon, Panama (via Crooked Island Passage and Windward Passage), 1,901
Fort de France, Martinique, 1,718
Funchal, Madeira Island, 3,028
Georgetown, Guyana, 2,211
Halifax, Canada, 911
Hamilton, Bermuda, 794
Horta, Fayal, Azores, 2,409
Jacmel, Haiti, 1,416
Kingston, Jamaica (via Crooked Island Passage and Windward Passage), 1,401
La Guaira, Venezuela, 1,813
Lagos, Nigeria, 5,063
Las Palmas, Canary Islands, 3,251
Les Cayes, Haiti, 1,374
Limon, Costa Rica, 1,974
Luanda, Angola, 5,850

Luderitz Bay, Namibia, 6,538
Manzanillo, Cuba (via Windward Passage), 1,494
Manzanillo, Dominican Republic, 1,223
Maracaibo, Venezuela (via Windward Passage), 1,804
Montecristi, Dominican Republic, 1,213
Montevideo, Uruguay, 5,831
Nassau, Bahamas (via Northeast Providence Channel), 880
Nuevitas, Cuba, 1,198
Paamiut (Frederikshaab), Greenland, 2,261
Paramaribo, Suriname, 2,321
Pointe a Pitre, Guadeloupe, 1,653
Ponce, Puerto Rico, 1,427
Ponta Delgada, Azores, 2,529
Port au Prince, Haiti, 1,301
Port of Spain, Trinidad, 1,918
Port Antonio, Jamaica, 1,350
Port Castries, St. Lucia, 1,741
Porto Grande, Cape Verde Islands, 3,095
Progreso, Mexico, 1,530
Puerto Barrios, Guatemala (via Straits of Florida), 1,725
Puerto Cabello, Venezuela, 1,818
Puerto Cortes, Honduras, 1,690
Recife, Brazil, 3,772
Rio de Janeiro, Brazil, 4,844
Salvador, Brazil, 4,163
San Juan del Norte, Nicaragua (via Straits of Florida), 1,968
San Juan, Puerto Rico, 1,374
Santa Marta, Colombia (via Crooked Island Passage and Windward Passage), 1,710
Santiago de Cuba, Cuba, 1,289
Santo Domingo, Dominican Republic, 1,451
Santos, Brazil, 5,031
Sao Luiz, Brazil, 3,117
St. Georges, Grenada, 1,843
St. John, Canada (via Nantucket Light Vessel), 860
St. John's, Canada, 1,400
Vitoria, Brazil, 4,581
Walvisbaai, Namibia, 6,385
Willemstad, Curacao, 1,733

BANANA, CONGO
(6°02'31"S., 12°22'40"E.) to:

Junction Points*

Bishop Rock, England, 4,500
Cape of Good Hope, South Africa, 4,229
Fastnet Rock, Ireland, 4,553
Grand Banks South, 4,649
Ile d'Ouessant, France, 4,459
Inishtrahull, Ireland, 4,869
Panama, Panama, 5,707
Pentland Firth, Scotland, 5,158
Punta Arenas, Chile, 5,001
Strait of Gibraltar, 3,799
Straits of Florida, 5,871
Yucatan Channel, 5,980

Ports

Abidjan, Ivory Coast, 1,194
Cape Town, South Africa, 1,705
Lagos, Nigeria, 921
Monrovia, Liberia, 1,578
New York, New York, U.S.A., 5,534
Recife, Brazil, 2,815
Takoradi, Ghana, 1,070

BANDAR ABBAS, IRAN
(27°08'00"N., 56°19'00"E.) to:

Junction Points*

Port Said, Egypt, 2,842
Singapore, 3,381

Ports

Aden, Yemen, 1,453
Al Basrah, Iraq, 572
Karachi, Pakistan, 643

**BANDAR AL MISHAB, SAUDI
ARABIA**
(28°10'06"N., 48°42'37"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,221
Cape Leeuwin, Australia, 5,388
Selat Lombok, Indonesia, 4,879
Port Said, Egypt, 3,023
Singapore, 3,835
Selat Sunda, Indonesia, 4,060
Torres Strait, Australia, 6,219

Ports

Aden, Yemen, 1,985
Al Aqabah, Jordan, 3,242
Colombo, Sri Lanka, 2,248
Massawa, Ethiopia, 2,418
Port Sudan, Sudan, 2,651

BANDAR KHOMEINI, IRAN
(30°26'30"N., 49°05'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,169
Port Said, Egypt, 3,322
Singapore, 3,872

Ports

Al Basrah, Iraq, 154
Al Manamah, Bahrain, 288
Bushehr, Iran, 158

**BANDAR-E MAH SHAHR,
IRAN**
(30°27'40"N., 49°10'30"E.) Add 6 miles to Bandar Khomeini distances.

**BANDJERMASIN,
KALIMANTAN, INDONESIA**
(3°20'00"S., 114°33'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 357
Singapore, 830
Selat Sunda, Indonesia, 775
Torres Strait, Australia, 1,785

Ports

Makassar, Sulawesi, 399

BANES, CUBA
(20°55'20"N., 75°42'20"W.) to:

Junction Points*

Straits of Florida, 483

Ports

Baltimore, Maryland, U.S.A., 1,140
Boston, Massachusetts, U.S.A. (via Crooked Island Passage), 1,398
Charleston, South Carolina, U.S.A. (via Crooked Island Passage), 802
New York, New York, U.S.A., 1,216
Norfolk, Virginia, U.S.A. (via Crooked Island Passage), 1,018
Philadelphia, Pennsylvania, U.S.A. (via Crooked Island Passage), 1,188
Savannah, Georgia, U.S.A. (via Crooked Island Passage), 801

BANGHAZI, LIBYA
(32°06'53"N., 20°03'06"E.) to:

Junction Points*

Port Said, Egypt, 673
Strait of Gibraltar, 1,356

Ports

Alexandria, Egypt, 541
Algiers, Algeria, 927
Alicante, Spain, 1,094
Ancona, Italy, 800
Annaba, Algeria, 702
As Sukhayrah, Tunisia, 523
Baniyas, Syria, 834
Banzart, Tunisia, 597
Barcelona, Spain, 1,025
Bari, Italy, 593
Beirut, Lebanon, 806
Brindisi, Italy, 535
Cartagena, Spain, 1,119
Catania, Sicily, 406
Ceuta, Morocco, 1,336
Derince, Turkey, 750
Famagusta, Cyprus, 768
Fethiye, Turkey, 548
Genova, Italy, 912
Gibraltar, 1,338
Haifa, Israel, 783
Iraklion, Kriti, 370
Istanbul, Turkey, 716
Izmir, Turkey, 561
Kalamai, Greece, 313
La Spezia, Italy, 876
Livorno, Italy, 841
Malaga, Spain, 1,286
Marseille, France, 1,004
Matruh, Egypt, 267
Messina, Sicily, 430
Napoli, Italy, 602
Odessa, Ukraine, 1,064
Oran, Algeria, 1,124
Palermo, Sicily, 547
Palma, Balearic Islands, 970
Piraeus, Greece, 404
Reggio Di Calabria, Sicily, 425
Rijeka, Croatia, 868
Savona, Italy, 922
Sibenik, Croatia, 741
Siracusa, Sicily, 381
Split, Croatia, 726
Tarabulus, Libya, 354
Taranto, Italy, 523
Thessaloniki, Greece, 611
Toulon, France, 972
Trieste, Italy, 901
Tubruq, Libya, 248
Tunis, Tunisia, 585
Valencia, Spain, 1,094
Valletta, Malta, 359
Venezia, Italy, 911

* **JUNCTION POINT.**—See Preface for use of junction points

10 BANGKOK, THAILAND

Volos, Greece, 552

BANGKOK, THAILAND
(13°43'00"N., 100°31'00"E.) to:

Junction Points*

Singapore, 842
Selat Sunda, Indonesia, 1,292

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 3,639
Busan, South Korea, 2,533
Incheon, South Korea, 2,591
Kompong Som, Cambodia, 300
Los Angeles, California, U.S.A.
(via Balintang Channel), 7,775
Manila, Philippines, 1,435
Mogpo, South Korea, 2,438
Nampo, North Korea, 2,652
Petropavlovsk-Kamchatskiy,
Russia, 4,252
Vinh Cam Ranh, Vietnam, 817
Vladivostok, Russia, 3,035
Weonsan, North Korea, 2,885

BANIYAS, SYRIA
(35°11'00"N., 35°57'00"E.) to:

Junction Points*

Port Said, Egypt, 299
Strait of Gibraltar, 2,045

Ports

Augusta, Sicily, 1,028
Banghazi, Libya, 834
Haifa, Israel, 153
Marseille, France, 1,610
Thessaloniki, Greece, 792
Tunis, Tunisia, 1,275

BANJUL, GAMBIA
(13°31'43"N., 16°35'05"W.) to:

Junction Points*

Bishop Rock, England, 2,294
Cape of Good Hope, South
Africa, 3,492
Fastnet Rock, Ireland, 2,354
Grand Banks South, 2,467
Ile d'Ouessant, France, 2,261
Inishtrahull, Ireland, 2,671
Panama, Panama, 3,753
Pentland Firth, Scotland, 2,960
Punta Arenas, Chile, 4,890
Strait of Gibraltar, 1,601
Straits of Florida, 3,780
Yucatan Channel, 4,031

Ports

Cadiz, Spain, 1,599
Casablanca, Morocco, 1,460
Freetown, Sierra Leone, 401
Funchal, Madeira Islands, 1,183
Lisboa, Portugal, 1,644
Marshall, Liberia, 646
New York, New York, U.S.A.,
3,414
Pointe Noire, Congo, 2,152
Ponta Delgada, Azores, 1,531
Porto Grande, Cape Verde Islands,
527
Vigo, Spain, 2,572

BANTRY BAY, IRELAND
(51°41'00"N., 9°27'00"W.) to:

Junction Points*

Bishop Rock, England, 159
Cape of Good Hope, South
Africa, 5,867
Fastnet Rock, Ireland, 22
Grand Banks South, 1,720
Ile d'Ouessant, France, 236
Inishtrahull, Ireland, 313
Punta Arenas, Chile, 7,067
Strait of Gibraltar, 1,082

Ports

Casablanca, Morocco, 1,080
Dakar, Senegal, 2,247
Galway, Ireland, 173
Lisboa, Spain, 779
Natal, Brazil, 3,698
St. John's, Canada, 1,674
Tromso, Norway, 1,453

BANZART, TUNISIA
(37°14'13"N., 9°51'00"E.) to:

Junction Points*

Port Said, Egypt, 1,184
Strait of Gibraltar, 769

Ports

Alexandria, Egypt, 1,064
Algiers, Algeria, 340
Alicante, Spain, 507
Ancona, Italy, 842
Annaba, Algeria, 116
Banghazi, Libya, 597
Barcelona, Spain, 442
Bari, Italy, 635
Bastia, Corsica, 333
Beirut, Lebanon, 1,276
Brindisi, Italy, 577
Cagliari, Sardinia, 126
Cartagena, Spain, 532
Ceuta, Morocco, 750
Genova, Italy, 437
Haifa, Israel, 1,273
Iraklion, Kriti, 758
Istanbul, Turkey, 1,063
Izmir, Turkey, 909
La Spezia, Italy, 414
Livorno, Italy, 382
Malaga, Spain, 699
Marseille, France, 428
Messina, Sicily, 364
Napoli, Italy, 300
Odessa, Ukraine, 1,411
Olbia, Sardinia, 236
Oran, Algeria, 538
Palermo, Sicily, 192
Palma, Balearic Islands, 384
Piraeus, Greece (south of
Greece), 749
Piraeus, Greece (via Corinth
Canal), 692
Rijeka, Croatia, 910
Sant Antioco Ponti, Sardinia, 132
Savona, Italy, 440
Sibenik, Croatia, 783
Siracusa, Sicily, 296
Split, Croatia, 768
Tarabulus, Libya, 335
Taranto, Italy, 530
Thessaloniki, Greece, 958
Toulon, France, 405
Trieste, Italy, 943
Valencia, Spain, 506
Valletta, Malta, 247
Venezia, Italy, 953
Volos, Greece, 899

BAR. MONTENEGRO
(42°05'07"N., 19°05'26"E.) to:

Junction Points*

Port Said, Egypt, 995
Strait of Gibraltar (via Strait of
Messina), 1,379
Strait of Gibraltar (via Strait of
Sicily), 1,414

Ports

Algiers, Algeria, 943
Arzew, Algeria, 1,119
Barcelona, Spain, 1,003
Catania, Sicily, 353
Haifa, Israel, 1,053
Izmir, Turkey, 691
Kerch, Ukraine, 1,285
Limassol, Cyprus, 940
Messina, Sicily, 335
Patrai, Greece, 291
Tangier, Morocco, 1,382
Venezia, Italy, 367
Villefranche, France, 849

BARACOA, CUBA
(20°21'30"N., 74°30'15"W.) to:

Junction Points*

Straits of Florida, 540

Ports

Baltimore, Maryland, U.S.A.,
1,153
Key West, Florida, U.S.A., 490
Kingston, Jamaica, 265
New York, New York, U.S.A.,
1,226
Philadelphia, Pennsylvania,
U.S.A., 1,198

**BARAHONA, DOMINICAN
REPUBLIC**
(18°12'30"N., 71°03'30"W.) to:

Junction Points*

Panama, Panama, 796

Ports

Barranquilla, Colombia, 497
Kingston, Jamaica, 364
San Juan, Puerto Rico, 294
Willemstad, Curacao, 395

**BARBERS POINT, HAWAII,
U.S.A.**
(21°16'51"N., 158°06'00"W.) to:

Junction Points*

Panama, Panama, 4,694
Singapore (via Sulu Sea), 5,866

Ports

Apra, Guam, 3,303
San Francisco, California, U.S.A.,
2,100
Yokohama, Japan (via great
circle), 3,382

BARCELONA, SPAIN
(41°22'00"N., 2°11'00"E.) to:

Junction Points*

Port Said, Egypt, 1,600

Strait of Gibraltar, 534

Ports

Alcudia, Balearic Islands, 114
Alexandria, Egypt, 1,482
Algiers, Algeria, 282
Alicante, Spain, 228
Almeria, Spain, 371
Ancona, Italy, 1,212
Annaba, Algeria, 386
Banghazi, Libya, 1,075
Banzart, Tunisia, 442
Bari, Italy, 1,005
Bat'umi, Georgia (south of
Greece), 2,073
Bat'umi, Georgia (via Corinth
Canal), 2,032
Beaulieu, France, 280
Beirut, Lebanon, 1,703
Brindisi, Italy, 947
Cagliari, Sardinia, 379
Cartagena, Spain, 282
Ceuta, Morocco, 515
Genova, Italy, 356
Gibraltar, 516
Golfe-Juan, France, 268
Haifa, Israel, 1,699
Hyeres, France, 218
Iraklion, Kriti, 1,186
Istanbul, Turkey (south of
Greece), 1,486
Istanbul, Turkey (via Corinth
Canal), 1,445
Izmir, Turkey (south of Greece),
1,332
Izmir, Turkey (via Corinth Canal),
1,290
La Spezia, Italy, 383
Livorno, Italy, 386
Mahon, Balearic Islands, 144
Malaga, Spain, 464
Marseille, France, 189
Menton, France, 285
Messina, Sicily, 681
Monaco, Monaco, 280
Napoli, Italy, 559
Odessa, Ukraine (south of
Greece), 1,834
Odessa, Ukraine (via Corinth
Canal), 1,793
Oran, Algeria, 365
Palermo, Sicily, 574
Palma, Balearic Islands, 140
Piraeus, Greece (south of
Greece), 1,172
Piraeus, Greece (via Corinth
Canal), 1,091
Port St. Louis du Rhone, France,
178
Port Vendres, France, 108
Rijeka, Croatia, 1,279
Savona, Italy, 341
Sibenik, Croatia, 1,153
Siracusa, Sicily, 752
Skikda, Algeria, 354
Split, Croatia, 1,138
St. Raphael, France, 251
Tarabulus, Libya, 762
Taranto, Italy, 900
Thessaloniki, Greece (south of
Greece), 1,380
Thessaloniki, Greece (via Corinth
Canal), 1,339
Toulon, France, 205
Trieste, Italy, 1,313
Tunis, Tunisia, 492
Valencia, Spain, 165
Valletta, Malta, 671
Venezia, Italy, 1,323
Villefranche, France, 277

* JUNCTION POINT.—See Preface for use of junction points

Volos, Greece (south of Greece), 1,322
Volos, Greece (via Corinth Canal), 1,280

BARCELONA, VENEZUELA
(10°10'00"N., 64°44'00"W.) to:

Junction Points*

Panama, Panama, 1,014
Yucatan Channel, 1,378

Ports

Barranquilla, Colombia, 661
Port of Spain, Trinidad, 218
Santiago de Cuba, Cuba, 936

BARI, ITALY
(41°08'22"N., 16°51'34"E.) to:

Junction Points*

Port Said, Egypt, 999
Strait of Gibraltar, 1,374

Ports

Alexandria, Egypt, 890
Algiers, Algeria, 946
Alicante, Spain, 1,100
Ancona, Italy, 216
Annaba, Algeria, 726
Banghazi, Libya, 593
Banzart, Tunisia, 635
Barcelona, Spain, 1,005
Beirut, Lebanon (south of Greece), 1,069
Beirut, Lebanon (via Corinth Canal), 1,038
Cagliari, Sardinia, 652
Cartagena, Spain, 1,131
Ceuta, Morocco, 1,354
Dubrovnik, Croatia, 108
Genova, Italy, 810
Gibraltar, 1,356
Haifa, Israel, 1,065
Iraklion, Kriti, 554
Istanbul, Turkey (south of Greece), 851
Istanbul, Turkey (via Corinth Canal), 755
Izmir, Turkey (south of Greece), 697
Izmir, Turkey (via Corinth Canal), 601
La Spezia, Italy, 775
Livorno, Italy, 739
Malaga, Spain, 1,303
Marseille, France, 902
Messina, Sicily, 329
Napoli, Italy, 500
Odessa, Ukraine (south of Greece), 1,200
Odessa, Ukraine (via Corinth Canal), 1,103
Oran, Algeria, 1,142
Palermo, Sicily, 445
Palma, Balearic Islands, 963
Piraeus, Greece (south of Greece), 538
Piraeus, Greece (via Corinth Canal), 402
Rijeka, Croatia, 288
Savona, Italy, 820
Sibenik, Croatia, 167
Siracusa, Sicily, 350
Split, Croatia, 155
Tarabulus, Libya, 613
Taranto, Italy, 208
Thessaloniki, Greece (south of

Greece), 746
Thessaloniki, Greece (via Corinth Canal), 650
Toulon, France, 870
Trieste, Italy, 321
Tunis, Tunisia, 622
Valencia, Spain, 1,088
Valletta, Malta, 427
Venezia, Italy, 329
Volos, Greece (south of Greece), 687
Volos, Greece (via Corinth Canal), 591

BARRANQUILLA, COLOMBIA
(10°58'00"N., 74°45'30"W.) to:

Junction Points*

Yucatan Channel, 881

Ports

Almirante, Panama, 477
Amuay, Venezuela, 325
Bahia de las Calderas, Dominican Republic, 508
Barahona, Dominican Republic, 497
Barcelona, Venezuela, 661
Carupano, Venezuela, 734
Casilda, Cuba, 732
Catia la Mar, Venezuela, 524
Charleston, South Carolina, U.S.A., 1,391
Cienfuegos, Cuba, 755
Colon, Panama, 336
Fortaleza, Brazil, 685
Galveston, Texas, U.S.A., 1,577
Guantanamo, Cuba, 534
Hamilton, Bermuda, 1,465
Kingston, Jamaica, 442
La Guaira, Venezuela, 531
La Romana, Dominican Republic, 569
New Orleans, Louisiana, U.S.A., 1,458
New York, New York, U.S.A., 1,801
Oranjestad, Aruba, 506
Pointe a Pitre, Guadeloupe, 857
Port au Prince, Haiti, 592
Puerto de Hierro, Venezuela, 838
Puerto Cortes, Honduras, 873
Rio Haina, Dominican Republic, 536
San Juan, Puerto Rico, 705
Santa Maria, Cuba, 753
Santiago de Cuba, Cuba, 549
Santo Domingo, Dominican Republic, 538
St. Louis, Marie Galante, 857
Surgidero de Batabano, Cuba, 944
Turiamo, Venezuela, 504
Veracruz, Mexico, 1,525
Willemstad, Curacao, 389

BARROSSO TERMINAL, BRAZIL
(23°48'00"S., 45°24'00"W.) See Sao Sebastiao.

BARROW IN FURNESS, ENGLAND
(54°05'30"N., 3°13'30"W.) to:

Junction Points*

Bishop Rock, England, 303
Fastnet Rock, Ireland, 302
Inishtrahull, Ireland, 186
Pentland Firth, Scotland, 427

Ports

Avonmouth, England, 288
Belfast, Northern Ireland, 116
Brest, France, 416
Cardiff, Wales, 273
Cherbourg, France, 448
Cobh, Ireland, 252
Dublin, Ireland, 122
Fishguard, Wales, 157
Glasgow, Scotland, 172
London, England, 665
Southampton, England, 485
Swansea, Wales, 242

BARROW ISLAND, AUSTRALIA
(20°48'30"S., 115°33'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,032
Cape Leeuwin, Australia, 906
Selat Lombok, Indonesia, 730
Port Said, Egypt, 6,028
Selat Sunda, Indonesia, 1,129
Torres Strait, Australia, 1,750

Ports

Aden, Yemen, 4,641
Bombay, India, 3,551
Busan, South Korea (via west of Timor & Korea Strait), 3,484
Colombo, Sri Lanka, 2,680
Fremantle, Australia, 771
Geraldton, Australia, 569
Port Headland, Australia, 188
San Francisco, California, U.S.A. (via west of Timor), 7,646

BARRY, WALES
(51°23'40"N., 3°15'30"W.)
Subtract 6 miles from Cardiff distances.

BASRA, IRAQ
(30°30'00"N., 47°49'00"E.) See Al Basrah.

BASSEIN, BURMA
(16°47'00"N., 94°44'00"E.) to:

Junction Points*

Port Said, Egypt, 4,638
Singapore, 1,137

Ports

Calcutta, India, 643
Colombo, Sri Lanka, 1,194
Penang, Malaysia, 786

BASSENS, FRANCE
(44°54'00"N., 0°32'15"W.)
Subtract 3 1/2 miles from Bordeaux distances.

BASSE-TERRE, GUADELOUPE
(15°59'45"N., 61°44'15"W.) to:

Junction Points*

Straits of Florida, 1,317

Ports

New York, New York, U.S.A. (via Anegada Channel), 1,624

Pointe a Pitre, Guadeloupe, 31
Roseau, Dominica, 48
San Juan, Puerto Rico, 314

BASSETERRE, SAINT KITTS AND NEVIS
(17°17'30"N., 62°43'00"W.) to:

Ports

Hamilton, Bermuda, 941
New York, New York, U.S.A. (via Anegada Channel), 1,531
Port au Prince, Haiti, 419
San Juan, Puerto Rico, 214

BASTIA, CORSICA
(42°41'45"N., 9°27'30"E.) to:

Junction Points*

Port Said, Egypt, 1,337
Strait of Gibraltar, 868

Ports

Banzart, Tunisia, 333
Genova, Italy, 108
Napoli, Italy, 258

BASUO GANG, CHINA
(19°06'30"N., 108°37'00"E.) to:

Junction Points*

Selat Sunda, Indonesia, 1,588

Ports

Haiphong, Vietnam, 156
Ho Chi Minh, Vietnam, 708
Hong Kong, China, 408
Kao-hsiung Kang, Taiwan, 811

BATA, EQUATORIAL GUINEA
(1°52'27"N., 9°45'35"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,291
Ile d'Ouessant, France, 4,173

Ports

Douala, Cameroon, 141
Matadi, Congo, 663

BATANGAS, LUZON, PHILIPPINES
(13°45'20"N., 121°02'00"E.) to:

Ports

Cebu, Philippines, 309
Iloilo, Philippines, 270
Jolo, Philippines, 480
Tacloban, Philippines, 293
Zamboanga, Philippines, 436

BATH, MAINE, U.S.A.
(43°54'00"N., 69°48'30"W.) to:

Junction Points*

Bishop Rock, England, 2,738

Ports

St. John, Canada, 206

* **JUNCTION POINT.**—See Preface for use of junction points

12 BATON ROUGE, LOUISIANA, U.S.A.

BATON ROUGE, LOUISIANA, U.S.A.
(30°27'00"N., 91°06'00"W.) Add 115 miles to New Orleans distances.

BAT'UMI, GEORGIA
(41°38'46"N., 41°38'51"E.) to:

Junction Points*

Port Said, Egypt, 1,391
Strait of Gibraltar, 2,408

Ports

Algiers, Algeria (south of Greece), 1,980
Algiers, Algeria (via Corinth Canal), 1,963
Barcelona, Spain (south of Greece), 2,073
Barcelona, Spain (via Corinth Canal), 2,032
Iraklion, Kriti, 1,032
Istanbul, Turkey, 591
Izmir, Turkey, 880
Marseille, France (south of Greece), 1,970
Marseille, France (via Corinth Canal), 1,929
Novorossiysk, Russia, 255
Odessa, Ukraine, 569
Tarabulus, Libya, 1,540
Thessaloniki, Greece, 926
Trieste, Italy (south of Greece), 1,749
Trieste, Italy (via Corinth Canal), 1,650

BAYONNE, FRANCE
(43°29'40"N., 1°28'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 345
Strait of Gibraltar, 912

Ports

Bordeaux, France, 172
El Ferrol del Caudillo, Spain, 322
Horta, Azores, 1,277

BAYONNE, NEW JERSEY, U.S.A.
(40°41'00"N., 74°01'00"W.) For ocean distance subtract 2 1/2 miles from New York distances.

BAYTOWN, TEXAS, U.S.A.
(29°43'39"N., 96°01'21"W.) Subtract 17 miles from Houston distances.

BEAUMONT, TEXAS, U.S.A.
(30°04'40"N., 94°05'10"W.) Add 24 miles to Port Arthur distances.

BEE NESS, ENGLAND
(51°25'18"N., 0°39'00"E.) to:

Junction Points*

Bishop Rock, England, 386
Ile d'Ouessant, France, 370
Nord-Ostsee-Kanal (East Entrance), Germany, 412
Pentland Firth, Scotland, 509
Skagens Odde, Denmark, 527

Ports

Aberdeen, Scotland, 398
Arkhangel'sk, Russia, 2,030
Cardiff, Wales, 495
Hull, England, 209
Oslo, Norway, 619
Wilhelmshaven, Germany, 331
Zeebrugge, Belgium, 100

BEIHAI, CHINA
(21°29'00"N., 109°02'00"E.) to:

Junction Points*

Singapore, 1,332

Ports

Cebu, Philippines, 1,220
Ho Chi Minh, Vietnam, 837
Hong Kong, China, 391

BEIRA, MOZAMBIQUE
(19°49'30"S., 34°49'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 1,454
Port Said, Egypt, 3,990
Singapore, 4,520

Ports

Aden, Yemen, 2,610
Belawan, Indonesia, 4,187
Fremantle, Australia, 4,351
Inhambane, Mozambique, 259
Lindi, Tanzania, 832
Majunga, Madagascar, 732
Malacca, Malaysia, 4,405
Manakara, Madagascar, 974
Maputo, Mozambique, 476
Mocambique, Mozambique, 476
Mombasa, Kenya, 1,146
Penang, Malaysia (north of Madagascar), 4,232
Port Darwin, Australia, 5,553
Port Louis, Mauritius, 1,448
Quelimane, Mozambique, 123
Sabang, Indonesia, 3,921
Tamatave, Madagascar, 1,239
Tulear, Madagascar, 539

BEIRUT, LEBANON
(33°54'12"N., 35°30'46"E.) to:

Junction Points*

Port Said, Egypt, 230
Strait of Gibraltar, 2,034

Ports

Ajaccio, Corsica, 1,437
Alexandria, Egypt, 341
Algiers, Algeria, 1,605
Alicante, Spain, 1,772
Ancona, Italy (south of Greece), 1,276
Ancona, Italy (via Corinth Canal), 1,245
Annaba, Turkey, 1,381
Antalya, Turkey, 322
Ashdod, Israel, 136
Banghazi, Libya, 806
Banzart, Tunisia, 1,276
Barcelona, Spain, 1,703
Bari, Italy (south of Greece), 1,069
Bari, Italy (via Corinth Canal), 1,038

Brindisi, Italy (south of Greece), 1,011
Brindisi, Italy (via Corinth Canal), 980
Cartagena, Spain, 1,797
Ceuta, Morocco, 2,014
Dubrovnik, Croatia (south of Greece), 1,107
Dubrovnik, Croatia (via Corinth Canal), 1,074
Genova, Italy, 1,508
Gibraltar, 2,017
Haifa, Israel, 76
Iraklion, Kriti, 526
Iskenderun, Turkey, 180
Istanbul, Turkey, 896
Izmir, Turkey, 651
Kavala, Greece, 756
La Spezia, Italy, 1,473
Larnaca, Cyprus, 112
Livorno, Italy, 1,437
Malaga, Spain, 1,964
Marseille, France, 1,600
Mersin, Turkey, 179
Messina, Sicily, 1,027
Napoli, Italy, 1,198
Odessa, Ukraine, 1,194
Oran, Algeria, 1,803
Palermo, Sicily, 1,143
Palma, Balearic Islands, 1,648
Piraeus, Greece, 647
Rhodes, Greece, 393
Rijeka, Croatia (south of Greece), 1,345
Rijeka, Croatia (via Corinth Canal), 1,312
Savona, Italy, 1,519
Sibenik, Croatia (south of Greece), 1,218
Sibenik, Croatia (via Corinth Canal), 1,184
Siracusa, Sicily, 1,013
Split, Croatia (south of Greece), 1,203
Split, Croatia (via Corinth Canal), 1,169
Tarabulus, Libya, 1,129
Taranto, Italy (south of Greece), 1,023
Taranto, Italy (via Corinth Canal), 1,000
Tarragona, Spain, 1,738
Thessaloniki, Greece, 783
Toulon, France, 1,568
Trieste, Italy (south of Greece), 1,379
Trieste, Italy (via Corinth Canal), 1,346
Tubruq, Libya, 595
Tunis, Tunisia, 1,263
Valencia, Spain, 1,770
Valletta, Malta, 1,049
Venezia, Italy (south of Greece), 1,387
Venezia, Italy (via Corinth Canal), 1,356
Volos, Greece, 725

BEJAIA, ALGERIA
(36°45'00"N., 5°05'30"E.) to:

Junction Points*

Port Said, Egypt, 1,423
Strait of Gibraltar, 545

Ports

Annaba, Algeria, 156
Arzew, Algeria, 294
Palma, Balearic Islands, 212

BELAWAN, INDONESIA
(3°47'00"N., 98°40'40"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,246
Selat Lombok, Indonesia, 1,342
Port Said, Egypt, 4,688
Singapore, 368
Selat Sunda, Indonesia, 870
Torres Strait, Australia (via Selat Riouw and Selat Karimata), 2,839

Ports

Aden, Yemen, 3,299
Al Basrah, Iraq, 3,553
Al Manamah, Bahrain, 3,316
Balikpapan, Kalimantan, 1,422
Beira, Mozambique, 4,187
Berbera, Somalia, 3,313
Bombay, India, 2,109
Bushehr, Iran, 3,372
Calcutta, India, 1,326
Calicut, India, 1,609
Colombo, Sri Lanka, 1,240
Dar es Salaam, Tanzania, 3,709
Diego Garcia, Chagos Archipelago, 1,860
East London, South Africa, 4,749
Fort Dauphin, Madagascar, 3,642
Jakarta, Indonesia, 864
Kakinada, India, 1,261
Karachi, Pakistan, 2,550
Madras, India, 1,252
Majunga, Madagascar, 3,512
Malacca, Malaysia, 253
Maputo, Mozambique, 4,436
Mocambique, Mozambique, 3,747
Mombasa, Kenya, 3,654
Mosselbaai, South Africa, 5,051
Port Elizabeth, South Africa, 4,876
Port Louis, Mauritius, 2,997
Rangoon, Burma, 802
Sabang, Indonesia, 268
Surabaya, Indonesia, 1,132
Tamatave, Madagascar, 3,342
Tanga, Tanzania, 3,704
Victoria, Seychelles, 2,734
Zamboanga, Philippines, 1,570
Zanzibar, Tanzania, 3,727

BELEM, BRAZIL
(1°27'00"S., 48°30'20"W.) to:

Junction Points*

Bishop Rock, England, 3,760
Cape of Good Hope, South Africa, 4,368
Fastnet Rock, Ireland, 3,741
Ile d'Ouessant, France, 3,748
Inishtrahull, Ireland, 3,972
Montreal, Canada (via Cabot Strait), 3,680
Montreal, Canada (via Strait of Canso), 3,709
Pentland Firth, Scotland, 4,219
Punta Arenas, Chile, 4,363
Strait of Gibraltar, 3,285
Straits of Florida, 2,653
Yucatan Channel, 2,671

Ports

Baltimore, Maryland, U.S.A., 2,953
Bordeaux, France, 3,868
Boston, Massachusetts, U.S.A., 2,970
Bridgetown, Barbados, 1,154

* **JUNCTION POINT.**—See Preface for use of junction points

Buenos Aires, Argentina, 3,274
 Cabedelo, Brazil, 1,021
 Cadiz, Spain, 3,286
 Charleston, South Carolina, U.S.A., 2,773
 Charlotte Amalie, Virgin Islands, 1,598
 Cienfuegos, Cuba, 2,460
 Colon, Panama, 2,320
 Dakar, Senegal, 2,104
 Georgetown, Guyana, 896
 Guantanamo, Cuba, 2,148
 Guiria, Venezuela, 1,226
 Halifax, Canada, 2,904
 Hamilton, Bermuda, 2,274
 Jacksonville, Florida, U.S.A., 2,773
 Key West, Florida, U.S.A., 2,603
 Kingston, Jamaica, 2,159
 La Habana, Cuba, 2,613
 Lisboa, Portugal, 3,251
 Luderitz Bay, Namibia, 4,076
 Maceio, Brazil, 1,211
 Natal, Brazil, 954
 New Amsterdam, Guyana, 859
 New York, New York, U.S.A., 2,975
 Norfolk, Virginia, U.S.A., 2,832
 Paramaribo, Suriname, 747
 Philadelphia, Pennsylvania, U.S.A., 2,950
 Ponta Delgada, Azores, 2,678
 Port au Prince, Haiti, 2,192
 Port of Spain, Trinidad, 1,212
 Port Castries, St. Lucia, 1,265
 Portsmouth, New Hampshire, U.S.A., 2,959
 Puerto de Hierro, Venezuela, 1,215
 Recife, Brazil, 1,084
 Rio de Janeiro, Brazil, 2,174
 Santa Cruz de Tenerife, Canary Islands, 2,599
 Santo Domingo, Dominican Republic, 1,819
 Sao Luiz, Brazil, 372
 St. Helena Island, 4,329
 St. John, Canada, 2,998
 St. John's, Canada, 2,968
 St. John's, Antigua, 1,433
 Vigo, Spain, 3,398

BELFAST, NORTHERN IRELAND
 (54°37'00"N., 5°54'00"W.) to:

Junction Points*

Bishop Rock, England, 320
 Fastnet Rock, Ireland, 311
 Inishtrahull, Ireland, 97
 Pentland Firth, Scotland, 341

Ports

Antwerp, Belgium, 722
 Avonmouth, England, 308
 Barrow in Furness, England, 116
 Cardiff, Wales, 293
 Cobh, Ireland, 264
 Fishguard, Wales, 182
 Le Harve, France, 542
 Limerick, Ireland (north of Ireland), 376
 Londonderry, Northern Ireland (via Rathlin Sound), 102
 Milford Haven, Wales, 222
 Stornoway, Scotland, 234
 Workington, England, 87

BELIZE, BELIZE
 (17°28'00"N., 88°11'00"W.) to:

Junction Points*

Montreal, Canada (via Strait of Canso), 2,985
 Panama, Panama, 859
 Yucatan Channel, 337

Ports

Baltimore, Maryland, U.S.A. (via Straits of Florida), 1,625
 Boston, Massachusetts, U.S.A. (via Straits of Florida and Yucatan Channel), 1,934
 Brunswick, Georgia, U.S.A. (via Straits of Florida), 1,072
 Campeche, Mexico (west of Banco Chinchorro and Isla de Cozumel), 609
 Cap-Haitien, Haiti, 950
 Carmen, Mexico (west of Banco Chinchorro and Isla de Cozumel), 688
 Cartagena, Colombia, 904
 Charlotte Amalie, Virgin Islands, 1,368
 Cienfuegos, Cuba, 545
 Colon, Panama, 816
 Galveston, Texas, U.S.A., 935
 Gulfport, Mississippi, U.S.A., 838
 Jacksonville, Florida, U.S.A., 1,047
 Key West, Florida, U.S.A., 590
 Kingston, Jamaica, 685
 La Guaira, Venezuela, 1,328
 La Habana, Cuba, 528
 Matagorda Bay, Texas, U.S.A. (west of Banco Chinchorro and Isla de Cozumel), 957
 Mathew Town, Great Inagua Island, 902
 Miami, Florida, U.S.A., 734
 Mobile, Alabama, U.S.A., 846
 New Orleans, Louisiana, U.S.A. (via South Pass), 850
 Norfolk, Virginia, U.S.A., 1,503
 Pensacola, Florida, U.S.A., 826
 Pointe a Pitre, Guadeloupe, 1,578
 Port au Prince, Haiti (north of Jamaica), 933
 Port au Prince, Haiti (south of Jamaica), 953
 Port of Spain, Trinidad, 1,637
 Port Castries, St. Lucia, 1,609
 Portland, Maine, U.S.A., 1,967
 Puerto Cabello, Venezuela, 1,289
 San Juan del Norte, Nicaragua, 619
 Santo Domingo, Dominican Republic, 1,088
 Tampico, Mexico, 927
 Tuxpan, Mexico, 897
 Veracruz, Mexico, 862
 Willemstad, Curacao, 1,178

BELLINGHAM, WASHINGTON, U.S.A.
 (48°45'00"N., 122°30'00"W.) to:

Ports

Nanaimo, Canada, 76
 Vancouver, Canada, 70
 Victoria, Canada, 52
 Yokohama, Japan, 4,245

BELOMORSK, RUSSIA
 (64°32'00"N., 34°48'00"E.) Add 67 miles to Arkhangel'sk distances.

BENICIA, CALIFORNIA, U.S.A.
 (38°02'30"N., 122°08'00"W.) Add 24 miles to San Francisco distances.

BERBERA, SOMALIA
 (10°26'30"N., 45°01'00"E.) to:

Junction Points*

Singapore, 3,646

Ports

Belawan, Indonesia, 3,313
 Fremantle, Australia, 4,933
 Malacca, Malaysia, 3,531
 Penang, Malaysia, 3,358
 Port Darwin, Australia, 5,384
 Sabang, Indonesia, 3,047

BERGEN, NORWAY
 (60°24'00"N., 5°19'00"E.) to:

Junction Points*

Bishop Rock, England, 911
 Ile d'Ouessant, France, 894
 Pentland Firth, Scotland, 296
 Skagens Odde, Denmark, 305

Ports

Aberdeen, Scotland, 309
 Akureyri, Iceland, 803
 Alesund, Norway, 167
 Amsterdam, Netherlands, 502
 Antwerp, Belgium, 602
 Arendal, Norway, 254
 Blyth, England, 400
 Bodo, Norway, 521
 Bremerhaven, Germany, 447
 Calais, France, 588
 Cherbourg, France, 734
 Dover, England, 590
 Dunkerque, France, 585
 Emden, Germany, 457
 Esbjerg, Denmark, 361
 Farsund, Norway, 182
 Flekkefjorden, Norway, 170
 Fredrikstad, Norway, 335
 Goteborg, Sweden, 356
 Grimstad, Norway, 250
 Hafnarfjordhur, Iceland, 884
 Hamburg, Germany, 486
 Hammerfest, Norway, 817
 Harstad, Norway, 673
 Hirtshals, Denmark, 280
 Hull, England, 474
 Hvalfjordhur, Iceland, 887
 Keflavik, Iceland, 875
 Kragero, Norway, 289
 Kristiansand, Norway, 226
 Kristiansund, Norway, 232
 Larvik, Norway, 317
 Le Havre, France, 702
 Leith, Scotland, 386
 Lillesand, Norway, 241
 London, England, 613
 Longyearbyen, Svalbard, 1,124
 Mandal, Norway, 201
 Molde, Norway, 201
 Mosjoen, Norway, 473
 Murmansk, Russia, 1,105
 Namsos, Norway, 384
 Narvik, Norway, 624
 Newcastle, England, 403
 Oostende, Belgium, 563
 Oslo, Norway, 378
 Plymouth, England, 819
 Portland, England, 745
 Portsmouth, England, 695

Reykjavik, Iceland, 872
 Risor, Norway, 279
 Rotterdam, Netherlands, 533
 Sandefjorden, Norway, 317
 Seydhisfjordhur, Iceland, 634
 Skien, Norway, 317
 Sogndal, Norway, 152
 Southampton, England, 713
 Stavanger, Norway (via inner lead), 111
 Stavanger, Norway (via outer lead), 115
 Tonsberg, Norway, 329
 Torshavn, Faroe Islands, 372
 Tromso, Norway, 705
 Trondheim, Norway, 321
 Tvedestrand, Norway, 272
 Wilhelmshaven, Germany, 441
 Zeebrugge, Belgium, 558

BHAVNAGAR, INDIA
 (21°48'15"N., 72°09'00"E.) to:

Ports

Aden, Yemen, 1,707
 Bombay, India, 204
 Colombo, Sri Lanka, 1,073
 Karachi, Pakistan, 481

BIKINI, MARSHALL ISLANDS
 (11°31'30"N., 165°33'00"E.) to:

Junction Points*

Panama, Panama, 4,915
 Singapore, 3,591

Ports

Apra, Guam, 1,263
 Honolulu, Hawaii, U.S.A., 2,179

BILBAO, SPAIN
 (43°20'30"N., 3°02'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 346
 Strait of Gibraltar, 854

Ports

Boston, Massachusetts, U.S.A., 2,987
 Huelva, Spain, 804
 La Pallice, France, 214
 Lorient, France, 274
 Marin, Spain, 387
 New York, New York, U.S.A., 3,147
 Setubal, Portugal, 612
 Villagarcia, Spain, 357

BILHOROD-DNISTROVS'KYY, UKRAINE
 (46°11'33"N., 30°21'55"E.) to:

Junction Points*

Port Said, Egypt, 1,168
 Strait of Gibraltar (via Corinth Canal), 4,035
 Strait of Gibraltar (south of Greece), 4,095

Ports

Alexandria, Egypt, 1,106
 Beirut, Lebanon, 1,218
 Constanta, Romania, 153
 Haifa, Israel, 1,219

* **JUNCTION POINT.**—See Preface for use of junction points

14 BISHOP ROCK, ENGLAND

Istanbul, Turkey, 360
Palermo, Sicily (via Corinth Canal), 1,239
Palermo, Sicily (south of Greece), 1,303
Tunis, Tunisia (via Corinth Canal), 1,381
Tunis, Tunisia (south of Greece), 1,415
Volos, Greece, 693

BISHOP ROCK, ENGLAND *
(49°45'00"N., 6°35'00"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,790
Fastnet Rock, Ireland, 149
Grand Banks South, 1,830
Ile d'Ouessant, France, 80
Inishtrahull, Ireland, 395
Montreal, Canada (via Cape Race), 2,844
Nord-Ostsee-Kanal (East Entrance), Germany, 727
Panama, Panama (via Mona Passage), 4,388
Pentland Firth, Scotland (via Irish Sea), 636
Punta Arenas, Chile, 7,019
Skagens Odde, Denmark, 851
Strait of Gibraltar, 969
Straits of Florida, 3,859
Yucatan Channel, 4,176

Ports

Amsterdam, Netherlands, 481
Antwerp, Belgium, 449
Ardrossan, Scotland, 350
Argentina, Canada, 1,949
Arkhangel'sk, Russia, 2,263
Avonmouth, England, 191
Baltimore, Maryland, U.S.A., 3,208
Barrow in Furness, England, 303
Bath, Maine, U.S.A., 2,696
Belem, Brazil, 3,769
Belfast, Northern Ireland, 320
Bergen, Norway, 911
Blyth, England, 610
Bodo, Norway, 1,405
Bordeaux, France, 397
Boston, Massachusetts, U.S.A., 2,769
Boulogne, France, 322
Bremerhaven, Germany, 657
Buenos Aires, Argentina, 5,947
Cadiz, Spain, 930
Caen, France, 264
Cairn Ryan, Scotland, 330
Calais, France, 333
Cap-Haitien, Haiti, 3,565
Cape Town, South Africa, 5,772
Cardiff, Wales, 176
Cartagena, Colombia, 4,138
Charleston, South Carolina, U.S.A., 3,368
Charlotte Amalie, Virgin Islands, 3,369
Cherbourg, France, 197
Christiansted, Virgin Islands, 3,370
Cienfuegos, Cuba (via Windward Passage), 4,063
Cobh, Ireland, 143
Colon, Panama (via Mona Passage), 4,408
Dakar, Senegal, 2,195
Dartmouth, England, 122
Den Helder, Netherlands, 509

Dieppe, France, 297
Douglas, Isle of Man, 276
Dover, England, 323
Dublin, Ireland, 232
Dundee, Scotland, 713
Dunkerque, France, 355
Egersund, Norway, 797
El Ferrol del Caudillo, Spain, 394
Emden, Germany, 606
Esbjerg, Denmark, 688
Fishguard, Wales, 161
Fleetwood, England, 307
Freetown, Sierra Leone, 2,673
Funchal, Madeira Island, 1,136
Georgetown, Guyana, 3,643
Glasgow, Scotland, 402
Granville, France, 267
Guantanamo, Cuba (via Windward Passage), 3,714
Halifax, Canada, 2,336
Hamburg, Germany, 717
Hamilton, Bermuda, 2,769
Hartlepool, England, 594
Holyhead, Wales, 232
Horta, Fayal, Azores, 1,158
Hull, England, 531
Ivittuut, Greenland (via 75 miles off Kap Farvel), 1,652
Ivittuut, Greenland (direct), 1,608
Jacksonville, Florida, U.S.A., 3,569
Key West, Florida, U.S.A. (via Florida Strait), 3,807
Kingston, Jamaica (via Windward Passage), 3,866
Kristiansand, Norway, 809
La Guaira, Venezuela, 3,777
La Habana, Cuba (via Florida Strait), 3,868
Las Palmas, Canary Islands, 1,360
Le Havre, France, 263
Leith, Scotland, 708
Lisboa, Portugal, 710
Liverpool, England, 297
London, England, 413
Londonderry, Northern Ireland, 396
Lorient, France, 202
Methil, Scotland, 698
Miami, Florida, U.S.A. (via Florida Strait), 3,663
Middlesbrough, England, 591
Milford Haven, Wales, 129
Montevideo, Uruguay, 5,834
Narvik, Norway, 1,505
New London, Connecticut, U.S.A., 2,849
New York, New York, U.S.A., 2,937
Newcastle, England, 616
Newport, Wales, 177
Norfolk, Virginia, U.S.A., 3,101
Oostende, Belgium, 400
Oslo, Norway, 947
Paramaribo, Suriname, 3,602
Philadelphia, Pennsylvania, U.S.A., 3,082
Plymouth, England, 106
Ponta Delgada, Azores, 1,103
Port au Prince, Haiti (via Windward Passage), 3,743
Port of Spain, Trinidad, 3,603
Port Talbot, Wales, 149
Portland, England, 181
Porto Grande, Cape Verde Islands, 2,165
Portsmouth, England (via Needles Channel), 225
Praia Da Vitoria, Terceira, Azores, 1,128
Providence, Rhode Island, U.S.A., 2,841

Recife, Brazil, 3,775
Rio de Janeiro, Brazil, 4,846
Rotterdam, Netherlands, 454
San Juan, Puerto Rico, 3,390
Santa Cruz de Tenerife, Canary Islands, 1,356
Santo Domingo, Dominican Republic, 3,585
Seaham Harbor, England, 625
Shoreham By Sea, England, 249
Southampton, England, 232
St. John's, Canada, 1,804
St. Malo, France, 90
Stavanger, Norway, 836
Sunderland, England, 605
Swansea, Wales, 155
Tromsø, Norway, 1,597
Trondheim, Norway, 1,202
Vigo, Spain, 484
Villa do Porto, Santa Maria, Azores, 1,128
Walvisbaai, Namibia, 5,165
Washington, D.C., U.S.A., 3,221
Waterford, Ireland, 137
Wilhelmshaven, Germany, 651
Wilmington, North Carolina, U.S.A., 3,304
Zarate, Argentina, 6,075
Zeebrugge, Belgium, 393

BISSAU, GUINEA-BISSAU
(11°51'00"N., 15°38'00"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 3,518
Ile d'Ouessant, France, 2,401

Ports

Natal, Brazil, 1,604
Porto Grande, Cape Verde Islands, 631

BJORNOYA, SVALBARD
(74°29'45"N., 19°12'30"E.) to:

Ports

Reykjavik, Iceland (north of Iceland), 1,152
Reykjavik, Iceland (south of Iceland), 1,234
Tromsø, Norway, 306
Vadso, Norway, 373
Vardo, Norway, 328

BLAYE, FRANCE
(45°07'30"N., 0°40'15"W.) For ocean distances subtract 13 mile from Bordeaux distances.

BLUFF HARBOR, NEW ZEALAND
(46°35'50"S., 168°20'30"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,484
Torres Strait, Australia, 2,797
Wilson Promontory, Australia, 1,135

Ports

Botany Bay, Australia, 1,097
Dunedin, New Zealand, 147
Hobart, Australia, 930
Melbourne, Australia, 1,211
New Plymouth, New Zealand, 618
Picton, New Zealand, 465

Sydney, Australia, 1,105
Wellington, New Zealand, 455

BLYTH, ENGLAND
(55°07'45"N., 1°30'00"W.) to:

Junction Points*

Bishop Rock, England, 610
Pentland Firth, Scotland, 290

Ports

Bergen, Norway, 400
Leith, Scotland, 96
London, England, 318

BOCA DE TANAMO, CUBA
(20°42'00"N., 75°20'00"W.) to:

Junction Points*

Panama, Panama, 869
Straits of Florida, 489

Ports

Kingston, Jamaica, 318
La Habana, Cuba, 444
San Juan, Puerto Rico, 549

BOCA GRANDE, FLORIDA, U.S.A.
(26°40'00"N., 82°19'27"W.) to:

Junction Points*

Straits of Florida, 148
Yucatan Channel, 329

Ports

Campeche, Mexico, 658
Tampico, Mexico, 891

BOCAS DEL TORO, PANAMA
(9°20'00"N., 82°14'00"W.) to:

Junction Points*

Panama, Panama, 187

Ports

Baltimore, Maryland, U.S.A., 1,975
Boston, Massachusetts, U.S.A., 2,231
Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,638
Colon, Panama, 144
Halifax, Canada, 2,369
Kingston, Jamaica, 604
La Habana, Cuba, 981
Mobile, Alabama, U.S.A., 1,340
New Orleans, Louisiana, U.S.A. (via South Pass and inside route), 1,353
New York, New York, U.S.A. (via Windward Passage and Crooked Island Passage), 2,048
Norfolk, Virginia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,853
Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage), 2,020
Savannah, Georgia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,637

* JUNCTION POINT.—See Preface for use of junction points

BODO, NORWAY
(67°17'00"N., 14°22'30"E.) to:

Junction Points*

Bishop Rock, England, 1,405

Ports

Bergen, Norway, 521
Kristiansand, Norway, 733
Oslo, Norway, 885

BOHANG, SOUTH KOREA
(36°02'45"N., 129°23'30"E.) to:

Ports

Hakodate, Japan, 665
Incheon, South Korea, 511
Maizuru, Japan, 313
Shimonoseki, Japan, 164

BOMA, CONGO
(6°00'40"S., 12°16'25"E.) to:

Junction Points*

Bishop Rock, England, 4,493
Cape of Good Hope, South Africa, 4,223
Fastnet Rock, Ireland, 4,546
Grand Banks South, 4,642
Ile d'Ouessant, France, 4,452
Inishtrahull, Ireland, 4,862
Panama, Panama, 5,670
Pentland Firth, Scotland, 5,151
Punta Arenas, Chile, 4,998
Strait of Gibraltar, 3,792
Straits of Florida, 5,864
Yucatan Channel, 5,969

Ports

Abidjan, Ivory Coast, 1,187
Amboim, Angola, 356
Bridgetown, Barbados, 4,478
Cabinda, Cabinda, 89
Cape Town, South Africa, 3,747
Dakar, Senegal, 2,284
Douala, Cameroon, 742
Lagos, Nigeria, 977
Luanda, Angola, 190
Monrovia, Liberia, 1,576
New York, New York, U.S.A., 5,567
Pointe Noire, Congo, 140
Port Gentil, Gabon, 470
Recife, Brazil, 2,808
Sao Tome, Sao Tome, 563
St. Helena Island, 1,232
Takoradi, Ghana, 1,064

BOMBAY, INDIA
(18°56'00"N., 72°51'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa (via west of Madagascar), 4,554
Cape Leeuwin, Australia, 4,059
Port Said, Egypt, 3,046
Singapore, 2,441
Selat Sunda, Indonesia, 2,664
Torres Strait, Australia (south of Java and Timor), 4,849

Ports

Abadan, Iran, 1,357
Ad Damman, Saudi Arabia, 1,373
Aden, Yemen, 1,657
Al Basrah, Iraq, 1,594

Al Jubayl, Saudi Arabia, 2,353
Belawan, Indonesia, 2,109
Bhavnager, India, 204
Calcutta, India, 2,128
Cochin, India, 392
Colombo, Sri Lanka, 895
Dampier, Australia, 3,624
Dar es Salaam, Tanzania, 2,500
Diego Garcia, Chagos Archipelago, 1,603
Durban, South Africa, 3,826
Fateh Terminal, United Arab Emirates, 1,146
Fremantle, Australia, 3,984
Galle, Sri Lanka, 944
Karachi, Pakistan, 504
Madras, India, 1,482
Malacca, Malaysia, 2,327
Marmagao, India, 235
Massawa, Ethiopia, 2,050
Mina al Ahmadi, Kuwait, 1,517
Mina Abd Allah, Kuwait, 1,514
Mina Az Zawr, Kuwait, 1,495
Mombasa, Kenya, 2,400
Okha, India, 341
Penang, Malaysia, 2,154
Port Darwin, Australia, 4,193
Port Louis, Mauritius, 2,517
Port Said, Egypt, 3,046
Port Sudan, Sudan, 2,310
Port Victoria, Mahe, Seychelles, 1,752
Rangoon, Burma, 2,139
Ras al Khafji, Saudi Arabia, 1,491
Sabang, Indonesia, 1,843
Tamatave, Madagascar, 2,621
Trincomalee, Sri Lanka, 1,218
Weipa, Australia (via south of Java), 4,844
Yenbo, Indonesia, 2,503
Zanzibar, Tanzania, 2,517

BONNY, NIGERIA
(4°27'21"N., 7°10'22"E.) Subtract 28 miles from Port Harcourt distances.

BORDEAUX, FRANCE
(44°51'00"N., 0°34'00"W.) to:

Junction Points*

Bishop Rock, England, 397
Cape of Good Hope, South Africa, 5,838
Ile d'Ouessant, France, 321
Montreal, Canada (via Cape Race), 3,171
Panama, Panama (via Mona Passage), 4,597
Punta Arenas, Chile, 7,074
Strait of Gibraltar, 1,010
Straits of Florida, 4,172

Ports

Abidjan, Ivory Coast, 3,376
Accra, Ghana, 3,603
Baltimore, Maryland, U.S.A., 3,528
Bayonne, France, 200
Belem, Brazil, 3,868
Boston, Massachusetts, U.S.A., 3,073
Buenos Aires, Argentina, 6,009
Cadiz, Spain, 952
Cape Town, South Africa, 5,820
Charleston, South Carolina, U.S.A., 3,700
Dakar, Senegal, 2,243
Fort de France, Martinique, 3,607
Funchal, Madeira Island, 1,192

Halifax, Canada (via Cape Race), 2,663
Horta, Fayal, Azores, 1,348
La Guaira, Venezuela, 3,993
La Habana, Cuba (north of Little Bahama Bank), 4,153
La Habana, Cuba (via Northeast Providence Channel), 4,188
La Pallice, France, 103
Lagos, Nigeria, 3,817
Lisboa, Portugal, 732
Luanda, Angola, 4,623
New London, Connecticut, U.S.A., 3,153
New Orleans, Louisiana, U.S.A., 4,692
New York, New York, U.S.A., 3,241
Norfolk, Virginia, U.S.A., 3,405
Panama, Panama (via Mona Passage), 4,597
Philadelphia, Pennsylvania, U.S.A., 3,386
Pictou, Canada, 2,655
Point Noire, Congo, 4,437
Ponta Delgada, Azores, 1,256
Providence, Rhode Island, U.S.A., 3,145
Puerto de Pasajes, Spain, 178
Recife, Brazil, 3,823
Rio de Janeiro, Brazil, 4,908
San Sebastian, Spain, 210
Santa Cruz de Tenerife, Canary Islands, 1,406
St. Nazaire, France, 184
Washington, D.C., U.S.A., 3,543
Wilmington, North Carolina, U.S.A., 3,638

BOSTON, MASSACHUSETTS, U.S.A.
(42°22'00"N., 71°03'00"W.) to:

Junction Points*

Bishop Rock, England, 2,769
Cape of Good Hope, South Africa, 6,722
Fastnet Rock, Ireland, 2,647
Inishtrahull, Ireland, 2,751
Montreal, Canada (via Cabot Strait), 1,308
Montreal, Canada (via Strait of Canso), 1,248
Panama, Panama (via Crooked Island Passage), 2,200
Pentland Firth, Scotland, 2,947
Punta Arenas, Chile, 6,918
Strait of Gibraltar, 3,008
Straits of Florida, 1,408
Yucatan Channel (via outside route, Southbound), 1,595

Ports

Antilla, Cuba, 1,408
Argentina, Canada, 801
Arkhangel'sk, Russia, 4,014
Bahia Blanca, Argentina, 6,125
Banes, Cuba (via Crooked Island Passage), 1,398
Belem, Brazil, 2,970
Belize, Belize (via Straits of Florida and Yucatan Channel), 1,934
Bilbao, Spain, 2,979
Bocas del Toro, Panama (via Crooked Island Passage), 2,231
Bordeaux, France, 3,073
Brest, France, 2,854
Bridgetown, Barbados, 1,899
Buenos Aires, Argentina, 5,842
Cadiz, Spain, 2,992

Cape Town, South Africa, 6,707
Cartagena, Colombia (via Crooked Island Passage), 2,036
Casablanca, Morocco, 2,981
Charlotte Amalie, Virgin Islands, 1,513
Charlottetown, Canada (via Strait of Canso), 621
Cienfuegos, Cuba (via Windward Passage), 1,865
Colon, Panama (via Crooked Island Passage), 2,157
Dakar, Senegal, 3,221
Fort de France, Martinique, 1,799
Freetown, Sierra Leone, 3,656
Georgetown, Guyana, 2,282
Guantanamo, Cuba, 1,495
Halifax, Canada, 380
Hamilton, Bermuda, 704
Ivittuut, Greenland, 1,731
Jacmel, Haiti, 1,672
Kingston, Jamaica (via Crooked Island Passage), 1,657
La Guaira, Venezuela, 1,955
La Habana, Cuba, 1,415
Lagos, Nigeria, 4,774
Las Piedras, Venezuela, 1,907
Les Cayes, Haiti, 1,630
Limon, Costa Rica (via Crooked Island Passage), 2,230
Lisboa, Portugal, 2,801
Liverpool, Canada, 317
Luderitz Bay, Namibia, 6,302
Maracaibo, Venezuela, 2,001
Montecristi, Dominican Republic, 1,415
Montevideo, Uruguay, 5,728
Murmansk, Russia, 3,719
Nassau, Bahamas, 1,173
Nuevitas, Cuba, 1,454
Paramaribo, Suriname, 2,380
Parrsboro, Canada, 349
Pointe a Pitre, Guadeloupe, 1,742
Ponce, Puerto Rico, 1,563
Ponta Delgada, Azores, 2,088
Port au Prince, Haiti, 1,557
Port of Spain, Trinidad, 2,022
Port Antonio, Jamaica (via Crooked Island Passage), 1,606
Port Castries, St. Lucia, 1,812
Progreso, Mexico, 1,838
Puerto Cabello, Venezuela (via Mona Passage), 1,976
Recife, Brazil, 3,669
Reykjavik, Iceland (via Cape Race), 2,293
Rio de Janeiro, Brazil, 4,739
Salvador, Brazil, 4,060
San Juan, Puerto Rico, 1,486
Santa Cruz de Tenerife, Canary Islands, 2,777
Santa Marta, Colombia (via Crooked Island Passage), 1,966
Santiago de Cuba, Cuba (via Crooked Island Passage), 1,545
Santo Domingo, Dominican Republic, 1,599
Santos, Brazil, 4,928
Sint Nicolaashaven, Aruba, 1,853
St. Georges, Grenada, 1,932
St. John, Canada, 286
St. John's, Canada, 885
Sydney, Canada, 597
Vigo, Spain, 2,746
Walvisbaai, Namibia, 6,131
Willemstad, Curacao, 1,881
Yarmouth, Canada, 237

BOTAS, TURKEY
(36°50'37"N., 35°57'05"E.) to:

* JUNCTION POINT.—See Preface for use of junction points

16 BOTWOOD, CANADA

<p>Junction Points*</p> <p>Port Said, Egypt, 390 Strait of Gibraltar, 2,049</p> <p>Ports</p> <p>Beirut, Lebanon, 178 Istanbul, Turkey, 846 Piraeus, Greece, 650 Tarabulus, Libya, 1,147</p> <p>BOTWOOD, CANADA (49°09'00"N., 55°20'24"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,868 Fastnet Rock, Ireland, 1,731 Grand Banks South, 560 Inishtrahull, Ireland, 1,759 Montreal, Canada (via Cabot Strait), 1,329 Montreal, Canada (via Strait of Belle Isle), 1,024 Panama, Panama, 3,360 Pentland Firth, Scotland, 2,151 Strait of Gibraltar, 2,309 Straits of Florida, 2,736</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 1,147 Colon, Panama, 2,947 Halifax, Canada, 782 Ilulissat (Jakobshavn), Greenland, 1,237 Keflavik, Iceland, 1,390 New York, New York, U.S.A., 1,304 Ponta Delgada, Azores, 2,675 Port of Spain, Trinidad, 2,512 Reykjavik, Iceland, 1,472 Upernavik, Greenland, 1,417</p> <p>BOULOGNE, FRANCE (50°43'30"N., 1°36'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 322</p> <p>Ports</p> <p>Cardiff, Wales, 429 Dublin, Ireland, 496 Glasgow, Scotland, 672 Hull, England, 225 Le Havre, France, 98 Manchester, England, 601 Plymouth, England, 226 Southampton, England, 120 Yarmouth, England, 113</p> <p>BOWEN, AUSTRALIA (20°01'30"S., 148°15'00"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 2,975 Torres Strait, Australia, 760</p> <p>Ports</p> <p>Brisbane, Australia, 610 Bunbury, Australia, 3,072 Noumea, New Caledonia, 1,342</p> <p>BOWLING, SCOTLAND (55°55'45"N., 4°29'07"W.) to:</p>	<p>Junction Points*</p> <p>Bishop Rock, England, 377 Fastnet Rock, Ireland, 377 Inishtrahull, Ireland, 125</p> <p>Ports</p> <p>Ardrossan, Scotland, 33 Avonmouth, England, 384 Cardiff, Wales, 368 Cobn, Ireland, 329 Fishguard, Wales, 248 Glasgow, Scotland, 10 Stornoway, Scotland, 273</p> <p>BRAKE, GERMANY (53°19'55"N., 8°29'30"E.) Add 14 1/2 miles to Bremerhaven distances.</p> <p>BRASS RIVER (OFFSHORE TERMINAL), NIGERIA (4°04'00"N., 6°17'17"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,971 Cape of Good Hope, South Africa, 3,534 Fastnet Rock, Ireland, 4,024 Grand Banks South, 4,123 Ile d'Ouessant, France, 3,863 Inishtrahull, Ireland, 4,315 Panama, Panama, 5,216 Pentland Firth, Scotland, 5,019 Punta Arenas, Chile, 5,226 Strait of Gibraltar, 3,271 Straits of Florida, 5,376 Yucatan Channel, 5,500</p> <p>Ports</p> <p>Abidjan, Ivory Coast, 632 Boston, Massachusetts, U.S.A., 4,931 Cape Town, South Africa, 2,385 Casablanca, Morocco, 3,266 Dakar, Senegal, 1,783 Monrovia, Liberia, 1,053 New York, New York, U.S.A., 5,028 Norfolk, Virginia, U.S.A., 5,124 Port of Spain, Trinidad, 4,054 Recife, Brazil, 2,570 Takoradi, Ghana, 482</p> <p>BREMEN, GERMANY (53°06'30"N., 8°45'00"E.) For ocean distances add 34 miles to Bremerhaven distances.</p> <p>BREMERHAVEN, GERMANY (53°33'00"N., 8°33'30"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 657 Ile d'Ouessant, France, 647 Nord-Ostsee-Kanal (East Entrance), Germany, 129 Pentland Firth, Scotland, 507 Skagens Odde, Denmark, 320</p> <p>Ports</p> <p>Aberdeen, Scotland, 425 Amsterdam, Netherlands, 223 Antwerp, Belgium, 333 Bergen, Norway, 447 Cherbourg, France, 485 Dover, England, 341</p>	<p>Dundee, Scotland, 437 Dunkerque, France, 321 Egersund, Norway, 312 Emden, Germany, 128 Hakonsvern, Norway, 442 Hartlepool, England, 355 Harwich, England, 309 Hull, England, 332 Inverness, Scotland, 514 Kristiansand, Norway, 292 Le Havre, France, 453 Leith, Scotland, 442 London, England, 375 Narvik, Norway, 1,058 Newcastle, England, 374 Oostende, Belgium, 299 Oslo, Norway, 427 Plymouth, England, 573 Portland, England, 499 Portsmouth, England, 446 Rotterdam, Netherlands, 256 Sandefjorden, Norway, 373 Skien, Norway, 372 Southampton, England, 464 Stavanger, Norway, 366 Zeebrugge, Belgium, 287</p> <p>BREMERTON, WASHINGTON, U.S.A. (47°33'30"N., 122°38'00"W.) For distances outside Puget Sound add 9 miles to Seattle distances.</p> <p>BREST, FRANCE (48°22'30"N., 4°33'00"W.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,757 Ile d'Ouessant, France, 55 Straits of Florida, 3,953</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 3,302 Barrow in Furness, England, 416 Boston, Massachusetts, U.S.A., 2,838 Cardiff, Wales, 277 Charleston, South Carolina, U.S.A., 3,452 Colon, Panama (via Mona Passage), 4,420 Fishguard, Wales, 274 Funchal, Madeira Island, 1,110 Guantanamo, Cuba, 3,784 Holyhead, Wales, 345 Liverpool, England, 410 New York, New York, U.S.A., 3,017 Philadelphia, Pennsylvania, U.S.A., 3,160 Reykjavik, Iceland, 1,181 Rio de Janeiro, Brazil, 4,841 Rotterdam, Netherlands, 457 Rouen, France, 342 St. Malo, France, 177 Yarmouth, England, 440</p> <p>BREVIK, NORWAY (59°03'00"N., 9°41'30"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 886 Ile d'Ouessant, France, 871 Nord-Ostsee Kanal (East Entrance), Germany, 307 Pentland Firth, Scotland, 451 Skagens Odde, Denmark, 82</p>	<p>Ports</p> <p>Aarhus, Denmark, 211 Bergen, Norway, 316 Kokkola, Finland (via The Sound), 958 Kotka, Finland (via The Sound), 827 Narvik, Norway, 914 Sankt-Peterburg, Russia (via The Sound), 916 Stavanger, Norway, 234 Tallinn, Estonia (via The Sound), 752 Vassa, Finland (via The Sound), 899</p> <p>BRIDGEPORT, CONNECTICUT, U.S.A. (41°10'18"N., 73°10'48"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 2,118</p> <p>Ports</p> <p>Halifax, Canada, 552 La Habana, Cuba, 1,292</p> <p>BRIDGETOWN, BARBADOS (13°05'00"N., 59°37'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,280 Straits of Florida, 1,511 Yucatan Channel, 1,549</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 1,853 Belem, Brazil, 1,154 Boma, Congo, 4,478 Boston, Massachusetts, U.S.A., 1,899 Charleston, South Carolina, U.S.A., 1,628 Charlotte Amalie, Virgin Islands, 442 Colon, Panama, 1,237 Fort de France, Martinique, 130 Georgetown, Guyana, 389 Halifax, Canada, 1,906 Hamilton, Bermuda, 1,208 Jacksonville, Florida, U.S.A., 1,617 Key West, Florida, U.S.A., 1,459 Kingstown, St. Vincent, 98 Montevideo, Uruguay, 4,096 Nassau, Bahamas, 1,284 New York, New York, U.S.A., 1,829 Paramaribo, Suriname, 496 Philadelphia, Pennsylvania, U.S.A., 1,839 Port au Prince, Haiti, 1,070 Port of Spain, Trinidad (via Boca Grande), 211 Port Castries, St. Lucia (north of St. Lucia), 110 Port Castries, St. Lucia (south of St. Lucia), 115 Recife, Brazil, 2,054 Rio de Janeiro, Brazil, 3,157 Salvador, Brazil, 2,476 San Juan, Puerto Rico (west of St. Croix Island and Virgin Passage), 517 Santa Barbara de Samana, Dominican Republic, 675</p>
--	--	--	---

* JUNCTION POINT.—See Preface for use of junction points

Savannah, Georgia, U.S.A., 1,646
St. Georges, Grenada (north of island), 144
St. Georges, Grenada (south of island), 152

BRIGHTON, TRINIDAD
(10°15'34"N., 61°37'38"W.) to:

Junction Points*

Bishop Rock, England, 3,610
Cape of Good Hope, South Africa, 5,391
Panama, Panama, 1,208
Punta Arenas, Chile, 5,438
Strait of Gibraltar, 3,409
Straits of Florida (via Mona Passage), 1,539
Yucatan Channel, 1,523

Ports

Alvaro Obregon, Mexico, 2,066
Belize, Belize, 1,643
Boston, Massachusetts, U.S.A., 2,028
La Habana, Cuba (via Old Bahama Channel and Mona Passage), 1,500
Limetree Bay, Virgin Islands, 480
Monrovia, Liberia, 3,051
Philadelphia, Pennsylvania, U.S.A. (via Virgin Passage), 1,944
San Juan, Puerto Rico, 574
Veracruz, Mexico, 2,182
Willemstad, Curacao, 456

BRINDISI, ITALY
(40°38'30"N., 17°57'03"E.) to:

Junction Points*

Port Said, Egypt, 941
Strait of Gibraltar, 1,315

Ports

Alexandria, Egypt, 831
Algiers, Algeria, 888
Alicante, Spain, 1,042
Ancona, Italy, 274
Annaba, Algeria, 668
Banghazi, Libya, 535
Banzart, Tunisia, 577
Barcelona, Spain, 947
Beirut, Lebanon, 1,011
Cartagena, Spain, 1,073
Ceuta, Morocco, 1,296
Chioggia, Italy, 375
Civitavecchia, Italy, 568
Genova, Italy, 752
Gibraltar, 1,298
Haifa, Israel, 1,007
Iraklion, Kriti, 496
Istanbul, Turkey (south of Greece), 793
Istanbul, Turkey (via Corinth Canal), 697
Izmir, Turkey (south of Greece), 639
Izmir, Turkey (via Corinth Canal), 543
Kerkira, Greece, 123
La Spezia, Italy, 717
Livorno, Italy, 681
Malaga, Spain, 1,245
Marseille, France, 844
Messina, Sicily, 270
Napoli, Italy, 442
Odessa, Ukraine (south of Greece), 1,142

Odessa, Ukraine (via Corinth Canal), 1,045
Oran, Algeria, 1,084
Palermo, Sicily, 387
Palma, Balearic Islands, 905
Pescara, Italy, 209
Piraeus, Greece (south of Greece), 480
Piraeus, Greece (via Corinth Canal), 343
Rijeka, Croatia, 342
Savona, Italy, 762
ShengJin, Albania, 103
Sibenik, Croatia, 217
Siracusa, Sicily, 292
Split, Croatia, 202
Tarabulus, Libya, 555
Taranto, Italy, 150
Thessaloniki, Greece (south of Greece), 688
Thessaloniki, Greece (via Corinth Canal), 592
Toulon, France, 812
Trieste, Italy, 376
Tunis, Tunisia, 564
Valencia, Spain, 1,048
Valletta, Malta, 369
Venezia, Italy, 386
Volos, Greece (south of Greece), 629
Volos, Greece (via Corinth Canal), 533
Zadar, Croatia, 280

BRISBANE, AUSTRALIA
(27°28'00"S., 153°03'30"E.) to:

Junction Points*

Panama, Panama, 7,687
Punta Arenas, Chile (via 30°S.), 7,369
Punta Arenas, Chile (via 49°S.), 6,063
Torres Strait, Australia (via inner route), 1,348
Wilson Promontory, Australia, 931

Ports

Apia, Samoa, 2,177
Apra, Guam, 2,659
Auckland, New Zealand, 1,340
Avarua, Cook Islands, 2,618
Bowen, Australia, 610
Cairns Harbor, Australia, 827
Christmas Island, Line Islands, 3,379
Dutch Harbor, Alaska, U.S.A., 5,369
Funafuti, Tuvalu, 1,895
Gladstone Harbor, Australia, 314
Honolulu, Hawaii, U.S.A., 4,117
Jaluit, Marshall Islands, 2,231
Lae, Papua New Guinea, 1,560
Levuka, Fiji Islands, 1,569
Los Angeles, California, U.S.A., 6,274
Lucinda, Australia, 804
Mackay, Australia, 512
Malakal, Palau Islands, 2,642
Midway Island, 3,757
Nandi Bay, Fiji Islands, 1,618
Nelson, New Zealand, 1,380
Nonouti, Gilbert Islands, 2,032
Noumea, New Caledonia, 807
Nukualofa, Tonga Islands, 1,819
Omura, Bonin Islands, 3,455
Pago Pago, American Samoa, 2,221
Papeete, French Polynesia, 3,234
Ponape, Caroline Islands, 2,108

Portland, Oregon, U.S.A., 6,421
Rabaul, Papua New Guinea, 1,434
Raoul Island, Kermadec Islands, 1,566
Rockhampton, Australia, 391
San Diego, California, U.S.A., 6,306
San Francisco, California, U.S.A., 6,193
Seattle, Washington, U.S.A., 6,471
Shanghai, China, 4,243
Suva, Fiji Islands, 1,548
Sydney, Australia, 529
Townsville, Australia, 677
Urangan, Australia, 282
Wellington, New Zealand, 1,453
Yokohama, Japan, 3,925

BRISTOL, ENGLAND
(51°27'00"N., 2°37'30"W.) For ocean distances add 6 miles to Avonmouth distances.

BRIXHAM, ENGLAND
(50°24'57"N., 3°27'42"W.) to:

Junction Points*

Bishop Rock, England, 128
Ile d'Ouessant, France, 141
Nord-Ostsee-Kanal (East Entrance), Germany, 679
Pentland Firth, Scotland, 737
Skagens Odde, Denmark, 757

Ports

Cherbourg, France, 81
Cobh, Ireland, 246
Dover, England, 197
King's Lynn, England, 405
Le Havre, France, 148

BROOKLYN, NEW YORK, U.S.A.
(40°40'00"N., 74°01'00"W.) For ocean distances subtract 1 1/4 miles from New York distances.

BROOME, AUSTRALIA
(17°59'00"S., 122°10'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,460
Cape Leeuwin, Australia, 1,316
Selat Lombok, Indonesia, 673
Port Said, Egypt, 6,328
Selat Sunda, Indonesia, 1,270
Torres Strait, Australia, 1,419

Ports

Colombo, Sri Lanka, 2,943
Flying Fish Cove, Christmas Island, 1,059
Fremantle, Australia, 1,183
Port Darwin, Australia, 694
Thursday Island, Australia, 1,385
Zanzibar, Tanzania, 4,820

BROWNSVILLE, TEXAS, U.S.A.
(25°57'06"N., 97°24'00"W.) to:

Junction Points*

Straits of Florida, 793
Yucatan Channel, 729

Ports

Campeche, Mexico, 552
Coatzacoalcas, Mexico, 517
Tampico, Mexico, 267

BRUGGE, BELGIUM
(51°13'25"N., 3°13'25"E.) Add 8 miles to Zeebrugge distances.

BRUNSWICK, GEORGIA, U.S.A.
(31°08'00"N., 81°29'40"W.) to:

Junction Points*

Montreal, Canada, 2,074
Panama, Panama (via Windward Passage and Crooked Island Passage), 1,581
Straits of Florida, 548

Ports

Belize, Belize (via Straits of Florida), 1,072
Belize, Belize (via Windward Passage), 1,661
Buenos Aires, Argentina, 5,845
Cape Town, South Africa, 6,857
Cartagena, Colombia, 1,417
Charlotte Amalie, Virgin Islands, 1,190
Colon, Panama (via Windward Passage), 1,538
Halifax, Canada, 1,210
Kingston, Jamaica, 1,038
Las Palmas, Canary Islands, 3,442
Limon, Costa Rica, 1,611
Montevideo, Uruguay, 5,731
Port of Spain, Trinidad, 1,694
Port Castries, St. Lucia, 1,529
Recife, Brazil, 3,672
Rio de Janeiro, Brazil, 4,744
Salvador, Brazil, 4,063
San Juan, Puerto Rico, 1,132
Santiago de Cuba, Cuba, 926
Santo Domingo, Dominican Republic, 1,179
Tampico, Mexico, 1,387
Veracruz, Mexico, 1,351

BRUSSELS, BELGIUM
(50°50'00"N., 4°20'00"E.) See Bruxelles.

BRUXELLES, BELGIUM
(50°50'00"N., 4°20'00"E.) Add 29 miles to Antwerp distances.

BUCHANAN, LIBERIA
(5°51'30"N., 10°03'30"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,912
Ile d'Ouessant, France, 2,904

Ports

Dakar, Senegal, 755
Takoradi, Ghana, 197

BUCKNER BAY, OKINAWA JIMA, RYUKYU ISLANDS
See Nakagusuku Wan.

BUENAVENTURA, COLOMBIA
(3°54'00"N., 77°04'30"W.) to:

18 BUENOS AIRES, ARGENTINA

<p>Junction Points*</p> <p>Panama, Panama, 352</p> <p>Ports</p> <p>Callao, Peru, 1,126 Golfito, Costa Rica, 426 Guayaquil, Ecuador, 578 La Libertad, Ecuador, 445 San Francisco, California, U.S.A., 3,383</p> <p>BUENOS AIRES, ARGENTINA (34°35'00"S., 58°22'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 5,947 Cape of Good Hope, South Africa, 3,704 Ile d'Ouessant, France, 5,916 Inishtrahull, Ireland, 6,243 Montreal, Canada, 6,455 Pentland Firth, Scotland, 6,491 Punta Arenas, Chile, 1,394 Strait of Gibraltar, 5,280 Straits of Florida, 5,713 Yucatan Channel, 5,723</p> <p>Ports</p> <p>Bahia Blanca, Argentina, 564 Baltimore, Maryland, U.S.A., 5,945 Belem, Brazil, 3,274 Bordeaux, France, 6,009 Boston, Massachusetts, U.S.A., 5,842 Brunswick, Georgia, U.S.A., 5,845 Cadiz, Spain, 5,293 Caleta Olivia, Argentina, 865 Cape Town, South Africa, 3,720 Cartagena, Colombia, 5,154 Charleston, South Carolina, U.S.A., 5,822 Charlotte Amalie, Virgin Islands, 4,648 Charlottetown, Canada, 5,831 Cienfuegos, Cuba, 5,526 Colon, Panama, 5,385 Comodoro Rivadavia, Argentina, 927 Dakar, Senegal, 3,864 Freetown, Sierra Leone, 3,712 Funchal, Madeira Island, 4,823 Georgetown, Guyana, 3,954 Guantanamo, Cuba, 5,213 Halifax, Canada, 5,731 Hamilton, Bermuda, 5,211 Horta, Azores, 4,997 Jacksonville, Florida, U.S.A., 5,808 Key West, Florida, U.S.A., 5,661 Kingston, Jamaica, 5,224 La Habana, Cuba, 5,671 Lisboa, Portugal, 5,339 Mar del Plata, Argentina, 276 Natal, Brazil, 2,329 New York, New York, U.S.A., 5,871 Norfolk, Virginia, U.S.A., 5,824 Paramaribo, Suriname, 3,813 Philadelphia, Pennsylvania, U.S.A., 5,918 Ponta Delgada, Azores, 4,975 Port au Prince, Haiti, 5,258 Port Castries, St. Lucia, 4,375 Portland, Maine, U.S.A., 5,873 Puerto Concepcion, Argentina, 806 Puerto Cortes, Honduras, 5,909</p>	<p>Puerto Deseado, Argentina, 965 Puerto Madryn, Argentina, 748 Quequen, Argentina, 350 Recife, Brazil, 2,181 Rio de Janeiro, Brazil, 1,151 Rio Gallegos, Argentina, 1,231 Rio Grande, Argentina, 1,306 Rio Grande, Brazil, 440 Salvador, Brazil, 1,849 San Juan, Puerto Rico, 4,713 Santa Cruz de Tenerife, Canary Island, 4,619 Santo Domingo, Dominican Republic, 4,881 Santos, Brazil, 1,006 Savannah, Georgia, U.S.A., 5,854 St. Helena Island, 3,052 St. John, Canada, 5,853 St. John's, Canada, 5,663 Sydney, Canada, 5,749 Ushuaia, Argentina, 1,447 Vigo, Spain, 5,518 Wilmington, North Carolina, U.S.A., 5,805</p> <p>BUKHTA NAGAYEVA, RUSSIA (59°33'00"N., 150°45'00"E.) to:</p> <p>Ports</p> <p>Moskal'vo, Russia, 472 Petropavlovsk-Kamchatskiy, Russia, 864 Zaliv Urkt, Russia, 441</p> <p>BUKTA SHELIKHOVA, KURIL ISLANDS, RUSSIA (50°23'00"N., 155°37'00"E.) to:</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 934 Aomori, Honshu, Japan, 899 Attu Island, Alaska, U.S.A., 675 Dutch Harbor, Alaska, U.S.A., 1,411 Hakodate, Japan, 865 Kholmsk, Russia, 709 Kiska, Alaska, U.S.A., 867 Korsakov, Sakhalin, Russia, 616 Murooran, Japan, 858 Nikolayevsk-Na-Amure, Russia (north of Sakhalin), 676 Otaru, Japan, 788 Petropavlovsk-Kamchatskiy, Russia, 224 Vladivostok, Russia, 1,122 Wakkanai, Japan, 643</p> <p>BUNBURY, AUSTRALIA (33°17'50"S., 115°38'40"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 97 Selat Lombok, Indonesia, 1,510 Port Said, Egypt, 6,343</p> <p>Ports</p> <p>Bowen, Australia, 3,072 Port Adelaide, Australia, 1,260 Port Darwin, Australia, 1,906</p> <p>BUNDABERG, AUSTRALIA (24°45'29"S., 152°27'33"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama (via Central</p>	<p>Route), 8,249 Punta Arenas, Chile (via Cook Strait), 6,062 Torres Strait, Australia, 1,182 Wilson Promontory, Australia, 1,089</p> <p>Ports</p> <p>Arica, Chile (via Curtis Channel and north of New Zealand), 7,263 Brisbane, Australia, 265 Hobart, Tasmania, 1,296 Mollendo, Peru (via Curtis Channel and north of New Zealand), 7,244 Sydney, Australia, 679 Tumaco, Colombia (via Curtis Channel), 7,574 Valparaiso, Chile (via Cook Strait and Curtis Channel), 6,615</p> <p>BUR IBRAHIM, EGYPT (29°55'30"N., 32°32'30"E.) For distances via Red Sea subtract 88 miles from Port Said distances.</p> <p>BUR SAFAGA, EGYPT (26°44'00"N., 33°56'30"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,016 Port Said, Egypt, 310 Singapore, 4,729</p> <p>Ports</p> <p>Aden, Yemen, 1,109 Port Sudan, Sudan, 508</p> <p>BUREA, SWEDEN (64°37'10"N., 21°14'25"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 844 Skagens Odde, Denmark (via The Sound), 90</p> <p>Ports</p> <p>Helsinki, Finland, 404 Kobenhavn, Denmark, 774 Reposaari, Finland, 222 Stockholm, Sweden, 389</p> <p>BURGAS, BULGARIA (42°28'50"N., 27°27'13"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 930 Strait of Gibraltar (south of Greece), 1,965</p> <p>Ports</p> <p>Alexandria, Egypt, 848 Algiers, Algeria, 1,510 Antibes, France, 1,448 Banzart, Tunisia, 1,179 Bari, Italy, 968 Es Sider, Libya, 959 Haifa, Israel, 942 Iskenderun, Turkey, 936 Istanbul, Turkey, 126 Napoli, Italy, 1,100 Novorossiysk, Russia, 476</p>	<p>BURNIE HARBOR, AUSTRALIA (41°03'00"S., 145°55'00"E.) to:</p> <p>Junction Points*</p> <p>Wilson Promontory, Australia, 116</p> <p>Ports</p> <p>Hobart, Tasmania, 332 Melbourne, Australia, 223 Sydney, Australia, 525</p> <p>BURNSIDE, LOUISIANA, U.S.A. (30°08'00"N., 90°55'00"W.) Add 63 miles to New Orleans distances.</p> <p>BURUTU, NIGERIA (5°25'45"N., 5°06'28"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,908 Cape of Good Hope, South Africa, 3,499 Fastnet Rock, Ireland, 3,961 Grand Banks South, 4,060 Ile d'Ouessant, France, 3,868 Inishtrahull, Ireland, 4,252 Panama, Panama, 5,153 Pentland Firth, Scotland, 4,956 Punta Arenas, Chile, 5,246 Strait of Gibraltar, 3,207 Straits of Florida, 5,313 Yucatan Channel, 5,437</p> <p>Ports</p> <p>Abidjan, Ivory Coast, 565 Cape Town, South Africa, 4,475 Casablanca, Morocco, 3,207 Dakar, Senegal, 1,653 Monrovia, Liberia, 986 New York, New York, U.S.A., 4,982 Philadelphia, Pennsylvania, U.S.A., 5,080 Recife, Brazil, 2,525</p> <p>BUSAN, SOUTH KOREA (35°06'00"N., 129°03'00"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 2,502 Selat Sunda, Indonesia, 2,855 Selat Wetar, Indonesia (via Molucca Passage and Selat Manipa), 2,632</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,118 Bangkok, Thailand (outer bar), 2,533 Chongjin, North Korea, 417 Dagu, China (via-Maenggol Sudo), 702 Dalian, China (via Maenggol Sudo), 543 Gunsan, South Korea, 376 Hakodate, Japan, 686 Higashi-Iwase, Japan, 492 Ho Chi Minh, Vietnam, 1,999 Hong Kong, China, 1,144 Honolulu, Hawaii, U.S.A., 3,973 Hua-lien Kang, Taiwan, 782 Incheon, South Korea (via Maenggol Sudo), 402 Jakarta, Indonesia, 2,836</p>
--	---	--	--

* JUNCTION POINT.—See Preface for use of junction points

Kimchaek, North Korea, 351
 Kobe, Japan, 361
 Kushiro, Japan, 876
 Lo hsing-ta Mao-ti, China, 762
 Los Angeles, California, U.S.A.,
 5,229
 Maizuru, Japan, 333
 Manila, Philippines, 1,402
 Moji, Japan, 123
 Mogpo, South Korea, 225
 Nagasaki, Japan, 163
 Naha, Ryukyu Islands, 550
 Nakhodka, Russia, 508
 Nampo, North Korea (via
 Maenggol Sudo), 496
 Nanao, Japan, 476
 Niigata, Japan, 516
 Pago Pago, American Samoa (via
 Bungo Suido), 4,561
 Petropavlovsk-Kamchatskiy,
 Russia, 1,731
 Port Darwin, Australia (via
 Molucca Passage), 2,937
 Qingdao, China, 497
 Qinhuangdao, China (via
 Maenggol Sudo), 650
 Rumoi, Japan, 793
 Sakata, Japan, 577
 San Francisco, California, U.S.A.,
 4,914
 Shanghai, China (north of Cheju
 Do, and via South Channel),
 491
 Tai-tung Kang, Taiwan, 860
 Tongyeong, South Korea, 63
 Ube, Japan, 143
 Unggi, North Korea, 452
 Vladivostok, Russia, 514
 Wakamatsu, Japan, 120
 Weihai, China, 474
 Weonsan, North Korea, 308
 Xiamen, China, 885
 Yantai, China (via Maenggol
 Sudo), 508
 Yeosu, South Korea, 97
 Yokohama, Japan, 665

BUSHEHR, IRAN
 (28°58'30"N., 50°45'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
 5,032
 Singapore, 3,737

Ports

Bandar Khomeini, Iran, 158
 Belawan, Indonesia, 3,372
 Calcutta, India, 3,414
 Fremantle, Australia, 5,259
 Malacca, Malaysia, 3,590
 Penang, Malaysia, 3,417
 Port Darwin, Australia, 5,446
 Rangoon, Burma, 3,425
 Sabang, Indonesia, 3,106

CABEDELLO, BRAZIL
 (6°58'00"S., 34°50'40"W.) to:

Junction Points*

Cape of Good Hope, South Africa,
 3,374
 Panama, Panama, 3,149
 Punta Arenas, Chile, 3,327

Ports

Belem, Brazil, 1,021
 Salvador, Brazil, 468

CABIMAS, VENEZUELA
 (10°23'00"N., 71°28'00"W.) Add
 21 miles to Maracaibo distances.

CABINDA, CABINDA
 (5°32'00"S., 12°11'00"E.) to:

Ports

Amboim, Angola, 339
 Boma, Congo, 89
 Douala, Cameroon, 668
 Port Gentil, Gabon, 393

CADIZ, SPAIN
 (36°32'00"N., 6°17'00"W.) to:

Junction Points*

Bishop Rock, England, 930
 Ile d'Ouessant, France, 894
 Montreal, Canada, 3,209
 Strait of Gibraltar, 50
 Straits of Florida, 3,978

Ports

Baltimore, Maryland, U.S.A.,
 3,437
 Banjul, Gambia, 1,587
 Belem, Brazil, 3,286
 Belize, Belize (via Providence
 Channels), 4,485
 Boston, Massachusetts, U.S.A.,
 2,992
 Brest, France, 887
 Bridgeport, Connecticut, U.S.A.,
 3,119
 Buenos Aires, Argentina, 5,293
 Cape Town, South Africa, 5,078
 Casablanca, Morocco, 192
 Charleston, South Carolina,
 U.S.A., 3,578
 Colon, Panama, 4,286
 Dakar, Senegal, 1,500
 Freetown, Sierra Leone, 1,979
 Funchal, Madeira Island, 579
 Halifax, Canada, 2,664
 Horta, Azores, 1,070
 Jacksonville, Florida, U.S.A.,
 3,710
 Lisboa, Portugal, 253
 Luanda, Angola, 3,898
 Manzanillo, Dominican Republic,
 3,583
 New York, New York, U.S.A.,
 3,155
 Norfolk, Virginia, U.S.A., 3,303
 Oporto, Portugal, 399
 Pepel, Sierra Leone, 2,001
 Philadelphia, Pennsylvania,
 U.S.A., 3,296
 Ponta Delgada, Azores, 930
 Port Stanley, Falkland Islands,
 5,955
 Porto Grande, Cape Verde Islands,
 1,547
 Qaanaaq (Thule), Greenland, 3,322
 Recife, Brazil, 3,125
 Rio de Janeiro, Brazil, 4,192
 San Juan, Puerto Rico, 3,313
 Santa Cruz de Tenerife, Canary
 Islands, 702
 Santander, Spain, 789
 Vigo, Spain, 463
 Walvisbaai, Namibia, 4,466

CAEN, FRANCE
 (49°11'00"N., 0°20'00"W.) to:

Junction Points*

Bishop Rock, England, 264

Ile d'Ouessant, France, 240

Ports

Calais, France, 133
 Cardiff, Wales, 367
 Chatham, England, 190
 Cherbourg, France, 73
 Cobh, Ireland, 368
 Dartmouth, England, 172
 Dover, England, 140
 Southampton, England, 119

CAGLIARI, SARDINIA
 (39°12'30"N., 9°06'30"E.) to:

Junction Points*

Port Said, Egypt, 1,255
 Strait of Gibraltar, 750

Ports

Alexandria, Egypt, 1,136
 Algiers, Algeria, 332
 Alicante, Spain, 473
 Banzart, Tunisia, 126
 Barcelona, Spain, 379
 Bari, Italy, 652
 Cannes, France, 347
 Castellammare di Stabia, Italy, 276
 Catania, Sicily, 377
 Ceuta, Morocco, 731
 Civitavecchia, Italy, 239
 Constanta, Romania (south of
 Greece), 1,330
 Constanta, Romania (via Corinth
 Canal), 1,289
 Genova, Italy, 359
 Istanbul, Turkey (south of
 Greece), 1,133
 Istanbul, Turkey (via Corinth
 Canal), 1,092
 La Spezia, Italy, 336
 Livorno, Italy, 304
 Marseille, France, 360
 Messina, Sicily, 328
 Napoli, Italy, 272
 Nice, France, 354
 Oran, Algeria, 525
 Palermo, Sicily, 221
 Piraeus, Greece (south of
 Greece), 820
 Piraeus, Greece (via Corinth
 Canal), 738
 Savona, Italy, 362
 Sete, France, 402
 Toulon, France, 337
 Tunis, Tunisia, 169
 Valencia, Spain, 461
 Valletta, Malta, 331
 Venezia, Italy, 970
 Volos, Greece (south of Greece),
 969
 Volos, Greece (via Corinth Canal),
 927

CAIBARIEN, CUBA
 (22°32'00"N., 79°28'00"W.) to:

Junction Points*

Panama, Panama, 1,138
 Straits of Florida, 252

Ports

Casablanca, Morocco, 3,814
 Dakar, Senegal, 3,567
 Freeport, Bahamas (via Florida
 Strait), 272
 Freetown, Sierra Leone, 3,916

Hamilton, Bermuda, 1,126
 Houston, Texas, 986
 Jacksonville, Florida, U.S.A. (via
 Florida Strait), 519
 La Habana, Cuba, 203
 Lagos, Nigeria, 4,999
 Manzanillo, Dominican Republic,
 479
 Montreal, Canada, 2,511
 Nuevitas, Cuba, 181
 Pepel, Sierra Leone, 3,930
 Walvisbaai, Namibia (via Mona
 Passage), 6,142

CAIRN RYAN, SCOTLAND
 (54°58'00"N., 5°02'00"W.) to:

Junction Points*

Bishop Rock, England, 330
 Fastnet Rock, Ireland, 338
 Inishtrahull, Ireland, 91
 Pentland Firth, Scotland, 340

Ports

Glasgow, Scotland, 82

CAIRNS HARBOR, AUSTRALIA
 (16°51'00"S., 145°49'00"E.) to:

Junction Points*

Torres Strait, Australia, 505
 Wilson Promontory, Australia,
 1,649

Ports

Brisbane, Australia, 827
 Noumea, New Caledonia, 1,250
 Wellington, New Zealand, 2,122

CALABAR, NIGERIA
 (4°58'15"N., 8°19'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
 2,458
 Ile d'Ouessant, France, 4,054
 Strait of Gibraltar, 3,420

Ports

Lagos, Nigeria, 391
 Matadi, Congo, 818

CALAIS, FRANCE
 (50°58'00"N., 1°51'00"E.) to:

Junction Points*

Bishop Rock, England, 333
 Ile d'Ouessant, France, 321
 Nord-Ostsee-Kanal (East
 Entrance), Germany, 408

Ports

Bergen, Norway, 588
 Egersund, Norway, 475
 Kristiansand, Norway, 486
 Oslo, Norway, 634
 Plymouth, England, 244
 Portland, England, 170
 Stavanger, Norway, 515

CALCUTTA, INDIA
 (22°33'00"N., 88°19'00"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

20 CALDERA, CHILE

Junction Points*

Cape of Good Hope, South Africa
(via east of Madagascar), 5,444
Cape Leeuwin, Australia, 3,796
Selat Lombok, Indonesia (via
Malacca, Sapudi and Selat
Lombok), 2,608
Port Said, Egypt, 4,691
Singapore, 1,649
Selat Sunda, Indonesia, 2,140

Ports

Aden, Yemen, 3,304
Akyab, Burma, 402
Al Basrah, Iraq, 3,593
Al Manamah, Bahrain, 3,355
Assab, Ethiopia, 4,446
Bandar Abbas, Iran, 3,058
Bassein, Burma, 643
Belawan, Indonesia, 1,326
Bombay, India, 2,128
Bushehr, Iran, 3,414
Chalna, Mungla Anchorage,
Bangladesh, 288
Chittagong, Bangladesh, 367
Colombo, Sri Lanka, 1,258
Dumai, Indonesia, 1,579
Fremantle, Australia, 3,693
Kakinada, India, 522
Karachi, Pakistan, 2,578
Madras, India, 769
Malacca, Malaysia, 1,523
Massawa, Ethiopia, 3,696
Mocambique, Mozambique, 3,831
Mombasa, Kenya (via One and
Half Degree Channel), 3,703
Moulmein, Burma, 824
Penang, Malaysia, 1,294
Phuket, Thailand, 1,124
Port Blair, Andaman Islands, 775
Port Louis, Mauritius, 3,212
Port Swettenham, Malaysia, 1,444
Rangoon, Burma, 787
Sabang, Indonesia (via Duncan
Passage), 1,120
Singapore, 1,650
Vishakhapatnam, India, 458
Yenbo, Saudi Arabia, 4,148
Zanzibar, Tanzania (via One and
Half Degree Channel), 3,776

CALDERA, CHILE

(27°03'45"S., 70°50'30"W.) to:

Junction Points*

Panama, Panama, 2,302
Punta Arenas, Chile, 1,795

Ports

Antofagasta, Chile, 215
Arica, Chile, 522
Callao, Peru, 980
Coquimbo, Chile, 196
Guayaquil, Ecuador, 1,632
Iquique, Chile, 420
Lota, Chile, 628
Mollendo, Peru, 606
Pisco, Peru, 880
San Diego, California, U.S.A.,
4,492
San Francisco, California, U.S.A.,
4,894
Talcahuano, Chile, 602
Valparaiso, Chile, 376

**CALDERA BAY,
DOMINICAN REPUBLIC**
(18°13'30"N., 70°31'30"W.) See

Bahia de las Calderas, Dominican
Republic.

**CALETA OLIVIA,
ARGENTINA**
(46°25'57"S., 67°29'32"W.) to:

Junction Points*

Panama, Panama, 6,204
Punta Arenas, Chile, 570

Ports

Buenos Aires, Argentina, 865

CALICUT, INDIA
(11°15'00"N., 75°44'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 2,916
Singapore, 1,942

Ports

Belawan, Indonesia, 1,604
Bombay, India, 506
Calcutta, India, 1,612
Chittagong, Bangladesh, 1,664
Dar es Salaam, Tanzania, 2,432
Fremantle, Australia, 3,484
Galle, Sri Lanka, 437
Jakarta, Indonesia (via Selat
Sunda), 2,208
Malacca, Malaysia, 1,827
Mombasa, Kenya, 2,342
Penang, Malaysia, 1,654
Port Darwin, Australia, 3,683
Rangoon, Burma, 1,617
Sebang, Indonesia, 1,343

CALLAO, PERU
(12°03'00"S., 77°10'00"W.) to:

Junction Points*

Panama, Panama, 1,350
Punta Arenas, Chile, 2,671
Torres Strait, Australia, 8,206
Wilson Promontory, Australia (via
Cook Strait), 7,261

Ports

Acapulco, Mexico, 2,198
Amapala, Honduras, 1,665
Antofagasta, Chile, 813
Apia, Samoa, 5,492
Apra, Guam, 8,372
Arica, Chile, 593
Auckland, New Zealand, 5,834
Avarua, Cook Islands, 4,733
Buenaventura, Colombia, 1,126
Caldera, Chile, 980
Chimbote, Peru, 206
Coquimbo, Chile, 1,136
Corinto, Nicaragua, 1,606
Dutch Harbor, Alaska, U.S.A.,
5,988
Esmeraldas, Ecuador, 909
Guayaquil, Ecuador, 712
Guaymas, Mexico, 3,117
Honolulu, Hawaii, U.S.A., 5,161
Iquique, Chile, 659
Jaluit, Marshall Islands, 6,832
La Libertad, Ecuador, 682
La Palma, Panama, 1,336
Levuka, Fiji Islands, 6,002
Los Angeles, California, U.S.A.,
3,655
Lota, Chile, 1,530

Matarani, Peru, 462
Midway Island, 6,280
Monterey, California, U.S.A.,
3,907
Nome, Alaska, U.S.A., 6,578
Noumea, New Caledonia, 6,541
Papeete, French Polynesia, 4,192
Pimentel, Peru, 363
Pisco, Peru, 128
Ponape, Caroline Islands, 7,515
Portland, Oregon, U.S.A., 4,611
Prince Rupert, Canada, 5,047
Puerto Masachapa, Nicaragua,
1,583
Puerto Sandino, Nicaragua, 1,608
Puntarenas, Costa Rica, 1,421
Quepos, Costa Rica, 1,387
Rabaul, Papua New Guinea, 7,713
Salaverry, Peru, 266
Salina Cruz, Mexico, 2,005
San Antonio, Chile, 1,328
San Diego, California, U.S.A.,
3,585
San Francisco, California, U.S.A.,
3,989
San Jose, Guatemala, 1,763
San Juan, Peru, 248
San Lorenzo, Honduras, 1,701
Santa Barbara, California, U.S.A.,
3,722
Seattle, Washington, U.S.A., 4,764
Seward, Alaska, U.S.A., 5,660
Sitka, Alaska, U.S.A., 5,255
Suva, Fiji Islands, 5,995
Talcahuano, Chile, 1,508
Talara, Peru, 534
Valparaiso, Chile, 1,306
Wellington, New Zealand, 5,721

**CAMDEN, NEW JERSEY,
U.S.A.**
(39°57'00"N., 75°08'00"W.) Use
Philadelphia distances.

CAMP LLOYD, GREENLAND
(66°57'30"N., 50°56'25"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,828
Strait of Gibraltar, 2,676

Ports

Churchill, Canada, 1434
Reykjavik, Iceland, 1,274
St. John's, Canada, 1,198

CAMPANA, ARGENTINA
(34°05'50"S., 58°57'42"W.) Add
155 miles to Buenos Aires
distances or add 60 miles via Mitre
Channel.

**CAMPBELTOWN,
SCOTLAND**
(55°25'53"N., 5°32'38"W.) to:

Junction Points*

Bishop Rock, England, 353
Fastnet Rock, Ireland, 342
Inishtrahull, Ireland, 82

Ports

Belfast, Northern Ireland, 53
Cardiff, Wales, 333
Cobh, Ireland, 289
Dublin, Ireland, 141
Glasgow, Scotland, 73
Liverpool, England, 165

Londonderry, Northern Ireland, 82

CAMPECHE, MEXICO
(19°51'00"N., 90°45'00"W.) to:

Junction Points*

Panama, Panama, 1,210
Yucatan Channel, 291

Ports

Belize, Belize (west of Banco
Chinchorro, and Isla de
Cozumel), 609
Cienfuegos, Cuba, 691
Colon, Panama, 1,167
Galveston, Texas, U.S.A., 617
Gulfport, Mississippi, U.S.A., 652
Key West, Florida, U.S.A., 632
La Guaira, Venezuela, 1,635
La Habana, Cuba, 561
Mobile, Alabama, U.S.A., 674
New Orleans, Louisiana, U.S.A.
(via Southwest Pass), 650
Pensacola, Florida, U.S.A., 670
Pointe a Pitre, Guadeloupe, 1,806
Port au Prince, Haiti, 1,140
Port of Spain, Trinidad, 1,913
Port Castries, St. Lucia, 1,848
Puerto Cabello, Venezuela, 1,595
Santo Domingo, Dominican
Republic, 1,364
Tampico, Mexico, 430
Tuxpan, Mexico, 375
Veracruz, Mexico, 307
Willemstad, Curacao, 1,527

CANAKKLE, TURKEY
(40°09'00"N., 26°24'00"E.) For
ports outside the Black Sea and Sea
of Marmara, subtract 133 Y2 miles
from Istanbul distances.

CANNES, FRANCE
(43°32'00"N., 7°01'03"E.) to:

Junction Points*

Port Said, Egypt, 1,472
Strait of Gibraltar, 773

Ports

Algiers, Algeria, 446
Cagliari, Sardinia, 347
Genova, Italy, 107
Livorno, Italy, 149
Napoli, Italy, 381
Oran, Algeria, 594
Palma, Balearic Islands, 357
Piraeus, Greece (south of
Greece), 1,023
Piraeus, Greece (via Corinth
Canal), 942
Sete, France, 171

**CANSO CANAL (PORT
HAWBESBURG), CANADA**
(45°42'45"N., 61°29'06"W.) to:

Junction Points*

Cape of Good Hope, South
Africa, 6,484
Grand Banks South, 531
Panama, Panama (via Windward
Passage), 2,424
Pentland Firth, Scotland, 468
Punta Arenas, Chile, 6,971
Straits of Florida, 1,730

* JUNCTION POINT.—See Preface for use of junction points

CAPE OF GOOD HOPE, SOUTH AFRICA 21

Ports

Argentia, Canada, 357
 Baltimore, Maryland, U.S.A., 975
 Bridgetown, Barbados, 1,965
 Guantanamo, Cuba, 1,771
 New York, New York, U.S.A., 675
 Port Castries, St. Lucia, 1,908
 Santo Domingo, Dominican Republic, 1,855
 St. John's, Canada, 452
 Wilmington, North Carolina, U.S.A., 1,074

CAP-HAITIEN, HAITI
 (19°46'00"N., 72°11'30"W.) to:

Junction Points*

Bishop Rock, England, 3,565
 Panama, Panama, 860
 Straits of Florida, 604

Ports

Baltimore, Maryland, U.S.A., 1,227
 Belize, Belize, 950
 Carmen, Mexico, 1,228
 Cartagena, Colombia, 697
 Charlotte Amalie, Virgin Islands, 442
 Cienfuegos, Cuba, 543
 Colon, Panama, 817
 Dakar, Senegal, 3,154
 Guantanamo, Cuba, 175
 Gulfport, Mississippi, U.S.A., 1,145
 Key West, Florida, U.S.A. (via Old Bahama Channel), 619
 Kingston, Jamaica, 326
 La Habana, Cuba, 631
 New York, New York, U.S.A., 1,283
 Philadelphia, Pennsylvania, U.S.A., 1,245
 Pointe à Pitre, Guadeloupe (via Mona Passage), 703
 Pointe à Pitre, Guadeloupe (via Virgin Passage), 702
 Ponta Delgada, Azores, 2,646
 Port au Prince, Haiti, 195
 Port of Spain, Trinidad, 888
 Port Castries, St. Lucia, 764
 Puerto Cabello, Venezuela, 752
 San Juan, Puerto Rico, 372
 Santo Domingo, Dominican Republic, 392
 Willemstad, Curacao (via Mona Passage), 674
 Willemstad, Curacao (via Windward Passage), 697

CAPE COD CANAL (NORTH END), MASSACHUSETTS, U.S.A.
 (41°46'40"N., 70°29'20"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,742
 Grand Banks South, 924
 Montreal, Canada, 1,419
 Panama, Panama, 2,070
 Punta Arenas, Chile, 7,073
 Straits of Florida, 1,284

Ports

Argentia, Canada, 838
 Arkhangel'sk, Russia, 4,201
 Boston, Massachusetts, U.S.A., 77

Halifax, Canada, 413
 Hamilton, Bermuda, 651
 Murmansk, Russia, 3,834
 New York, New York, U.S.A., 174
 Portland, Maine, U.S.A., 119
 Reykjavik, Iceland, 2,341
 Yarmouth, Canada, 228

CAPE COD CANAL (SOUTH END), MASSACHUSETTS, U.S.A.
 (41°37'49"N., 70°41'52"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,711
 Grand Banks South, 923
 Montreal, Canada, 1,432
 Panama, Panama, 2,054
 Punta Arenas, Chile, 7,046
 Straits of Florida, 1,270

Ports

Antilla, Cuba, 1,274
 Bahia Blanca, Argentina, 6,335
 Belem, Brazil, 2,855
 Buenos Aires, Argentina, 6,031
 Fort de France, Martinique, 1,698
 Kingston, Jamaica, 1,564
 La Habana, Cuba, 1,272
 Montevideo, Uruguay, 5,928
 Philadelphia, Pennsylvania, U.S.A., 338
 Port Castries, St. Lucia, 1,733
 Recife, Brazil, 3,633
 San Juan, Puerto Rico, 1,410

CAPE LEEUWIN, AUSTRALIA*
 (34°32'00"S., 115°08'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa (via 30°S.), 5,068
 Selat Lombok, Indonesia, 1,571
 Port Said, Egypt, 6,389
 Selat Sunda, Indonesia, 1,815
 Torres Strait, Australia, 2,717
 Selat Wetar, Indonesia, 1,954
 Wilson Promontory, Australia, 1,524

Ports

Aden, Yemen (north of Chagos Archipelago), 4,958
 Aden, Yemen (south of Chagos Archipelago), 4,973
 Albany, Australia, 168
 Auckland, New Zealand, 3,029
 Bluff Harbor, New Zealand, 2,484
 Bombay, India, 4,059
 Bowen, Australia, 2,975
 Bunbury, Australia, 97
 Calcutta, India, 3,796
 Colombo, Sri Lanka, 3,203
 Dunedin, New Zealand, 2,622
 Flying Fish Cove, Christmas Island, 1,540
 Fremantle, Australia, 181
 Geraldton, Australia, 356
 Gladstone Harbor, Australia, 2,688
 Hobart, Tasmania, 1,628
 Karachi, Pakistan, 4,512
 Launceston, Tasmania, 1,577
 Lyttelton, New Zealand, 2,792
 Madras, India, 3,480
 Massawa, Ethiopia, 5,390
 Melbourne, Australia, 1,497
 Mina al Ahmadi, Kuwait, 5,440

Mina Abd Allah, Kuwait, 5,437
 Mina Az Zawr, Kuwait, 5,418
 Nelson, New Zealand, 2,794
 Port des Galets, Reunion Island, 3,241
 Port Adelaide, Australia, 1,165
 Port Augusta, Australia, 1,252
 Port Darwin, Australia, 1,978
 Port Lincoln, Australia, 1,100
 Port Louis, Mauritius (via rhumb line), 3,214
 Port Refuge, Cocos Islands, 1,678
 Portland, Australia, 1,304
 Rangoon, Burma, 3,359
 Rapid Bay, Australia, 1,131
 Ras al Khafji, Saudi Arabia, 5,414
 Ras Tannurah, Saudi Arabia, 5,316
 Sabang, Indonesia, 2,711
 Simons Bay, South Africa, 4,572
 Stenhouse Bay, Australia, 1,077
 Strahan, Australia, 1,492
 Tjilatjap, Indonesia, 1,616
 Townsville, Australia, 3,023
 Umm Said, Qatar, 5,245
 Wallaroo, Australia, 1,153
 Wellington, New Zealand, 2,863
 Yampi Sound, Australia, 1,588

CAPE LOPEZ, GABON
 (0°37'43"S., 8°43'19"E.) to:

Junction Points*

Bishop Rock, England, 4,147
 Cape of Good Hope, South Africa, 2,105
 Fastnet Rock, Ireland, 4,200
 Grand Banks South, 4,299
 Ile d'Ouessant, France, 4,107
 Inishtrahull, Ireland, 4,491
 Panama, Panama, 5,393
 Pentland Firth, Scotland, 5,195
 Punta Arenas, Chile, 5,102
 Strait of Gibraltar, 3,447
 Straits of Florida, 5,552
 Yucatan Channel, 5,676

Ports

Abidjan, Ivory Coast, 841
 Cape Town, South Africa, 2,081
 Douala, Cameroon, 288
 Lagos, Nigeria, 529
 Libreville, Gabon, 52
 Monrovia, Liberia, 1,269
 New York, New York, U.S.A., 5,243
 Paramaribo, Surinam, 3,866
 Rio de Janeiro, Brazil, 7,178
 Salvador, Brazil, 2,903
 Savannah, Georgia, U.S.A., 5,517

CAPE OF GOOD HOPE, SOUTH AFRICA*
 (34°22'00"S., 18°23'00"E.) to:

Junction Points*

Bishop Rock, England, 5,790
 Cape Leeuwin, Australia (via 41°S), 4,660
 Fastnet Rock, Ireland, 5,880
 Grand Banks South, 5,954
 Ile d'Ouessant, France, 5,746
 Inishtrahull, Ireland, 6,141
 Selat Lombok, Indonesia, 5,461
 Montreal, Canada (via Cabot Strait), 7,134
 Panama, Panama, 6,466
 Pentland Firth, Scotland, 6,389
 Port Said, Egypt, 5,340
 Punta Arenas, Chile, 4,262
 Singapore, 5,579

Strait of Gibraltar, 5,082
 Straits of Florida, 6,770
 Selat Sunda, Indonesia, 5,164
 Torres Strait, Australia, 6,854
 Selat Wetar, Indonesia, 6,768
 Wilson Promontory, Australia, 5,530
 Yucatan Channel, 6,770

Ports

Abidjan, Ivory Coast, 2,712
 Ad Dammam, Saudi Arabia, 4,960
 Aden, Yemen (alternate), 4,235
 Aden, Yemen, 3,980
 Agadir, Morocco, 4,719
 Al Basrah, Iraq, 5,232
 Al Gurdagah, Egypt, 5,041
 Al Hudaydah, Yemen, 4,137
 Al Manamah, Al Bahrain, 4,957
 Al Mukha, Yemen, 4,043
 Albany, Australia, 4,740
 Anecho, Togo, 2,615
 Argentina, Canada, 6,294
 Assab, Ethiopia, 4,056
 Baltimore, Maryland, U.S.A., 6,924
 Bandar Khomeini, Iran (inside Agulhas Current), 5,190
 Bandar Khomeini, Iran (outside Agulhas Current), 5,395
 Bata, Equatorial Guinea, 2,291
 Beira, Mozambique, 1,454
 Belawan, Indonesia, 5,246
 Belem, Brazil, 4,368
 Bissau, Guinea-Bissau, 3,518
 Bolama, Guinea-Bissau, 3,403
 Boma, Congo, 1,775
 Bombay, India (east of Madagascar), 4,822
 Bombay, India (west of Madagascar), 4,581
 Bordeaux, France, 5,838
 Boston, Massachusetts, U.S.A., 6,731
 Brest, France, 5,770
 Buchanan, Liberia, 2,919
 Buenos Aires, Argentina, 3,815
 Bur Safaga, Egypt, 5,016
 Bushehr, Iran, 5,053
 Cabedelo, Brazil, 3,374
 Calabar, Nigeria, 2,458
 Calcutta, India, 5,603
 Cape Town, South Africa, 45
 Chalna, Mungla Anchorage, Bangladesh, 5,458
 Charleston, South Carolina, U.S.A., 6,838
 Chittagong, Bangladesh, 5,492
 Cobh, Ireland, 5,892
 Colombo, Sri Lanka, 4,475
 Colon, Panama, 6,444
 Cotonou, Benin, 2,560
 Dakar, Senegal, 3,610
 Dar es Salaam, Tanzania, 2,330
 Djibouti, Djibouti, 4,089
 Durban, South Africa, 764
 East London, South Africa, 508
 Eilat, Israel, 5,155
 El Jadida, Morocco, 4,941
 Fedala, Morocco, 4,951
 Flying Fish Cove, Christmas Island, Line Islands, 4,923
 Fort Dauphin, Madagascar, 1,614
 Freetown, Sierra Leone, 3,190
 Fremantle, Australia, 4,755
 Funchal, Madeira Island, 4,689
 Georgetown, Ascension Island, 2,409
 Georgetown, Guyana, 5,026
 Greenville, Liberia, 2,826
 Halifax, Canada, 6,502
 Hamilton, Bermuda, 6,169

* **JUNCTION POINT.**—See Preface for use of junction points

22 CAPE ST. JACQUES, VIETNAM

Horta, Azores, 5,152
 Inhambane, Mozambique, 1,228
 Jacksonville, Florida, U.S.A., 6,862
 Kakinada, India, 5,023
 Karachi, Pakistan, 4,668
 Kenitra, Morocco, 5,056
 Larache, Morocco, 5,049
 Lindi, Tanzania, 2,155
 Lisboa, Portugal, 5,152
 Lobito, Angola, 1,440
 Longji, Cameroon, 2,359
 Luanda, Angola, 1,627
 Luderitz Bay, Namibia, 511
 Madras, India (east of Madagascar), 4,956
 Malacca, Malaysia, 5,464
 Manakara, Madagascar, 1,779
 Maputo, Mozambique, 1,057
 Marmagao, India, 4,447
 Marshall, Liberia, 2,927
 Mawa, Ethiopia, 4,367
 Mayumba, Gabon, 1,942
 Miami, Florida, U.S.A., 6,685
 Mina al Ahmadi, Kuwait, 5,104
 Mina Abd Allah, Kuwait, 5,101
 Mina Az Zawr, Kuwait, 5,082
 Mocambique, Mozambique, 1,807
 Mocamedes, Angola, 1,239
 Mogadishu, Somalia, 2,855
 Mombasa, Kenya, 2,472
 Montevideo, Uruguay, 3,701
 Mosselbaai, South Africa, 206
 Mtwara, Tanzania, 2,111
 New York, New York, U.S.A., 6,801
 Norfolk, Virginia, U.S.A., 6,802
 Paranagua, Brazil, 3,496
 Penang, Malaysia, 5,291
 Philadelphia, Pennsylvania, U.S.A., 6,874
 Port des Galets, Reunion Island, 2,120
 Port of Spain, Trinidad, 5,337
 Port Adelaide, Australia, 5,754
 Port Blair, Andaman Islands, 5,075
 Port Darwin, Australia, 6,100
 Port Elizabeth, South Africa, 390
 Port Etienne, Mauritania, 4,018
 Port Louis, Mauritius, 2,382
 Port Nolloth, South Africa, 325
 Port Refuge, Cocos Islands, 4,428
 Porto Alegre, Brazil, 3,625
 Porto Grande, Cape Verde Islands, 3,958
 Portsmouth, New Hampshire, U.S.A., 6,732
 Rabat, Morocco, 5,036
 Rangoon, Burma (east of Madagascar), 5,610
 Ras al Khafji, Saudi Arabia, 5,078
 Ras as Sidr, Egypt, 5,189
 Ras Gharib, Egypt, 5,114
 Ras Tannurah, Saudi Arabia, 4,980
 Recife, Brazil, 3,324
 Rio de Janeiro, Brazil, 3,323
 Sabang, Indonesia, 4,980
 Safi, Morocco, 4,870
 Santa Cruz de Tenerife, Canary Islands, 4,435
 Simons Bay, South Africa. Suakin, Sudan, 4,538
 Sulima, Sierra Leone, 3,060
 Swakopmund, South Africa, 743
 Tabu, Ivory Coast, 2,751
 Tamatave, Madagascar, 2,104
 Tanga, Tanzania, 2,425
 Telukbayur, Indonesia, 4,979
 Tema, Ghana, 2,619
 Tulear, Madagascar, 1,509
 Umm Said, Qatar, 4,909
 Victoria, Cameroon, 2,399

Victoria, Seychelles, 2,892
 Zanzibar, Tanzania, 2,358

CAPE ST. JACQUES, VIETNAM
 (10°20'30"N., 107°04'00"E.) See Vung Tao.

CAPE TOWN, SOUTH AFRICA
 (33°54'00"S., 18°26'00"E.) to:

Junction Points*

Bishop Rock, England, 5,772
 Cape of Good Hope, South Africa, 35
 Ile d'Ouessant, France, 5,743
 Montreal, Canada (via Cabot Strait), 7,118
 Panama, Panama, 6,472
 Punta Arenas, Chile, 4,631
 Strait of Gibraltar, 5,064
 Straits of Florida, 6,766
 Yucatan Channel, 6,776

Ports

Abidjan, Ivory Coast, 2,679
 Baltimore, Maryland, U.S.A., 6,912
 Boma, Congo, 1,760
 Bordeaux, France, 5,820
 Boston, Massachusetts, U.S.A., 6,707
 Brunswick, Georgia, U.S.A., 6,857
 Buenos Aires, Argentina, 3,831
 Cadiz, Spain, 5,078
 Charleston, South Carolina, U.S.A., 6,830
 Cienfuegos, Cuba, 6,580
 Cobh, Ireland, 5,894
 Colon, Panama, 6,429
 Dakar, Senegal, 3,593
 El Ferrol del Caudillo, Spain, 5,421
 Freetown, Sierra Leone, 3,164
 Funchal, Madeira Island, 4,680
 Guantanamo, Cuba, 6,260
 Halifax, Canada, 6,490
 Jacksonville, Florida, U.S.A., 6,854
 Kingston, Jamaica, 6,278
 La Habana, Cuba, 6,724
 Lisboa, Portugal, 5,134
 Luanda, Angola, 1,601
 Luderitz Bay, Namibia, 479
 Montevideo, Uruguay, 3,608
 New York, New York, U.S.A., 6,786
 Norfolk, Virginia, U.S.A., 6,790
 Philadelphia, Pennsylvania, U.S.A., 6,867
 Ponta Delgada, Azores, 5,040
 Portland, Maine, U.S.A., 6,709
 Recife, Brazil, 3,318
 Rio de Janeiro, Brazil, 3,273
 San Juan, Puerto Rico, 5,767
 Santa Cruz de Tenerife, Canary Islands, 4,435
 Santo Domingo, Dominican Republic, 5,934
 Santos, Brazil, 3,409
 Savannah, Georgia, U.S.A., 6,864
 St. Helena Island, 1,697
 St. John, Canada, 6,667
 St. John's, Canada, 6,205
 Swakopmund, South Africa, 719
 Sydney, Canada, 6,425
 Vigo, Spain, 5,322
 Willemstad, Curacao, 5,740
 Wilmington, North Carolina,

U.S.A., 6,820

CARDENAS, CUBA
 (23°03'30"N., 81°11'30"W.) to:

Junction Points*

Straits of Florida, 140
 Yucatan Channel, 269

Ports

Cienfuegos, Cuba, 905
 Guantanamo, Cuba, 539
 Hamilton, Bermuda, 1,122
 Kingston, Jamaica, 703
 La Habana, Cuba, 88
 Philadelphia, Pennsylvania, U.S.A., 1,124
 Port au Prince, Haiti, 603
 San Juan, Puerto Rico, 917
 Santo Domingo, Dominican Republic, 887

CARDIFF, WALES
 (51°27'00"N., 3°09'00"W.) to:

Junction Points*

Bishop Rock, England, 176
 Fastnet Rock, Ireland, 246
 Pentland Firth, Scotland, 609

Ports

Bantry Bay, Ireland, 280
 Barrow in Furness, England, 273
 Belfast, Northern Ireland, 293
 Boulogne, France, 431
 Brest, France, 277
 Cherbourg, France, 309
 Cobh, Ireland, 204
 Cork, Ireland, 210
 Dartmouth, England, 239
 Douglas, Isle of Man, 246
 Dublin, Ireland, 205
 Fishguard, Wales, 130
 Glasgow, Scotland, 375
 Holyhead, Wales, 202
 Liverpool, England, 267
 London, England, 526
 Londonderry, Northern Ireland, 369
 Manchester, England, 314
 Southampton, England, 346
 Swansea, Wales, 46
 Waterford, Ireland, 160

CARIPITO, VENEZUELA
 (10°09'15"N., 63°02'00"W.) Add 5 miles to Guanoco distances.

CARMEN, MEXICO
 (18°38'00"N., 91°50'00"W.) to:

Junction Points*

Panama, Panama, 1,289

Ports

Belize, Belize (west of Banco Chinchoro and Isla de Cozumel), 688
 Cap-Haitien, Haiti, 1,228
 Charlotte Amalie, Virgin Islands (via Yucatan Channel and south of Hispaniola), 1,675
 Charlotte Amalie, Virgin Islands (via Yucatan Channel and Windward Passage), 1,658
 Cienfuegos, Cuba, 770

Colon, Panama, 1,246
 Galveston, Texas, U.S.A., 661
 Gulfport, Mississippi, U.S.A., 725
 Key West, Florida, U.S.A., 708
 Kingston, Jamaica, 1,056
 La Guaira, Venezuela, 1,714
 La Habana, Cuba, 639
 Mobile, Alabama, U.S.A., 749
 New Orleans, Louisiana, U.S.A., 723
 Pensacola, Florida, U.S.A., 745
 Pointe a Pitre, Guadeloupe, 1,885
 Port au Prince, Haiti, 1,219
 Port of Spain, Trinidad, 1,992
 Port Castries, St. Lucia, 1,927
 Santo Domingo, Dominican Republic, 1,437
 Tampico, Mexico, 401
 Tuxpan, Mexico, 333
 Veracruz, Mexico, 242
 Willemstad, Curacao, 1,599

CARRICKFERGUS, NORTHERN IRELAND
 (54°41'44"N., 5°45'50"W.) See Belfast.

CARTAGENA, COLOMBIA
 (10°24'20"N., 7°32'00"W.) to:

Junction Points*

Bishop Rock, England, 4,138
 Panama, Panama, 324
 Strait of Gibraltar, 4,087
 Yucatan Channel, 891

Ports

Belize, Belize, 904
 Boston, Massachusetts, U.S.A. (via Windward Passage and Crooked Island Passage), 2,036
 Brunswick, Georgia, U.S.A., 1,417
 Buenos Aires, Argentina, 5,240
 Cap-Haitien, Haiti, 697
 Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,443
 Charlotte Amalie, Virgin Islands, 811
 Cienfuegos, Cuba, 778
 Colon, Panama, 281
 Galveston, Texas, U.S.A., 1,583
 Guantanamo, Cuba, 586
 Gulfport, Mississippi, U.S.A., 1,449
 Jacksonville, Florida, U.S.A., 1,395
 Key West, Florida, U.S.A. (via Windward Passage and Old Bahama Channel), 1,130
 Kingston, Jamaica, 479
 La Guaira, Venezuela, 612
 La Habana, Cuba (via Old Bahama Channel and Windward Passage), 1,142
 Limon, Costa Rica, 447
 Maracaibo, Venezuela, 465
 Mobile, Alabama, U.S.A., 1,450
 New Orleans, Louisiana, U.S.A. (via Yucatan Channel and Southwest Pass), 1,468
 New York, New York, U.S.A. (via Windward Passage), 1,853
 Norfolk, Virginia, U.S.A. (via Windward Passage), 1,658
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage), 1,825
 Pointe a Pitre, Guadeloupe, 941
 Portlamar, Margarita, Venezuela, 785

* **JUNCTION POINT.**—See Preface for use of junction points

Port au Prince, Haiti, 639
 Port of Spain, Trinidad, 932
 Port Castries, St. Lucia, 933
 Portsmouth, New Hampshire,
 U.S.A. (via Windward Passage
 and Crooked Island Passage),
 2,053
 Puerto Barrios, Guatemala, 901
 Puerto Cortes, Honduras, 854
 Puerto Mexico, Mexico, 1,484
 Punta Cardon, Venezuela, 397
 San Juan, Puerto Rico, 782
 Santo Domingo, Dominican
 Republic, 610
 Savannah, Georgia, U.S.A., 1,442
 Tampa, Florida, U.S.A., 1,295
 Tampico, Mexico, 1,575
 Tuxpan, Mexico, 1,545
 Veracruz, Mexico, 1,510
 Washington, D.C., U.S.A. (via
 Windward Passage), 1,794
 Willemstad, Curacao, 471
 Wilmington, North Carolina,
 U.S.A., 1,494

CARTAGENA, SPAIN
 (37°35'44"N., 0°59'00"W.) to:

Junction Points*

Port Said, Egypt, 1,705
 Strait of Gibraltar, 259

Ports

Alexandria, Egypt, 1,585
 Algeciras, Spain, 238
 Algiers, Algeria, 208
 Ancona, Italy, 1,338
 Annaba, Algeria, 440
 Banghazi, Libya, 1,119
 Banzart, Tunisia, 532
 Barcelona, Spain, 282
 Bari, Italy, 1,131
 Beirut, Lebanon, 1,797
 Brindisi, Italy, 1,073
 Ceuta, Morocco, 240
 Dubrovnik, Croatia, 1,177
 Genova, Italy, 616
 Gibraltar, 241
 Haifa, Israel, 1,794
 Iraklion, Kriti, 1,279
 Istanbul, Turkey (south of
 Greece), 1,573
 Istanbul, Turkey (via Corinth
 Canal), 1,567
 Izmir, Turkey (south of Greece),
 1,430
 Izmir, Turkey (via Corinth Canal),
 1,413
 La Spezia, Italy, 640
 Livorno, Italy, 636
 Malaga, Spain, 189
 Marseille, France, 460
 Messina, Sicily, 806
 Napoli, Italy, 756
 Odessa, Ukraine (south of
 Greece), 1,932
 Odessa, Ukraine (via Corinth
 Canal), 1,915
 Oran, Algeria, 115
 Palermo, Sicily, 697
 Palma, Balearic Islands, 222
 Piraeus, Greece (south of
 Greece), 1,271
 Piraeus, Greece (via Corinth
 Canal), 1,214
 Rijeka, Croatia, 1,405
 Savona, Italy, 601
 Sibenik, Croatia, 1,279
 Siracusa, Sicily, 817
 Skikda, Algeria, 395

Split, Croatia, 1,264
 Tarabulus, Libya, 856
 Taranto, Italy, 1,025
 Thessaloniki, Greece (south of
 Greece), 1,479
 Thessaloniki, Greece (via Corinth
 Canal), 1,462
 Toulon, France, 471
 Trieste, Italy, 1,439
 Tunis, Tunisia, 583
 Valencia, Spain, 152
 Valletta, Malta, 768
 Venezia, Italy, 1,449
 Volos, Greece (south of Greece),
 1,420
 Volos, Greece (via Corinth Canal),
 1,403

CASABLANCA, MOROCCO
 (33°37'00"N., 7°36'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 960
 Strait of Gibraltar, 166

Ports

Agadir, Morocco, 257
 Amboim, Angola, 3,945
 Cadiz, Spain, 192
 Ceuta, Morocco, 189
 Dakar, Senegal, 1,333
 Freetown, Sierra Leone, 1,812
 Funchal, Madeira Island, 476
 Gijon, Spain, 763
 Lisboa, Portugal, 324
 Ponta Delgada, Azores, 915
 Port Etienne, Mauritania, 1,032
 Porto Grande, Sao Vicente, Cape
 Verde Islands, 1,387
 Rota, Spain, 202
 Safi, Morocco, 134
 Santa Cruz de Tenerife, Canary
 Islands, 548
 Setubal, Portugal, 313
 Tangier, Morocco, 166
 Vigo, Spain, 545
 Vila Real de Santo Antonio,
 Portugal, 218
 Villa Cisneros, Western Sahara,
 769

CASILDA, CUBA
 (21°45'00"N., 79°59'20"W.) to:

Junction Points*

Panama, Panama, 792
 Yucatan Channel, 307

Ports

Barranquilla, Colombia, 732
 Kingston, Jamaica, 372
 Santiago de Cuba, Cuba, 288

CASTELLON, SPAIN
 (39°58'09"N., 0°01'39"W.) to:

Junction Points*

Port Said, Egypt, 1,668
 Strait of Gibraltar, 429

Ports

Ajaccio, Corsica, 419
 Alexandria, Egypt, 1,545
 Antibes, France, 392
 Arzew, Algeria, 249
 Banghazi, Libya, 1,080

Bat'umi, Georgia, 2,127
 Castellammare di Stabia, Italy, 692
 Es Sider, Libya, 1,075
 Fiumicino, Italy, 565
 Melilla, Morocco, 339
 Savona, Italy, 468
 Tubruq, Libya, 1,251

CASTRIES, ST. LUCIA
 (14°01'00"N., 61°00'00"W.) See
 Port Castries.

CASTRO-URDIALES, SPAIN
 (43°22'40"N., 3°12'15"W.) to:

Junction Points*

Bishop Rock, England, 407
 Cape of Good Hope, South Africa,
 5,693
 Fastnet Rock, Ireland, 543
 Grand Banks South, 2,029
 Ile d'Ouessant, France, 331
 Inishtrahull, Ireland, 846
 Montreal, Canada (via Strait of
 Belle Isle), 2,965
 Panama, Panama, 4,496
 Pentland Firth, Scotland, 1,147
 Punta Arenas, Chile, 6,918
 Strait of Gibraltar, 863
 Straits of Florida, 4,128

Ports

Boston, Massachusetts U.S.A.,
 2,934
 Huelva, Spain, 819
 La Pallice, France, 187
 Lisboa, Portugal, 594
 Lorient, France, 262
 Marin, Spain, 418
 New York, New York, U.S.A.,
 3,087
 Philadelphia, Pennsylvania
 U.S.A., 3,239
 Quiberon, France, 246
 Stanley, Falkland Islands, 6,548
 Villagarcia, Spain, 368

CATANIA, SICILY
 (37°29'35"N., 15°05'46"E.) to:

Junction Points*

Port Said, Egypt, 942
 Strait of Gibraltar, 1,081

Ports

Ajaccio, Corsica, 464
 Alexandria, Egypt, 828
 Almeria, Spain, 919
 Banghazi, Libya, 406
 Cagliari, Sardinia, 377
 Genova, Italy, 35
 Belfast, Northern Ireland, 293
 Boulogne, France, 431
 Brest, France, 277
 Cherbourg, France, 309
 Cobh, Ireland, 204
 Cork, Ireland, 210
 Dartmouth, England, 239
 Belfast, Northern Ireland, 293
 Boulogne, France, 431
 Brest, France, 277
 Cherbourg, France, 309
 Cobh, Ireland, 204
 Cork, Ireland, 210
 Dartmouth, England, 239
 Kerkira, Greece, 290
 Livorno, Italy, 464
 Malaga, Spain, 1,012

Marseille, France, 627
 Messina, Sicily, 53
 Napoli, Italy, 225
 Palermo, Sicily, 170
 Pula Croatia, 594

CATIA LA MAR, VENEZUELA
 (10°36'30"N., 67°03'00"W.) to:

Junction Points*

Panama, Panama, 873
 Yucatan Channel, 1,240

Ports

Barranquilla, Colombia, 524
 Port of Spain, Trinidad, 335
 San Juan, Puerto Rico, 556

CAYMAN BRAC, CAYMAN ISLANDS
 (19°41'50"N., 79°53'45"W.) to:

Junction Points*

Cape of Good Hope, South Africa,
 6,522
 Grand Banks South, 2,162
 Panama, Panama, 649
 Punta Arenas, Chile, 6,686
 Strait of Gibraltar, 4,017
 Yucatan Channel, 316

Ports

Accra, Ghana, 4,899
 Boston, Massachusetts, U.S.A.,
 1,823
 Cape Town, South Africa, 6,512
 Colon, Panama, 621
 New York, New York, U.S.A.,
 1,898
 Port of Spain, Trinidad, 1,194
 Recife, Brazil, 3,278
 Savannah, Georgia, U.S.A., 1,333

CEBU, PHILIPPINES
 (10°17'30"N., 123°54'30"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,278
 Singapore, 1,355

Ports

Apra, Guam, 1,344
 Bataan, Philippines, 390
 Batangas, Philippines, 309
 Beihai, China, 1,220
 Da Nang, Vietnam, 1,049
 Dagou, China, 1,907
 Dalian, China (via San Bernardino
 Strait), 1,764
 Davao, Philippines, 439
 Haiphong, Vietnam (via Jintotolo
 Channel, Romblon Island, Verde
 Island Passage, and south of
 Hainan Tao), 1,331
 Hakodate, Japan, 2,177
 Ho Chi Minh, Vietnam (via
 Jintotolo Channel and Mindoro
 Strait, N of North Danger
 Reef), 1,152
 Hong Kong, China (via Verde
 Island Passage and Jintotolo
 Channel), 960
 Honolulu, Hawaii, U.S.A., 4,610
 Incheon, Korea, 1,656
 Iloilo, Philippines, 176
 Jakarta, Indonesia (via Lumbukan

24 CEUTA, MOROCCO

Channel), 1,563
 Kobe, Japan, 1,601
 Lo hsing-ta Mao-ti, China (via Balintang Channel), 1,051
 Manila, Philippines (via Verde Island Passage and Jintotolo Channel), 391
 Masbate, Philippines, 183
 Nagasaki, Japan, 1,406
 Petropavlovsk-Kamchatskiy, Russia, 3,101
 Portland, Oregon, U.S.A., 6,001
 Pulpandan, Philippines, 225
 Shanghai, China (via San Bernardino Strait, Steep Island Pass, and Pai-chieh Hsia), 1,322
 Shantou, China (via Verde Island Passage and Jintotolo Channel), 952
 Shimonoseki, Japan, 1,547
 Tan-shui, Taiwan (via Peng-hu Lich Tao and Balintang Channel), 1,006
 Vladivostok, Russia, 2,026
 Weihai, China, 1,679
 Xiamen, China (via Balintang Channel), 965
 Yantai, China, 1,713
 Yokohama, Japan (via San Bernardino Strait), 1,766
 Yokoshima, Japan (via San Bernardino Strait), 1,571
 Zamboanga, Philippines, 260

CEUTA, MOROCCO
 (35°53'25"N., 5°18'45"W.) to:

Junction Points*

Port Said, Egypt, 1,923
 Strait of Gibraltar, 23

Ports

Alexandria, Egypt, 1802
 Algiers, Algeria, 417
 Alicante, Spain, 299
 Ancona, Italy, 1,561
 Annaba, Algeria, 656
 Banghazi, Libya, 1,336
 Banzart, Tunisia, 750
 Barcelona, Spain, 515
 Bari, Italy, 1,354
 Beirut, Lebanon, 2,014
 Brindisi, Italy, 1,296
 Cagliari, Sardinia, 731
 Cartagena, Spain, 240
 Casablanca, Morocco, 189
 Genova, Italy, 849
 Haifa, Israel, 2,012
 Iraklion, Kriti, 1,496
 Istanbul, Turkey (south of Greece), 1,802
 Istanbul, Turkey (via Corinth Canal), 1,785
 Izmir, Turkey (south of Greece), 1,648
 Izmir, Turkey (via Corinth Canal), 1,630
 La Spezia, Italy, 872
 Livorno, Italy, 868
 Marseille, France, 692
 Melilla, Morocco, 131
 Messina, Sicily, 1,029
 Napoli, Italy, 982
 Odessa, Ukraine (south of Greece), 2,150
 Odessa, Ukraine (via Corinth Canal), 2,133
 Oran, Algeria, 232
 Palermo, Sicily, 921
 Palma, Balearic Islands, 452

Piraeus, Greece (south of Greece), 1,488
 Piraeus, Greece (via Corinth Canal), 1,431
 Rijeka, Croatia, 1,628
 Savona, Italy, 834
 Sibenik, Croatia, 1,502
 Siracusa, Sicily, 1,035
 Split, Croatia, 1,487
 Tangier, Morocco, 29
 Tarabulus, Libya, 1,074
 Taranto, Italy, 1,249
 Thessaloniki, Greece (south of Greece), 1,696
 Thessaloniki, Greece (via Corinth Canal), 1,679
 Toulon, France, 704
 Trieste, Italy, 1,662
 Tunis, Tunisia, 801
 Valencia, Spain, 385
 Valletta, Malta, 986
 Venezia, Italy, 1,672
 Volos, Greece (south of Greece), 1,637
 Volos, Greece (via Corinth Canal), 1,620

CHAH BAHAR, IRAN
 (25°18'00"N., 60°31'40"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,862
 Cape Leeuwin, Australia, 4,746
 Port Said, Egypt, 2,626
 Selat Lombok, Indonesia, 3,972
 Selat Sunda, Indonesia, 3,351
 Singapore, 3,144
 Torres Strait, Australia, 5,543

Ports

Aden, Yemen, 1,276
 Al Basrah, Iraq, 802
 Colombo, Sri Lanka, 1,578
 Karachi, Pakistan, 357

CHALNA, MUNGLA ANCHORAGE, BANGLADESH
 (22°28'00"N., 89°35'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,458
 Port Said, Egypt, 4,705
 Singapore, 1,578

Ports

Calcutta, India, 288
 Penang, Malaysia, 1,228

CHAMPERICO, GUATEMALA
 (14°17'30"N., 91°56'00"W.) to:

Junction Points*

Panama, Panama, 954

Ports

Acapulco, Mexico, 494
 Brito, Nicaragua, 399
 Mazatlan, Mexico, 1,078

CHANARAL, CHILE
 (26°21'00"S., 70°39'30"W.) to:

Ports

Antofagasta, Chile, 173
 Arica, Chile, 478
 Valparaíso, Chile, 416

CHARLESTON, SOUTH CAROLINA, U.S.A.
 (32°47'00"N., 79°55'00"W.) to:

Junction Points*

Bishop Rock, England, 3,375
 Cape of Good Hope, South Africa, 6,838
 Fastnet Rock, Ireland, 3,262
 Inishtrahull, Ireland, 3,360
 Montreal, Canada (via Strait of Canso), 1,940
 Panama, Panama, 1,607
 Pentland Firth, Scotland, 3,540
 Punta Arenas, Chile, 6,898
 Strait of Gibraltar, 3,613
 Straits of Florida, 637
 Yucatan Channel, 819

Ports

Antilla, Cuba (via Crooked Island Passage), 813
 Argentina, Canada, 1,489
 Arkhangel'sk, Russia, 4,692
 Banes, Cuba (via Crooked Island Passage), 802
 Barranquilla, Colombia, 1,391
 Belem, Brazil, 2,786
 Bocas del Toro, Panama, 1,638
 Bordeaux, France, 3,683
 Brest, France, 3,465
 Bridgetown, Barbados, 1,628
 Buenos Aires, Argentina, 5,817
 Cadiz, Spain, 3,563
 Cape Town, South Africa, 6,830
 Cartagena, Colombia (via Crooked Island Passage), 1,443
 Charlotte Amalie, Virgin Islands, 1,192
 Charlottetown, Canada, 1,313
 Cienfuegos, Cuba (southbound, via Straits of Florida and Yucatan Channel), 1,104
 Cienfuegos, Cuba (via Crooked Island Passage and Windward Passage), 1,264
 Colon, Panama (via Crooked Island Passage), 1,564
 Colon, Panama (via Yucatan Channel), 1,636
 Dakar, Senegal, 3,557
 Elizabeth Harbor, Bahamas, 610
 Gibara, Cuba (via Crooked Island Passage), 806
 Guantanamo, Cuba (via Crooked Island Passage), 900
 Halifax, Canada, 1,077
 Kingston, Jamaica (via Crooked Island Passage), 1,064
 La Guaira, Venezuela, 1,549
 La Habana, Cuba (southbound, via Straits of Florida), 648
 Lagos, Nigeria, 5,065
 Las Palmas, Canary Islands, 3,341
 Limon, Costa Rica (via Crooked Island Passage), 1,637
 Lisboa, Portugal, 3,397
 Manzanillo, Cuba (via Crooked Island Passage and Canal de Balandras), 1,105
 Maracaibo, Venezuela, 1,467
 Montevideo, Uruguay, 5,708
 Nassau, Bahamas, 507
 Nuevitas, Cuba (via Crooked

Island Passage), 865
 Nuevitas, Cuba (via Straits of Florida, Nicholas Channel and Old Bahama Channel, southbound), 763
 Pointe à Pitre, Guadeloupe, 1,443
 Ponce, Puerto Rico, 1,168
 Ponta Delgada, Azores, 2,644
 Port au Prince, Haiti, 961
 Port of Spain, Trinidad, 1,682
 Port Antonio, Jamaica (via Crooked Island Passage), 1,013
 Port Castries, St. Lucia, 1,532
 Recife, Brazil, 3,649
 Rio de Janeiro, Brazil, 4,717
 Salvador, Brazil, 4,040
 San Juan, Puerto Rico, 1,138
 Santa Cruz de Tenerife, Canary Islands, 3,275
 Santa Marta, Colombia (via Crooked Island Passage), 1,373
 Santiago de Cuba, Cuba (via Crooked Island Passage), 952
 Santo Domingo, Dominican Republic, 1,190
 Santos, Brazil, 4,908
 Willemstad, Curacao (via Mona Passage), 1,472
 Willemstad, Curacao (via Windward Passage), 1,446

CHARLOTTE AMALIE, ST. THOMAS, VIRGIN ISLANDS
 (18°20'00"N., 64°56'00"W.) to:

Junction Points*

Bishop Rock, England, 3,369
 Fastnet Rock, Ireland, 3,279
 Inishtrahull, Ireland, 3,427
 Montreal, Canada, 2,405
 Panama, Panama, 1,072
 Pentland Firth, Scotland, 3,616
 Punta Arenas, Chile, 5,765
 Strait of Gibraltar, 3,323
 Straits of Florida, 1,087
 Yucatan Channel, 1,200

Ports

Baltimore, Maryland, U.S.A., 1,417
 Belem, Brazil, 1,598
 Belize, Belize, 1,368
 Boston, Massachusetts, U.S.A., 1,513
 Bridgetown, Barbados, 442
 Brunswick, Georgia, U.S.A., 1,190
 Buenos Aires, Argentina, 4,689
 Cap-Haitien, Haiti, 442
 Carmen, Mexico (south of Hispaniola and via Yucatan Channel), 1,675
 Carmen, Mexico (via Yucatan Channel and Windward Passage), 1,658
 Cartagena, Colombia, 811
 Charleston, South Carolina, U.S.A., 1,192
 Charlottetown, Canada, 1,778
 Cienfuegos, Cuba, 973
 Colon, Panama, 1,029
 Dakar, Senegal, 2,751
 Elizabeth Harbor, Bahamas, 704
 Georgetown, Guyana, 814
 Guantanamo, Cuba (north of Hispaniola and Virgin Passage), 607
 Halifax, Canada, 1,595
 Hamilton, Bermuda, 872
 Jacksonville, Florida, U.S.A., 1,181

* **JUNCTION POINT.**—See Preface for use of junction points

Key West, Florida, U.S.A., 1,036
Kingston, Jamaica, 705
La Cuaira, Venezuela, 479
La Habana, Cuba, 1,048
Las Palmas, Canary Islands, 2,791
Lisboa, Portugal, 3,147
Miami, Florida, U.S.A., 991
Montevideo, Uruguay, 4,575
New Amsterdam, Guyana, 903
New York, New York, U.S.A.,
1,434
Norfolk, Virginia, U.S.A., 1,296
Philadelphia, Pennsylvania,
U.S.A., 1,434
Pointe à Pitre, Guadeloupe, 267
Port au Prince, Haiti, 628
Port of Spain, Trinidad, 518
Port Castries, St. Lucia, 346
Portland, Maine, U.S.A., 1,557
Portsmouth, New Hampshire,
U.S.A., 1,534
Puerto Cabello, Venezuela, 506
Puerto Cortes, Honduras, 1,343
Recife, Brazil, 2,516
Rio de Janeiro, Brazil, 3,588
Salvador, Brazil, 2,907
San Juan del Norte, Nicaragua,
1,199
Santa Barbara de Samana,
Dominican Republic, 261
Santa Cruz de Tenerife, Canary
Islands, 2,764
Santo Domingo, Dominican
Republic, 300
Savannah, Georgia, U.S.A., 1,210
Tuxpan, Mexico (via Old Bahama
Channel), 1,890
Tuxpan, Mexico (via Yucatan
Channel and north of
Hispaniola), 1,867
Willemstad, Curacao, 457

**CHARLOTTETOWN,
CANADA**
(46°14'00"N., 63°07'00"W.) to:

Junction Points*

Montreal, Canada, 708
Panama, Panama (via Strait of
Canso and Crooked Island
Passage), 2,578
Punta Arenas, Chile, 6,907

Ports

Baltimore, Maryland, U.S.A.,
1,142
Boston, Massachusetts, U.S.A. (via
Strait of Canso), 621
Buenos Aires, Argentina, 5,831
Charleston, South Carolina,
U.S.A., 1,313
Charlotte Amalie, Virgin Islands,
1,778
Colon, Panama (via Strait of Canso
and Crooked Island Passage),
2,535
Halifax, Canada, 268
Key West, Florida, U.S.A., 1,788
La Habana, Cuba, 1,846
Montevideo, Uruguay, 5,717
New York, New York, U.S.A. (via
Strait of Canso), 832
Philadelphia, Pennsylvania,
U.S.A., 982
Portland, Maine, U.S.A. (via Strait
of Canso), 579
Recife, Brazil, 3,658
Rio de Janeiro, Brazil, 4,730
Salvador, Brazil, 4,049
Savannah, Georgia, U.S.A., 1,386

CHATHAM, CANADA
(47°02'08"N., 65°28'00"W.) to:

Junction Points*

Grand Banks South, 744
Montreal, Canada, 685
Panama, Panama, 2,797
Pentland Firth, Scotland, 2,265
Punta Arenas, Chile, 7,250
Straits of Florida, 1,988

Ports

Boston, Massachusetts, U.S.A.,
977
Colon, Panama, 2,796
La Guaira, Venezuela, 2,498
Natal, Brazil, 3,684
New York, New York, U.S.A.,
1,150
Port Castries, St. Lucia, 2,254
Port of Spain, Trinidad, 2,455
San Juan, Puerto Rico, 2,025
Yarmouth, Canada, 783

CHATHAM, ENGLAND
(51°24'00"N., 0°33'00"E.)
Subtract 23 miles from London
distances.

CHEN-CHANG, CHINA
(32°13'00"N., 110°24'00"E.) See
Zhenjiang, China.

CHERBOURG, FRANCE
(49°39'00"N., 1°37'00"W.) to:

Junction Points*

Bishop Rock, England, 197
Nord-Ostsee-Kanal (East
Entrance), Germany, 554
Skagens Odde, Denmark, 671

Ports

Amsterdam, Netherlands, 305
Antwerp, Belgium, 281
Barrow in Furness, England, 448
Bergen, Norway, 734
Bremerhaven, Germany, 488
Caen, France, 73
Cardiff, Wales, 309
Cobh, Ireland, 315
Dieppe, France, 105
Dover, England, 146
Dunkerque, France, 179
Egersund, Norway, 621
Emden, Germany, 428
Esbjerg, Denmark, 514
Fecamp, France, 79
Fishguard, Walff, 306
Hamburg, Germany, 543
Holyhead, Wales, 377
Kristiansand, Norway, 632
Liverpool, England, 442
Oostende, Belgium, 203
Oslo, Norway, 784
Rotterdam, Netherlands, 282
Stavanger, Norway, 661
Wilhelmshaven, Germany, 472
Zeebrugge, Belgium, 218

CHI-LUNG, TAIWAN
(25°08'10"N., 121°44'00"E.) to:

Ports

Dagu, China, 1,013
Dalian, China, 852
Macau, China, 516

Misumi, Japan, 654
Naha, Ryukyu Islands, 337
Sanmen Wen, China, 248
Shanghai, China, 447
Uno, Japan, 903
Wenzhou, China, 204
Xiamen, China, 227
Yulin Gang, Hainan Dao, China,
830

CHIBAI, JAPAN
(35°28'00"N., 139°58'00"E.)
Add 4 miles to Yokohama
distances.

CHICOUTIMI, CANADA
(48°26'00"N., 71°03'37"W.) to:

Junction Points*

Cape of Good Hope, South Africa,
6,982
Grand Banks South, 1,012
Montreal, Canada, 260
Panama, Panama, 3,077
Pentland Firth, Scotland, 2,435
Punta Arenas, Chile, 7,515
Straits of Florida, 2,405

Ports

Angmagssalik, Greenland, 1,873
Argentina, Canada, 847
Belem, Brazil, 3,491
Cape Town, South Africa, 6,965
Colon, Panama, 3,111
Hamilton, Bermuda, 1,468
La Habana, Cuba, 2,408
Montevideo, Uruguay, 6,354
New York, New York, U.S.A.,
1,374
Portland, Maine, U.S.A., 1,181
Recife, Brazil (via Cabot Strait),
4,120

CHIMBOTE, PERU
(9°05'00"S., 78°36'00"W.) to:

Junction Points*

Panama, Panama, 1,158
Punta Arenas, Chile, 2,843

Ports

Apra, Guam, 8,264
Callao, Peru, 206
Honolulu, Hawaii, U.S.A., 5,015
Pago Pago, American Samoa,
5,389
Papeete, French Polynesia, 4,157
San Diego, California, U.S.A.,
3,402
San Francisco, California, U.S.A.,
3,804
Valparaiso, Chile, 1,490
Wellington, New Zealand, 5,781

**CHIMU WAN, OKINAWA
JIMA, RYUKYU ISLANDS**
(26°26'00"N., 128°00'00"E.) to:

Junction Points*

Singapore, 2,046

Ports

Apra, Guam, 1,228
Manila, Philippines, 947
Shanghai, China, 527
Yokohama, Japan, 830

CHING-TAO, CHINA
(36°05'30"N., 120°19'00"E.) See
Qingdao, China.

CHIN-HUANG-TAO, CHINA
(39°55'00"N., 119°36'30"E.) See
Qinhuangdao, China.

CHIN HAI, SOUTH KOREA
(38°08'40"N., 128°28'3"E.) See
Jinhae, South Korea.

**CHINNAMPO, NORTH
KOREA**
(38°43'00"N., 125°25'00"E.) See
Nampo.

CHIOGGIA, ITALY
(45°14'00"N., 12°17'30"E.) to:

Junction Points*

Port Said, Egypt, 1,307
Strait of Gibraltar, 1,682

Ports

Ancona, Italy, 111
Brindisi, Italy, 375
Rijeka, Croatia, 126

**CHITTAGONG,
BANGLADESH**
(22°18'45"N., 91°49'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
5,492
Port Said, Egypt, 4,739
Singapore, 1,517

Ports

Bombay, India, 2,160
Calcutta, India, 367
Calicut, India, 1,664
Cochin, India, 1,578
Madras, India, 891
Malacca, Malaysia, 1,391
Marmagao, India, 1,940
Penang, Malaysia, 1,167
Port Kelang, Malaysia, 1,311
Visakhapatnam, India, 578

CHONGJIN, NORTH KOREA
(41°46'30"N., 129°49'30"E.) to:

Ports

Busan, South Korea, 417
Hakodate, Japan, 509
Maizuru, Japan, 463
Shimonoseki, Japan, 480
Vladivostok, Russia, 135

**CHRISTIANSHAAB,
GREENLAND**
(64°49'00"N., 51°11'30"W.) See
Qasigiannuit, Greenland.

CHRISTIANSTED, ST. CROIX
(17°45'20"N., 64°42'00"W.) to:

Junction Points*

Bishop Rock, England, 3,370

Ports

Guantanamo, Cuba (north of

* **JUNCTION POINT.**—See Preface for use of junction points

26 CHRISTMAS ISLAND, LINE ISLANDS

Hispaniola and Virgin Passage), 635
Horta, Azores, 2,259
Key West, Florida, U.S.A. (via Old Bahama Channel and Virgin Passage), 1,064
New York, New York, U.S.A. (via Virgin Passage), 1,465
San Juan, Puerto Rico, 104
Santa Barbara de Samana, Dominican Republic, 289

CHRISTMAS ISLAND, LINE ISLANDS (1°58'00"N., 157°28'00"W.) to:

Junction Points*

Panama, Panama, 4,751

Ports

Apia, Samoa, 1,274
Apra, Guam, 3,518
Brisbane, Australia, 3,379
Enderbury Island, Phoenix Islands, 878
Honolulu, Hawaii, U.S.A., 1,161
Jarvis Island, 209
Johnston Island, 1,137
Midway Island, 1,949
Pago Pago, American Samoa, 1,256
Papeete, French Polynesia, 1,266
Pearl Harbor, Hawaii, U.S.A., 1,157
San Francisco, California, U.S.A., 2,895

CHURCHILL, CANADA (58°46'40"N., 94°11'42"W.) to:

Junction Points*

Inishtrahull, Ireland (via 75 miles off Kap Farvel), 2,760
Pentland Firth, Scotland (via 75 miles off Kap Farvel), 2,820

Ports

Aasiaat (Egedesminde), Greenland, 1,485
Camp Lloyd, Greenland, 1,434
Goose Bay, Canada, 1,557
Ilulissat (Jakobshavn), Greenland, 1,532
Kangerluarsorseq, Greenland, 1,326
Maniitsoq, Greenland, 1,341
Nanortalik, Greenland, 1,511
Narsarsuaq, Greenland, 1,513
Nuuk (Godthaab), Greenland, 1,331
Qaanaaq (Thule), Greenland, 1,909
Qasigianniguit, Greenland, 1,523
Reykjavik, Iceland (via 75 miles off Kap Farvel), 2,290
Ritenbenk, Greenland, 1,695
Shelburne, Canada, 2,467
Sisimiut, Greenland, 1,384
Upernavik, Greenland, 1,669

CIENFUEGOS, CUBA (22°08'30"N., 80°27'00"W.) to:

Junction Points*

Bishop Rock, England, 4,056
Fastnet Rock, Ireland, 3,950
Inishtrahull, Ireland, 4,054

Panama, Panama, 815
Pentland Firth, Scotland, 4,234
Strait of Gibraltar, 4,102
Yucatan Channel, 285

Ports

Almirante, Panama, 788
Baltimore, Maryland, U.S.A., 1,578
Barranquilla, Colombia, 755
Belem, Brazil, 2,527
Belize, Belize, 545
Boston, Massachusetts, U.S.A. (via Yucatan Channel), 1,903
Buenos Aires, Argentina, 5,590
Campeche, Mexico, 691
Cap-Haitien, Haiti, 543
Cape Town, South Africa, 6,610
Cardenas, Cuba, 905
Carmen, Mexico, 770
Cartagena, Colombia, 778
Charleston, South Carolina, U.S.A. (via Straits of Florida), 1,107
Charlotte Amalie, Virgin Islands, 973
Colon, Panama, 772
Covenas, Colombia, 814
Fort de France, Martinique, 1,240
Galveston, Texas, U.S.A., 989
Guantanamo, Cuba, 366
Gulfport, Mississippi, U.S.A., 851
Halifax, Canada (via Straits of Florida), 2,102
Hamilton, Bermuda, 1,346
La Guaira, Venezuela, 1,050
La Habana, Cuba, 482
Manzanillo, Cuba, 266
Matanzas, Cuba, 526
Miami, Florida, U.S.A., 683
Montego Bay, Jamaica, 262
Nassau, Bahamas, 868
New York, New York, U.S.A., 1,657
Norfolk, Virginia, U.S.A., 1,456
Nuevitas, Cuba, 649
Pensacola, Florida, U.S.A., 825
Philadelphia, Pennsylvania, U.S.A. (via Crooked Island Passage and Windward Passage), 1,654
Philadelphia, Pennsylvania, U.S.A. (via Yucatan Channel), 1,627
Pointe a Pitre, Guadeloupe, 1,204
Port au Prince, Haiti, 534
Port of Spain, Trinidad, 1,310
'Port Castries, St. Lucia, 1,246
'Puerto Cabello, Venezuela, 1,015
Rio de Janeiro, Brazil, 4,490
San Juan, Puerto Rico (south of Hispaniola), 930
San Juan, Puerto Rico (via Windward Passage and north of Hispaniola), 903
Santa Maria, Cuba, 149
Santiago de Cuba, Cuba, 334
Santo Domingo, Dominican Republic, 716
Tampico, Mexico, 1,009
Tuxpan, Mexico, 979
Veracruz, Mexico, 944
Willemstad, Curacao, 900

CIUDAD BOLIVAR, VENEZUELA (8°08'00"N., 63°33'00"W.) Add 58 miles to San Felix distances.

CIVITAVECCHIA, ITALY (42°05'36"N., 11°47'15"E.) to:

Junction Points*

Port Said, Egypt, 1,243
Strait of Gibraltar, 907

Ports

Ajaccio, Corsica, 180
Alicante, Spain, 616
Bonifacio, Corsica, 131
Brindisi, Italy, 568
Cagliari, Sardinia, 239
Genova, Italy, 191
Haifa, Israel, 1,321
Istanbul, Turkey (south of Greece), 1,107
Istanbul, Turkey (via Corinth Canal), 1,066
Livorno, Italy, 120
Marseille, France, 316
Menton, France, 180
Messina, Sicily, 308
Napoli, Italy, 152
Odessa, Ukraine (south of Greece), 1,456
Odessa, Ukraine (via Corinth Canal), 1,414
Oran, Algeria, 703
Palermo, Sicily, 253
Patrai, Greece, 612
Pozzuoli, Italy, 147
Salerno, Italy, 204
Sfax, Tunisia, 520
Siracusa, Sicily, 373
Valletta, Malta, 421
Viareggio, Italy, 480

COATZACOALCOS, MEXICO (18°08'00"N., 94°24'45"W.) to:

Junction Points*

Panama, Panama, 1,420
Straits of Florida, 757
Yucatan Channel, 625

Ports

Cartagena, Colombia, 1,484
Colon, Panama, 1,396
Galveston, Texas, U.S.A., 680
La Habana, Cuba, 840
Mobile, Alabama, U.S.A., 834
New Orleans, Louisiana, U.S.A., 801
Norfolk, Virginia, U.S.A., 1,736
Pensacola, Florida, U.S.A., 836
Port of Spain, Trinidad, 2,137
Port Arthur, Texas, U.S.A., 708
Tampico, Mexico, 320
Veracruz, Mexico, 127

COBH, IRELAND (51°50'50"N., 8°18'00"W.) to:

Junction Points*

Bishop Rock, England, 143
Cape of Good Hope, South Africa, 5,892
Fastnet Rock, Ireland, 64
Pentland Firth, Scotland, 578

Ports

Barrow in Furness, England, 252
Belfast, Northern Ireland, 264
Cape Town, South Africa, 5,894
Cardiff, Wales, 204
Cherbourg, France, 315
Dublin, Ireland, 176
Falmouth, England, 182

Felixstowe, England, 493
Fishguard, Wales, 131
Galway, Ireland, 222
Glasgow, Scotland, 346
Holyhead, Wales, 182
Inverness, Scotland (via Pentland Firth), 659
Leith, England (via Pentland Firth), 765
Limerick, Ireland, 221
Liverpool, England, 246
Londonderry, Northern Ireland, 340
Newport, Wales, 210
Plymouth, England, 215

COCHIN, INDIA (9°58'00"N., 76°15'20"E.) to:

Junction Points*

Port Said, Egypt, 3,237
Singapore, 1,853

Ports

Bombay, India, 585
Colombo, Sri Lanka, 318
Karachi, Pakistan, 1,044
Marmagao, India, 365
Trincomalee, Sri Lanka, 606

COLOMBO, SRI LANKA (6°57'00"N., 79°51'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa (east of Madagascar), 4,317
Cape Leeuwin, Australia, 3,203
Port Said, Egypt (south of Socotra), 3,481
Singapore, 1,581
Selat Sunda, Indonesia, 1,781
Torres Strait, Australia (south of Java and Timor), 3,978

Ports

Aden, Yemen (south of Socotra), 2,094
Akyab, Burma, 1,225
Al Basrah, Iraq, 2,359
Bassein, Burma, 1,194
Belawan, Indonesia, 1,240
Bhavnagar, India, 1,073
Bombay, India, 895
Calcutta, India, 1,258
Cochin, India, 318
Dar es Salaam, Tanzania, 2,565
Diego Garcia, Chagos Archipelago, 974
Dumai, Indonesia, 1,496
Durban, South Africa (via east of Madagascar), 3,615
Flying Fish Cove, Christmas Island, Indian Ocean, 1,888
Fremantle, Australia, 3,122
Karachi, Pakistan, 1,344
Madras, India, 611
Malacca, Malaysia, 1,458
Marmagao, India, 671
Massawa, Ethiopia, 2,486
Mombasa, Kenya, 2,518
Negapattinam, India, 476
New Mangalore, India, 499
Okha, India, 1,183
Penang, Malaysia, 1,285
Phuket, Thailand, 1,192
Port Darwin, Australia, 3,314
Port Louis, Mauritius, 2,098
Port Refuge, Cocos Islands, 1,539

* JUNCTION POINT.—See Preface for use of junction points

Rangoon, Burma, 1,268
 Sabang, Indonesia, 976
 Tamatave, Madagascar, 2,351
 Tanga, Tanzania, 2,564
 Trincomalee, Sri Lanka, 347
 Victoria, Seychelles, 1,652
 Vishakhapatnam, India, 880
 Zanzibar, Tanzania, 2,627

COLON, PANAMA
 (9°22'00"N., 79°55'00"W.) to:

Junction Points*

Bishop Rock, England (via Mona Passage), 4,344
 Cape of Good Hope, South Africa, 6,488
 Fastnet Rock, Ireland (via Caicos Passage), 4,244
 Inishtrahull, Ireland (via Mona Passage), 4,393
 Inishtrahull, Ireland (via Windward Passage), 4,362
 Montreal, Canada (via Strait of Canso), 3,126
 Panama, Panama, 44
 Pentland Firth, Scotland (via Mona Passage), 4,594
 Pentland Firth, Scotland (via Windward Passage), 4,529
 Punta Arenas, Chile (east of South America), 6,543
 Strait of Gibraltar (via Mona Passage), 4,308
 Yucatan Channel, 812

Ports

Antilla, Cuba, 844
 Argentia, Canada, 2,640
 Arkhangel'sk, Russia, 5,820
 Baltimore, Maryland, U.S.A. (via Windward Passage), 1,901
 Barranquilla, Colombia, 336
 Belem, Brazil, 2,403
 Belize, Belize, 816
 Bocas del Toro, Panama, 144
 Bordeaux, France (via Mona Passage), 4,593
 Bordeaux, France (via Windward Passage), 4,643
 Boston, Massachusetts, U.S.A. (via Windward Passage), 2,157
 Brest, France, 4,420
 Bridgetown, Barbados, 1,237
 Brunswick, Georgia, U.S.A. (via Windward Passage), 1,538
 Buenos Aires, Argentina, 5,385
 Cadiz, Spain, 14,286
 Campeche, Mexico, 1,167
 Cap-Haitien, Haiti, 817
 Cape Town, South Africa, 6,494
 Carmen, Mexico, 1,246
 Cartagena, Colombia, 281
 Charleston, South Carolina, U.S.A. (via Windward Passage), 1,564
 Charleston, South Carolina, U.S.A. (via Yucatan Channel), 1,636
 Charlotte Amalie, Virgin Islands, 1,029
 Charlottetown, Canada, 2,535
 Cienfuegos, Cuba, 772
 Coatzacoalcas, Mexico, 1,396
 Corpus Christi, Texas, U.S.A., 1,548
 Dakar, Senegal, 3,694
 El Ferrol del Caudillo, Spain, 4,222
 Elizabeth Harbor, Bahamas, 998
 Fort de France, Martinique, 1,159
 Freetown, Sierra Leone, 3,976

Funchal, Madeira Island, 3,742
 Georgetown, Ascension Island, 4,181
 Georgetown, Guyana, 1,515
 Guantanamo, Cuba, 689
 Gulfport, Mississippi, U.S.A., 1,388
 Halifax, Canada, 2,295
 Hamilton, Bermuda, 1,659
 Horta, Azores, 3,260
 Ivittuut, Greenland, 3,536
 Jacksonville, Florida, U.S.A., 1,516
 Jacmel, Haiti, 683
 Key West, Florida, U.S.A., 1,065
 Kingston, Jamaica, 551
 La Ceiba, Honduras, 666
 La Guaira, Venezuela, 841
 Lagos, Nigeria, 5,049
 Les Cayes, Haiti, 645
 Limon, Costa Rica, 190
 Lisboa, Portugal (via Mona Passage), 4,152
 Liverpool, Canada, 2,244
 Manzanillo, Cuba, 689
 Maracaibo, Venezuela, 693
 Miami, Florida, U.S.A., 1,214
 Mobile, Alabama, U.S.A., 1,393
 Montecristi, Dominican Republic, 83
 Montevideo, Uruguay, 5,349
 Nassau, Bahamas (via Windward Passage), 1,166
 New Orleans, Louisiana, U.S.A., 1,389
 New York, New York, U.S.A. (via Crooked Island Passage), 1,974
 Norfolk, Virginia, U.S.A. (via Windward Passage), 1,779
 Norfolk, Virginia, U.S.A. (via Yucatan Channel), 2,006
 Pensacola, Florida, U.S.A., 1,369
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage), 1,946
 Pointe a Pitre, Guadeloupe, 1,168
 Ponta Delgada, Azores, 3,379
 Porlamar, Venezuela, 1,012
 Port of Spain, Trinidad, 1,159
 Port Antonio, Jamaica, 582
 Port Arthur, Texas, U.S.A., 1,485
 Port Castries, St. Lucia, 1,160
 Portland Bight, Jamaica, 536
 Portland, Maine, U.S.A., 2,198
 Porto Grande, Cape Verde Islands, 3,240
 Portsmouth, New Hampshire, U.S.A. (via Windward Passage), 2,174
 Progreso, Mexico, 1,026
 Puerto Barrios, Guatemala, 78
 Puerto Cabello, Venezuela, 802
 Puerto Cortes, Honduras, 733
 Recife, Brazil, 3,295
 Reykjavik, Iceland, 4,098
 Rio de Janeiro, Brazil, 4,367
 Salvador, Brazil, 3,698
 San Juan, Puerto Rico, 993
 Santa Cruz de Tenerife, Canary Islands, 3,776
 Santa Marta, Colombia, 365
 Santiago de Cuba, Cuba, 683
 Santo Domingo, Dominican Republic, 802
 Santos, Brazil, 4,566
 Savannah, Georgia, U.S.A. (via Yucatan Channel), 1,607
 Sint Nicolaashaven, Aruba, 633
 St. Georges, Grenada, 1,118
 St. John, Canada, 2,294
 St. John's, Canada, 2,695
 St. John's, Antigua, 1,158
 Sydney, Canada, 2,482
 Tampa, Florida, U.S.A., 1,216

Tampico, Mexico, 1,485
 Tela, Honduras, 706
 Tuxpan, Mexico, 1,455
 Veracruz, Mexico, 1,420
 Vigo, Spain, 4,194
 Willemstad, Curacao, 698
 Wilmington, North Carolina, U.S.A. (via Windward Passage), 1,613
 Wilmington, North Carolina, U.S.A. (via Yucatan Channel), 1,730
 Yarmouth, Canada, 2,210

COLONIA, URUGUAY
 (34°30'00"S., 57°52'15"W.)
 Subtract 25 miles from Buenos Aires distances.

COME BY CHANCE, CANADA
 (47°48'00"N., 54°01'25"W.) Add 23 miles to Argentina distances.

COMODORO RIVADAVIA, ARGENTINA
 (45°51'35"S., 67°26'35"W.) to:

Junction Points*

Panama, Panama, 6,185
 Punta Arenas, Chile, 585

Ports

Buenos Aires, Argentina, 927

CONAKRY, GUINEA
 (9°30'30"N., 13°43'35"W.) to:

Junction Points*

Bishop Rock, England, 2,626
 Cape of Good Hope, South Africa, 3,209
 Fastnet Rock, Ireland, 2,689
 Grand Banks South, 2,765
 Ile d'Ouessant, France, 2,584
 Inishtrahull, Ireland, 3,029
 Panama, Panama, 3,926
 Pentland Firth, Scotland, 3,357
 Punta Arenas, Chile, 5,142
 Strait of Gibraltar, 1,931
 Straits of Florida, 4,038
 Yucatan Channel, 4,220

Ports

Accra, Ghana, 995
 Bathurst, Gambia, 345
 Boston, Massachusetts, U.S.A., 3,612
 Buenos Aires, Argentina, 3,755
 Cadiz, Spain, 1,952
 Cape Town, South Africa, 3,189
 Casablanca, Morocco, 1,809
 Colon, Panama, 3,954
 Dakar, Senegal, 443
 Funchal, Madeira Island, 1,506
 Georgetown, Ascension Island, 1,048
 Grand Bassam, Ivory Coast, 760
 Guantanamo, Cuba, 3,615
 Huelva, Spain, 1,941
 Key West, Florida, U.S.A., 4,013
 Las Palmas, Canary Islands, 1,306
 Lisboa, Portugal, 1,962
 Marshall, Liberia, 321
 Monrovia, Liberia, 294
 Natal, Brazil, 2,137
 New York, New York, U.S.A., 3,713

Norfolk, Virginia, U.S.A., 3,746
 Oporto, Portugal, 2,105
 Philadelphia, Pennsylvania, U.S.A., 3,775
 Pointe Noire, Congo, 1,793
 Ponta Delgada, Azores, 1,873
 Port Harcourt, Nigeria, 1,392
 Port of Spain, Trinidad, 2,856
 Porto Grande, Cape Verde Islands, 792
 Portsmouth, New Hampshire, U.S.A., 3,605
 Recife, Brazil, 1,645
 Rio de Janeiro, Brazil, 2,627
 St. Helena Island, 1,600
 Takoradi, Ghana, 872

CONCHAN, PERU
 (12°10'00"S., 77°00'00"W.) See Callao.

CONSTANTA, ROMANIA
 (44°09'56"N., 28°40'14"E.) to:

Junction Points*

Port Said, Egypt, 1,000
 Strait of Gibraltar, 2,018

Ports

Cagliari, Sardinia (south of Greece), 1,317
 Iskenderun, Turkey, 1,044
 Istanbul, Turkey, 201
 Kerch, Ukraine, 370
 Larnaca, Cyprus, 962
 Mersin, Turkey, 986
 Nice, France (south of Greece), 1,509
 Novorossiysk, Russia, 403
 Odessa, Ukraine, 186
 Patrai, Greece (south of Greece), 811
 Patrai, Greece (via Corinth Canal), 653
 Pula, Croatia (south of Greece), 1,305
 Pula, Croatia (via Corinth Canal), 1,206
 Rostov-na-Donu, Russia, 572
 Sevastopol, Ukraine, 212

CONTRECOEUR, CANADA
 (45°53'00"N., 73°12'00"W.)
 Subtract 25 miles from Montreal distances.

COOS BAY, OREGON, U.S.A.
 (43°22'14"N., 124°23'00"W.) to:

Junction Points*

Panama, Panama, 3,589
 Punta Arenas, Chile, 6,549
 Singapore (via San Bernardino Strait), 7,284
 Singapore (via 30°N., 180° and Balintang Channel), 7,512
 Torres Strait, Australia, 6,057
 Wilson Promontory, Australia, 6,920

Ports

Antofagasta, Chile, 5,120
 Auckland, New Zealand, 5,853
 Brisbane, Australia, 6,253
 Callao, Peru, 4,344
 Guayaquil, Ecuador, 3,920
 Honolulu, Hawaii, 2,150
 Kobe, Japan, 4,565

* **JUNCTION POINT.**—See Preface for use of junction points

28 COPENHAGEN, DENMARK

Yokohama, Japan, 4,302

COPENHAGEN, DENMARK
(55°42'00"N., 12°36'06"E.) See
Kobenhavn.

COQUIMBO, CHILE
(29°57'00"S., 71°21'00"W.) to:

Junction Points*

Panama, Panama, 2,448
Punta Arenas, Chile, 1,623
Torres Strait, Australia, 8,107
Wilson Promontory, Australia,
6,730

Ports

Acapulco, Mexico, 3,259
Antofagasta, Chile, 396
Arica, Chile, 702
Caldera, Chile, 196
Callao, Peru, 1,136
Corinto, Nicaragua, 2,711
Esmeraldas, Ecuador, 2,014
Guayaquil, Ecuador, 1,781
Guaymas, Mexico, 4,153
Iquique, Chile, 602
Lota, Chile, 455
Monterey, California, U.S.A.,
4,927
Pisco, Peru, 1,036
Puntarenas, Costa Rica, 2,526
Salina Cruz, Mexico, 3,091
San Diego, California, U.S.A.,
4,605
San Francisco, California, U.S.A.,
5,007
San Jose, Guatemala, 2,864
Santa Barbara, California, U.S.A.,
4,742
Talcahuano, Chile, 428
Valparaiso, Chile, 203

CORDOVA, ALASKA, U.S.A.
(60°32'45"N., 145°46'30"W.) to:

Ports

Ketchikan, Alaska, U.S.A., 656
Kiska, Alaska, U.S.A., 1,435
Nome, Alaska, U.S.A., 1,409
Seattle, Washington, U.S.A., 1,216

CORINTO, NICARAGUA
(12°28'15"N., 87°11'00"W.) to:

Junction Points*

Panama, Panama, 683
Punta Arenas, Chile, 4,180

Ports

Acapulco, Mexico, 792
Amapala, Honduras, 72
Antofagasta, Chile, 2,400
Arica, Chile, 2,181
Brito, Nicaragua, 107
Callao, Peru, 1,606
Coquimbo, Chile, 2,711
Esmeraldas, Ecuador, 823
Guayaquil, Ecuador, 1,071
Guaymas, Mexico, 1,738
Iquique, Chile, 2,247
La Libertad, El Salvador, 141
La Union, El Salvador, 73
Los Angeles, California, U.S.A.,
2,281
Lota, Chile, 3,081

Monterey, California, U.S.A.,
2,533
Pisco, Peru, 1,718
Puerto Armuelles, Panama, 409
Puntarenas, Costa Rica, 262
Salina Cruz, Mexico, 525
San Diego, California, U.S.A.,
2,211
San Francisco, California, U.S.A.,
2,613
San Jose, Guatemala, 238
Santa Barbara, California, U.S.A.,
2,348
Valparaiso, Chile, 2,875

CORK, IRELAND
(51°54'00"N., 8°27'30"W.) Add
9 miles to Cobh distances.

CORNER BROOK, CANADA
(48°57'30"N., 57°56'46"W.) to:

Junction Points*

Inishtrahull, Ireland (via Strait of
Belle Isle), 1,906
Montreal, Canada, 740
Panama, Panama, 2,707
Pentland Firth, Scotland (via Strait
of Belle Isle), 2,001
Straits of Florida, 2,035

Ports

Angmagssalik, Greenland, 1,304
Argentina, Canada, 413
Belem, Brazil, 3,121
Boston, Massachusetts, U.S.A.,
835
Buenos Aires, Argentina, 6,131
Colon, Panama, 2,691
Hamilton, Bermuda, 1,098
Murmansk, Russia, 2,988
New York, New York, U.S.A., 999
Reykjavik, Iceland (via Strait of
Belle Isle), 1,516
Wilmington, North Carolina,
U.S.A., 1,393

CORPUS CHRISTI, TEXAS, U.S.A.
(27°49'00"N., 97°24'00"W.) to:

Junction Points*

Straits of Florida, 803
Yucatan Channel, 764

Ports

Colon, Panama, 1,548
La Habana, Cuba, 864
Tampico, Mexico, 366

CORUNNA, SPAIN
(43°22'00"N., 8°24'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 331

Ports

Horta, Azores, 967
New York, New York, U.S.A.,
2,917
San Juan, Puerto Rico, 3,255
Santander, Spain, 224

COTONOU, BENIN
(6°21'00"N., 2°26'30"E.) to:

Junction Points*

Cape of Good Hope, South
Africa, 857
Ile d'Ouessant, France, 3,747

Ports

Douala, Cameroon, 486
Monrovia, Liberia, 893

COURTENAY BAY, NEW BRUNSWICK, CANADA
(45°16'13"N., 66°02'35"W.) See
St. John.

COVENAS, COLOMBIA
(9°25'00"N., 75°41'10"W.) to:

Junction Points*

Panama, Panama, 308
Yucatan Channel, 924

Ports

Cienfuegos, Cuba, 814
Kingston, Jamaica, 528
Port of Spain, Trinidad, 968

COWES, ENGLAND
(50°46'04"N., 1°17'51"W.) See
Southampton.

CRISTOBAL, PANAMA
(9°22'00"N., 79°55'00"W.) See
Colon.

CUXHAVEN, GERMANY
(53°52'00"N., 8°43'00"E.)
Subtract 56 miles from Hamburg
distances.

DAGU, CHINA
(38°59'15"N., 117°40'45"E.) to:

Junction Points*

Panama, Panama (via Osumi
Kaikyo), 9,002
Panama, Panama (via Tsugaru-
Kaikyo), 8,786
Punta Arenas, Chile, 10,280
Singapore, 2,770

Ports

Aleksandrovsk-Sakhalinskiy,
Russia (via Maenggol Sudo),
1,807
Apra, Guam, 2,133
Auckland, New Zealand (via Vitiaz
Strait), 5,648
Busan, South Korea (via Maenggol
Sudo), 702
Cebu, Philippines (via San
Bernardino Strait), 1,907
Chi-lung, Taiwan, 1,013
Dalian, China, 207
Dutch Harbor, Alaska, U.S.A. (via
La Perouse Strait), 3,594
Hakodate, Japan, 1,385
Hong Kong, China, 1,418
Honolulu, Hawaii, U.S.A. (via
Osumi Kaikyo), 4,677
Honolulu, Hawaii, U.S.A. (via
Shimonoseki Kaikyo), 4,628
Iloilo, Philippines (via San
Bernardino Strait), 1,929
Incheon, South Korea, 465
Jakarta, Indonesia, 3,088

Kobe, Japan, 1,034
Lo-hsing-ta Mao-ti, China, 1,029
Manila, Philippines (east of
Taiwan), 1,722
Manila, Philippines (via Formosa
Strait), 1,732
Mogpo, South Korea (south of
Kasa Do), 536
Nagasaki, Japan, 754
Nakagusuku, Ryukyu Islands,
1,026
Nampo, North Korea, 369
Nikolayevsk-Na-Amure, Russia,
1,961
Noumea, New Caledonia, 4,667
Pago Pago, American Samoa,
5,194
Papeete, French Polynesia, 6,281
Petropavlovsk-Kamchatskiy,
Russia (via La Perouse Strait),
2,419
Petropavlovsk-Kamchatskiy,
Russia (via Tsugaru-Kaikyo),
2,444
Port Darwin, Australia, 3,363
Rabaul, Papua New Guinea, 3,294
Qingdao, China, 436
Qinhuangdao, China, 131
San Francisco, California, U.S.A.
(via Osumi Kaikyo), 5,856
San Francisco, California, U.S.A.
(via Tsugaru-Kaikyo), 5,615
Seattle, Washington, U.S.A. (via
La Perouse Strait, and north of
Aleutian Islands), 5,286
Seattle, Washington, U.S.A. (via
Osumi Kaikyo and South of
Aleutian Islands), 5,596
Seattle, Washington, U.S.A. (via
Tsugaru-Kaikyo and north of
Aleutian Islands), 5,290
Tsugaru-Kaikyo and south of
Aleutian Islands), 5,351
Shanghai, China, 720
Shimonoseki, Japan, 790
Surabaya, Indonesia, 3,174
Suva, Fiji Islands, 4,898
Sydney, Australia (via Vitiaz
Strait), 5,135
Tianjin, China, 48
Valparaiso, Chile (via Shimonoseki
Kaikyo), 10,482
Vladivostok, Russia, 1,212
Weonsan, North Korea, 1,007
Xiamen, China, 1,169
Yantai, China, 205
Yokohama, Japan (via Osumi
Kaikyo), 1,394

DAGU BAR, CHINA
(38°56'15"N., 117°58'45"E.)
Subtract 36 miles from Tianjin
distances.

DAKAR, SENEGAL
(14°41'00"N., 17°26'00"W.) to:

Junction Points*

Bishop Rock, England, 2,195
Cape of Good Hope, South
Africa, 3,610
Ile d'Ouessant, France, 2,152
Inishtrahull, Ireland, 2,546
Montreal, Canada, 3,566
Panama, Panama, 3,738
Pentland Firth, Scotland, 2,794
Punta Arenas, Chile, 4,928
Strait of Gibraltar, 1,487
Straits of Florida (via Northwest
Providence Channel), 3,768

* JUNCTION POINT.—See Preface for use of junction points

Ports

Abidjan, Ivory Coast, 1,166
 Agadir, Morocco, 1,109
 Belem, Brazil, 2,104
 Bolama, Guinea-Bissau, 272
 Bordeaux, France, 2,243
 Boston, Massachusetts, U.S.A., 3,221
 Buchanan, Liberia, 755
 Buenos Aires, Argentina, 3,864
 Cadiz, Spain, 1,500
 Cap-Haitien, Haiti, 3,154
 Cape Town, South Africa, 3,593
 Casablanca, Morocco, 1,333
 Charleston, South Carolina, U.S.A., 3,557
 Charlotte Amalie, Virgin Islands, 2,751
 Colon, Panama, 3,694
 El Ferrol del Caudillo, Spain, 1,843
 El Jadida, Morocco, 1,317
 Fedala, Morocco, 1,338
 Freetown, Sierra Leone, 496
 Funchal, Madeira Island, 1,091
 Galway, Ireland, 2,383
 Greenville, Liberia, 831
 Guantanamo, Cuba, 3,312
 Halifax, Canada, 2,956
 Horta, Azores, 1,559
 Huelva, Spain, 1,521
 Jacksonville, Florida, U.S.A., 3,650
 Kenitra, Morocco, 1,432
 Key West, Florida, U.S.A., 3,709
 Kingston, Jamaica, 3,436
 La Guaira, Venezuela, 2,911
 Larache, Morocco, 1,425
 Libreville, Gabon, 1,982
 Lisboa, Portugal, 1,544
 Marshall, Liberia, 724
 Monrovia, Liberia, 693
 Natal, Brazil, 1,620
 New York, New York, U.S.A., 3,335
 Norfolk, Virginia, U.S.A., 3,408
 Oporto, Portugal, 1,682
 Paramaribo, Suriname, 2,315
 Philadelphia, Pennsylvania, U.S.A., 3,441
 Ponta Delgada, Azores, 1,459
 Port of Spain, Trinidad, 2,628
 Port Castries, St. Lucia, 2,543
 Port Etienne, Mauritania, 394
 Portsmouth, New Hampshire, U.S.A., 3,219
 Puerto Cortes, Honduras, 4,077
 Rabat, Morocco, 1,412
 Recife, Brazil, 1,717
 Rio de Janeiro, Brazil, 2,763
 Safi, Morocco, 1,228
 San Juan, Puerto Rico, 2,812
 Santa Cruz de Tenerife, Canary Islands, 846
 Santo Domingo, Dominican Republic, 3,036
 St. John's, Canada, 2,646
 Sulima, Sierra Leone, 589
 Tangier, Morocco, 1,483
 Vigo, Spain, 1,744
 Villa Cisneros, Western Sahara, 578

DALHOUSE, CANADA
 (48°03'15"N., 66°15'00"W.) to:

Junction Points*

Grand Banks South, 770
 Fastnet Rock, Ireland (via Strait of Belle Isle), 2,183

Inishtrahull, Ireland (via Strait of Belle Isle), 2,187
 Montreal, Canada, 636
 Panama, Panama (via Windward Passage), 2,836
 Pentland Firth, Scotland (via Strait of Belle Isle), 2,282
 Punta Arenas, Chile, 7,274
 Straits of Florida, 2,164

Ports

Angmagssalik, Greenland, 1,568
 Argentia, Canada, 605
 Bordeaux, France (via Strait of Belle Isle), 2,677
 Boston, Massachusetts, U.S.A., 964
 Colon, Panama, 2,819
 Hamilton, Bermuda, 1,227
 Montevideo, Uruguay, 6,113
 Murmansk, Russia, 3,292
 New York, New York, U.S.A., 1,128
 Norfolk, Virginia, U.S.A., 1,338

DALIAN, CHINA
 (38°56'00"N., 121°39'00"E.) to:

Junction Points*

Panama, Panama (via Osumi Kaikyo), 8,843
 Panama, Panama (via Tsugaru-Kaikyo), 8,627
 Punta Arenas, Chile, 10,121
 Singapore, 2,612

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,648
 Apra, Guam, 1,974
 Auckland, New Zealand (via Vitiaz Strait), 5,489
 Auckland, New Zealand (west of New Ireland), 5,469
 Busan, South Korea (via Maenggol Sudo), 543
 Chi-lung, Taiwan, 852
 Dagou, China, 207
 Dutch Harbor, Alaska, U.S.A. (via La Perouse Strait), 3,435
 Dutch Harbor, Alaska, U.S.A. (via Tsugaru-Kaikyo), 3,437
 Gunsan, South Korea, 294
 Hakodate, Japan, 1,226
 Honolulu, Hawaii, U.S.A. (via Shimonoseki Kaikyo), 4,470
 Honolulu, Hawaii, U.S.A., 4,531
 Incheon, South Korea, 290
 Kobe, Japan, 877
 Lianyungang, China, 348
 Lo-hsing-ta Mao-ti, China, 871
 Manila, Philippines (east of Taiwan), 1,561
 Manila, Philippines (via Formosa Strait), 1,571
 Masan, South Korea, 546
 Mogpo, South Korea (via south of Kasa Do), 377
 Moji, Japan, 633
 Nampo, North Korea, 180
 Pago Pago, American Samoa, 5,035
 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 2,260
 Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 2,285
 Port Darwin, Australia, 3,204

Portland, Oregon, U.S.A., 5,240
 Qingdao, China, 277
 Qinhuangdao, China, 145
 San Francisco, California, U.S.A. (via Osumi Kaikyo), 5,697
 San Francisco, California, U.S.A. (via Tsugaru-Kaikyo), 5,456
 Seattle, Washington, U.S.A. (via La Perouse Strait and north of Aleutian Islands), 5,127
 Seattle, Washington, U.S.A. (via Osumi Kaikyo and south of Aleutian Islands), 5,437
 Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and north of Aleutian Islands), 5,131
 Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and south of Aleutian Islands), 5,192
 Shanghai, China, 560
 Sydney, Australia (via west of New Ireland), 5,015
 Sydney, Australia (via Vitiaz Strait), 4,976
 Valparaiso, Chile (via Shimonoseki Kaikyo), 10,324
 Valparaiso, Chile (via Tokara Kaikyo), 10,366
 Vladivostok, Russia, 1,057
 Weonsan, North Korea, 848
 Xiamen, China, 1,008
 Yokohama, Japan (via Osumi Kaikyo), 1,235

DALIEN, CHINA
 (38°56'00"N., 121°39'00"E.) See Dalian.

DANANG, VIETNAM
 (16°06'30"N., 108°12'00"E.) to:

Ports

Cebu, Philippines, 1,049
 Ho Chi Minh, Vietnam, 518
 Hong Kong, China, 520
 Manila, Philippines, 758

DAR ES SALAAM, TANZANIA
 (6°49'30"S., 39°17'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,330
 Port Said, Egypt, 3,238
 Singapore, 4,042

Ports

Aden, Yemen, 1,751
 Belawan, Indonesia, 3,709
 Colombo, Sri Lanka, 2,565
 Fremantle, Australia, 4,513
 Malacca, Malaysia, 3,927
 Mocambique, Mozambique, 533
 Mtwara, Tanzania, 230
 Penang, Malaysia, 3,754
 Port Darwin, Australia, 5,428
 Sabang, Indonesia, 3,443

DARTMOUTH, ENGLAND
 (50°21'00"N., 3°34'20"W.) to:

Junction Points*

Bishop Rock, England, 122
 Ile d'Ouessant, France, 135

Ports

Le Havre, France, 151

London, England, 292
 Southampton, England, 100

DARWIN, AUSTRALIA
 (12°28'30"S., 130°50'00"E.) See Port Darwin.

DAS ISLAND, UNITED ARAB EMIRATES
 (25°08'04"N., 52°55'25"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,820
 Cape Leeuwin, Australia, 5,156
 Selat Lombok, Indonesia, 4,403
 Port Said, Egypt, 3,002
 Singapore, 3,541
 Selat Sunda, Indonesia, 3,748
 Torres Strait, Australia, 6,005

Ports

Aden, Yemen, 1,613
 Belawan, Indonesia, 3,210
 Bombay, India, 1,233
 Fremantle, Australia, 5,087
 Penang, Malaysia, 3,250
 Port Sudan, 2,266

DAVAO, PHILIPPINES
 (7°04'38"N., 125°37'38"E.) to:

Junction Points*

Singapore, 1,532
 Torres Strait, Australia, 1,628

Ports

Cebu, Philippines, 439
 Hong Kong, China, 1,382
 Makasar, Sulawesi, 929
 Manila, Philippines, 831
 Sorong, Indonesia, 601

DEEPWATER POINT, NEW JERSEY, U.S.A.
 (39°41'36"N., 75°30'42"W.)
 Subtract 27 miles from Philadelphia distances.

DELFTZIJL, NETHERLANDS
 (53°20'30"N., 6°56'15"E.)
 Subtract 10 miles from Emden, Germany distances.

DEN HELDER, NETHERLANDS
 (52°58'00"N., 4°45'22"E.) to:

Junction Points*

Bishop Rock, England, 509
 Nord-Ostsee-Kanal (East Entrance), Germany, 263
 Pentland Firth, Scotland, 447

Ports

Hamburg, Germany, 249
 Rotterdam, Netherlands, 97

DERINCE, TURKEY
 (40°44'35"N., 29°49'30"E.) to:

Junction Points*

Port Said, Egypt, 837
 Strait of Gibraltar (south of Greece), 1,855

* **JUNCTION POINT.**—See Preface for use of junction points

30 DEVONPORT, ENGLAND

Strait of Gibraltar (via Corinth Canal), 1,838

Ports

Banghazi, Libya, 750
Genova, Italy (south of Greece), 1,325
Genova, Italy (via Corinth Canal), 1,283
Malaga, Spain (south of Greece), 1,785
Malaga, Spain (via Corinth Canal), 1,768
Patrai, Greece (south of Greece), 648
Patrai, Greece (via Corinth Canal), 489
Rostov-na-Donu, Russia, 685
Sfax, Tunisia, 1,081
Thessaloniki, Greece, 372

DEVONPORT, ENGLAND
(50°22'00"N., 4°11'00"W.) Add 2 miles to Plymouth distances.

DHEKELIA, CYPRUS
(34°57'58"N., 33°43'57"E.) to:

Junction Points*

Port Said, Egypt, 241
Strait of Gibraltar, 1,959

Ports

Ajaccio, Corsica, 233
Algiers, Algeria, 1,514
Bari, Italy, 978
Ceuta, Morocco, 1,921
Corfu, Greece, 819
Derince, Turkey, 763
Famagusta, Cyprus, 36
Kerch, Ukraine, 793
Egypt, 352
Moni Anchorage, Cyprus, 34
Ravenna, Italy, 1,255
Tangier, Morocco, 1,948
Taranto, Italy, 933
Thessaloniki, Greece, 690
Tunis, Tunisia, 1,172

DIAMANTE, ARGENTINA
(32°03'48"S., 60°39'24"W.) Add 286 miles to Buenos Aires distances.

DIEGO GARCIA, CHAGOS ARCHIPELAGO
(7°18'40"S., 72°28'00"E.) to:

Junction Points*

Singapore (via Ujung Masam Muka), 2,224

Ports

Aden, Yemen, 2,116
Belawan, Indonesia, 1,860
Colombo, Sri Lanka, 974
Fremantle, Australia, 2,850
Hobart, Tasmania (via D'Entrecasteaux Channel), 4,501
Malacca, Malaysia, 2,078
Penang, Malaysia, 1,905
Port Darwin, Australia, 3,483
Sabang, Indonesia, 1,594
Victoria, Seychelles, 1,032

DIEPPE, FRANCE
(49°56'58"N., 1°05'00"E.) to:

Junction Points*

Bishop Rock, England, 297
Ile d'Ouessant, France, 270

Ports

Cherbourg, France, 105
Plymouth, England, 206

DIGBY, CANADA
(44°42'38"N., 65°46'27"W.)
Subtract 76 miles from Parrsboro distances.

DIKSON, RUSSIA
(73°30'00"N., 80°28'00"E.) to:

Ports

Arkhangel'sk, Russia, 1,105
Berlevag, Norway, 1,069
Hull, England, 2,552
Longyearbyen, Svalbard, 1,148
Murmansk, Russia, 1,025
Mys Chelyuskin, Russia, 457

DJIBOUTI, DJIBOUTI
(11°36'30"N., 43°08'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,063
Port Said, Egypt, 1,374
Singapore (north of Socotra and Strait of Malacca), 3,769

Ports

Aden, Yemen, 133

DONGES, FRANCE
(47°18'18"N., 2°04'30"W.) Add 6 miles to St. Nazaire distances.

DORDRECHT, NETHERLANDS
(51°48'45"N., 4°39'15"E.) Add 9 miles to Rotterdam distances.

DOUALA, CAMEROON
(4°03'00"N., 9°41'00"E.) to:

Junction Points*

Straits of Florida, 5,526

Ports

Anecho, Togo, 526
Bata, Equatorial Guinea, 141
Boma, Congo, 742
Cabinda, Cabinda, 668
Cotonou, Benin, 486
Kribi, Cameroon, 87
Lagos, Nigeria, 442
Libreville, Gabon, 228
Mayumba, Gabon, 513
Pointe Noire, Congo, 613
Port Gentil, Gabon, 297
Sao Tome, Sao Tome, 285

DOUGLAS, ISLE OF MAN
(54°09'00"N., 4°28'00"W.) to:

Junction Points*

Bishop Rock, England, 276

Fastnet Rock, Ireland, 274
Inishtrahull, Ireland, 156
Pentland Firth, Scotland, 397

Ports

Cardiff, Wales, 246
Fishguard, Wales, 131
Holyhead, Wales, 51
Liverpool, England, 68

DOVER, ENGLAND
(51°07'00"N., 1°20'00"E.) to:

Junction Points*

Bishop Rock, England, 323
Ile d'Ouessant, France, 306
Nord-Ostsee-Kanal (East Entrance), Germany, 410
Skagens Odde, Denmark, 527

Ports

Amsterdam, Netherlands, 161
Antwerp, Belgium, 137
Bergen, Norway, 590
Bremerhaven, Germany, 341
Caen, France, 140
Cherbourg, France, 146
Egersund, Norway, 477
Emden, Germany, 284
Esbjerg, Denmark, 370
Granville, France, 181
Hamburg, Germany, 399
Kristiansand, Norway, 488
Oslo, Norway, 640
Plymouth, England, 229
Portland, England, 155
Portsmouth, England, 105
Rotterdam, Netherlands, 138
Southampton, England, 123
St. Malo, France, 228
Stavanger, Norway, 517
Wilhelmshaven, Germany, 328

DRAMMEN HARBOR, NORWAY
(59°44'18"N., 10°14'32"E.) to:

Junction Points*

Bishop Rock, England (via Dover Strait), 943
Ile d'Ouessant, France (via Dover Strait), 929
Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 358
Nord-Ostsee-Kanal (East Entrance), Germany (via The Sound), 430
Pentland Firth, Scotland, 504
Skagens Odde, Denmark, 121

Ports

Aarhus, Denmark, 250
Antwerp, Belgium, 647
Bergen, Norway, 368
Bremerhaven, Germany, 418
Calais, France, 624
Kobenhavn, Denmark, 262
London, England, 656
Narvik, Norway, 966
Wilhelmshaven, Germany, 413
Zeebrugge, Belgium, 593

DUBLIN, IRELAND
(53°20'45"N., 6°13'00"W.) to:

Junction Points*

Bishop Rock, England, 232
Fastnet Rock, Ireland, 223
Inishtrahull, Ireland, 184
Pentland Firth, Scotland, 424

Ports

Ardrossan, Scotland, 153
Avonmouth, England, 220
Barrow in Furness, England, 122
Cardiff, Wales, 205
Cobh, Ireland, 176
Londonderry, Northern Ireland, 189
Newport, Wales, 219
Port Talbot, Wales, 179
Waterford, Ireland, 113

DUBROVNIK, CROATIA
(42°38'24"N., 18°06'55"E.) to:

Junction Points*

Port Said, Egypt (south of Greece), 1,038
Port Said, Egypt (via Corinth Canal), 1,025
Strait of Gibraltar, 1,420

Ports

Bari, Italy, 108
Barletta, Italy, 113
Beirut, Lebanon, 1,092
Cartagena, Spain, 1,177
Genova, Italy, 856
Kerkira, Greece, 208
Manfredonia, Italy, 117
Rijeka, Croatia, 276
Sibenik, Croatia, 144
Venezia, Italy, 320

DUDINKA, RUSSIA
(69°24'00"N., 86°10'00"E.) Add 298 miles to Dikson distances.

DUMAI, INDONESIA
(1°42'00"N., 101°28'00"E.) to:

Junction Points*

Port Said, Egypt, 4,943
Singapore, 200

Ports

Al Basrah, Iraq, 3,824
Calcutta, India, 1,579
Cochin, India, 1,779
Colombo, Sri Lanka, 1,496
Madras, India, 1,512
Vishakhapatnam, India, 1,499

DUN LAOGHAIRE, IRELAND
(53°18'10"N., 6°07'40"W.) See Dublin.

DUNDEE, SCOTLAND
(56°27'45"N., 2°56'40"W.) to:

Junction Points*

Bishop Rock, England, 713
Ile d'Ouessant, France, 698
Nord-Ostsee-Kanal (East Entrance), Germany, 501
Pentland Firth, Scotland, 179
Skagens Odde, Denmark, 455

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>Amsterdam, Netherlands, 374 Antwerp, Belgium, 442 Bremerhaven, Germany, 437 Dunkerque, France, 402 Emden, Germany, 400 Esbjerg, Denmark, 394 Hamburg, Germany, 485 Hull, England, 240 Le Havre, France, 505 London, England, 420 Oostende, Belgium, 398 Plymouth, England, 621 Portland, England, 547 Portsmouth, England, 497 Rotterdam, Netherlands, 383 Southampton, England, 515 Wilhelmshaven, Germany, 430 Zeebrugge, Belgium, 394</p> <p>DUNEDIN, NEW ZEALAND (45°53'00"S., 170°31'00"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 2,622 Torres Strait, Australia, 2,872</p> <p>Ports</p> <p>Brisbane, Australia, 1,606 Burnie Harbor, Tasmania (via Bank Strait), 1,193 Geelong, Australia (via Banks Strait), 1,341 Hobart, Tasmania, 1,068 Melbourne, Australia, 1,309 Noumea, New Caledonia, 1,552</p> <p>DUNKERQUE, FRANCE (51°03'00"N., 2°22'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 355 Ile d'Ouessant, France, 351 Nord-Ostsee-Kanal (East Entrance), Germany, 386 Pentland Firth, Scotland, 525 Skagens Odde, Denmark, 511</p> <p>Ports</p> <p>Aberdeen, Scotland, 418 Amsterdam, Netherlands, 135 Antwerp, Belgium, 102 Bergen, Norway, 585 Bremerhaven, Germany, 321 Cherbourg, France, 179 Dundee, Scotland, 402 Egersund, Norway, 469 Emden, Germany, 264 Esbjerg, Denmark, 350 Hamburg, Germany, 374 Hartlepool, England, 281 Hull, England, 223 Inverness, Scotland, 526 Kristiansand, Norway, 475 Le Havre, France, 144 Leith, Scotland, 399 London, England, 112 Newcastle, England, 307 Oslo, Norway, 617 Plymouth, England, 264 Portland, England, 190 Portsmouth, England, 150 Southampton, England, 168 Stavanger, Norway, 510 Wilhelmshaven, Germany, 308</p>	<p>DURBAN, SOUTH AFRICA (29°52'00"S., 31°02'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 764 Port Said, Egypt, 4,567 Singapore, 4,872</p> <p>Ports</p> <p>Albany, Australia, 4,275 Bombay, India, 3,829 Colombo, Sri Lanka, 3,704 East London, South Africa, 258 Fremantle, Australia, 4,243 Karachi, Pakistan, 3,915 Malacca, Malaysia, 4,757 Maputo, Mozambique, 307 Mombasa, Kenya, 1,718 Penang, Malaysia, 4,584 Port des Galets, Reunion Island, 1,418 Port Adelaide, Australia, 5,160 Port Darwin, Australia, 5,561 Port Louis, Mauritius, 1,560 Sabang, Indonesia, 4,273 Telukbayur, Indonesia, 4,307 Zanzibar, Tanzania, 1,607</p> <p>DURRES, ALBANIA (41°18'15"N., 19°27'15"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 951 Strait of Gibraltar, 1,349</p> <p>Ports</p> <p>Crotone, Italy, 172 Manfredonia, Italy, 161 Monopoli, Italy, 100 Piraeus, Greece (via Corinth Canal), 339 Ploce, Croatia, 214 Preveza, Greece, 181 Salamis, Greece, 343 Split, Croatia, 216 Taranto, Italy, 183</p> <p>DUTCH HARBOR, ALASKA, U.S.A. (53°54'00"N., 166°30'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 5,246 Punta Arenas, Chile, 8,063 Singapore, 5,364</p> <p>Ports</p> <p>Anadyrskiy Limen, Russia, 824 Apra, Guam, 3,403 Auckland, New Zealand, 5,578 Brisbane, Australia, 5,369 Bukhta Shelihova, Kuril Islands, Russia, 1,411 Callao, Peru, 5,988 Dagu, China, 3,594 Dalian, China (via La Perouse Strait), 3,435 Dalian, China (via Tsugaru-Kaikyo), 3,437 Guayaquil, Ecuador, 5,552 Hakodate, Japan, 2,228 Ho Chi Minh, Vietnam, 4,894 Hobart, Tasmania, 6,365 Hong Kong, China, 4,026 Honolulu, Hawaii, U.S.A., 2,040 Juneau, Alaska, U.S.A., 1,136</p>	<p>Kasatka, Japan, 1,846 Kiska, Alaska, U.S.A., 596 Kobe, Japan, 2,833 Los Angeles, California, U.S.A., 2,382 Manila, Philippines (north of Luzon), 4,233 Matsuga-hana, Japan, 1,917 Melbourne, Australia, 6,321 Midway Island, 1,651 Nagasaki, Japan (South of Kyushu), 3,181 Nagasaki, Japan (via Tsugaru-Kaikyo), 3,011 Noumea, New Caledonia, 4,857 Pago Pago, American Samoa, 4,132 Papeete, French Polynesia, 4,400 Petersburg, Alaska, U.S.A., 1,215 Petrovsk-Kamchatskiy, Russia, 1,249 Port Darwin, Australia, 5,332 Prince Rupert, Canada, 1,274 Qingdao, China, 3,385 San Diego, California, U.S.A., 2,465 San Francisco, California, U.S.A., 2,051 Sand Bay, Alaska, U.S.A., 397 Sasebo, Japan (via Osumi Kaikyo), 3,207 Seattle, Washington, U.S.A., 1,707 Shanghai, China (via La Perouse Strait), 3,375 Shanghai, China (via Tsugaru-Kaikyo), 3,377 Shimonoseki, Japan, 2,892 Surabaya, Indonesia, 5,555 Suva, Fiji Islands, 4,493 Sweeper Cove, Alaska, U.S.A., 407 Sydney, Australia, 5,761 Tomari, Japan, 1,978 Truk, Caroline Islands, 3,493 Unalakleet, Alaska, U.S.A., 752 Valparaiso, Chile, 7,140 Vancouver, Canada, 1,724 Vladivostok, Russia, 2,518 Wake Island, 2,463 Whittier, Alaska, U.S.A., 817 Xiamen, China (via La Perouse Strait), 3,771 Xiamen, China (via Tsugaru-Kaikyo), 3,770 Yokohama, Japan, 2,551</p> <p>EAST LONDON, SOUTH AFRICA (33°01'30"S., 27°54'30"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 508 Port Said, Egypt, 4,830 Singapore, 5,082</p> <p>Ports</p> <p>Belawan, Indonesia, 4,749 Durban, South Africa, 258 Fremantle, Australia, 4,304 Inhambane, Mozambique, 722 Malacca, Malaysia, 4,967 Penang, Malaysia, 4,967 Port Darwin, Australia, 5,673 Port Elizabeth, South Africa, 131</p> <p>EASTER ISLAND, SOUTH PACIFIC (27°08'30"S., 109°26'30"W.) to:</p>	<p>Junction Points*</p> <p>Panama, Panama, 2,785</p> <p>Ports</p> <p>Islas Juan Fernandez, 1,633</p> <p>EGEDESMINDE, GREENLAND (68°42'33"N., 52°53'12"W.) See Asiaat</p> <p>EGERSUND, NORWAY (58°27'00"N., 6°00'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England (via English Channel), 797 Ile d'Ouessant, France, 781 Pentland Firth, Scotland, 298 Skagens Odde, Denmark, 165</p> <p>Ports</p> <p>Aberdeen, Scotland, 273 Amsterdam, Netherlands, 380 Antwerp, Belgium, 484 Bremerhaven, Germany, 312 Calais, France, 475 Cherbourg, France, 621 Dover, England, 477 Dunkerque, France, 469 Emden, Germany, 327 Esbjerg, Denmark, 226 Hamburg, Germany, 351 Hull, England, 378 Kristiansand, Norway, 86 Le Havre, France, 589 Leith, Scotland, 336 London, England, 501 Newcastle, England, 329 Oostende, Belgium, 447 Oslo, Norway, 238 Plymouth, England, 706 Portland, England, 632 Portsmouth, England, 582 Rotterdam, Netherlands, 412 Southampton, England, 600 Wilhelmshaven, Germany, 306 Zeebrugge, Belgium, 440</p> <p>EILAT, ISRAEL (29°32'42"N., 34°57'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,155 Port Said, Egypt, 381 Singapore, 4,868</p> <p>Ports</p> <p>Aden, Yemen, 1,247</p> <p>EL AAIUN, WESTERN SAHARA (27°05'37"N., 13°26'55"W.) See Aaiun.</p> <p>EL FERROL DEL CAUDILLO, SPAIN (43°28'30"N., 8°15'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 394 Ile d'Ouessant, France, 343</p>
--	---	---	--

* **JUNCTION POINT.**—See Preface for use of junction points

32 EL JADIDA, MOROCCO

Ports

Aviles, Spain, 133
 Bayonne, France, 322
 Cape Town, South Africa, 5,421
 Colon, Panama, 4,222
 Dakar, Senegal, 1,843
 Horta, Azores, 970
 Lisboa, Portugal, 356
 Natal, Brazil, 3,312
 Ponta Delgada, Azores, 870
 Puerto de Pasajes, Spain, 300
 San Sebastian, Spain, 302
 St. John's, Canada, 1,861
 Viana do Castelo, Portugal, 155

EL JADIDA, MOROCCO
 (33°15'25"N., 8°30'00"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,941
 Ile d'Ouessant, France, 998

Ports

Dakar, Senegal, 1,317
 Tangier, Morocco, 207

EL SEGUNDO, CALIFORNIA, U.S.A.
 (33°54'33"N., 118°27'31"W.) to:

Junction Points*

Panama, Panama, 2,922
 Punta Arenas, Chile, 5,883
 Singapore (via Balintang Channel), 7,642
 Singapore (via 30°N., 180° and Balintang Channel), 7,867
 Torres Strait, Australia, 6,432
 Wilson Promontory, Australia, 6,863

Ports

Guaymas, Mexico, 1,230
 Honolulu, Hawaii, U.S.A., 2,218
 Melbourne, Australia, 7,003
 Sydney, Australia, 6,506
 Talcahuano, Chile, 4,941
 Valparaiso, Chile, 4,817
 Yokohama, Japan, 4,829

EMDEN, GERMANY
 (53°21'00"N., 7°12'00"E.) to:

Junction Points*

Bishop Rock, England, 606
 Ile d'Ouessant, France, 590
 Nord-Ostsee-Kanal (East Entrance), Germany, 197
 Pentland Firth, Scotland, 484
 Skagens Odde, Denmark, 344

Ports

Aberdeen, Scotland, 394
 Antwerp, Belgium, 276
 Bergen, Norway, 457
 Bremerhaven, Germany, 128
 Cherbourg, France, 428
 Dover, England, 284
 Dundee, Scotland, 400
 Dunkerque, France, 264
 Egersund, Norway, 327
 Esbjerg, Denmark, 172
 Hamburg, Germany, 185
 Hartlepool, England, 308

Harwich, England, 252
 Hull, England, 279
 Inverness, Scotland, 487
 Kristiansand, Norway, 316
 Le Havre, France, 396
 Leith, Scotland, 403
 London, England, 318
 Newcastle, England, 329
 Oostende, Belgium, 242
 Oslo, Norway, 451
 Plymouth, England, 513
 Portland, England, 439
 Portsmouth, England, 389
 Rotterdam, Netherlands, 199
 Southampton, England, 407
 Stavanger, Norway, 376
 Wilhelmshaven, Germany, 120
 Zeebrugge, Belgium, 230

ENDERBURY ISLAND, PHOENIX ISLANDS
 (3°08'00"S., 171°06'00"W.) to:

Junction Points*

Panama, Panama, 5,599

Ports

Apia, Samoa, 641
 Apra, Guam, 2,827
 Christmas Island, Line Islands, 878
 Seattle, Washington, U.S.A., 4,047

ENIWETAK, MARSHALL ISLANDS
 (11°25'51"N., 162°21'30"E.) to:

Junction Points*

Panama, Panama, 7,086

Ports

Apra, Guam, 1,066
 Honolulu, Hawaii, U.S.A., 2,375
 Pearl Harbor, Hawaii, U.S.A., 2,347
 San Francisco, California, U.S.A., 4,282

ENSENADA, MEXICO
 (31°51'30"N., 116°38'00"W.) to:

Junction Points*

Panama, Panama, 2,791

Ports

Acapulco, Mexico, 1,369
 Los Angeles, California, U.S.A., 151
 Port Hueneme, California, U.S.A., 194

ENSTED, DENMARK
 (55°05'00"N., 9°25'00"E.) See Abenra.

ES SIDER, LIBYA
 (30°38'00"N., 18°22'00"E.) to:

Junction Points*

Port Said, Egypt, 796
 Strait of Gibraltar, 1,356

Ports

Alexandria, Egypt, 657

Algiers, Algeria, 917
 Ancona, Italy, 883
 Ashdod, Israel, 885
 Banzart, Tunisia, 585
 Beirut, Lebanon, 920
 Cartagena, Spain, 1,100
 Castellon, Spain, 1,075
 Dhekelia, Cyprus, 846
 Genova, Italy, 950
 Istanbul, Turkey, 833
 Kherson, Ukraine, 1,255
 Marsaxlokk, Malta, 360

ESBJERG, DENMARK
 (55°27'30"N., 8°26'30"E.) to:

Junction Points*

Bishop Rock, England, 688
 Ile d'Ouessant, France, 676
 Nord-Ostsee-Kanal (East Entrance), Germany, 372
 Pentland Firth, Scotland, 443
 Skagens Odde, Denmark, 234

Ports

Aberdeen, Scotland, 373
 Amsterdam, Netherlands, 255
 Antwerp, Belgium, 362
 Bergen, Norway, 361
 Cherbourg, France, 514
 Dover, England, 370
 Dundee, Scotland, 394
 Dunkerque, France, 350
 Egersund, Norway, 226
 Emden, Germany, 172
 Hamburg, Germany, 172
 Hartlepool, England, 336
 Harwich, England, 338
 Hull, England, 334
 Inverness, Scotland, 455
 Kristiansand, Norway, 206
 Le Havre, France, 482
 Leith, Scotland, 403
 London, England, 403
 Newcastle, England, 349
 Oostende, Belgium, 328
 Oslo, Norway, 341
 Plymouth, England, 599
 Portland, England, 525
 Portsmouth, England, 475
 Rotterdam, Netherlands, 287
 Southampton, England, 493
 Savanger, Norway, 278
 Wilhelmshaven, Germany, 129
 Zeebrugge, Belgium, 318

ESCRAVOS, NIGERIA
 (05°32'24"N., 4°59'42"E.) to:

Junction Points*

Bishop Rock, England, 3,902
 Cape of Good Hope, South Africa, 2,510
 Fastnet Rock, Ireland, 3,955
 Grand Banks South, 4,054
 Ile d'Ouessant, France, 3,861
 Inishtrahull, Ireland, 4246
 Panama, Panama, 5,150
 Pentland Firth, Scotland, 4,960
 Punta Arenas, Chile, 5,246
 Strait of Gibraltar, 3,201
 Straits of Florida, 5,306
 Yucatan Channel, 5,431

Ports

Abidjan, Ivory Coast, 550
 Accra, Ghana, 311
 Boma, Congo, 866

Boston, Massachusetts, U.S.A., 4,851
 Colon, Panama, 5,238
 Douala, Cameroon, 343
 Monrovia, Liberia, 1,012
 Natal, Brazil, 2,514
 New York, New York, U.S.A., 4,968
 Norfolk, Virginia, U.S.A., 5,013
 Philadelphia, Pennsylvania, U.S.A., 5,081
 Port of Spain, Trinidad, 4,022
 Sekondi, Ghana, 402
 Takoradi, Ghana, 404

ESMERALDAS, ECUADOR
 (1°01'27"N., 79°39'36"W.) to:

Junction Points*

Panama, Panama, 474
 Punta Arenas, Chile, 3,486
 Torres Strait, Australia, 8,449
 Wilson Promontory, Australia, 7,570

Ports

Acapulco, Mexico, 1,527
 Antofagasta, Chile, 1,703
 Arica, Chile, 1,484
 Callao, Peru, 909
 Coquimbo, Chile, 2,014
 Corinto, Nicaragua, 823
 Guayaquil, Ecuador, 356
 Guaymas, Mexico, 2,467
 Iquique, Chile, 1,550
 Lota, Chile, 2,388
 Monterey, California, U.S.A., 3,262
 Pisco, Peru, 1,021
 Puntarenas, Costa Rica, 614
 Salina Cruz, Mexico, 1,290
 San Diego, California, U.S.A., 2,940
 San Francisco, California, U.S.A., 3,342
 San Jose, Guatemala, 1,016
 Talcahuano, Chile, 2,368
 Valparaiso, Chile, 2,179

ESPERANCE, AUSTRALIA
 (33°52'00"S., 121°54'28"E.) to:

Junction Points*

Cape Leeuwin, Australia, 367
 Wilson Promontory, Australia, 1,266

Ports

Adelaide, Australia, 889
 Albany, Australia, 224
 Murnie, Tasmania, 1,275
 Melbourne, Australia, 1,239

EUREKA, CALIFORNIA, U.S.A.
 (40°48'00"N., 124°10'00"W.) to:

Junction Points*

Panama, Panama, 3,438
 Punta Arenas, Chile, 6,438
 Singapore (via San Bernardino Strait), 7,352
 Singapore (via 30°N., 180° and Balintang Channel), 7,532
 Torres Strait, Australia, 6,030
 Wilson Promontory, Australia, 6,843

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>Antofagasta, Chile, 4,963 Auckland, New Zealand, 5,746 Brisbane, Australia, 6,188 Guaymas, Mexico, 1,675 Ho Chi Minh, Vietnam (via Tsugaru Strait), 6,720 Honolulu, Hawaii, U.S.A., 2,080 Manzanillo, Mexico, 1,750 Valparaiso, Chile, 5,335 Zamboanga, Philippines, 6,313</p> <p>EVERETT, WASHINGTON, U.S.A. (47°58'53"N., 122°14'06"W.) Subtract 9 miles from Seattle, Washington distances.</p> <p>FAABORG, DENMARK (55°05'40"N., 10°14'22"E.) See Faborg, Denmark.</p> <p>FABORG, DENMARK (55°05'40"N., 10°14'22"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 53 Skagens Odde, Denmark, 234</p> <p>Ports</p> <p>Gdansk, Poland, 368 Goteborg, Sweden, 222 Lubeck, Germany, 102</p> <p>FAERINGEHAVN, GREENLAND (63°41'00"N., 51°34'00"W.) See Kangerluarsoruseq, Greenland.</p> <p>FALL RIVER, MASSACHUSETTS, U.S.A. (41°42'21"N., 71°10'00"W.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 6,732 Grand Banks South, 975 Panama, Panama, 2,089 Punta Arenas, Chile, 7,063 Straits of Florida, 1,264</p> <p>Ports</p> <p>Argentina, Canada, 851 Belem, Brazil, 3,393 Buenos Aires, Argentina, 6,048 Cape Town, South Africa, 6,717 Dakar, Senegal, 3,235 Halifax, Canada, 435 Libreville, Gabon, 5,217 New York, New York, U.S.A., 172 Port of Spain, Trinidad, 1,932 Recife, Brazil, 3,656 Walvisbaai, Namibia, 6,154</p> <p>FALMOUTH, ENGLAND (50°09'20"N., 5°03'30"W.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 100</p> <p>Ports</p> <p>Brest, France, 137 Cardiff, Wales, 181 Cobh, Ireland, 182</p>	<p>Dublin, Ireland, 248 Hull, England, 464 Liverpool, England, 313 London, England, 351 Plymouth, England, 37 Southampton, England, 160</p> <p>FAMAGUSTA, CYPRUS (35°07'20"N., 33°56'40"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 257 Strait of Gibraltar, 1,991</p> <p>Ports</p> <p>Alexandria, Egypt, 340 Ashdod, Israel, 203 Banghazi, Libya, 768 Marseille, France, 1,558 Piraeus, Greece, 604</p> <p>FANNING ISLAND, NORTH PACIFIC (3°51'30"N., 159°21'45"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 4,805</p> <p>Ports</p> <p>Auckland, New Zealand, 2,854 Honolulu, Hawaii, U.S.A., 1,056 Johnston Island, North Pacific, 1,032 Wellington, New Zealand, 3,114</p> <p>FARGE, GERMANY (53°12'00"N., 8°31'00"E.) Add 23 miles to Bremerhaven distances.</p> <p>FARSUND, NORWAY (58°05'40"N., 6°48'30"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 332 Skagens Odde, Denmark, 132</p> <p>Ports</p> <p>Bergen, Norway, 182 London, England, 497 Oslo, Norway, 198</p> <p>FASLANE BAY, SCOTLAND (56°04'00"N., 4°49'00"W.) Subtract 11 miles from Glasgow distances.</p> <p>FASTNET ROCK, IRELAND* (51°20'00"N., 9°36'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 149 Cape of Good Hope, South Africa, 5,880 Grand Banks South, 1,714 Ile d'Ouessant, France, 225 Inishtrahull, Ireland, 335 Panama, Panama (via Mona Passage), 4,247 Punta Arenas, Chile, 7,051 Montreal, Canada, 2,872 Pentland Firth, Scotland (via east coast of Ireland), 625 Pentland Firth, Scotland (via west coast of Ireland), 578 Strait of Gibraltar, 1,068</p>	<p>Straits of Florida, 3,761 Yucatan Channel, 4,058</p> <p>Ports</p> <p>Ardrossan, Scotland, 348 Argentina, Canada, 1,819 Avonmouth, England, 262 Baltimore, Maryland, U.S.A., 3,098 Barrow in Furness, England, 302 Belem, Brazil, 3,741 Belfast, Northern Ireland, 311 Boston, Massachusetts, U.S.A., 2,633 Cairn Ryan, Scotland, 338 Cardiff, Wales, 246 Charleston, South Carolina, U.S.A., 3,239 Charlotte Amalie, Virgin Islands, 3,279 Cienfuegos, Cuba, 3,992 Cobh, Ireland, 64 Colon, Panama, 4,243 Douglas, Isle of Man, 274 Dublin, Ireland, 223 Fishguard, Wales, 180 Fleetwood, England, 315 Funchal, Madeira Island, 1,177 Galway, Ireland, 166 Glasgow, Scotland, 395 Guantanamo, Cuba, 3,626 Halifax, Canada, 2,315 Hamilton, Bermuda, 2,655 Holyhead, Wales, 232 Jacksonville, Florida, U.S.A., 3,407 Key West, Florida, U.S.A., 3,685 Kingston, Jamaica, 3,748 La Habana, Cuba, 3,721 Limerick, Ireland, 157 Liverpool, England, 295 Londonderry, Northern Ireland (via west coast of Ireland), 371 Mathew Town, Great Inagua Island, 3,467 Miami, Florida, U.S.A., 3,554 Milford Haven, Wales, 178 New London, Connecticut, U.S.A., 2,723 New York, New York, U.S.A., 2,805 Newport, Wales, 258 Norfolk, Virginia, U.S.A., 2,977 Paramaribo, Suriname, 3,554 Philadelphia, Pennsylvania, U.S.A., 2,957 Port au Prince, Haiti, 3,619 Port Talbot, Wales, 218 Providence, Rhode Island, U.S.A., 2,712 Rio de Janeiro, Brazil, 4,873 San Juan, Puerto Rico (via Mona Passage), 3,299 Santo Domingo, Dominican Republic, 3,491 Swansea, Wales, 217 Washington, D.C., U.S.A., 3,112 Waterford, Ireland, 110 Willemstad, Curacao, 3,708 Wilmington, North Carolina, U.S.A., 3,183</p> <p>FATEH TERMINAL, UNITED ARAB EMIRATES (25°36'00"N., 54°31'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,733 Cape Leeuwin, Australia, 5,069 Selat Lombok, Indonesia, 4,314</p>	<p>Port Said, Egypt, 2,915 Singapore, 3,454 Selat Sunda, Indonesia, 3,661 Torres Strait, Australia (via South of Java), 5,863</p> <p>Ports</p> <p>Aden, Yemen, 1,526 Belawan, Indonesia, 3,123 Bombay, India, 1,146 Fremantle, Australia, 5,000 Penang, Malaysia, 3,163</p> <p>FECAMP, FRANCE (49°46'00"N., 0°21'45"E.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 246 Nord-Ostsee-Kanal (East Entrance), Germany, 482</p> <p>Ports</p> <p>Cherbourg, France, 79 Plymouth, England, 183 Rotterdam, Netherlands, 228</p> <p>FELIXSTOWE, ENGLAND (51°56'56"N., 1°19'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 377 Ile d'Ouessant, France, 303 Nord-Ostsee-Kanal (East Entrance), Germany, 377 Pentland Firth, Scotland, 460 Skagens Odde, Denmark, 478</p> <p>Ports</p> <p>Amsterdam, Netherlands, 144 Antwerp, Belgium, 141 Bergen, Norway, 544 Emden, Germany, 251 Rotterdam, Netherlands, 121 Stavanger, Norway, 477 Wilhelmshaven, Germany, 300</p> <p>FELTON, CUBA (20°50'00"N., 75°44'00"W.) See Antilla.</p> <p>FERNANDINA, FLORIDA, U.S.A. (30°41'00"N., 81°27'40"W.) to:</p> <p>Ports</p> <p>Nassau, Bahamas, 450 San Juan, Puerto Rico, 1,115</p> <p>FERNANDO DE NORONHA, BRAZIL (3°50'00"S., 32°25'00"W.) to:</p> <p>Ports</p> <p>Kingston, St. Vincent, 1,320 New York, New York, U.S.A., 3,517 Recife, Brazil, 300 Santos, Brazil, 1,560</p> <p>FETHIYE, TURKEY (36°37'30"N., 29°07'20"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 375</p>
---	--	--	--

* JUNCTION POINT.—See Preface for use of junction points

34 FIGUERA DA FOZ, PORTUGAL

Strait of Gibraltar, 1,712

Ports

Ashdod Yam, Israel, 416
Banghazi, Libya, 548
Piraeus, Greece, 305

FIGUERA DA FOZ, PORTUGAL
(40°08'23"N., 8°52'38"W.) to:

Junction Points*

Bishop Rock, England, 598
Cape of Good Hope, South Africa, 5,236
Fastnet Rock, Ireland, 674
Grand Banks South, 1,840
Ile d'Ouessant, France, 565
Inishtrahull, Ireland, 970
Panama, Panama, 4,178
Pentland Firth, Scotland, 1,224
Punta Arenas, Chile, 6,483
Strait of Gibraltar, 386
Straits of Florida, 3,779

Ports

Cadiz, Spain, 341
Conakey, Guinea, 2,045
Dakar, Senegal, 1,616
Freetown, Sierra Leone, 2,105
Funchal, Madeira Island, 594
Lisboa, Portugal, 109
New York, New York, U.S.A., 2,904
Ponta Delgada, Azores, 795
Recife, Brazil, 3,232
Tangier, Morocco, 385

FISHGUARD, WALES
(52°00'30"N., 4°58'30"W.) to:

Junction Points*

Bishop Rock, England, 161
Fastnet Rock, Ireland, 180
Pentland Firth, Scotland, 497

Ports

Avonmouth, England, 145
Barrow in Furness, England, 157
Belfast, Northern Ireland, 182
Brest, France, 274
Cardiff, Wales, 130
Cherbourg, France, 306
Cobh, Ireland, 131
Douglas, Isle of Man, 131
Glasgow, Scotland, 247
London, England, 523
Southampton, England, 343
Swansea, Wales, 100

FIUMICINO, ITALY
(41°44'5"N., 12°09'37"E.) to:

Junction Points*

Port Said, Egypt, 1,217
Strait of Gibraltar, 918

Ports

Ajaccio, Corsica, 187
Antalya, Turkey, 1,067
Banzart, Tunisia, 273
Bar, Montenegro, 608
Cartagena, Spain, 664
Corinth Canal (west side, Korinthos), Greece, 645

Genova, Italy, 217
Iraklion, Kriti, 771
Kerch, Ukraine, 1,513
La Nouvelle, France, 423
Mersa El Hamra, Egypt, 1,058
Mitilini, Greece, 875
Oran, Algeria, 710
P'ot'i, Georgia, 1,675
Ravenna, Italy, 866
Tunis, Tunisia, 296

FLEETWOOD, ENGLAND
(53°55'00"N., 3°00'00"W.) to:

Junction Points*

Bishop Rock, England, 307
Fastnet Rock, Ireland, 315
Inishtrahull, Ireland, 189
Pentland Firth, Scotland, 437

Ports

Southampton, England, 485

FLEKKEFJORDEN, NORWAY
(58°17'35"N., 6°39'30"E.) to:

Junction Points*

Pentland Firth, Scotland, 325
Skagens Odde, Denmark, 155

Ports

Bergen, Norway, 170
London, England, 479
Oslo, Norway, 219

FLENSBURG, GERMANY
(54°47'50"N., 9°26'15"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 52
Skagens Odde, Denmark, 260

Ports

Gdynia, Poland, 358
Goteborg, Sweden, 272
Lubeck, Germany, 131

FLORIDA STRAITS, U.S.A.
(24°25'00"N., 83°00'00"W.) See Straits of Florida.

FLOTTA TERMINAL, SCOTLAND
(58°52'14"N., 3°06'42"W.) See Scapa Flow.

FLUSHING, NETHERLANDS
(51°26'30"N., 3°36'00"E.) See Vlissingen.

FLYING FISH COVE, CHRISTMAS ISLAND
(10°25'00"S., 105°43'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,923
Cape Leeuwin, Australia, 1,540
Selat Lombok, Indonesia, 603
Selat Sunda, Indonesia, 281

Ports

Colombo, Sri Lanka, 1,888

FORCADOS OFFSHORE TERMINAL, NIGERIA
(5°10'00"N., 5°08'45"E.) to:

Junction Points*

Bishop Rock, England, 3,908
Cape of Good Hope, South Africa, 2,495
Fastnet Rock, Ireland, 3,961
Grand Banks South, 4,060
Ile d'Ouessant, France, 3,868
Inishtrahull, Ireland, 4,252
Panama, Panama, 5,153
Pentland Firth, Scotland, 4,956
Punta Arenas, Chile, 5,234
Strait of Gibraltar, 3,208
Straits of Florida, 5,312
Yucatan Channel, 5,437

Ports

Abidjan, Ivory Coast, 566
Accra, Ghana, 320
Boston, Massachusetts, U.S.A., 4,843
Dakar, Senegal, 1,653
Freetown, Sierra Leone, 1,207
Lisboa, Portugal, 3,220
Natal, Brazil, 2,536
New York, New York, U.S.A., 4,905
Philadelphia, Pennsylvania, U.S.A., 5,080
Port of Spain, Trinidad, 4,114
Porto Grande, Cape Verde Islands, 2,745
Takoradi, Ghana, 416

FORT DAUPHIN, MADAGASCAR
(25°01'00"S., 47°01'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 1,614
Port Said, Egypt, 4,035
Singapore, 3,975

Ports

Belawan, Indonesia, 3,642
Fremantle, Australia, 3,593
Malacca, Malaysia, 3,860
Penang, Malaysia, 3,687
Port Darwin, Australia, 4,775
Sabang, Indonesia, 3,376

FORT DE FRANCE, MARTINIQUE
(14°36'00"N., 61°04'15"W.) to:

Junction Points*

Panama, Panama, 1,202
Straits of Florida, 1,389

Ports

Baltimore, Maryland, U.S.A., 1,718
Bordeaux, France, 3,607
Boston, Massachusetts, U.S.A., 1,799
Bridgetown, Barbados, 130
Cienfuegos, Cuba, 1,240
Colon, Panama, 1,159
Kingstown, St. Vincent, 89
La Habana, Cuba (via Mona Passage and Old Bahama Channel), 1,350

New York, New York, U.S.A., 1,717
Norfolk, Virginia, U.S.A., 1,597
Nuevitas, Cuba, 1,035
Philadelphia, Pennsylvania, U.S.A. (via Anegada Channel), 1,724
Pointe a Pitre, Guadeloupe, 108
Ponce, Puerto Rico, 381
Port Castries, St. Lucia, 37
Roseau, Dominica, 50
San Juan, Puerto Rico, 385
Santiago de Cuba, Cuba, 951
Willemstad, Curacao, 495

FORT LAUDERDALE, FLORIDA, U.S.A.
(26°05'36"N., 80°04'48"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,697
Grand Banks South, 1,778
Panama, Panama, 1,236
Punta Arenas, Chile, 6,874
Strait of Gibraltar, 3,778
Straits of Florida, 238

Ports

Cape Town, South Africa, 6,688
Elizabeth Harbor, Bahamas, 283
Georgetown, Guyana, 1,894
Hamilton, Bermuda, 883
Kingston, Jamaica, 769
La Habana, Cuba, 236
Lagos, Nigeria, 5,069
Matadi, Congo, 5,758
Port of Spain, Trinidad, 1,504
Recife, Brazil, 3,459
San Juan, Puerto Rico, 900

FORT-LIBERATE, HAITI
(19°41'30"N., 71°50'20"W.) to:

Junction Points*

Panama, Panama, 881
Straits of Florida, 692

Ports

New York, New York, U.S.A., 1,283
Nuevitas, Cuba, 339
San Juan, Puerto Rico, 373

FORTALEZA, BRAZIL
(3°42'00"S., 38°31'00"W.) to:

Junction Points*

Punta Arenas, Chile, 3,654

Ports

Belem, Brazil, 685
New York, New York, U.S.A., 3,304
Recife, Brazil, 425

FRAY BENTOS, URUGUAY
(33°06'58"S., 58°19'57"W.) Add 213 miles to Montevideo distances or 145 miles to Buenos Aires distances.

FREDERICIA, DENMARK
(55°33'45"N., 9°45'35"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 85 Skagens Odde, Denmark, 169</p> <p>Ports</p> <p>Gdynia, Poland, 384 Goteborg, Sweden, 181 Lubeck, Germany, 155</p> <p>FREDERICKSHAAB, GREENLAND (61°59'00"N., 49°43'00"W.) See Paamuit, Greenland.</p> <p>FREDERIKSHAVN, DENMARK (57°26'00"N., 10°33'15"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 200 Skagens Odde, Denmark, 24</p> <p>Ports</p> <p>Arkhangel'sk, Russia, 1,805 Gdynia, Poland, 395 Kobenhavn, Denmark, 142 Lubeck, Germany, 170</p> <p>FREDERIKSTED, ST. CROIX (17°43'00"N., 64°53'20"W.) to:</p> <p>Ports</p> <p>Roseau, Dominica, 252</p> <p>FREDRIKSTAD, NORWAY (59°12'10"N., 10°57'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 918 Ile d'Ouessant, France, 904 Nord-Ostsee-Kanal (East Entrance) (via Store Baelt), Germany, 330 Nord-Ostsee-Kanal (East Entrance) (via The Sound), Germany, 402 Pentland Firth, Scotland, 488 Skagens Odde, Denmark, 93</p> <p>Ports</p> <p>Bergen, Norway, 335 Oslo, Norway, 57</p> <p>FREEPORT, BAHAMAS (26°31'00"N., 78°46'45"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama (via Windward Passage), 1,280 Straits of Florida, 278 Yucatan Channel, 456</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 841 Jacksonville, Florida, U.S.A., 304 La Habana, Cuba, 286 Philadelphia, Pennsylvania, U.S.A., 890 San Juan, Puerto Rico, 872 Wilmington, North Carolina, U.S.A., 487</p>	<p>FREETOWN, SIERRA LEONE (08°30'00"N., 13°14'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 2,673 Cape of Good Hope, South Africa, 3,190 Ile d'Ouessant, France, 2,630 Inishtrahull, Ireland, 3,024 Montreal, Canada, 4,019 Pentland Firth, Scotland, 3,272 Punta Arenas, Chile, 4,731 Strait of Gibraltar, 1,966 Straits of Florida, 4,137 Yucatan Channel, 4,229</p> <p>Ports</p> <p>Accra, Ghana, 955 Banjul, Gambia, 450 Boston, Massachusetts, U.S.A., 3,656 Buenos Aires, Argentina, 3,712 Cadiz, Spain, 1,979 Cape Town, South Africa, 3,164 Casablanca, Morocco, 1,812 Colon, Panama, 3,976 Dakar, Senegal, 496 Funchal, Madeira Island, 1,573 Georgetown, Ascension Island, 996 Guantanamo, Cuba, 3,650 Huelva, Spain, 1,999 Key West, Florida, U.S.A., 4,076 Las Palmas, Canary Islands, 1,317 Lisboa, Portugal, 2,023 Marshall, Liberia, 293 Monrovia, Liberia, 264 Natal, Brazil, 1,569 New York, New York, U.S.A., 3,757 Norfolk, Virginia, U.S.A., 3,821 Oporto, Portugal, 2,161 Philadelphia, Pennsylvania, U.S.A., 3,862 Pointe Noire, Congo, 1,788 Ponta Delgada, Azores, 1,941 Port of Spain, Trinidad, 2,896 Port Harcourt, Nigeria, 1,397 Porto Grande, Cape Verde Islands, 871 Portsmouth, New Hampshire, U.S.A., 3,654 Recife, Brazil, 1,632 Rio de Janeiro, Brazil, 2,613 San Juan, Puerto Rico, 3,141 Santa Cruz de Tenerife, Canary Islands, 1,342 St. Helena Island, 1,564 Takoradi, Ghana, 859 Vigo, Spain, 2,223</p> <p>FREMANTLE, AUSTRALIA (32°03'00"S., 115°44'20"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,755 Cape Leeuwin, Australia, 181 Selat Lombok, Indonesia, 1,440 Port Said, Egypt, 6,310 Selat Sunda, Indonesia, 1,691 Torres Strait, Australia, 2,531</p> <p>Ports</p> <p>Aden, Yemen (north of Chagos Archipelago), 4,921 Al Basrah, Iraq, 5,440 Al Manamah, Bahrain, 5,203 Albany, Australia, 349</p>	<p>Beira, Mozambique, 4,351 Berbera, Somalia, 4,933 Bombay, India, 3,986 Bushehr, Iran, 5,259 Calcutta, India (via west of Sumatra), 3,693 Calicut, India, 3,484 Colombo, Sri Lanka, 3,122 Dar es Salaam, Tanzania, 4,513 Diego Garcia, Chagos Archipelago, 2,850 Durban, South Africa, 4,244 East London, South Africa, 4,304 Fort Dauphin, Madagascar, 3,593 Geraldton, Australia, 213 Kakinada, India, 3,515 Karachi, Pakistan, 4,446 Madras, India, 3,393 Majunga, Madagascar, 4,132 Maputo, Mozambique, 4,283 Mocambique, Mozambique, 4,367 Mombasa, Kenya, 4,564 Mosselbaai, South Africa, 4,525 Port Darwin, Australia, 1,847 Port Louis, Mauritius (north of Mauritius), 3,202 Port Louis, Mauritius (south of Mauritius), 3,217 Rangoon, Burma (west of Sumatra), 3,248 Sabang, Indonesia, 2,601 Surabaya, Indonesia (via Bali Strait and north of Madura), 1,674 Surabaya, Indonesia (via Bali Strait and south of Madura), 1,627 Tamatave, Madagascar, 3,650 Tanga, Tanzania, 4,583 Tjilatjap, Indonesia, 1,519 Victoria, Seychelles, 3,752 Wyndham, Australia, 1,780 Yampi Sound, Australia, 586 Zanzibar, Tanzania, 4,536</p> <p>FU-CHOU, CHINA (26°03'30"N., 119°19'00"E.) See Fuzhou, China.</p> <p>FUJAYRAH, UNITED ARAB EMIRATES (25°09'00"N., 56°26'45"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,645 Cape Leeuwin, Australia, 4,909 Selat Lombok, Indonesia, 4,127 Port Said, Egypt, 2,447 Singapore, 3,356 Selat Sunda, Indonesia, 3,509 Torres Strait, Australia, 5,701</p> <p>Ports</p> <p>Aden, Yemen, 1,377 Belawan, Indonesia, 2,973 Calcutta, India, 2,961 Fremantle, Australia, 7,614 Penang, Malaysia, 3,007</p> <p>FUNAFUTI, TUVALU (8°30'45"S., 179°12'15"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,217</p> <p>Ports</p> <p>Apia, Samoa, 632</p>	<p>Apra, Guam, 2,455 Brisbane, Australia, 1,895 Hong Kong, China, 4,247 Honolulu, Hawaii, U.S.A., 2,249 Jaluit, Marshall Islands, 1,041 Midway Island, 2,220 Noumea, New Caledonia, 1,132 Papeete, French Polynesia, 1,910 San Francisco, California, U.S.A., 4,295 Seattle, Washington, U.S.A., 4,640</p> <p>FUNCHAL, MADEIRA ISLAND (32°38'00"N., 16°54'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,136 Cape of Good Hope, South Africa, 4,689 Fastnet Rock, Ireland, 1,177 Ile d'Ouessant, France, 1,089 Inishtrahull, Ireland, 1,466 Montreal, Canada, 2,850 Pentland Firth, Scotland, 1,714 Punta Arenas, Chile, 5,894 Strait of Gibraltar, 589 Straits of Florida, 3,503</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 3,028 Banjul, Gambia, 1,182 Bordeaux, France, 1,192 Boston, Massachusetts, U.S.A., 2,604 Brest, France, 1,110 Buenos Aires, Argentina, 4,823 Cadiz, Spain, 579 Cape Town, South Africa, 4,680 Casablanca, Morocco, 476 Colon, Panama, 3,742 Dakar, Senegal, 1,091 Freetown, Sierra Leone, 1,573 Guantanamo, Cuba, 3,194 Horta, Azores, 677 Huelva, Spain, 578 Key West, Florida, U.S.A., 3,445 Kingston, Jamaica, 3,349 Las Palmas, Canary Islands, 282 Lisboa, Portugal, 532 New York, New York, U.S.A. (direct), 2,761 Norfolk, Virginia, U.S.A., 2,907 Oporto, Portugal, 650 Philadelphia, Pennsylvania, U.S.A., 2,901 Plymouth, England, 1,234 Ponta Delgada, Azores, 550 Port of Spain, Trinidad, 2,819 Porto Grande, Cape Verde Islands, 1,043 Praia, Cape Verde Islands, 1,128 Rio de Janeiro, Brazil, 3,722 San Juan, Puerto Rico, 2,773 Santa Cruz de Tenerife, Canary Islands, 258 Tangier, Morocco, 588 Vigo, Spain, 702</p> <p>FUZHOU, CHINA (26°03'30"N., 119°19'00"E.) Fuzhou is 9 miles above Lo hsing-ta Mao-ti, on the River Min. See Lo hsing-ta Mao-ti.</p> <p>GAETA, ITALY (41°13'00"N., 13°35'00"E.) to:</p>
---	--	---	--

* **JUNCTION POINT.**—See Preface for use of junction points

36 GALEOTA POINT, TRINIDAD

<p>Junction Points*</p> <p>Port Said, Egypt, 1,150 Strait of Gibraltar, 986</p> <p>Ports</p> <p>Livorno, Italy, 228 Messina, Sicily, 209 Tunis, Tunisia, 315</p> <p>GALEOTA POINT, TRINIDAD (10°07'55"N., 61°00'55"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,603 Cape of Good Hope, South Africa, 5,320 Panama, Panama, 1,273 Punta Arenas, Chile, 5,365 Strait of Gibraltar, 3,367 Straits of Florida (via Mona Passage), 1,588 Yucatan Channel, 1,595</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 1,983 Campeche, Mexico, 2,107 Jacksonville, Florida, U.S.A., 1,748 La Habana, Cuba (via Mona Passage and Old Bahama Channel), 1,548 Philadelphia, Pennsylvania, U.S.A., 1,999 San Juan, Puerto Rico, 637 Veracruz, Mexico, 2,236 Willemstad, Curacao, 542</p> <p>GALLE, SRI LANKA (6°01'45"N., 80°13'20"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 1,502</p> <p>Ports</p> <p>Bombay, India, 944 Calicut, India, 437 Karachi, Pakistan, 1,393 Trincomalee, Sri Lanka, 255</p> <p>GALLIPOLI, ITALY (40°02'00"N., 17°59'00"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 908 Strait of Gibraltar, 1,246</p> <p>Ports</p> <p>Durres, Albania, 137 Izmir, Turkey (south of Greece), 606 Messina, Sicily, 201</p> <p>GALVESTON, TEXAS, U.S.A. (29°19'00"N., 94°47'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,536 Straits of Florida, 698 Yucatan Channel, 696</p>	<p>Ports</p> <p>Barranquilla, Colombia, 1,577 Belize, Belize, 935 Campeche, Mexico, 617 Carmen, Mexico, 661 Cartagena, Colombia, 1,583 Cienfuegos, Cuba, 989 Coatzacoalcas, Mexico, 680 La Habana, Cuba, 769 Limon, Costa Rica, 1,394 Maracaibo, Venezuela, 1,810 Puerto Barrios, Guatemala, 1,041 Puerto Cabello, Venezuela, 1,899 Puerto Cortes, Honduras, 1,001 San Juan del Norte, Nicaragua (via inside route), 1,344 Santa Marta, Colombia, 1,588 Tampico, Mexico, 473 Tuxpan, Mexico, 530 Veracruz, Mexico, 623</p> <p>GALWAY, IRELAND (53°15'00"N., 9°03'00"W.) to:</p> <p>Junction Points*</p> <p>Fastnet Rock, Ireland, 166 Inishtrahull, Ireland, 231 Strait of Gibraltar, 1,184</p> <p>Ports</p> <p>Dakar, Senegal, 2,383 Natal, Brazil, 3,786 St. John's, Canada, 1,678 Tromso, Norway, 1,352</p> <p>GAMBA, GABON (2°49'32"S., 9°56'46"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 4,255 Cape of Good Hope, South Africa, 1,967 Fastnet Rock, Ireland, 4,307 Grand Banks South, 4,407 Ile d'Ouessant, France, 3,835 Inishtrahull, Ireland, 4,598 Panama, Panama, 5,099 Pentland Firth, Scotland, 5,321 Punta Arenas, Chile, 5,051 Strait of Gibraltar, 3,554 Straits of Florida, 5,659 Yucatan Channel, 5,784</p> <p>Ports</p> <p>Accra, Ghana, 789 Cape Town, South Africa, 1,943 Dakar, Senegal, 2,045 Douala, Cameroon, 459 Freetown, Sierra Leone, 1,588 Monrovia, Liberia, 1,363 New York, New York, U.S.A., 5,330 Sao Tome, Sao Tome, 260 Takoradi, Ghana, 1,051</p> <p>GAVLE, SWEDEN (60°41'28"N., 17°13'50"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 615 Skagens Odde, Denmark, 676</p> <p>Ports</p> <p>Gdynia, Poland, 438</p>	<p>Helsinki, Finland, 292 Riga, Latvia, 355 Stockholm, Sweden, 153</p> <p>GDANSK, POLAND (54°22'00"N., 18°40'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 344 Skagens Odde, Denmark (via Store Baelt), 533 Skagens Odde, Denmark (via The Sound), 418</p> <p>Ports</p> <p>Assens, Denmark, 370 Faborg, Denmark, 368 Kobenhavn, Denmark, 468 Oslo, Norway (via Store Baelt), 657 Oslo, Norway (via The Sound), 540 Szczecin, Poland, 240</p> <p>GDYNIA, POLAND (54°32'00"N., 18°33'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 339 Skagens Odde, Denmark, 528</p> <p>Ports</p> <p>Aalborg, Denmark (via The Sound), 389 Flensburg, Germany, 358 Fredericia, Denmark, 384 Frederikshavn, Denmark, 395 Gavle, Sweden, 438 Grena, Denmark, 361 Hamina, Finland, 512 Hango, Finland, 356 Helsinki, Finland, 415 Kobenhavn, Denmark, 464 Korsor, Denmark, 344 Kyndbyvaerkets, Denmark, 334 Lubeck, Germany, 328 Masnedssund, Denmark, 330 Middlefart, Denmark, 396 Muskö Island, Sweden, 288 Naestved, Denmark, 383 Nakskov, Denmark, 335 Odense, Denmark, 438 Oxelosund, Sweden, 266 Peenemunde, Germany, 220 Pitea, Sweden, 687 Porkkala, Finland, 412 Randers, Denmark, 403 Ruch'i, Russia, 530 Sassnitz, Germany, 203 Sonderborg, Denmark, 360 Stralsund, Germany, 245 Sundsvall, Sweden, 507 Tallinn, Estonia, 392 Travemunde, Germany, 307 Umea, Sweden, 574 Ventspils, Latvia, 204</p> <p>GEBE ISLAND, INDONESIA (0°03'50"S., 129°22'44"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 2,187 Selat Lombok, Indonesia, 1,078 Panama, Panama, 9,116</p>	<p>Singapore (via Karimata Strait), 2,019 Torres Strait, Australia, 1,062 Selat Wetar, Indonesia, 680</p> <p>Ports</p> <p>Anchorage, Alaska, U.S.A., 5,529 Balikpapan, Kalimantan, 1,276 Hong Kong, China, 1,783 Jakarta, Indonesia, 1,686 Manila, Philippines, 2,531 San Francisco, California, U.S.A., 6,260</p> <p>GEELONG, AUSTRALIA (38°08'00"S., 144°22'00"E.) Add 6 miles to Melbourne distances.</p> <p>GELA, ITALY (37°03'35"N., 14°13'52"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 981 Strait of Gibraltar, 968</p> <p>Ports</p> <p>Ajaccio, Corsica, 417 Antalya, Turkey, 847 Bar, Montenegro, 443 Bat'umi, Georgia, 1,439 Canakkle, Turkey, 719 Constanta, Romania, 1,049 Famagusta, Cyprus, 1,012 Jaffa, Israel, 1,061 Malaga, Spain, 899 Marseille, France, 584 Thessaloniki, Greece, 749 Tubruq, Libya, 577</p> <p>GELIBOLU, TURKEY (40°24'18"N., 26°40'00"E.) Subtract 113 miles from Istanbul distances for ports outside the Black Sea and Sea of Marmara.</p> <p>GEMLICK, TURKEY (40°25'46"N., 29°09'06"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 805 Strait of Gibraltar (south of Greece), 1,841</p> <p>Ports</p> <p>Alexandria, Egypt, 722 Barcelona, Spain, 1,469 Beirut, Lebanon, 810 Canakkle, Turkey, 133 Napoli, Italy, 974 Oran, Algeria, 1,580 Piraeus, Greece, 352 Tangiers, Morocco, 1,824 Tarabulus, Libya, 948 Toulon, France, 1,343 Volos, Greece, 324 Zelinika, Montenegro, 868</p> <p>GENERAL SANTOS CITY, PHILIPPINES (6°06'15"N., 125°10'07"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 2,048 Selat Lombok, Indonesia, 1,096 Panama, Panama, 9,384 Punta Arenas, Chile, 8,757</p>
---	--	--	--

* JUNCTION POINT.—See Preface for use of junction points

Singapore, 1,431
Selat Sunda, Indonesia, 1,570

Ports

Cebu, Philippines, 450
Honolulu, Hawaii, U.S.A., 4,583
Makassar, Sulawesi, 840
Manila, Philippines, 773
Manzanillo, Mexico, 7,702
Monterey, California, U.S.A., 6,402

GENOVA, ITALY
(44°23'52"N., 8°55'20"E.) to:

Junction Points*

Port Said, Egypt, 1,426
Strait of Gibraltar, 868

Ports

Ajaccio, Corsica, 170
Alexandria, Egypt, 1,316
Algiers, Algeria, 531
Alicante, Spain, 564
Ancona, Italy, 1,010
Annaba, Algeria, 458
Banghazi, Libya, 912
Banzart, Tunisia, 437
Barcelona, Spain, 356
Bari, Italy, 810
Bastia, Corsica, 108
Beirut, Lebanon, 1,508
Bonifacio, Corsica, 199
Brindisi, Italy, 752
Cagliari, Sardinia, 359
Cannes, France, 107
Cartagena, Spain, 616
Catania, Sicily, 535
Ceuta, Morocco, 849
Civitavecchia, Italy, 191
Derince, Turkey (south of Greece), 1,325
Derince, Turkey (via Corinth Canal), 1,283
Dubrovnik, Croatia, 856
Gibraltar, 850
Golfe-Juan, France, 101
Haifa, Israel, 1,505
Hyeres, France, 147
Iraklion, Kriti, 991
Istanbul, Turkey (south of Greece), 1,291
Istanbul, Turkey (via Corinth Canal), 1,250
Izmir, Turkey (south of Greece), 1,137
Izmir, Turkey (via Corinth Canal), 1,095
Malaga, Spain, 798
Marseille, France, 204
Messina, Sicily, 492
Napoli, Italy, 338
Nice, France, 89
Odessa, Ukraine (south of Greece), 1,639
Odessa, Ukraine (via Corinth Canal), 1,598
Olbia, Sardinia, 221
Oran, Algeria, 686
Palermo, Sicily, 431
Palma, Balearic Islands, 448
Piraeus, Greece (south of Greece), 978
Piraeus, Greece (via Corinth Canal), 896
Port St. Louis du Rhone, France, 221
Porto Vecchio di Piombino, Italy, 116

Rijeka, Croatia, 1,085
Sete, France, 266
Sibenik, Croatia, 958
Siracusa, Sicily, 557
Split, Croatia, 943
St. Raphael, France, 118
Tarabulus, Libya, 719
Taranto, Italy, 705
Thessaloniki, Greece (south of Greece), 1,186
Thessaloniki, Greece (via Corinth Canal), 1,144
Toulon, France, 171
Trieste, Italy, 1,118
Tubruq, Libya, 1,048
Tunis, Tunisia, 472
Valencia, Spain, 512
Valletta, Malta, 584
Venezia, Italy, 1,128
Villefranche, France, 88
Volos, Greece (south of Greece), 1,127
Volos, Greece (via Corinth Canal), 1,085

GEORGETOWN, ASCENSION ISLAND
(7°55'00"S., 14°25'00"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,409

Ports

Boma, Congo, 1,608
Colon, Panama, 4,181
Freetown, Sierra Leone, 996
Lagos, Nigeria, 1,375
Luanda, Angola, 1,657
Malabo, Equatorial Guinea, 1,561
Montevideo, Uruguay, 2,824
New York, New York, U.S.A., 4,395
Philadelphia, Pennsylvania, U.S.A., 4,469
Recife, Brazil, 1,226
Rio de Janeiro, Brazil, 1,900
St. Helena Island, 707

GEORGETOWN, GUYANA
(6°49'00"N., 58°10'00"W.) to:

Junction Points*

Bishop Rock, England, 3,643
Cape of Good Hope, South Africa, 5,026
Inishtrahull, Ireland, 3,779
Montreal, Canada, 3,077
Panama, Panama, 1,558
Pentland Firth, Scotland, 4,001
Punta Arenas, Chile (east of South America), 5,030
Strait of Gibraltar, 3,358
Straits of Florida (via Mona Passage), 1,869
Yucatan Channel, 1,846

Ports

Baltimore, Maryland, U.S.A., 2,211
Belem, Brazil, 896
Boston, Massachusetts, U.S.A., 2,282
Bridgetown, Barbados, 389
Buenos Aires, Argentina, 3,954
Charlotte Amalie, Virgin Islands, 814
Colon, Panama, 1,515
Elizabeth Harbor, Bahamas, 1,484

Guantanamo, Cuba, 1,316
Hamilton, Bermuda, 1,591
Horta, Azores, 2,488
Jacksonville, Florida, U.S.A., 1,980
Key West, Florida, U.S.A., 1,818
Kingston, Jamaica, 1,334
La Habana, Cuba, 1,830
Limon, Costa Rica, 1,547
Lisboa, Portugal, 3,264
Miami, Florida, U.S.A., 1,788
Montevideo, Uruguay, 3,840
Natal, Brazil, 1,630
New York, New York, U.S.A., 2,217
Norfolk, Virginia, U.S.A., 2,090
Paramaribo, Suriname, 215
Philadelphia, Pennsylvania, U.S.A., 2,223
Pointe a Pitre, Guadeloupe, 606
Port of Spain, Trinidad, 376
Port Castries, St. Lucia, 482
Portsmouth, New Hampshire, U.S.A., 2,284
Puerto Cortes, Honduras, 1,933
Recife, Brazil, 1,781
Rio de Janeiro, Brazil, 2,853
Salvador, Brazil, 2,172
San Juan, Puerto Rico, 876
Sint Nicolaashaven, Aruba, 856
St. John's, Antigua, 689
Wilmington, North Carolina, U.S.A., 2,011

GERALDTON, AUSTRALIA
(28°47'00"S., 114°35'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 356
Selat Lombok, Indonesia, 1,242
Selat Sunda, Indonesia, 1,494

Ports

Albany, Australia, 525
Fremantle, Australia, 213
Port Darwin, Australia, 1,638

GHAZAOUET, ALGERIA
(35°06'18"N., 1°51'30"W.) to:

Junction Points*

Port Said, Egypt, 1,784
Strait of Gibraltar, 199

Ports

Algiers, Algeria, 278
Alicante, Spain, 209
Malaga, Spain, 158

GHEENT, BELGIUM
(51°03'00"N., 3°44'00"E.)
Subtract 17 miles from Antwerp distances.

GIBARA, CUBA
(21°06'30"N., 76°07'00"W.) to:

Junction Points*

Straits of Florida, 447

Ports

Charleston, South Carolina, U.S.A., 806
New York, New York, U.S.A., 1,216
Nuevitas, Cuba, 82

Port Antonia, Jamaica, 323

GIBRALTAR
(36°08'00"N., 6°21'30"W.) to:

Junction Points*

Port Said, Egypt, 1,925
Strait of Gibraltar, 24

Ports

Alexandria, Egypt, 1,805
Algiers, Algeria, 420
Alicante, Spain, 300
Ancona, Italy, 1,563
Annaba, Algeria, 658
Banghazi, Libya, 1,338
Barcelona, Spain, 516
Bari, Italy, 1,356
Beirut, Lebanon, 2,017
Brindisi, Italy, 1,298
Cartagena, Spain, 241
Genova, Italy, 850
Guantanamo, Cuba (via Turks Island Passage), 3,767
Haifa, Israel, 2,014
Iraklion, Kriti, 1,499
Istanbul, Turkey, 1,804
Izmir, Turkey (south of Greece), 1,650
La Spezia, Italy, 873
Livorno, Italy, 869
Marseille, France, 693
Messina, Sicily, 1,031
Napoli, Italy, 983
Odessa, Ukraine, 2,152
Oran, Algeria, 237
Palermo, Sicily, 922
Palma, Balearic Islands, 453
Piraeus, Greece (south of Greece), 1,490
Piraeus, Greece (via Corinth Canal), 1,433
Rijeka, Croatia, 1,630
Savona, Italy, 835
Sfax, Tunisia, 1,026
Sibenik, Croatia, 1,504
Siracusa, Sicily, 1,037
Split, Croatia, 1,489
Tarabulus, Libya, 1,076
Taranto, Italy, 1,250
Thessaloniki, Greece (south of Greece), 1,698
Thessaloniki, Greece (via Corinth Canal), 1,682
Toulon, France, 705
Trieste, Italy, 1,66
Tunis, Tunisia, 803
Valencia, Spain, 386
Valletta, Malta, 988
Venezia, Italy, 1,674
Volos, Greece (south of Greece), 1,640
Volos, Greece (via Corinth Canal), 1,623

GIJON, SPAIN
(43°33'00"N., 50°40'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 294

Ports

Casablanca, Morocco, 763
Horta, Azores, 1,092
St. Nazaire, France, 274

GIZAN, SAUDI ARABIA
(16°53'15"N., 42°23'20"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

38 GLADSTONE HARBOR, AUSTRALIA

<p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,344 Cape Leeuwin, Australia, 5,324 Selat Lombok, Indonesia, 4,764 Port Said, Egypt, 1,130 Singapore, 4,008 Selat Sunda, Indonesia, 4,217 Torres Strait, Australia, 6,443</p> <p>Ports</p> <p>Aden, Yemen, 400 Al Aqabah, Jordan, 988 Massawa, Ethiopia, 222 Port Sudan, Sudan, 403</p> <p>GLADSTONE HARBOR, AUSTRALIA (23°50'00"S., 151°15'30"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 2,688 Torres Strait, Australia, 1,085</p> <p>Ports</p> <p>Brisbane, Australia, 314 Port Moresby, Papua New Guinea, 1,389 Wellington, New Zealand, 1,678</p> <p>GLASGOW, SCOTLAND (55°51'45"N., 4°18'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 402 Fastnet Rock, Ireland, 395 Inishtrahull, Ireland, 146 Pentland Firth, Scotland (via The Minch), 384</p> <p>Ports</p> <p>Ardrossan, Scotland, 43 Avonmouth, England, 390 Barrow in Furness, England, 172 Boulogne, France, 672 Cairn Ryan, Scotland, 82 Cardiff, Wales, 375 Cobh, Ireland, 346 Fishguard, Wales, 247 Londonderry, Northern Ireland, 143 Reykjavik, Iceland, 860 Stornoway, Scotland, 283</p> <p>GLOUCESTER, ENGLAND (51°52'00"N., 2°13'00"W.) Add 34 miles to Avonmouth distances.</p> <p>GODHAVN, GREENLAND (69°14'00"N., 53°32'00"W.) See Qeqertarsauq, Greenland.</p> <p>GODTHAB, GREENLAND (64°10'45"N., 51°45'14"W.) See Nuuk, Greenland.</p> <p>GOLCUK, TURKEY (40°44'00"N., 29°49'00"E.) Add 34 miles to Istanbul distances for ports outside the Black Sea and Sea of Marmara.</p> <p>GOLFITO, COSTA RICA (8°38'30"N., 83°10'30"W.) to:</p>	<p>Junction Points*</p> <p>Panama, Panama, 334</p> <p>Ports</p> <p>Acapulco, Mexico, 1,123 Ampala, Honduras, 432 Buenaventura, Colombia, 426 La Union, El Salvador, 4326</p> <p>GONAIVES, HAITI (19°27'00"N., 72°42'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 805</p> <p>Ports</p> <p>Kingston, Jamaica, 263 New York, New York, U.S.A., 1,328 Port au Prince, Haiti, 70</p> <p>GOOD HOPE, LOUISIANA, U.S.A. (29°59'35"N., 90°24'00"W.) Add 24 miles to New Orleans distances.</p> <p>GOOLE, ENGLAND (53°42'00"N., 0°51'00"W.) Add 27 miles to Hull distances.</p> <p>GOOSE BAY, CANADA (53°22'00"N., 60°18'00"W.) to:</p> <p>Junction Points*</p> <p>Inishtrahull, Ireland, 1,812 Strait of Gibraltar, 2,538</p> <p>Ports</p> <p>Churchill, Canada, 1,557 Reykjavik, Iceland, 1,332 St. John's, Canada, 588</p> <p>GOTEBORG, SWEDEN (57°42'00"N., 11°57'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 230 Skagens Odde, Denmark, 42</p> <p>Ports</p> <p>Assens, Denmark, 197 Bergen, Norway, 356 Faborg, Denmark, 222 Flensburg, Germany, 272 Fredericia, Denmark, 181 Grena, Denmark, 102 Haderslev, Denmark, 203 Hobro, Denmark, 123 Kolding, Denmark, 330 Middlefart, Denmark, 173 Naestved, Denmark, 199 Nakskov, Denmark, 201 Oslo, Norway, 159 Sonderborg, Denmark, 239 Vejlø, Denmark, 176</p> <p>GOTHENBURG, SWEDEN (57°42'00"N., 11°57'00"E.) See Goteborg, Sweden.</p> <p>GOVE HARBOR, AUSTRALIA (12°10'33"S., 136°38'43"E.) to:</p>	<p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 6,489 Cape Leeuwin, Australia, 2,457 Torres Strait, Australia, 346 Selat Wetar, Indonesia, 611</p> <p>Ports</p> <p>Ambon, Indonesia, 767 Colombo, Sri Lanka, 3,700 Ho Chi Minh, Vietnam, 2,484 Hong Kong, China, 2,583 Manila, Philippines, 2,034 Port Darwin, Australia, 460</p> <p>GRAND BANKS SOUTH* (42°30'00"N., 50°00'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,830 Cape of Good Hope, South Africa, 5,954 Fastnet Rock, Ireland, 1,714 Ile d'Ouessant, France, 1,877 Inishtrahull, Ireland, 1,809 Montreal, Canada, 1,335 Panama, Panama, 2,555 Pentland Firth, Scotland, 1,998 Punta Arenas, Chile, 6,440 Strait of Gibraltar, 2,070 Straits of Florida, 1,990</p> <p>Ports</p> <p>Belem, Brazil, 2,638 Boston, Massachusetts, U.S.A., 932 Dakar, Senegal, 2,336 Galway, Ireland, 1,741 Lisboa, Portugal, 1,858 St. John's, Canada, 325</p> <p>GRANGEMOUTH, SCOTLAND (56°02'00"N., 3°41'20"W.) For distances outside the Firth of Forth add 15 miles to Leith distances.</p> <p>GRANTON, SCOTLAND (55°59'16"N., 3°13'13"W.) See Leith.</p> <p>GRANVILLE, FRANCE (48°50'00"N., 1°36'15"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 267 Ile d'Ouessant, France, 158</p> <p>Ports</p> <p>Dover, England, 181 Le Havre, France, 173 Plymouth, England, 149</p> <p>GRAVESEND, ENGLAND (51°26'45"N., 0°22'30"E.) Subtract 16 miles from London distances.</p> <p>GREENOCK, SCOTLAND (55°57'00"N., 4°45'00"W.) Subtract 17 miles from Glasgow distances.</p> <p>GREENVILLE, LIBERIA (4°59'30"N., 9°02'55"W.) to:</p>	<p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,826 Ile d'Ouessant, France, 2,981</p> <p>Ports</p> <p>Dakar, Senegal, 831 Takoradi, Ghana, 461</p> <p>GRENA, DENMARK (56°24'45"N., 10°56'20"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 140 Skagens Odde, Denmark, 115</p> <p>Ports</p> <p>Gdynia, Poland, 361 Goteborg, Sweden, 102 Lubeck, Germany, 169</p> <p>GRIMSBY, ENGLAND (53°36'00"N., 0°01'00"W.) Subtract 14 miles from Hull distances.</p> <p>GRIMSTAD, NORWAY (58°20'20"N., 8°36'05"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 399</p> <p>Ports</p> <p>Bergen, Norway, 250 London, England, 542 Oslo, Norway, 135</p> <p>GROTON, CONNECTICUT, U.S.A. (41°21'30"N., 72°05'15"W.) Use New London distances.</p> <p>GUANICA, PUERTO RICO (17°58'00"N., 66°55'30"W.) to:</p> <p>Ports</p> <p>Santiago de Cuba, Cuba (north of Hispaniola and via Windward Passage), 572 Santiago de Cuba, Cuba (south of Hispaniola), 584</p> <p>GUANTA, VENEZUELA (10°14'43"N., 64°35'30"W.) Add 1 mile to Puerto la Cruz distances.</p> <p>GUANTANAMO, CUBA (19°54'00"N., 75°11'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England (via Windward Passage), 3,714 Fastnet Rock, Ireland (via Windward Passage), 3,597 Inishtrahull, Ireland (via Windward Passage), 3,722 Panama, Panama, 752 Pentland Firth, Scotland, 3,869 Strait of Gibraltar, 3,737 Straits of Florida, 638 Yucatan Channel, 582</p>
---	--	---	---

* JUNCTION POINT.—See Preface for use of junction points

Ports

Argentia, Canada, 1,976
 Arkhangel'sk, Russia, 5,156
 Bahia Honda, Cuba, 643
 Barranquilla, Colombia, 534
 Belem, Brazil, 2,214
 Boston, Massachusetts, U.S.A. (via Windward Passage, Crooked Island Passage, and Nantucket Light Buoy), 1,495
 Brest, France, 3,784
 Buenos Aires, Argentina, 5,278
 Cap-Haitien, Haiti, 175
 Cape Town, South Africa, 6,290
 Cardenas, Cuba, 539
 Cartagena, Colombia, 586
 Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 900
 Charlotte Amalie, Virgin Islands (north of Hispaniola and Puerto Rico), 607
 Christiansted, St. Croix (north of Hispaniola and Puerto Rico), 635
 Christiansted, St. Croix (south of Hispaniola), 689
 Cienfuegos, Cuba, 366
 Colon, Panama, 689
 Dakar, Senegal, 3,312
 Elizabeth Harbor, Bahamas, 334
 Freetown, Sierra Leone, 3,650
 Funchal, Madeira Island, 3,194
 Georgetown, Guyana, 1,316
 Gibraltar (via Turks Island Passage), 3,767
 Halifax, Canada, 1,634
 Hamilton, Bermuda, 992
 Horta, Azores (via Mouchoir Passage), 2,666
 Ivittuut, Greenland, 2,873
 Jacksonville, Florida, U.S.A., 851
 Key West, Florida, U.S.A. (via Old Bahama Channel), 587
 Kingston, Jamaica, 180
 Kralendijk, Bonaire, 620
 La Guaira, Venezuela, 737
 La Habana, Cuba (via Old Bahama Channel), 600
 Lisboa, Portugal, 3,570
 Manzanillo, Cuba, 206
 Matanzas, Cuba, 553
 Miami, Florida, U.S.A., 582
 Monrovia, Liberia, 3,828
 Montevideo, Uruguay, 5,167
 Nassau, Bahamas, 503
 New York, New York, U.S.A., 1,312
 Norfolk, Virginia, U.S.A., 1,117
 Nuevitas, Cuba, 284
 Oranjestad, St. Eustatius, 771
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage), 1,284
 Pointe a Pitre, Guadeloupe, 879
 Ponce, Puerto Rico (north of Hispaniola and Mona Passage), 540
 Porlamar, Venezuela, 884
 Port au Prince, Haiti, 179
 Port of Spain, Trinidad, 987
 Port Castries, St. Lucia, 922
 Porto Grande, Cape Verde Islands, 2,853
 Portsmouth, New Hampshire, U.S.A. (via Crooked Island Passage and Nantucket Light Buoy), 1,512
 Puerto Cortes, Honduras, 770
 Reykjavik, Iceland, 3,434
 Rio de Janeiro, Brazil, 4,170
 San Juan, Puerto Rico (north of

Hispaniola), 537
 Santa Cruz de Tenerife, Canary Islands, 3,265
 Santa Cruz del Sur, Cuba, 222
 Santo Domingo, Dominican Republic, 397
 Sint Nicolaashaven, Aruba, 544
 St. John's, Antigua, 837
 Tampico, Mexico, 1,297
 Veracruz, Mexico, 1,228
 Willemstad, Curacao, 595

GUAYAQUIL, ECUADOR
 (2°12'00"S., 79°53'00"W.) to:
Junction Points*

Panama, Panama, 824
 Punta Arenas, Chile, 3,307
 Singapore (via Surigao Strait), 10,726
 Torres Strait, Australia (via Raine Island entrance), 8,270

Ports

Acapulco, Mexico, 1,708
 Anapala, Honduras, 1,167
 Antofagasta, Chile, 1,470
 Apra, Guam, 8,147
 Arica, Chile, 1,251
 Auckland, New Zealand, 6,087
 Buenaventura, Colombia, 608
 Caldera, Chile, 1,632
 Callao, Peru, 712
 Coquimbo, Chile, 1,781
 Corinto, Nicaragua, 1,071
 Dutch Harbor, Alaska, U.S.A., 5,552
 Esmeraldas, Ecuador, 356
 Guaymas, Mexico, 2,640
 Ho Chi Minh, Vietnam (north of Luzon), 10,321
 Hong Kong, China, 9,505
 Honolulu, Hawaii, U.S.A., 4,853
 Iquique, Chile, 1,317
 Kodiak, Alaska, U.S.A., 5,212
 Los Angeles, California, U.S.A., 3,218
 Lota, Chile, 2,155
 Manila, Philippines, 9,615
 Midway Island, 5,944
 Monterey, California, U.S.A., 3,434
 Noumea, New Caledonia, 6,686
 Pago Pago, American Samoa, 5,450
 Papeete, French Polynesia, 4,237
 Pisco, Peru, 788
 Puerto Bolivar, Ecuador, 64
 Portland, Oregon, U.S.A., 4,169
 Puntarenas, Costa Rica, 787
 Qingdao, China, 8,880
 Salaverry, Peru, 440
 Salina Cruz, Mexico, 1,495
 San Diego, California, U.S.A., 3,112
 San Francisco, California, U.S.A., 3,548
 San Jose, Guatemala, 1,242
 Santa Barbara, California, U.S.A., 3,249
 Seattle, Washington, U.S.A., 4,326
 Shanghai, China, 8,872
 Sitka, Alaska, U.S.A., 4,817
 Suva, Fiji Islands, 6,067
 Sydney, Australia, 7,268
 Talara, Peru, 180
 Talcahuano, Chile, 2,135
 Truk, Caroline Islands, 7,752
 Valparaiso, Chile, 1,980
 Vladivostok, Russia, 8,044

Wake Island, 6,843
 Yokohama, Japan, 7,987

GUAYMAS, MEXICO
 (27°55'00"N., 110°54'00"W.) to:
Junction Points*

Honshu, Japan, 6,030
 Panama, Panama, 2,370
 Punta Arenas, Chile, 5,401
 Torres Strait, Australia, 7,234
 Tsugaru-Kaikyo, Japan, 5,850
 Wilson Promontory, Australia, 7,354

Ports

Acapulco, Mexico, 958
 Antofagasta, Chile, 3,894
 Arica, Chile, 3,681
 Callao, Peru, 3,117
 Coquimbo, Chile, 4,153
 Corinto, Nicaragua, 1,738
 Esmeraldas, Ecuador, 2,467
 Guayaquil, Ecuador, 2,640
 Iquique, Chile, 3,750
 Los Angeles, California, U.S.A., 1,158
 Lota, Chile, 4,442
 Mazatlan, Mexico, 388
 Monterey, California, U.S.A., 1,410
 Pisco, Peru, 3,227
 Puntarenas, Costa Rica, 1,956
 Salina Cruz, Mexico, 1,260
 San Diego, California, U.S.A., 1,088
 San Francisco, California, U.S.A., 1,490
 San Jose, Guatemala, 1,520
 Santa Barbara, California, U.S.A., 1,225
 Talcahuano, Chile, 4,428
 Valparaiso, Chile, 4,291

GUIRIA, VENEZUELA
 (55°34'45"N., 62°16'15"W.) to:
Junction Points*

Bishop Rock, England, 3,598
 Cape of Good Hope, South Africa, 5,396
 Grand Banks South, 2,010
 Ile d'Ouessant, France, 3,616
 Panama, Panama, 1,200
 Punta Arenas, Chile, 5,562
 Strait of Gibraltar, 3,430
 Straits of Florida, 2,099
 Yucatan Channel, 1,471

Ports

Belem, Brazil, 1,226
 La Guaira, Venezuela, 339
 Recife, Brazil, 2,208
 Rio de Janeiro, Brazil, 3,284
 Rio Grande, Brazil, 3,984
 Santos, Brazil, 3,467

GULFPORT, MISSISSIPPI, U.S.A.
 (30°21'30"N., 89°05'30"W.) to:
Junction Points*

Straits of Florida, 494
 Yucatan Channel, 534

Ports

Belize, Belize, 838

Campeche, Mexico, 652
 Cap-Haitien, Haiti, 1,145
 Carmen, Mexico, 725
 Cartagena, Colombia, 1,449
 Cienfuegos, Cuba, 851
 Colon, Panama, 1,370
 La Habana, Cuba, 564
 Pointe a Pitre, Guadeloupe (via Old Bahama Channel and Mona Passage), 1,823
 Pointe a Pitre, Guadeloupe (via Virgin Passage and Old Bahama Channel), 1,822
 Port au Prince, Haiti (via Old Bahama Channel and Windward Passage), 1,176
 Tampico, Mexico, 725
 Tuxpan, Mexico, 751
 Veracruz, Mexico, 800

GUNSAN, SOUTH KOREA
 (35°59'18"N., 126°43'00"E.) to:
Ports

Busan, South Korea, 376
 Dalian, China, 294
 Sasebo, Japan, 343
 Shanghai, China, 457
 Yeosu, South Korea, 245

HABANA, CUBA
 (23°08'00"N., 82°20'30"W.) See La Habana, Cuba.

HACHINOHE, JAPAN
 (40°32'00"N., 141°33'00"E.) to:
Ports

Hakodate, Japan, 108
 Muroran, Japan, 123
 Nagoya, Japan, 577
 Naha, Ryukyu Islands, 1,239
 Yokohama, Japan, 436

HADERSLEV, DENMARK
 (55°15'12"N., 9°30'45"E.) to:
Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 72
 Skagens Odde, Denmark, 216

Ports

Goteborg, Sweden, 203
 Kobenhavn, Denmark, 175
 Lubeck, Germany, 137

HAIFA, ISRAEL
 (32°49'25"N., 35°00'00"E.) to:
Junction Points*

Port Said, Egypt, 171
 Strait of Gibraltar, 2,031

Ports

Alexandria, Egypt, 295
 Algiers, Algeria, 1,602
 Alicante, Spain, 1,769
 Ancona, Italy (South of Greece), 1,272
 Ancona, Italy (via Corinth Canal), 1,248
 Annaba, Algeria, 1,378
 Banghazi, Libya, 783
 Baniyas, Syria, 153
 Banzart, Tunisia, 1,273

* **JUNCTION POINT.**—See Preface for use of junction points

40 HAINES, ALASKA, U.S.A.

Barcelona, Spain, 1,699
 Bari, Italy (south of Greece), 1,065
 Bari, Italy (via Corinth Canal),
 1,041
 Beirut, Lebanon, 76
 Brindisi, Italy (south of Greece),
 1,007
 Brindisi, Italy (via Corinth Canal),
 983
 Cartagena, Spain, 1,794
 Ceuta, Morocco, 2,012
 Civitavecchia, Italy, 1,321
 Genova, Italy, 1,505
 Gibraltar, 2,014
 Iraklion, Kriti, 522
 Istanbul, Turkey, 849
 Izmir, Turkey, 654
 Kyrenia, Cyprus, 246
 La Spezia, Italy, 1,469
 Livorno, Italy, 1,433
 Malaga, Spain, 1,961
 Marseille, France, 1,596
 Matruh, Egypt, 410
 Messina, Sicily, 1,023
 Napoli, Italy, 1,194
 Odessa, Ukraine, 1,197
 Oran, Algeria, 1,800
 Palermo, Sicily, 1,139
 Palma, Balearic Islands, 1,645
 Piraievs, Greece, 650
 Rijeka, Croatia (south of Greece),
 1,342
 Rijeka, Croatia (via Corinth
 Canal), 1,315
 Savona, Italy, 1,515
 Sayda, Lebanon, 49
 Sibenik, Croatia (south of
 Greece), 1,214
 Sibenik, Croatia (via Corinth
 Canal), 1,187
 Siracusa, Sicily, 1,013
 Split, Croatia (south of Greece),
 1,199
 Split, Croatia (via Corinth Canal),
 1,172
 Tarabulus, Lebanon, 118
 Tarabulus, Libya, 1,109
 Taranto, Italy (south of Greece),
 1,020
 Taranto, Italy (via Corinth Canal),
 1,003
 Thessaloniki, Greece, 786
 Toulon, France, 1,565
 Trieste, Italy (south of Greece),
 1,375
 Trieste, Italy (via Corinth Canal),
 1,348
 Tunis, Tunisia, 1,260
 Valencia, Spain, 1,767
 Valletta, Malta, 1,038
 Venezia, Italy (south of Greece),
 1,383
 Venezia, Italy (via Corinth Canal),
 1,359
 Volos, Greece, 728
 Yumurtalik, Turkey, 240

HAINES, ALASKA, U.S.A.
 (59°13'55"N., 135°26'10"W.) to:

Junction Points*

Panama, Panama, 4,386
 Punta Arenas, Chile, 7,545

Ports

Antofagasta, Chile, 6,145
 Vancouver, Canada (via Queen
 Charlotte Sound), 822
 Victoria, Canada, 861

HAIPHONG, VIETNAM
 (20°52'00"N., 106°41'00"E.) to:

Ports

Cebu, Philippines (via Jintotolo
 Channel, Romblon, and Verde
 Island Passage), 1,276
 Chang-Kan, China, 156
 Ho Chi Minh, Vietnam, 802
 Hong Kong, China, 477
 Kobe, Japan, 1,833
 Manila, Philippines, 936
 Qui Nhon, Vietnam, 469
 Sanya Gang, China, 253
 Shanghai, China (via Pai-chieh
 Hsia, Steep Island Passage, and
 Hai-nan Tao), 1,285
 Vinh Cam Ranh, Vietnam, 597

HAKATA, JAPAN
 (33°36'45"N., 130°23'15"E.) to:

Ports

Hakodate, Japan, 709
 Kobe, Japan, 304
 Misumi, Japan, 161
 Nagasaki, Japan, 121
 Ube, Japan, 84
 Yokohama, Japan, 608

HAKODATE, JAPAN
 (41°47'00"N., 140°43'00"E.) to:

Junction Points*

Panama, Panama, 7,417
 Punta Arenas, Chile, 9,457
 Singapore (via Sea of Japan),
 3,160

Ports

Akita, Japan, 150
 Aleksandrovsk-Sakhalinskiy,
 Russia, 631
 Apia, Samoa, 4,252
 Apra, Guam, 1,739
 Auckland, New Zealand, 5,104
 Avarua, Cook Islands, 5,022
 Bohang, South Korea, 665
 Bukhta Shelikohova, Kuril Islands,
 Russia, 865
 Busan, South Korea, 686
 Cebu, Philippines (via outside
 route), 2,208
 Cebu, Philippines (via Sea of
 Japan), 2,177
 Chongjin, North Korea, 509
 Dagu, China, 1,385
 Dalian, China, 1,226
 Dutch Harbor, Alaska, U.S.A.,
 2,228
 Hachinohe, Japan, 108
 Hakata, Japan, 709
 Higashi-Iwase, Japan, 380
 Hiroshima, Japan, 787
 Hong Kong, China, 1,810
 Honolulu, Hawaii, U.S.A., 3,314
 Iloilo, Philippines (via Sea of
 Japan), 2,199
 Incheon, South Korea, 1,080
 Kakarta, Indonesia (east of
 Direction Island and Selat
 Gaspar), 3,468
 Kaluit, Marshall Islands, 2,670
 Kagoshima, Japan, 946
 Kamaishi, Japan, 192
 Kasatka, Japan, 407
 Kimchaek, North Korea, 540
 Kiska, Alaska, U.S.A., 1,656
 Kobe, Japan (east of Honshu), 816

Kochi, Japan (east of Honshu), 832
 Kochi, Japan (via Shimonoseki
 Kaikyo), 894
 Kushiro, Japan, 210
 Levuka, Fiji Islands, 4,271
 Lo-hsing-ta Mao-ti, China, 1,429
 Los Angeles, California, U.S.A.,
 4,576
 Maizuru, Japan, 460
 Manila, Philippines, 2,066
 Matsuga-hana, Japan, 316
 Midway Island, 2,198
 Miike, Japan, 864
 Mogpo, South Korea, 897
 Nagasaki, Japan, 801
 Nakhodka, Russia, 377
 Nanao, Japan, 337
 Nevel'sk, Russia, 389
 Niigata, Japan, 247
 Nome, Alaska, U.S.A., 2,347
 Noumea, New Caledonia (via
 Canal Woodin and Canal de la
 Havannah), 4,176
 Pago Pago, American Samoa,
 4,326
 Papeete, French Polynesia, 5,249
 Petropavlovsk-Kamchatskiy,
 Russia, 1,075
 Ponape, Caroline Islands, 2,298
 Port Darwin, Australia (via Selat
 Sele), 3,422
 Prince Rupert, Canada (north of
 Aleutian Islands), 3,487
 Prince Rupert, Canada (south of
 Aleutian Islands), 3,569
 Pabaul, Papua New Guinea, 2,894
 Sumoi, Japan, 248
 Skata, Japan, 189
 San Francisco, California, U.S.A.,
 4,247
 Seattle, Washington, U.S.A. (north
 of Aleutian Islands), 3,922
 Seattle, Washington, U.S.A. (via
 composite sailing at 50°N.),
 3,982
 Seward, Alaska, U.S.A. (via south
 of Aleutian Islands), 3,069
 Shanghai, China, 1,166
 Shimonoseki, Japan, 683
 Shiogama, Japan, 281
 Sitka, Alaska, U.S.A. (south of
 Aleutian Islands), 3,392
 Sydney, Australia, 4,688
 Tan-shui, Taiwan, 1,384
 Tomari, Japan, 301
 Tsuruga, Japan, 447
 Uglegorsk, Russia, 536
 Ulsan, South Korea, 661
 Unggi, North Korea, 486
 Valparaiso, Chile, 9,197
 Vladivostok, Russia, 437
 Weihai, China, 1,169
 Weonsan, North Korea, 638
 Xiamen, China, 1,559
 Yantai, China, 1,203
 Yokohama, Japan, 533

HAKONSVERN, NORWAY
 (60°20'30"N., 5°14'30"E.) to:

Junction Points*

Pentland Firth, Scotland, 287
 Skagens Odde, Denmark, 296

Ports

Bremerhaven, Germany, 442
 London, England, 616
 Oslo, Norway, 371

HALDIA, INDIA
 (22°00'30"N., 88°03'00"E.) to:

Junction Points*

Cape of Good Hope, South
 Africa, 5,438
 Cape Leeuwin, Australia, 3,740
 Selat Lombok, Indonesia, 2,815
 Port Said, Egypt (May-September,
 south of Socotra), 4,760
 Port Said, Egypt (North of
 Socotra), 4,656
 Port Said, Egypt (October-April,
 South of Socotra), 4,639
 Singapore, 1,593
 Selat Sunda, Indonesia, 2,084

Ports

Akyab, Sittwe Harbor, Burma, 46
 Al Basrah, Iraq, 3,537
 Assab, Ethiopia, 3,390
 Belawan, Indonesia, 1,270
 Bombay, India, 2,070
 Chittagong, Bangladesh, 311
 Colombo, Sri Lanka, 1,202
 Dumai, Indonesia, 1,523
 Fremantle, Australia, 3,637
 Mombasa, Kenya, 3,647
 Penang, Malaysia, 1,238
 Yenbo, Saudi Arabia, 4,092
 Zanzibar, Tanzania, 3,720

HALIFAX, CANADA
 (44°39'00"N., 63°34'00"W.) to:

Junction Points*

Bishop Rock, England, 2,480
 Cape of Good Hope, South
 Africa, 6,502
 Fastnet Rock, Ireland, 2,364
 Inishtrahull, Ireland, 2,462
 Montreal, Canada (via Cabot
 Strait), 955
 Montreal, Canada (via Strait of
 Canso), 895
 Panama, Panama, 2,338
 Pentland Firth, Scotland, 2,642
 Punta Arenas, Chile, 6,799
 Strait of Gibraltar, 2,708
 Straits of Florida, 1,610
 Yucatan Channel, 1,796

Ports

Argentia, Canada, 448
 Arkhangel'sk, Russia, 3,663
 Baltimore, Maryland, U.S.A., 911
 Belem, Brazil, 2,904
 Bocas del Toro, Panama, 2,369
 Bordeaux, France, 2,786
 Boston, Massachusetts, U.S.A.,
 380
 Bridgeport, Connecticut, U.S.A.,
 552
 Bridgetown, Barbados, 1,906
 Brunswick, Georgia, U.S.A., 1,210
 Buenos Aires, Argentina, 5,731
 Cadiz, Spain, 2,674
 Cape Town, South Africa, 6,492
 Charleston, South Carolina,
 U.S.A., 1,077
 Charlotte Amalie, Virgin Islands,
 1,595
 Charlottetown, Canada (via Strait
 of Canso), 268
 Cienfuegos, Cuba, 1,998
 Colon, Panama, 2,295
 Dakar, Senegal, 2,956
 Guantanamo, Cuba, 1,634
 Hamilton, Bermuda, 756

*** JUNCTION POINT.—See Preface for use of junction points**

Ivittuut, Greenland, 1,380
 Jacksonville, Florida, U.S.A., 1,255
 Key West, Florida, U.S.A., 1,556
 Kingston, Jamaica, 1,795
 La Guaira, Venezuela, 2,060
 La Habana, Cuba, 1,614
 Limon, Costa Rica, 2,368
 Lisboa, Portugal, 2,500
 Miami, Florida, U.S.A., 1,413
 Montevideo, Uruguay, 5,617
 Murmansk, Russia, 3,368
 New Haven, Connecticut, U.S.A., 540
 New York, New York, U.S.A., 600
 Norfolk, Virginia, U.S.A., 790
 Paamiut (Fredericksbaab), Greenland, 1,406
 Parrsboro, Canada, 330
 Philadelphia, Pennsylvania, U.S.A., 746
 Ponta Delgada, Azores, 1,785
 Port au Prince, Haiti, 1,671
 Port of Spain, Trinidad, 2,059
 Port Castries, St. Lucia, 1,850
 Portland, Maine, U.S.A., 338
 Portsmouth, New Hampshire, U.S.A., 359
 Recife, Brazil, 3,558
 Reykjavik, Iceland, 1,941
 Rio de Janeiro, Brazil, 4,630
 Salvador, Brazil, 3,949
 San Juan, Puerto Rico, 1,580
 Santa Cruz de Tenerife, Canary Islands, 2,480
 Santiago de Cuba, Cuba, 1,683
 Santo Domingo, Dominican Republic, 1,709
 Savannah, Georgia, U.S.A., 1,150
 St. John, Canada, 278
 St. John's, Canada, 531
 Vigo, Spain, 2,454
 Wilmington, North Carolina, U.S.A., 1,016

HALMSTAD, SWEDEN
 (56°39'06"N., 12°50'36"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 188
 Skagens Odde, Denmark, 101

Ports

Oslo, Norway, 225
 Stockholm, Sweden, 481
 Szczecin, Poland, 227

HALSINGBORG, SWEDEN
 (56°02'30"N., 12°41'30"E.) See Helsingborg, Sweden.

HALUL ISLAND, QATAR
 (25°40'25"N., 52°27'16"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,836
 Cape Leeuwin, Australia, 5,172
 Selat Lombok, Indonesia, 4,415
 Port Said, Egypt, 3,018
 Singapore, 3,557
 Selat Sunda, Indonesia, 3,764

Ports

Assab, Ethiopia, 1,773
 Belawan, Indonesia, 3,226
 Calcutta, India, 3,234

Colombo, Sri Lanka, 2,011
 Karachi, Pakistan, 819
 Tulear, Madagascar, 3,488
 Umm Said, Qatar, 73

HAMBURG, GERMANY
 (53°32'30"N., 9°6'00"E.) to:

Junction Points*

Bishop Rock, England, 717
 Ile d'Ouessant, France, 703
 Nord-Ostsee-Kanal (East Entrance), Germany, 91
 Pentland Firth, Scotland, 555
 Skagens Odde, Denmark, 360

Ports

Aberdeen, Scotland, 473
 Amsterdam, Netherlands, 274
 Antwerp, Belgium, 386
 Bergen, Norway, 486
 Cherbourg, France, 538
 Den Helder, Netherlands, 249
 Dover, England, 399
 Dundee, Scotland, 485
 Dunkerque, France, 374
 Egersund, Norway, 351
 Emden, Germany, 185
 Esbjerg, Denmark, 172
 Hartlepool, England, 406
 Harwich, England, 362
 Hull, England, 384
 Inverness, Scotland, 562
 Kristiansand, Norway, 333
 Le Havre, France, 511
 Leith, Scotland, 486
 London, England, 425
 Newcastle, England, 424
 Oslo, Norway, 461
 Plymouth, England, 628
 Portland, England, 554
 Portsmouth, England, 504
 Rotterdam, Netherlands, 307
 Southampton, England, 522
 Stavanger, Norway, 403
 Wilhelmshaven, Germany, 111
 Zeebrugge, Belgium, 342

HAMILTON, BERMUDA
 (32°17'30"N., 64°47'00"W.) to:

Junction Points*

Bishop Rock, England, 2,769
 Cape of Good Hope, South Africa, 6,169
 Fastnet Rock, Ireland, 2,651
 Inishtrahull, Ireland, 2,749
 Montreal, Canada, 1,621
 Panama, Panama, 1,702
 Pentland Firth, Scotland, 2,929
 Punta Arenas, Chile, 6,287
 Strait of Gibraltar, 2,903
 Straits of Florida, 1,151
 Yucatan Channel, 1,321

Ports

Baltimore, Maryland, U.S.A., 805
 Barranquilla, Colombia, 1,465
 Belem, Brazil, 2,274
 Boston, Massachusetts, U.S.A., 704
 Bridgetown, Barbados, 1,208
 Buenos Aires, Argentina, 5,211
 Cardenas, Cuba, 1,119
 Charlotte Amalie, Virgin Islands, 872
 Cienfuegos, Cuba, 1,346
 Colon, Panama (via Caicos

Passage), 1,659
 Elizabeth Harbor, Bahamas, 813
 Georgetown, Guyana, 1,591
 Guantanamo, Cuba (via Caicos Passage), 992
 Halifax, Canada, 756
 Key West, Florida, U.S.A., 1,091
 Kingston, Jamaica, 1,144
 La Guaira, Venezuela, 1,335
 La Habana, Cuba, 1,150
 Limon, Costa Rica, 1,715
 Manzanillo, Cuba, 1,187
 Matanzas, Cuba, 1,129
 Miami, Florida, U.S.A., 956
 Montevideo, Uruguay, 5,097
 Nassau, Bahamas, 829
 New London, Connecticut, U.S.A., 667
 New York, New York, U.S.A., 697
 Norfolk, Virginia, U.S.A., 683
 Nuevitas, Cuba, 988
 Paramaribo, Suriname, 1,694
 Philadelphia, Pennsylvania, U.S.A., 746
 Plymouth, Montserrat, 966
 Port au Prince, Haiti, 1,016
 Port of Spain, Trinidad, 1,346
 Port Castries, St. Lucia, 1,149
 Portsmouth, New Hampshire, U.S.A., 723
 Recife, Brazil, 3,038
 Rio de Janeiro, Brazil, 4,110
 Roseau, Dominica, 1,061
 San Juan, Puerto Rico, 856
 Santiago de Cuba, Cuba, 1,031
 Santo Domingo, Dominican Republic, 992
 Saint Nicolaashaven, Aruba, 1,263
 St. Georges, Grenada, 1,256
 Washington, D.C., U.S.A., 806
 Wilmington, North Carolina, U.S.A., 746

HAMINA, FINLAND
 (60°30'40"N., 27°11'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 747
 Skagens Odde, Denmark, 797

Ports

Gdynia, Poland, 512
 Riga, Latvia, 384
 Stockholm, Sweden, 325

HAMMERFEST, NORWAY
 (70°40'00"N., 23°41'00"E.) to:

Ports

Bergen, Norway, 817
 Harstad, Norway, 200
 Oslo, Norway, 1,187
 Tromso, Norway, 124

HAMPTON ROADS, VIRGINIA, U.S.A.
 (36°57'00"N., 76°22'00"W.) Subtract 6 miles from Norfolk distances.

HAMRA, EGYPT
 (30°58'42"N., 28°52'12"E.) See Mersa Al Hamra.

HANGO, FINLAND
 (59°49'03"N., 22°56'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 564
 Skagens Odde, Denmark, 625

Ports

Gdynia, Poland, 356
 Rankt-Peterburg, Russia, 233
 Stockholm, Sweden, 178

HANKOU, CHINA
 (30°34'00"N., 114°17'30"E.) Add 592 miles to Shanghai distances for arrival Ports outside the Chang Chiang (Yangtze River).

Ports

Banjing, China, 385
 Shanghai, China, 592

HARSTAD, NORWAY
 (68°45'15"N., 16°34'30"E.) to:

Junction Points*

Skagens Odde, Denmark, 911

Ports

Bergen, Norway, 673
 Hammerfest, Norway, 200

HARTLEPOOL, ENGLAND
 (54°41'60"N., 1°11'30"W.) to:

Junction Points*

Bishop Rock, England, 594
 Ile d'Ouessant, France, 579
 Skagens Odde, Denmark, 438

Ports

Amsterdam, Netherlands, 260
 Antwerp, Belgium, 325
 Bremerhaven, Germany, 355
 Dunkerque, France, 281
 Emden, Germany, 308
 Esbjerg, Denmark, 336
 Hamburg, Germany, 406
 Le Havre, France, 386
 Oostende, Belgium, 265
 Plymouth, England, 502
 Portland, England, 428
 Portsmouth, England, 378
 Rotterdam, Netherlands, 269
 Southampton, England, 396
 Wilhelmshaven, Germany, 348
 Zeebrugge, Belgium, 263

HARWICH, ENGLAND
 (51°57'00"N., 1°17'00"E.) to:

Junction Points*

Skagens Odde, Denmark, 487

Ports

Amsterdam, Netherlands, 145
 Antwerp, Belgium, 97
 Bremerhaven, Germany, 309
 Emden, Germany, 252
 Esbjerg, Denmark, 338
 Hamburg, Germany, 362
 Wilhelmshaven, Germany, 296

HAVANA, CUBA
 (23°08'00"N., 82°20'30"W.) See

*** JUNCTION POINT.—See Preface for use of junction points**

42 HELSINGBORG, SWEDEN

La Habana.

HELSINGBORG, SWEDEN
(56°02'30"N., 12°41'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 176
Skagens Odde, Denmark, 128

Ports

Kristiansand, Norway, 220
Oslo, Norway, 250
Stockholm, Sweden, 436

HELSINGOR, DENMARK
(56°02'00"N., 12°37'20"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 175
Skagens Odde, Denmark, 127

Ports

Kristiansand, Norway, 219
Oslo, Norway, 249
Stockholm, Sweden (via Store Baelt), 629
Stockholm, Sweden (via The Sound), 445

HELSINKI, FINLAND
(60°09'20"N., 24°65'40"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 625
Skagens Odde, Denmark (via Store Baelt), 817
Skagens Odde, Denmark (via The Sound), 687

Ports

Gavle, Sweden, 292
Gdynia, Poland, 415
Kobenhavn, Denmark, 772
Kotka, Finland, 99
Norrköping, Sweden, 307
Ornskölsvik, Sweden, 403
Oulu, Finland, 598
Oxelösund, Sweden, 268
Sankt-Peterburg, Russia, 172
Stockholm, Sweden, 239
Uusikaupunki, Finland, 293

HEYSHAM, ENGLAND
(54°03'00"N., 2°54'10"W.) to:

Junction Points*

Bishop Rock, England, 315
Fastnet Rock, Ireland, 309
Inishtrahull, Ireland, 216
Pentland Firth, Scotland, 435

Ports

Ardrossan, Scotland, 173
Belfast, Northern Ireland, 137
Brest, France, 422
Cardiff, Wales, 280
Cobh, Ireland, 248
Fishguard, Wales, 153
Newport, Wales, 290
Waterford, Ireland, 196

HIGASHI-IWASE, JAPAN
(36°46'00"N., 137°14'00"E.) to:

Ports

Busan, South Korea, 492
Hakodate, Japan, 380
Shanghai, China, 966
Shimonoseki, Japan, 466
Vladivostok, Russia, 471

HIGASHI-IWASE, JAPAN
(34°46'45"N., 134°38'00"E.) to:

Ports

Kobe, Japan, 34
Kure, Japan, 126
Nagasaki, Japan, 373
Nagoya, Japan, 259
Sakaide, Japan, 89
Shimotsui, Japan, 88
Yokohama, Japan, 368

HILO, HAWAII, U.S.A.
(19°44'00"N., 155°05'00"W.) to:

Junction Points*

Panama, Panama, 4,527

Ports

San Diego, California, U.S.A., 2,175
San Jose, Guatemala, 3,690
Seattle, Washington, U.S.A., 2,387

HIROSHIMA, JAPAN
(34°20'45"N., 132°28'15"E.) to:

Junction Points*

Selat Lombok, Indonesia (via south of Mindanao), 2,908
Panama, Panama (via east of Honshu), 8,167
Punta Arenas, Chile, 9,551
Singapore (east of Kyushu), 2,622
Singapore (west of Kyushu), 2,637

Ports

Hakodate, Japan, 787
Kobe, Japan, 179
Nagasaki, Japan (via Kudako Suido), 285
Nagasaki, Japan (via Moroshima Suido), 275
Nagasaki, Japan (via Nuwashima Suido), 277
Nagasaki, Japan (via Obatake Seto and north of Kasasa Jima), 264
Yokohama, Japan, 519

HIRTSHALS, DENMARK
(57°36'00"N., 9°58'00"E.) to:

Junction Points*

Pentland Firth, Scotland, 429
Skagens Odde, Denmark, 30

Ports

Bergen, Norway, 280
London, England, 541
Oslo, Norway, 145

HO CHI MINH, VIETNAM
(10°46'00"N., 106°42'15"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,408
Panama, Panama, 10,017
Singapore, 649
Torres Strait, Australia, 2,629

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 3,105
Apra, Guam, 2,304
Beihai, China, 837
Busan, South Korea, 1,999
Cebu, Philippines (north of North Danger Reef, Via Mindoro Strait, and Jintotolo Channel), 1,152
Chang-kan, China, 708
Da Nang, Vietnam, 519
Dutch Harbor, Alaska, U.S.A., 4,894
Guayaquil, Ecuador, 10,321
Haiphong, Vietnam, 802
Hong Kong, China, 917
Honolulu, Hawaii, U.S.A., 5,542
Iloilo, Philippines, 1,051
Incheon, South Korea, 2,057
Iwakuni, Japan, 2,108
Jakarta, Indonesia, 1,025
Kodiak, Alaska, U.S.A., 5,484
Kompong Som, Cambodia, 419
Los Angeles, California (via San Bernardino Strait), 7,403
Malakal, Palau Islands, 1,801
Manila, Philippines, 907
Midway Island, 4,421
Mogpo, South Korea, 1,904
Nampo, North Korea, 2,118
Nha Trang Bay, Vietnam, 264
Olongapo, Philippines, 872
Pago Pago, American Samoa, 5,216
Palembang, Indonesia, 869
Papeete, French Polynesia, 6,443
Petropavlovsk-Kamchatskiy, Russia (via Chetvertuy Kuril'sky Proлив, La Perouse Strait, and Korea Strait), 3,718
Qingdao, China, 1,969
Qui Nhon, Vietnam, 361
San Diego, California, U.S.A., 7,267
San Fernando, Philippines, 927
San Francisco, California, U.S.A., 6,878
Sanya Gang, China, 624
Sitka, Alaska, U.S.A., 5,963
Surabaya, Indonesia, 1,206
Suva, Fiji Islands, 4,679
Tandjung Uban, Indonesia, 633
Truk, Caroline Islands (via San Bernardino Strait), 2,799
Tso-Ying, Taiwan, 1,131
Vladivostok, Russia, 2,501
Wake Island, 3,580
Weonsan, North Korea, 2,305
Yokohama, Japan, 2,419
Zhenjiang, China, 838

HOBART, TASMANIA
(42°53'00"S., 147°21'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,628
Panama, Panama, 7,630
Torres Strait, Australia, 2,271

Ports

Aden, Yemen, 6,598

Albany, Australia, 1,494
Apia, Samoa, 2,773
Apra, Guam, 3,683
Auckland, New Zealand, 1,521
Avarua, Cook Islands, 2,962
Burnie Harbor, Australia, 332
Diego Garcia, Chagos Archipelago (east point via D'Entrecasteaux Channel), 4,501
Dunedin, New Zealand, 1,068
Dutch Harbor, Alaska, U.S.A., 6,365
Honolulu, Hawaii, U.S.A., 4,930
Jaluit, Marshall Islands, 3,223
Levuka, Fiji Islands, 2,239
Melbourne, Australia, 472
Midway Island, 4,740
Noumea, New Caledonia, 1,604
Pago Pago, American Samoa, 2,783
Papeete, French Polynesia, 3,563
Ponape, Caroline Islands, 3,130
Port Augusta, Australia, 947
Port Kembla, Australia, 593
Port Lincoln, Australia, 830
Portland, Australia, 540
Rapid Bay, Australia, 719
Suva, Fiji Islands, 2,198
Sydney, Australia, 638
Wellington, New Zealand, 1,288

HOBOKEN, NEW JERSEY, U.S.A.
(40°45'00"N., 74°01'00"W.) For ocean distances add 3 miles to New York distances.

HOLSTEINSBORG, GREENLAND
(60°56'42"N., 53°41'00"W.) See Sisimiut, Greenland.

HOLYHEAD, WALES
(53°19'30"N., 4°38'00"W.) to:

Junction Points*

Bishop Rock, England, 232
Fastnet Rock, Ireland, 232
Inishtrahull, Ireland, 181
Pentland Firth, Scotland, 422

Ports

Avonmouth, England, 217
Brest, France, 345
Cardiff, Wales, 202
Cherbourg, France, 377
Cobh, Ireland, 182
Douglas, Isle of Man, 51
Liverpool, England, 72
London, England, 594
Southampton, England, 414
Swansea, Wales, 171

HONAWAR, INDIA
(14°16'00"N., 74°25'50"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,458
Cape Leeuwin, Australia, 3,775
Port Said, Egypt, 3,087
Singapore, 2,147

Ports

Ail Basrah, Iraq, 1,826
Bombay, India, 306
Calcutta, India, 1,817
Colombo, Sri Lanka, 590

* **JUNCTION POINT.**—See Preface for use of junction points

Darwin, Australia, 3,925
Fremantle, Australia, 3,696
Okha, India, 579
Trincomalee, Sri Lanka, 979
Victoria, Seychelles, 1,600

HONFLEUR, FRANCE
(49°25'00"N., 0°14'00"E.) See Le Havre.

HONG KONG, CHINA
(22°17'00"N., 114°10'00"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Linapacan Strait), 2,029
Panama, Panama, 9,195
Singapore, 1,454
Selat Sunda, Indonesia, 1,807
Torres Strait, Australia, 2,725

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 2,250
Apia, Samoa, 4,868
Apra, Guam, 1,822
Auckland, New Zealand, 5,060
Avarua, Cook Islands, 5,674
Beihai, China, 391
Busan, South Korea, 1,144
Cebu, Philippines (via Verde Island Passage and Jintotolo Channel), 960
Chang-Kan, China, 408
Da Nang, Vietnam, 520
Dagu, China, 1,418
Davao, Philippines, 1,382
Dutch Harbor, Alaska, U.S.A., 4,026
Funafuti, Tuvalu, 4,247
Guayaquil, Ecuador, 9,505
Haiphong, Vietnam (via West Lamma Channel and Hainan Strait), 477
Hakodate, Japan, 1,810
Ho Chi Minh, Vietnam (west of Parcel Islands), 917
Honolulu, Hawaii, U.S.A., 4,857
Hua-lien Kang, Taiwan, 518
Incheon, South Korea, 1,202
Jakarta, Indonesia, 1,782
Jaluit, Marshall Islands, 3,370
Kobe, Japan, 1,372
Kodiak, Alaska, U.S.A., 4,616
Levuka, Fiji Islands, 4,574
Lo hsing-ta Mao-ti, China, 459
Los Angeles, California, U.S.A., 6,380
Manila, Philippines, 631
Midway Island, 3,728
Mogpo, South Korea, 1,049
Nagasaki, Japan, 1,069
Nampo, North Korea, 1,263
Nha Trang Bay, Vietnam, 678
Nikolayevsk-Na-Amure, Russia, 2,394
Nome, Alaska, U.S.A., 4,145
Noumea, New Caledonia, 4,107
Olongapo, Philippines, 580
Pago Pago, American Samoa, 4,948
Papeete, French Polynesia, 6,132
Peng-hu Kang Taiwan, 314
Petrovsk-Kamchatskiy, Russia, 2,863
Ponape, Caroline Islands, 2,710
Port Darwin, Australia, 2,363
Prince Rupert, Canada (north of Aleutian Islands), 5,286
Prince Rupert, Canada (south of

Aleutian Islands), 5,367
Qingdao, China, 1,120
Qui Nhon, Vietnam, 592
Rabaul, Papua New Guinea, 2,764
San Diego, California, U.S.A., 6,439
San Fernando, Philippines, 489
San Francisco, California, U.S.A. (via Osumi Kaikyo), 6,044
Sanmen Wen, China, 650
Sanya Gang, China, 391
Seattle, Washington, U.S.A. (via Osumi Kaikyo and composite sailing), 5,768
Seward, Alaska, U.S.A. (south of Aleutian Islands), 4,867
Shanghai, China (via Steep Island and Pai-chieh Hsia), 824
Shimonoseki, Japan, 1,179
Sitka, Alaska, U.S.A. (north of Aleutian Islands), 5,095
Sitka, Alaska, U.S.A. (south of Aleutian Islands), 5,191
Su-ao Kang, Taiwan, 554
Surabaya, Indonesia, 1,925
Suva, Fiji Islands, 4,541
Truk, Caroline Islands, 2,376
Tso-ying, Taiwan, 343
Valparaiso, Chile, 10,218
Vinh Cam Ranh, Vietnam, 707
Vladivostok, Russia, 1,646
Wake Island, 2,940
Weihai, China, 1,190
Wenzhou, China, 595
Weonsan, North Korea, 1,450
Xiamen, China, 290
Yantai, China, 1,224
Yokohama, Japan, 1,585
Zhenjiang, China, 245

HONIARA, SOLOMON ISLANDS
(9°25'39"S., 159°57'51"E.) to:

Junction Points*

Panama, Panama (via Central Route), 7,469
Punta Arenas, Chile, 6,502
Torres Strait, Australia, 1,179
Wilson Promontory, Australia, 2,072

Ports

Botany Bay, Australia, 1,605
Burnie Harbor, Australia, 2,106
Hobart, Tasmania, 2,218
Melbourne, Australia, 2,166
Rabaul, Papua New Guinea, 582
Yokohama, Japan, 2,935
Zamboanga, Philippines, 2,483

HONOLULU, HAWAII, U.S.A.
(21°18'30"N., 157°52'15"W.) to:

Junction Points*

Panama, Panama, 4,685
Punta Arenas, Chile, 6,370
Singapore (via Sulu Sea), 5,881
Torres Strait, Australia (via Bougainville Strait and China Strait), 4,191
Wilson Promontory, Australia, 4,792

Ports

Acapulco, Mexico, 3,289
Aleksandrovsk-Sakhalinskiy, Russia, 3,589
Apia, Samoa, 2,260

Apra, Guam, 3,318
Auckland, New Zealand, 3,820
Avarua, Cook Islands, 2,553
Baie Taio-Hae, Marquesa Islands, 2,102
Bikini, Marshall Islands, 2,179
Brisbane, Australia (via Northwest Channel), 4,117
Brito, Nicaragua, 4,155
Busan, South Korea, 3,973
Butaritari, Gilbert Islands, 2,050
Callao, Peru, 5,161
Cebu, Philippines, 4,610
Chimbote, Peru, 5,015
Christmas Island, Line Islands, 1,161
Dagu, China (via Osumi Kaikyo), 4,677
Dagu, China (via Shimonoseki Kaikyo), 4,628
Dalian, China, 4,531
Dalian, China (via Shimonoseki Kaikyo), 4,470
Dutch Harbor, Alaska, U.S.A., 2,040
Eniwetak, Marshall Islands, 2,375
Fanning Island, North Pacific, 1,056
Funafuti, Tuvalu, 2,249
Guayaquil, Ecuador, 4,853
Hakodate, Japan, 3,314
Ho Chi Minh, Vietnam, 5,542
Hobart, Tasmania, 4,930
Hong Kong, China, 4,857
Hot Springs Bay, Alaska, U.S.A., 2,076
Howland Island, 1,650
Iloilo, Philippines, 4,632
Incheon, South Korea (via Maenggol Suido and Bungo Suido), 4,323
Incheon, South Korea (via Osumi Kaikyo), 4,385
Islas Juan Fernandez, 5,595
Jaluit, Marshall Islands, 2,096
Johnston Island, 717
Kiska, Alaska, U.S.A., 2,185
Kobe, Japan, 3,669
Kodiak, Alaska, U.S.A., 2,231
Koniya, Ryukyu Islands, 3,948
Levuka, Fiji Islands, 2,730
Lo-hsing-ta Mao-ti, China, 4,487
Los Angeles, California, U.S.A., 2,228
Malakal, Palau Islands, 3,997
Manila, Philippines (north of Luzon), 4,869
Manila, Philippines (via San Bernardino Strait), 4,767
Midway Island, 1,149
Mogpo, South Korea (via Changjuk Sudo and Mango Strait), 4,146
Nagasaki, Japan, 3,986
Naknek, Alaska, U.S.A., 2,404
Nampo, North Korea, 4,417
Nome, Alaska, U.S.A., 2,674
Noumea, New Caledonia, 3,371
Nukualafa, Tonga Islands, 2,749
Ocean Island, 2,480
Pago Pago, American Samoa, 2,276
Papeete, French Polynesia, 2,381
Petrovsk-Kamchatskiy, Russia, 2,762
Ponape, Caroline Islands, 2,685
Port Hueneme, California, U.S.A., 2,170
Portland, Oregon, U.S.A., 2,332
Prince Rupert, Canada, 2,393
Qingdao, China, 4,456
Rabaul, Papua New Guinea, 3,357

Raoul Island, Kermadec Islands, 3,246
Rongelap, Marshall Islands, 2,114
Rotoava, Iles Tuamotu, 2,358
Saipan, Mariana Islands, 3,230
Salina Cruz, Mexico, 3,580
San Diego, California, U.S.A., 2,278
San Francisco, California, U.S.A., 2,091
Sandakan, Sabah, 5,044
Sasebo, Japan (via Osumi Kaikyo), 4,009
Seattle, Washington, U.S.A., 2,409
Selwyn Bay, Solomon Islands, 3,047
Seward, Alaska, U.S.A., 2,373
Shanghai, China (via Osumi Kaikyo), 4,336
Shanghai, China, 4,396
Shimonoseki, Japan (via Bungo Suido), 3,854
Sitka, Alaska, U.S.A., 2,386
Surabaya, Indonesia, 5,598
Suva, Fiji Islands, 2,776
Sweeper Cove, Alaska, U.S.A., 1,945
Sydney, Australia, 4,420
Talara, Peru, 4,806
Tinian, Mariana Islands, 3,230
Truk, Caroline Islands, 3,028
Unalakleet, Alaska, U.S.A., 2,407
Valparaiso, Chile, 5,919
Vancouver, Canada, 2,423
Victoria, Canada, 2,349
Vladivostok, Russia, 3,725
Wake Island, 2,004
Wellington, New Zealand, 4,113
Whittier, Alaska, U.S.A., 2,474
Weonsan, North Korea, 3,933
Wotho, Marshall Islands, 2,187
Wotje Island, Marshall Islands, 1,992
Xiamen, China, 4,592
Yap, Caroline Islands, 3,757
Yantai, China (via Osumi Kaikyo), 4,483
Yokohama, Japan (via rhumb line), 3,520
Yokohama, Japan, 3,395

HONSHU, JAPAN*
(35°00'00"N., 140°30'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 3,059
Panama, Panama, 7,614
Punta Arenas, Chile, 9,286
Singapore, 2,879
Sundra Strait, Indonesia, 3,171
Torres Strait, Australia, 3,265
Tsugaru-Kaikyo, Japan, 484
Selat Wetar, Indonesia, 2,838
Wilson Promontory, Australia, 4,881

Ports

Davao, Philippines, 1,986
Honolulu, Hawaii, U.S.A., 3,311
Kobe, Japan, 417
San Francisco, California, U.S.A., 4,454
Seattle, Washington, U.S.A., 4,155

HORNEFORS, SWEDEN
(63°36'37"N., 19°55'29"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East

* **JUNCTION POINT.**—See Preface for use of junction points

44 HORSENS, DENMARK

Entrance), Germany, 767
Skagens Odde, Denmark (via The Sound), 828

Ports

Burea, Sweden, 122
Helsinki, Finland, 383
Reposaari, Finland, 143
Sankt-Peterburg, Russia, 534
Stockholm, Sweden, 315

HORSSENS, DENMARK
(55°51'22"N., 9°52'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 131
Skagens Odde, Denmark, 170

Ports

Klaipeda, Lithuania, 459
Stockholm, Sweden, 567
Swinoujscie, Poland, 268

HORTA, FAYAL, AZORES
(38°32'00"N., 28°37'00"W.) to:

Junction Points*

Bishop Rock, England, 1,158
Cape of Good Hope, South Africa, 5,152
Inishtrahull, Ireland, 1,329
Montreal, Canada (via Cabot Strait), 2,145
Pentland Firth, Scotland, 1,575
Strait of Gibraltar, 1,102
Straits of Florida, 2,913

Ports

Baltimore, Maryland, U.S.A., 2,409
Bayonne, France, 1,277
Bordeaux, France, 1,348
Buenos Aires, Argentina, 4,997
Cadiz, Spain, 1,070
Christiansted, St. Croix, 2,259
Colon, Panama, 3,260
Corunna, Spain, 967
Dakar, Senegal, 1,559
El Ferrol del Caudillo, Spain, 970
Funchal, Madeira Island, 677
Georgetown, Guyana, 2,488
Gijon, Spain, 1,092
Guantanamo, Cuba (via Mouchoir Passage), 2,666
Key West, Florida, U.S.A. (via Providence channels), 2,854
Kingston, Jamaica, 2,818
Las Palmas, Canary Islands, 914
Lisboa, Portugal, 917
Marin, Spain, 944
Milford Haven, Wales, 1,266
New York, New York, U.S.A., 2,098
Ponta Delgada, Azores, 153
Port of Spain, Trinidad, 2,461
Port Castries, St. Lucia, 2,265
Port Harcourt, Nigeria, 3,391
Porto Grande, Cape Verde Islands, 1,316
Puerto de Pasajes, Spain, 1,260
Rio de Janeiro, Brazil, 3,897
Rota, Spain, 1,096
San Juan, Puerto Rico, 2,294
San Sebastian, Spain, 957
Santa Cruz de Tenerife, Canary Islands, 881

Santander, Spain, 1,090
Sekondi, Ghana, 2,838
Setubal, Portugal, 939
Viana do Castelo, Portugal, 935
Vigo, Spain, 938
Vila Real de Santo Antonio, Portugal, 1,046
Villagarcia, Spain, 946
Willemstad, Curacao, 2,683

HORTEN, NORWAY
(59°25'00"N., 10°29'50"E.)
Subtract 30 1/2 miles from Oslo distances.

HOSOSIMA KO, JAPAN
(32°26'38"N., 131°41'48"E.)
Subtract 62 miles from Oita distances when traveling southbound and subtract 34 miles from Oita distances when traveling eastbound.

HOUSTON, TEXAS, U.S.A.
(29°45'00"N., 95°17'20"W.) Add 47 miles to Galveston distances.

HOWLAND ISLAND
(0°48'00"N., 176°38'00"W.) to:

Ports

Baker Island, 37
Canton, Phoenix Islands, 367
Honolulu, Hawaii, U.S.A., 1,650
Pago Pago, American Samoa, 989
Wake Island, 1,485

HSIA-MEN, CHINA
(24°27'00"N., 118°04'00"E.) See Xiamen, China.

HUA-LIEN KANG, TAIWAN
(23°58'30"N., 121°37'00"E.) to:

Ports

Busan, South Korea, 782
Hong Kong, China, 518
Manila, Philippines, 648
Mingdao, China, 792
Shanghai, China, 533

HUANG-PU, CHINA
(23°05'42"N., 113°26'30"E.) See Huangpu.

HUANG PU, CHINA
(23°05'42"N., 113°26'30"E.)
Subtract 10 miles from Kuang-chou distances.

HUDIKSVAL, SWEDEN
(61°44'00"N., 17°07'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 668
Skagens Odde, Denmark (via The Sound), 730

Ports

Helsinki, Finland, 315
Odense, Denmark, 701
Porvoo, Finland, 342
Rostock, Germany, 588
Sankt-Peterburg, Russia, 458
Tallinn, Estonia, 293
Varberg, Sweden (via The Sound), 648

HUELVA, SPAIN
(37°15'00"N., 6°57'30"W.) to:

Junction Points*

Strait of Gibraltar, 102

Ports

Bilbao, Spain, 804
Dakar, Senegal, 1,521
Freetown, Sierra Leone, 1,999
Funchal, Madeira Island, 578
Lisboa, Portugal, 235
Ponta Delgada, Azores, 914
Porto Grande, Cape Verde Islands, 1,561
Santa Cruz de Tenerife, Canary Islands, 715
Vigo, Spain, 453

HUENEME, CALIFORNIA, U.S.A.
(34°09'00"N., 119°12'24"W.) See Port Hueneme.

HULL, ENGLAND
(53°44'30"N., 0°18'00"W.) to:

Junction Points*

Bishop Rock, England, 531
Ile d'Ouessant, France, 523
Skagens Odde, Denmark, 462

Ports

Amsterdam, Netherlands, 212
Antwerp, Belgium, 265
Arkhangel'sk, Russia, 1,926
Bergen, Norway, 471
Boulogne, France, 225
Bremerhaven, Germany, 332
Dikson, Russia, 2,552
Dundee, Scotland, 240
Dunkerque, France, 223
Egersund, Norway, 378
Emden, Germany, 279
Esbjerg, Denmark, 334
Falmouth, England, 464
Hamburg, Germany, 384
Kristiansand, Norway, 407
Le Havre, France, 326
Leith, Scotland, 237
London, England, 239
Newcastle, England, 143
Oostende, Belgium, 207
Oslo, Norway, 559
Plymouth, England, 442
Portland, England, 368
Portsmouth, England, 318
Rosyth, Scotland, 248
Rotterdam, Netherlands, 211
Southampton, England, 336
Stavanger, Norway, 408
Trondheim, Norway, 752
Wilhelmshaven, Germany, 323
Zeebrugge, Belgium, 205

HUNGAM, NORTH KOREA
(39°49'00"N., 127°37'00"E.) to:

Ports

Busan, South Korea, 328
Hakodate, Japan, 623
Korsakov, Sakhalin, Russia, 794
Shimonoseki, Japan, 397
Vladivostok, Russia, 298

HUSNES, NORWAY
(59°52'00"N., 5°46'00"E.) to:

Junction Points*

Bishop Rock, England (via Dover Strait), 890
Ile d'Ouessant, France (via Dover Strait), 876
Nord-Ostsee-Kanal (East Entrance), Germany, 476
Pentland Firth, Scotland, 129
Skagens Odde, Denmark, 282

Ports

Aberdeen, Scotland, 540
Amsterdam, Netherlands, 757
Antwerp, Belgium, 882
Brevik, Norway, 575
Dunkerque, France, 858
Hamburg, Germany, 729
Hull, England, 700
Narvik, Norway, 375
Reykjavik, Iceland, 924
Zeebrugge, Belgium, 824

HVALFJORDHUR, ICELAND
(64°18'30"N., 22°05'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 660
Strait of Gibraltar, 1,944

Ports

Bergen, Norway, 887
Murmansk, Russia, 1,531
St. John's, Canada, 1,437

HYERES, FRANCE
(43°05'00"N., 6°12'00"E.) to:

Junction Points*

Port Said, Egypt, 1,474
Strait of Gibraltar, 725

Ports

Annaba, Algeria, 384
Barcelona, Spain, 218
Genova, Italy, 147

IGARKA, RUSSIA
(67°28'00"N., 86°35'00"E.) Add 434 miles to Dikson distances.

IJMUIDEN, NETHERLANDS
(52°28'00"N., 4°34'00"E.)
Subtract 14 miles from Amsterdam distances.

ILE D'OUESSANT, FRANCE *
(48°40'00"N., 5°30'00"W.) to:

Junction Points*

Bishop Rock, England, 80
Cape of Good Hope, South Africa, 5,746
Fastnet Rock, Ireland, 225
Grand Banks South, 1,877
Montreal, Canada (via Strait of Belle Isle), 2,901
Nord-Ostsee-Kanal (East Entrance), Germany, 716
Panama, Panama (via Mona Passage), 4,374
Pentland Firth, Scotland, 872
Punta Arenas, Chile, 6,986
Skagens Odde, Denmark, 833
Strait of Gibraltar, 918

* **JUNCTION POINT.**—See Preface for use of junction points

Ports

Aberdeen, Scotland, 715
 Agadir, Morocco, 1,136
 Amsterdam, Netherlands, 465
 Anecho, Togo, 3,704
 Antwerp, Belgium, 441
 Aviles, Spain, 307
 Bata, Equatorial Guinea, 4,173
 Bayonne, France, 345
 Belem, Brazil, 3,748
 Bergen, Norway, 894
 Bilbao, Spain, 346
 Bissau, Guinea-Bissau, 2,401
 Bordeaux, France, 321
 Bremerhaven, Germany, 647
 Brest, France, 55
 Buchanan, Liberia, 2,904
 Buenos Aires, Argentina, 5,916
 Cadiz, Spain, 894
 Caen, France, 240
 Calabar, Nigeria, 4,054
 Calais, France, 321
 Cape Town, South Africa, 5,743
 Casablanca, Morocco, 960
 Corunna, Spain, 331
 Cotonou, Benin, 3,747
 Dakar, Senegal, 2,152
 Dartmouth, England, 135
 Dieppe, France, 270
 Dover, England, 306
 Dundee, Scotland, 698
 Dunkerque, France, 351
 Egersund, Norway, 783
 El Ferrol del Caudillo, Spain, 343
 El Jadida, Morocco, 998
 Emden, Germany, 590
 Esbjerg, Denmark, 676
 Falmouth, England, 100
 Fecamp, France, 246
 Fedala, Morocco, 944
 Freetown, Sierra Leone, 2,630
 Funchal, Madeira Island, 1,098
 Gijon, France, 294
 Granville, France, 158
 Greenville, Liberia, 2,981
 Hamburg, Germany, 703
 Hartlepool, England, 579
 Hull, England, 523
 Kenitra, Morocco, 954
 Kristiansand, Norway, 794
 La Pallice, France, 245
 Lagos, Nigeria, 3,746
 Larache, Morocco, 926
 Le Havre, France, 243
 Leith, Scotland, 696
 Lisboa, Portugal, 666
 Lobito, Angola, 4,670
 London, England, 398
 Longji, Cameroon, 4,179
 Lorient, France, 107
 Marin, Ponte Vedra Bay, Spain, 437
 Mayumba, Gabon, 4,437
 Mocamedes, Angola, 4,697
 Montevideo, Uruguay, 5,802
 Narvik, Norway, 1,498
 Natal, Brazil, 3,619
 Newcastle, England, 604
 Oostende, Belgium, 365
 Oporto, Portugal, 494
 Oslo, Norway, 944
 Paramaribo, Suriname, 3,613
 Plymouth, England, 117
 Ponta Delgada, Azores, 1,101
 Port Etienne, Mauritania, 1,826
 Port Harcourt, Nigeria, 3,974
 Porto Grande, Cape Verde Islands, 2,137
 Portsmouth, England, 227
 Puerto de Passajes, Spain, 340
 Rabat, Morocco, 954
 Recife, Brazil, 3,743

Rio de Janeiro, Brazil, 4,815
 Rota, Spain, 885
 Rotterdam, Netherlands, 444
 Safi, Morocco, 1,023
 Salvador, Brazil, 4,134
 San Sebastian, Spain, 353
 Santa Cruz de Tenerife, Canary Islands, 1,320
 Santander, Spain, 323
 Santos, Brazil, 5,002
 Sekondi, Ghana, 3,424
 Setubal, Portugal, 672
 Shoreham By Sea, England, 245
 Sidi Ifni, Morocco, 1,196
 Southampton, England, 223
 St. Helena Island, 4,120
 St. Malo, France, 141
 St. Nazaire, France, 184
 Stavanger, Norway, 823
 Tema, Ghana, 3,597
 Viana do Castelo, Portugal, 467
 Victoria, Cameroon, 4,126
 Vigo, Spain, 439
 Vila Real de Santo Antonio, Portugal, 836
 Villagarcia, Spain, 433
 Wilhelmshaven, Germany, 639
 Willemstad, Curacao, 3,821
 Zeebrugge, Belgium, 380

ILICHIVS'K, UKRAINE (BLACK SEA)

(46°18'00"N., 30°45'46"E.) to:

Junction Points*

Port Said, Egypt, 1,168
 Strait of Gibraltar (via Corinth Canal), 4,035
 Strait of Gibraltar (south of Greece), 4,095

Ports

Alexandria, Egypt, 1,106
 Beirut, Lebanon, 1,216
 Constanta, Romania, 158
 Haifa, Israel, 1,219
 Iraklion, Kriti, 817
 Istanbul, Turkey, 360
 Napoli, Italy (via Corinth Canal), 1,298
 Napoli, Italy (south of Greece), 1,361
 Valencia, Spain (via Corinth Canal), 1,893
 Valencia, Spain (south of Greece), 1,953

ILIGAN, PHILIPPINES

(8°13'50"N., 124°13'50"E.) to:

Junction Points*

Honshu, Japan, 1,843
 Selat Lombok, Indonesia, 1,265
 Panama, Panama, 9,449
 Punta Arenas, Chile, 9,053
 Singapore, 1,343
 Selat Sunda, Indonesia, 1,587
 Torres Strait, Australia, 1,953
 Tsugaru-Kaikyo, Japan, 2,312
 Selat Wetar, Indonesia, 1,351

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 2,763
 Busan, Korea, 1,644
 Manila, Philippines, 555
 Nagasaki, Japan, 1,530
 Puerto Princesa, Philippines, 365

San Francisco, California, U.S.A., 6,174
 Vladivostok, Russia, 2,161

ILO, PERU

(17°38'09"S., 71°20'58"W.) to:

Junction Points*

Panama, Panama, 1,851
 Punta Arenas, Chile, 2,341
 Torres Strait, Australia, 8,347
 Wilson Promontory, Australia (via 30°S.), 7,421
 Wilson Promontory, Australia (via 40°S.), 7,160

Ports

Antofagasta, Chile, 367
 Arica, Chile, 85
 Callao, Peru, 503
 Corinto, Nicaragua, 2,102
 Pisco, Peru, 382
 San Nicolas, Peru, 276
 Supe Bay, Peru, 623
 Talcahuano, Chile, 1,147
 Valparaiso, Chile, 929

ILOILO, PANAY, PHILIPPINES

(10°42'00"N., 122°34'40"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,247
 Panama, Panama, 9,235
 Singapore (via Lumbucan Channel), 1,268

Ports

Apra, Guam, 1,366
 Batangas, Philippines, 270
 Cebu, Philippines, 176
 Dagu, China, 1,929
 Hakodate, Japan (via Sea of Japan), 2,199
 Ho Chi Minh, Vietnam, 1,051
 Honolulu, Hawaii, U.S.A., 4,632
 Incheon, South Korea, 1,678
 Jakarta, Indonesia (via Lumbucan Channel and Selat Gaspar), 1,476
 Kobe, Japan, 1,623
 Kota Kinabalu, Sabah, 501
 Kuching, Sarawak, 948
 Lo hsing-ta Mao-ti, China (via Balintang Channel), 1,073
 Manila, Philippines (via Verde Island Passage), 361
 Nagasaki, Japan, 1,428
 Petropavlovsk-Kamchatskiy, Russia, 3,123
 San Francisco, California, U.S.A., 6,168
 Shanghai, China, 1,343
 Shimonoseki, Japan, 1,569
 Vladivostok, Russia, 2,048
 Weihai, China, 1,701
 Xiamen, China, 987
 Yantai, China, 1,735
 Yokohama, Japan, 1,784
 Zamboanga, Philippines, 241

ILULISSAT (JAKOBHAVN), GREENLAND

(69°13'30"N., 51°05'30"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,972
 Strait of Gibraltar, 2,819

Ports

Churchill, Canada, 1,532
 Reykjavik, Iceland, 1,418
 St. John's, Canada, 1,341

IMABARI, JAPAN

(34°04'15"N., 133°00'30"E.) to:

Ports

Kobe, Japan, 120
 Kure, Japan, 63
 Nagoya, Japan, 341
 Shimonoseki, Japan, 123
 Yokohama, Japan, 454

IMMINGHAM, ENGLAND

(53°38'00"N., 0°11'00"W.)

Subtract 8 miles from Hull distances.

INCHEON, SOUTH KOREA

(37°28'00"N., 126°37'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 2,885
 Panama, Panama, 8,474
 Singapore, 2,560
 Selat Sunda, Indonesia, 2,913
 Selat Wetar, Indonesia (via Molucca Passage and Selat Manipa), 2,767

Ports

Aleksandrovsk-Sakhalinskiy, Russia (via Maenggoi Sudo), 1,507
 Apra, Guam (via Kaikyo Strait), 1,835
 Bangkok, Thailand, 2,591
 Bohang, South Korea, 51
 Busan, South Korea, 402
 Cebu, Philippine (via San Bernardino Strait), 1,656
 Dagu, China, 465
 Dalian, China, 290
 Hakodate, Japan, 1,080
 Ho Chi Minh, Vietnam, 2,057
 Hong Kong, China, 1,202
 Honolulu, Hawaii, U.S.A. (via Maenggoi Sudo and Bungo Suido), 4,323
 Honolulu, Hawaii, U.S.A. (via Osumi Kaikyo), 4,387
 Iloilo, Philippines, 1,678
 Jakarta, Indonesia, 2,894
 Kobe, Japan, 733
 Lianyungang, China, 389
 Lo hsing-ta Mao-ti, China, 818
 Manila, Philippines, 1,498
 Masan, South Korea, 403
 Misumi, Japan, 478
 Mogpo, South Korea (via south of Kasa Do), 236
 Mogpo, South Korea (via Myondo Suido), 189
 Moji, Japan, 485
 Nagasaki, Japan, 453
 Nampo, North Korea, 216
 Osaka, Japan, 721
 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait and Maenggoi Sudo), 2,120
 Petropavlovsk-Kamchatskiy, Russia (via Osumi Kaikyo), 2,449
 Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 2,136

* JUNCTION POINT.—See Preface for use of junction points

46 INISHTRAHULL, IRELAND

Port Darwin, Australia (via Molucca Passage), 3,072
Qingdao, China, 333
Qinhuangdao China, 406
Sanmen Wen, China, 628
Shanghai, China (via Nan Shui-Tao), 503
Shimonoseki, Japan, 489
Su-ao Kang, Taiwan, 823
Tso-Ying, Taiwan, 975
Ulsan, South Korea, 435
Vladivostok, Russia (via Malmul Sudo), 911
Weihai, China, 238
Wenzhou, China, 723
Weonsan, North Korea (via Maenggol Sudo), 707
Xiamen, China, 943
Yantai, China, 273
Yokohama, Japan (via Maemul Sudo and Bungo Suido), 1,016
Yokohama, Japan (via Naikai), 1,070

INISHTRAHULL, IRELAND* (55°25'00"N., 7°30'00"W.) to:

Junction Points*

Bishop Rock, England, 395
Cape of Good Hope, South Africa, 6,141
Fastnet Rock, Ireland, 335
Grand Banks South, 1,809
Montreal, Canada (via Strait of Belle Isle), 2,545
Pentland Firth, Scotland, 272
Punta Arenas, Chile, 7,315
Strait of Gibraltar, 1,350

Ports

Adrossan, Scotland, 95
Argentina, Canada, 1,874
Arkhangel'sk, Russia, 1,900
Baltimore, Maryland, U.S.A., 3,190
Barrow in Furness, England, 186
Belem, Brazil, 3,972
Belfast, Northern Ireland, 97
Boston, Massachusetts, U.S.A., 2,723
Buenos Aires, Argentina, 6,243
Cairn Ryan, Scotland, 91
Charleston, South Carolina, U.S.A., 3,331
Charlotte Amalie, Virgin Islands, 3,427
Churchill, Canada (via 75 miles off Kap Farvel), 2,760
Cienfuegos, Cuba, 4,055
Colon, Panama (via Mona Passage), 4,393
Colon, Panama (via Windward Passage), 4,362
Dakar, Senegal, 2,546
Douglas, Isle of Man, 156
Dublin, Ireland, 184
Fleetwood, England, 189
Freetown, Sierra Leone, 3,024
Funchal, Madeira Island, 1,466
Galway, Ireland, 231
Georgetown, Guyana, 3,779
Glasgow, Scotland, 146
Goose Bay, Canada, 1,812
Guantanamo, Cuba, 3,690
Halifax, Canada, 2,406
Hamilton, Bermuda, 2,747
Holyhead, Wales, 181
Horta, Azores, 1,329
Ivittuut, Greenland (direct), 1,392
Ivittuut, Greenland (via 75 miles

off Kap Farvel), 1,450
Jacksonville, Florida, U.S.A., 3,499
Key West, Florida, U.S.A., 3,777
Kingston, Jamaica, 3,853
La Habana, Cuba, 3,843
Limerick, Ireland, 279
Lisboa, Portugal, 1,093
Liverpool, England, 210
Miami, Florida, U.S.A., 3,777
Milford Haven, Wales, 286
New Haven, Connecticut, U.S.A., 2,867
New London, Connecticut, U.S.A., 2,815
New York, New York, U.S.A., 2,896
Newport, Wales, 371
Norfolk, Virginia, U.S.A., 3,069
Philadelphia, Pennsylvania, U.S.A., 3,049
Port of Spain, Trinidad, 3,706
Port Au Prince, Haiti, 3,724
Port Castries, St. Lucia, 3,499
Port Talbot, Wales, 331
Providence, Rhode Island, U.S.A., 2,804
Qeqertarsuaq (Godhavn), Greenland (via 75 miles off Kap Farvel), 1,953
Qeqertarsuaq (Godhavn), Greenland, 1,901
Recife, Brazil, 4,071
Reykjavik, Iceland, 729
Rio de Janeiro, Brazil, 5,143
San Juan, Puerto Rico, 3,436
Santa Cruz de Tenerife, Canary Islands, 1,704
Santo Domingo, Dominican Republic, 3,621
St. John's, Canada, 1,720
Washington, D.C., U.S.A., 3,204
Waterford, Ireland, 276
Wilmington, North Carolina, 3,275

INVERGORDON, SCOTLAND (57°41'00"N., 4°10'00"W.) Subtract 6 miles from Inverness distances.

INVERNESS, SCOTLAND (57°29'00"N., 4°14'00"W.) to:

Junction Points*

Skagens Odde, Denmark, 481

Ports

Amsterdam, Netherlands, 482
Antwerp, Belgium, 554
Bremerhaven, Germany, 514
Dunkerque, France, 526
Emden, Germany, 487
Esbjerg, Denmark, 455
Hamburg, Germany, 562
Oostende, Belgium, 510
Rotterdam, Netherlands, 496
Wilhelmshaven, Germany, 508
Zeebrugge, Belgium, 506

IPSWICH, ENGLAND (52°03'00"N., 1°10'00"E.) Add 8 miles to Harwich distances.

IQUIQUE, CHILE (20°12'00"S., 70°10'00"W.) to:

Junction Points*

Panama, Panama, 1,987

Punta Arenas, Chile, 2,201

Ports

Acapulco, Mexico, 2,834
Amapala, Honduras, 2,303
Antofagasta, Chile, 224
Arica, Chile, 110
Caldera, Chile, 420
Callao, Peru, 659
Coquimbo, Chile, 602
Corinto, Nicaragua, 2,247
Esmeraldas, Ecuador, 1,550
Guayaquil, Ecuador, 1,317
Guaymas, Mexico, 3,750
Lota, Chile, 1,033
Monterey, California, U.S.A., 4,540
Pisco, Peru, 560
Puntarenas, Costa Rica, 2,062
Salina Cruz, Mexico, 2,645
San Diego, California, U.S.A., 4,218
San Francisco, California, U.S.A., 4,620
San Jose, Guatemala, 2,404
Talahuan, Chile, 1,008
Valparaiso, Chile, 782
Yokohama, Japan, 9,026

IRAKLION, KRITI (35°20'41"N., 25°08'24"E.) to:

Junction Points*

Port Said, Egypt, 455
Strait of Gibraltar, 1,516

Ports

Al Latakia, Syria, 527
Alexandria, Egypt, 372
Algiers, Algeria, 1,087
Kalamai, Greece, 197
Khalkis, Greece, 210
Kyrenia, Cyprus, 406
La Spezia, Italy, 956
Limassol, Cyprus, 405
Livorno, Italy, 920
Malaga, Spain, 1,446
Marseille, France, 1,083
Matruh, Egypt, 308
Messina, Sicily, 510
Napoli, Italy, 681
Navplion, Greece, 237
Odessa, Ukraine, 793
Oran, Algeria, 1,284
Palermo, Sicily, 626
Palma, Balearic Islands, 1,130
Piraeus, Greece, 175
Rhodes, Greece, 171
Rijeka, Croatia, 831
Salamis, Greece, 190
Savona, Italy, 1,002
Sibenik, Croatia, 704
Siracusa, Sicily, 495
Split, Croatia, 689
Tarabulus, Libya, 630
Taranto, Italy, 509
Thessaloniki, Greece, 351
Toulon, France, 1,051
Trieste, Italy, 865
Tunis, Tunisia, 745
Valencia, Spain, 1,252
Valletta, Malta, 528
Venezia, Italy, 872
Volos, Greece, 292
Yumurtalik, Turkey, 540

ISABEL DE SAGUA, CUBA (22°57'00"N., 80°00'24"W.) to:

Junction Points*

Straits of Florida, 195
Yucatan Channel, 329

Ports

Jacksonville, Florida, U.S.A., 507
La Habana, Cuba, 151
Nuevitas, Cuba, 212

ISABEL SEGUNDA, ISLA DE VIEQUES, PUERTO RICO (18°10'00"N., 65°28'00"W.) to:

Junction Points*

Panama, Panama, 1,060
Straits of Florida, 1,064

Ports

New York, New York, U.S.A., 1,430
Port of Spain, Trinidad, 531
Willemstad, Curacao, 446

ISKENDERUN, TURKEY (36°36'00"N., 36°11'00"E.) to:

Junction Points*

Port Said, Egypt, 381
Strait of Gibraltar, 2,054

Ports

Beirut, Lebanon, 180
Constanta, Romania, 1,044
Istanbul, Turkey, 847
Izmir, Turkey, 652
Nice, France, 1,553
Patrai, Greece (south of Greece), 846
Patrai, Greece (via Corinth Canal), 748
Piraeus, Greece, 656
Pula, Croatia (south of Greece), 1,341
Pula, Croatia (via Corinth Canal), 1,301
Rostov-na-Donu, Russia, 1,483
Sete, France, 1,675
Sfax, Tunisia, 1,282
Tarabulus, Libya, 1,167
Thessaloniki, Greece, 784
Tubruq, Libya, 667

ISLA DE PASCUA, SOUTH PACIFIC (27°08'30"S., 109°26'30"W.) See Easter Island.

ISLAS JUAN FERNANDEZ, SOUTH PACIFIC (33°38'00"S., 78°49'40"W.) to:

Ports

Easter Island, 1,633
Honolulu, Hawaii, U.S.A., 5,595
Puerto Montt, Chile, 616
Valparaiso, Chile, 364

ISTANBUL, TURKEY (41°01'15"N., 28°59'09"E.) to:

Junction Points*

Port Said, Egypt, 804
Strait of Gibraltar, 1,821

* JUNCTION POINT.—See Preface for use of junction points

Ports

Alexandria, Egypt, 742
 Alexandroupolis, Greece, 200
 Algiers, Algeria (south of Greece), 1,393
 Algiers, Algeria (via Corinth Canal), 1,376
 Alicante, Spain, 1,560
 Almeria, Spain, 1,659
 Ancona, Italy (south of Greece), 1,058
 Ancona, Italy (via Corinth Canal), 96
 Annaba, Algeria, 1,168
 Banghazi, Libya, 716
 Banzart, Tunisia, 1,063
 Barcelona, Spain, 1,486
 Bari, Italy (south of Greece), 851
 Bari, Italy (via Corinth Canal), 755
 Bat'umi, Georgia, 591
 Beirut, Lebanon, 896
 Brindisi, Italy (south of Greece), 793
 Brindisi, Italy (via Corinth Canal), 697
 Cagliari, Sardinia, 1,133
 Cartagena, Spain, 1,573
 Catania, Sicily, 810
 Ceuta, Morocco, 1,802
 Civitavecchia, Italy (south of Greece), 1,107
 Civitavecchia, Italy (via Corinth Canal), 1,066
 Constanta, Romania, 201
 Genova, Italy, 1,291
 Gibraltar, 1,804
 Haifa, Israel, 849
 Iraklion, Kriti, 445
 Iskenderun, Turkey, 847
 Izmir, Turkey, 292
 La Spezia, Italy, 1,256
 Larnaca, Cyprus, 766
 Livorno, Italy, 1,220
 Malaga, Spain, 1,752
 Marseille, France, 1,383
 Mersin, Turkey, 789
 Messina, Sicily, 810
 Napoli, Italy, 981
 Nice, France, 1,321
 Novorossiysk, Russia, 460
 Odessa, Ukraine, 352
 Oran, Algeria, 1,590
 Palermo, Sicily, 926
 Palma, Balearic Islands, 1,446
 Piraeus, Greece, 364
 Pula, Croatia, 1,124
 Rhodes, Greece, 445
 Rijeka, Croatia (south of Greece), 1,128
 Rijeka, Croatia (via Corinth Canal), 1,029
 Rostov-na-Donu, Russia, 640
 Savona, Italy, 1,301
 Sete, France, 1,442
 Sibenik, Croatia (south of Greece), 1,001
 Sibenik, Croatia (via Corinth Canal), 902
 Siracusa, Sicily, 798
 Split, Croatia (south of Greece), 986
 Split, Croatia (via Corinth Canal), 887
 Tarabulus, Libya, 953
 Taranto, Italy (south of Greece), 806
 Taranto, Italy (via Corinth Canal), 717
 Thessaloniki, Greece, 338
 Toulon, France, 1,351
 Trieste, Italy (south of Greece), 1,162

Trieste, Italy (via Corinth Canal), 1,063
 Tunis, Tunisia, 1,050
 Valencia, Spain, 1,558
 Valletta, Malta, 837
 Venezia, Italy (south of Greece), 1,169
 Venezia, Italy (via Corinth Canal), 1,073
 Volos, Greece, 329

ITOZAKICHO, JAPAN
 (34°23'00"N., 133°06'00"E.) to:

Ports

Kobe, Japan, 113
 Kure, Japan, 73
 Sasebo, Japan, 271
 Shimonoseki, Japan, 133
 Shiogama, Japan, 662
 Yokohama, Japan, 446

IVITTUUT, GREENLAND
 (61°12'30"N., 48°10'00"W.) to:

Junction Points*

Bishop Rock, England, 1,608
 Inishtrahull, Ireland, 1,392
 Montreal, Canada, 1,472
 Pentland Firth, Scotland, 1,440
 Strait of Gibraltar, 2,283
 Straits of Florida, 2,925

Ports

Argentina, Canada, 1,023
 Arkhangel'sk, Russia, 2,573
 Boston, Massachusetts, U.S.A., 1,731
 Colon, Panama, 3,536
 Guantanamo, Cuba, 2,873
 Halifax, Canada, 1,380
 Murmansk, Russia, 2,201
 New York, New York, U.S.A., 1,933
 Norfolk, Virginia, U.S.A., 2,116
 Philadelphia, Pennsylvania, U.S.A., 2,086
 Portsmouth, New Hampshire, U.S.A., 1,709
 Qeqertarsuaq Godhavn, Greenland, 560
 Reykjavik, Iceland, 887
 San Juan, Puerto Rico, 2,720
 St. John's, Canada, 849

IWAKUNI, JAPAN
 (34°10'00"N., 132°17'00"E.) to:

Ports

Apra, Guam, 1,437
 Ho Chi Minh, Vietnam, 2,108
 Kobe, Japan, 166
 Shimonoseki, Japan, 93
 Yokohama, Japan, 497

IZMIR, TURKEY
 (38°25'39"N., 21°07'58"E.) to:

Junction Points*

Port Said, Egypt, 608
 Strait of Gibraltar (south of Greece), 1,667

Ports

Alexandria, Egypt, 547
 Algiers, Algeria, 1,238

Junction Points*

Bishop Rock, England, 3,527
 Cape of Good Hope, South Africa, 6,862
 Fastnet Rock, Ireland, 3,413
 Inishtrahull, Ireland, 3,511
 Montreal, Canada, 2,119
 Panama, Panama, 1,559
 Pentland Firth, Scotland, 3,691
 Punta Arenas, Chile, 6,917
 Strait of Gibraltar, 3,740
 Straits of Florida, 523

Ports

Belem, Brazil, 2,773
 Belize, Belize, 1,047
 Bridgetown, Barbados, 1,617
 Buenos Aires, Argentina, 5,841
 Caibarien, Cuba, 526
 Cape Town, South Africa, 6,854
 Cartagena, Colombia, 1,395
 Charlotte Amalie, Virgin Islands, 1,181
 Colon, Panama (via Crooked Island Passage), 1,516
 Colon, Panama (via Yucatan Channel), 1,535
 Dakar, Senegal, 3,650
 Elizabeth Harbor, Bahamas, 559
 Georgetown, Guyana, 1,980
 Guantanamo, Cuba (via Crooked Island Passage), 851
 Halifax, Canada, 1,255
 Isabel De Sagua, Cuba, 507
 Kingston, Jamaica (via Crooked Island Passage), 1,016
 La Habana, Cuba, 528
 Las Palmas, Canary Islands, 3,467
 Limon, Costa Rica, 1,589
 Lisboa, Portugal, 3,548
 Miller Anchorage, Bahamas, 507
 Montevideo, Uruguay, 5,727
 Nassau, Bahamas, 456
 Ponce, Puerto Rico, 1,146
 Port of Spain, Trinidad, 1,685
 Port Castries, St. Lucia, 1,520
 Recife, Brazil, 3,668
 Rio de Janeiro, Brazil, 4,740
 San Juan, Puerto Rico, 1,121
 Santiago de Cuba, Cuba (via Crooked Island Passage), 904
 Santo Domingo, Dominican Republic, 1,166
 Tampico, Mexico, 1,361

JAKARTA, INDONESIA
 (6°06'00"S., 106°53'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 615
 Port Said, Egypt, 5,293
 Singapore, 525
 Selat Sunda, Indonesia, 77
 Torres Strait, Australia, 2,152
 Selat Wetar, Indonesia, 1,247

Ports

Aleksandrovsk Sakhalinskiy, Russia, 3,942
 Apra, Guam (via Makassar Strait), 2,639
 Belawan, Indonesia, 864
 Busan, South Korea, 2,836
 Cebu, Philippines (via Lumbacan Channel), 1,563
 Dagu, China, 3,088
 Hakodate, Japan, 3,468
 Ho Chi Minh, Vietnam, 1,025

* **JUNCTION POINT.**—See Preface for use of junction points

48 JAKOBHAVN, GREENLAND

Hong Kong, China, 1,782
 Iloilo, Philippines (via Lumbacan Channel and Selat Gaspar), 1,476
 Incheon, South Korea, 2,865
 Kobe, Japan (via Balintang Channel), 2,987
 Kota Kinabalu, Sabah, 999
 Kuching, Sarawak, 627
 Malacca, Malaysia, 613
 Manila, Philippines (via Palawan Passage), 1,559
 Mogpo, North Korea, 2,741
 Nagasaki, Japan, 2,712
 Nampo, North Korea, 2,955
 Palembang, Indonesia, 358
 Petropavlovsk-Kamchatskiy, Russia (east of Japan and Balintang Channel), 4,530
 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 4,555
 Port Darwin, Australia, 1,706
 Portland, Oregon, U.S.A. (via Balintang Channel), 7,415
 San Diego, California, U.S.A., 7,985
 San Francisco, California, U.S.A. (via Balintang Channel), 7,642
 San Francisco, California, U.S.A. (via Makassar Strait), 7,641
 Semarang, Indonesia, 236
 Shanghai, China, 2,522
 Shimonoseki, Japan, 2,838
 Sorido, Indonesia, 1,879
 Sukarnopura, Indonesia, 2,187
 Tanshui, Taiwan, 2,094
 Tjirebon, Indonesia, 156
 Vinh Cam Ranh, Vietnam, 1,103
 Vladivostok, Russia, 3,338
 Weihai, China, 2,860
 Weonsan, North Korea, 3,142
 Xiamen, China, 1,971
 Yoktai, China, 2,894
 Yokohama, Japan, 3,194

JAKOBHAVN, GREENLAND
 (69°13'30"N., 51°05'30"W.) See Ilulissat, Greenland.

JAKOBSTAD, FINLAND
 (63°43'00"N., 22°41'30"E.) to:

Ports

Oulu, Finland, 133
 Vassa, Finland, 99

JALUIT, MARSHALL ISLANDS
 (5°55'00"N., 169°38'30"E.) to:

Junction Points*

Panama, Panama, 6,666
 Punta Arenas, Chile, 6,815

Ports

Auckland, New Zealand (via Southeast Pass), 2,595
 Brisbane, Australia (via Main and Howe Channels), 2,231
 Callao, Peru, 6,832
 Funafuti, Tuvalu, 1,041
 Hakodate, Japan, 2,670
 Hobart, Tasmania (via Southeast Pass), 3,223
 Hong Kong, China (via Southeast Pass), 3,370
 Honolulu, Hawaii, U.S.A., 2,096

Melbourne, Australia (via South Channel), 3,181
 Midway Island, 1,535
 Nagasaki, Japan (via Osumi Kaikyo), 2,808
 Pago Pago, American Samoa, 1,700
 Pearl Harbor, Hawaii, U.S.A., 2,101
 Petropavlovsk-Kamchatskiy, Russia, 2,883
 Ponape, Caroline Islands, 698
 Saipan, Mariana Islands, 1,545
 San Francisco, California, U.S.A., 4,150
 Seattle, Washington, U.S.A., 4,296
 Shanghai, China (via Southeast Pass), 3,138
 Sydney, Australia (via Southeast Pass), 2,623
 Tinian, Mariana Islands, 1,536
 Truk, Caroline Islands, 1,078
 Valparaiso, Chile, 7,034
 Wake Island, 831
 Yokohama, Japan (via Southeast Pass), 2,442

JARVIS ISLAND, LINE ISLANDS
 (0°22'30"S., 160°01'45"W.) to:

Junction Points*

Panama, Panama, 4,804

Ports

Christmas Island, Line Islands, 209
 Johnston Island, North Pacific, 1,173
 Pago Pago, American Samoa, 1,050

JAZIREH-YE LAVAN, IRAN
 (26°47'05"N., 53°20'15"E.) See Lavan Island.

JAZIREH-YE SIRRI, IRAN
 (25°54'25"N., 54°33'44"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,831
 Cape Leeuwin, Australia, 5,071
 Selat Lombok, Indonesia, 4,285
 Port Said, Egypt, 2,785
 Singapore, 3,518
 Selat Sunda, Indonesia, 3,667
 Torres Strait, Australia, 5,901

Ports

Belawan, Indonesia, 3,179
 Calcutta, India, 3,154
 Malacca, Malaysia, 3,382
 Port Darwin, Australia, 5,274
 Rangoon, Burma, 3,214
 Sabang, Indonesia, 2,913

JERSEY CITY, NEW JERSEY, U.S.A.
 (40°43'00"N., 74°02'00"W.) For ocean distances add 1 1/2 miles to New York distances.

JIDDAH, SAUDI ARABIA
 (21°28'00"N., 39°09'20"E.) to:

Junction Points*

Port Said, Egypt, 722

Ports

Aden, Yemen, 707
 Al Aqabah, Jordan, 573
 Massawa, Ethiopia, 364
 Port Sudan, Sudan, 161

JINHAE, SOUTH KOREA
 (35°08'40"N., 128°28'35"E.)
 Subtract 3 miles from Masan distances.

JOHNSTON ISLAND, NORTH PACIFIC
 (16°45'00"N., 169°30'30"W.) to:

Junction Points*

Panama, Panama, 5,359

Ports

Apia, Samoa, 1,838
 Apra, Guam, 2,665
 Christmas Island, Line Island, 1,137
 Fanning Island, 1,032
 Funafuti, Tuvalu, 1,654
 Honolulu, Hawaii, U.S.A., 717
 Jarvis Island, 1,173
 Kahului, Hawaii, U.S.A., 798
 Midway Island, 821
 Papeete, French Polynesia, 2,371
 San Francisco, California, U.S.A., 2,779
 Seattle, Washington, U.S.A., 3,018

JOLO, PHILIPPINES
 (6°03'30"N., 120°59'45"E.) to:

Ports

Batangas, Philippines, 480
 Manila, Philippines (via Apo West Pass), 550
 Sandakan, Sabah, 180
 Tacloban, Philippines, 442
 Zamboanga, Philippines, 85

JUBAIL, SAUDI ARABIA
 (27°01'00"N., 49°42'00"E.) See Al Jubayl.

JUCARO, CUBA
 (21°35'41"N., 78°51'15"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,559
 Grand Banks South, 2,240
 Panama, Panama, 764
 Punta Arenas, Chile, 6,730
 Strait of Gibraltar, 4,096
 Yucatan Channel, 362

Ports

Belize, British Honduras, 582
 Boston, Massachusetts, U.S.A., 1,788
 Cape Town, South Africa, 6,552
 Halifax, Canada, 1,991
 Port au Prince, Haiti, 465
 Rio de Janeiro, Brazil, 4,551
 Savannah, Georgia, U.S.A., 1,302

JULIANEHAAB, GREENLAND
 (60°43'00"N., 46°02'30"W.) See Qaqortoq, Greenland.

JUNEAU, ALASKA, U.S.A.
 (58°17'45"N., 134°25'00"W.) to:

Ports

Prince Rupert, Canada, 322
 Vancouver, Canada, 761

KAGOSHIMA, JAPAN
 (31°35'30"N., 130°33'50"E.) to:

Junction Points*

Selat Lombok, Indonesia (via south of Mindanao), 2,761
 Panama, Panama, 8,207
 Punta Arenas, Chile, 9,477
 Singapore (via Balintang Channel), 2,464
 Singapore, 2,401

Ports

Hakodate, Japan, 946
 Kamaishi, Japan, 875
 Kobe, Japan (via Bungo Suido), 422
 Kobe, Japan (via Tomogashima Suido), 379
 Komatsushima, Japan, 344
 Kure, Japan, 296
 Misumi, Japan, 184
 Nagasaki, Japan, 168
 Niihama, Japan, 318
 Shimonoseki, Japan (via Bungo Suido), 295
 Shimonoseki, Japan (west of Kyushu), 306
 Tokuyama, Japan, 263
 Ube, Japan, 280
 Yokkaichi, Japan, 476
 Yokohama, Japan, 594

KAHULUI, MAUI, HAWAII, U.S.A.
 (20°54'00"N., 156°28'31"W.) to:

Junction Points*

Panama, Panama, 4,605

Ports

Johnston Island, 798
 Midway Island, 1,266
 Seattle, Washington, U.S.A., 2,364
 Yokohama, Japan, 3,496

KAKINADA, INDIA
 (17°00'00"N., 82°20'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,023
 Selat Lombok, Indonesia, 2,567
 Singapore, 1,593

Ports

Belawan, Indonesia, 1,261
 Calcutta, India, 522
 Fremantle, Australia, 3,515
 Madras, India, 276
 Malacca, Malaysia, 1,478
 Penang, Malaysia, 1,273
 Sabang, Indonesia, 1,019

* **JUNCTION POINT.**—See Preface for use of junction points

KALAMAI, GREECE
(37°01'02"N., 22°06'38"E.) to:

Junction Points*

Port Said, Egypt, 644
Strait of Gibraltar, 1,370

Ports

Banghazi, Libya, 313
Iraklion, Kriti, 197
Messina, Sicily, 355
Taranto, Italy, 351
Tunis, Tunisia, 599

KALI LIMENES, KRITI, GREECE
(34°55'45"N., 24°49'15"E.) to:

Junction Points*

Port Said, Egypt, 446
Strait of Gibraltar, 1,504

Ports

Alexandria, Egypt, 338
Algiers, Algeria, 1,071
Alicante, Spain, 1,231
Ashdod, Israel, 525
Barcelona, Spain, 1,156
Beirut, Lebanon, 533
Cartagena, Spain, 1,57
Ceuta, Morocco, 1,478
Gemlik, Turkey, 528
Istanbul, Turkey, 525
Marseille, France, 1,005
Moni Anchorage, Cyprus, 435
Napoli, Italy, 671
Tangier, Morocco, 1,505
Trieste, Italy, 852

KALININGRAD, RUSSIA
(54°42'30"N., 20°28'00"E.) Add
21 1/2 miles to Baltiysk distances.

KALMAR, SWEDEN
(56°39'45"N., 16°22'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 289
Skagens Odde, Denmark (via Store
Baelt), 470
Skagens Odde, Denmark (via The
Sound), 342

Ports

Drammen, Norway (via The
Sound), 455
Fredrikstad, Norway (via The
Sound), 430
Halden, Norway (via The Sound),
430
Moss, Norway (via The Sound),
432
Oslo, Norway (via Store Baelt),
596
Oslo, Norway (via The Sound),
464

KALUNDBORG, DENMARK
(55°40'07"N., 11°05'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 111
Skagens Odde, Denmark, 141

Ports

Kobenhavn, Denmark, 115
Stockholm, Sweden, 531
Swinoujscie, Poland, 175

KAMAISHI, JAPAN
(39°16'18"N., 141°53'36"E.) to:

Junction Points*

Selat Lombok, Indonesia (south of
Mindanao), 3,331
Panama, Panama, 7,422
Punta Arenas, Chile, 9,316
Singapore (via Balintang
Channel), 3,171

Ports

Hakodate, Japan, 192
Kagoshima, Japan, 875
Kobe, Japan, 631
Nagasaki, Japan, 972
Yokohama, Japan, 348

KAMSAR, GUINEA
(10°39'00"N., 14°37'00"W.) to:

Junction Points*

Bishop Rock, England, 2,562
Cape of Good Hope, South Africa,
3,294
Fastnet Rock, Ireland, 2,625
Grand Banks South, 2,701
Ile d'Ouessant, France, 2,520
Inishtrahull, Ireland, 2,965
Panama, Panama, 3,866
Pentland Firth, Scotland, 3,187
Punta Arenas, Chile, 5,172
Strait of Gibraltar, 1,867
Straits of Florida, 3,985
Yucatan Channel, 4,145

Ports

Abidjan, Ivory Coast, 803
Accra, Ghana, 1,077
Buenos Aires, Argentina, 3,777
Cape Town, South Africa, 3,273
Casablanca, Morocco, 1,732
Dakar, Senegal, 368
Key West, Florida, U.S.A., 3,933
Lisboa, Portugal, 1,882
Monrovia, Liberia, 375
Natal, Brazil, 1,576
New York, New York, U.S.A.,
3,633
Norfolk, Virginia U.S.A., 3,667
Port Harcourt, Nigeria, 1,475
Porto Grande, Cape Verde Islands,
713
Takoradi, Ghana, 955

KANDALAKSHA, RUSSIA
(67°08'00"N., 33°24'00"E.) Add
101 miles to Arkhangel'sk
distances.

KANDLA, INDIA
(23°02'00"N., 70°13'30"E.) Add
76 1/2 miles to Okha distances.

KANEHOE BAY, HAWAII, U.S.A.
(21°26'23"N., 157°47'00"W.) to:

Junction Points*

Panama, Panama, 4,686

Ports

Apra, Guam, 3,354
Seattle, Washington, U.S.A., 2,388
Yokohama, Japan, 3,406

KANGERLUARSORUSEQ, GREENLAND
(63°41'00"N., 51°34'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,597
Strait of Gibraltar, 2,444

Ports

Churchill, Canada, 1,326
Reykjavik, Iceland, 1,043
St. John's, Canada, 969

KANKESANTURAI, SRI LANKA
(9°49'25"N., 80°03'10"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,545
Cape Leeuwin, Australia, 3,353
Selat Lombok, Indonesia, 2,487
Port Said, Egypt, 3,553
Singapore, 1,543
Selat Sunda, Indonesia, 1,852
Torres Strait, Australia, 4,096

Ports

Bombay, India, 992
Calcutta, India, 900
Colombo, Sri Lanka, 196
Karachi, Pakistan, 1,424
Telukbayur, Indonesia, 1,376
Trincomalee, Sri Lanka, 131

KAO-HSIUNG KANG, TAIWAN
(22°37'00"N., 120°16'00"E.) to:

Ports

Chang-Kan, China, 811
Nha Trang Bay, Vietnam, 895
San Fernando, Philippines, 356
Sanya Gang, China, 682
Vinh Cam Ranh, Vietnam, 915

KARACHI, PAKISTAN
(24°49'00"N., 66°58'20"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,658
Cape Leeuwin, Australia, 4,512
Port Said, Egypt, 2,865
Singapore, 2,882
Torres Strait, Australia (south of
Java and Timor), 5,298

Ports

Aden, Yemen, 1,472
Al Basrah, Iraq, 1,177
Bandar Abbas, Iran, 643
Belawan, Indonesia, 2,550
Bhavnagar, India, 481
Bombay, India, 504
Calcutta, India, 2,578
Cochin, India, 1,044
Colombo, Sri Lanka, 1,344
Durban, South Africa, 3,887
Fremantle, Australia, 4,437

Galle, Sri Lanka, 1,393
Madras, India, 1,908
Malacca, Malaysia, 2,768
Marmagao, India, 690
Massawa, Ethiopia, 1,865
Mombasa, Kenya, 2,361
Okha, India, 194
Penang, Malaysia, 2,595
Port Darwin, Australia (south of
Java and Timor Islands), 4,624
Rangoon, Burma, 2,561
Sabang, Indonesia, 2,284
Tamatave, Madagascar, 2,788
Trincomalee, Sri Lanka, 1,667

KARDELJEVO, CROATIA
(43°03'00"N., 17°25'42"E.) See
Ploce.

KARLSHAMN, SWEDEN
(56°07'50"N., 14°53'38"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 228
Skagens Odde, Denmark (via The
Sound), 289

Ports

Hango, Finland, 378
Horsens, Denmark (via The
Sound), 284
Kobenhavn, Denmark (via The
Sound), 146
Lubeck, Germany, 213
Odense, Denmark, 282
Sankt-Peterburg, Russia, 591
Slagen, Norway (via The Sound),
374
Varberg, Sweden (via The Sound),
371

KARLSKRONA, SWEDEN
(56°10'00"N., 15°36'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 235
Skagens Odde, Denmark, 295

Ports

Kobenhavn, Denmark, 148
Sankt-Peterburg, Russia, 563
Stockholm, Sweden, 270

KASHIMA KO, JAPAN
(35°58'45"N., 140°42'35"E.) to:

Junction Points*

Selat Lombok, Indonesia (via
south of Mindanao), 3,127
Panama, Panama, 7,567
Punta Arenas, Chile, 9,252
Singapore (via Balintang
Channel), 2,968

Ports

Aomori, Japan, 420
Kobe, Japan, 423
Nagoya, Japan, 288
Shimonoseki, Japan, 613
Yokohama, Japan, 144

KASIM MARINE TERMINAL, INDONESIA
(1°18'00"S., 131°01'00"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

50 KAUNAKAKAI, HAWAII, U.S.A.

<p>Junction Points*</p> <p>Honshu, Japan, 2,724 Selat Lombok, Indonesia, 1,260 Panama, Panama, 9,108 Singapore, 2,128 Selat Sunda, Indonesia, 2,091 Torres Strait, Australia, 1,030 Selat Wetar, Indonesia, 741</p> <p>Ports</p> <p>Balikpapan, Indonesia, 998 Busan, Korea, 2,384 Hong Kong, Hong Kong, 1,832 Kobe, Japan, 2,258 Semarang, Indonesia, 1,391 Ujung, Pandang, Indonesia, 842 Vinh Cam Ranh, Vietnam, 1,669 Wyndham, Australia, 870 Yokohama, Japan, 2,342</p> <p>KAUNAKAKAI, HAWAII, U.S.A. (21°05'00"N., 157°02'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 4,633</p> <p>Ports</p> <p>Midway Island, 1,220 Seattle, Washington, U.S.A., 2,398 Yokohama, Japan, 3,454</p> <p>KAVALA, GREECE (40°55'50"N., 24°24'11"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 714 Strait of Gibraltar (south of Greece), 1,706 Strait of Gibraltar (via Corinth Canal), 1,689</p> <p>Ports</p> <p>Algiers, Algeria (south of Greece), 1,277 Algiers, Algeria (via Corinth Canal), 1,260 Beirut, Lebanon, 756 Izmir, Turkey, 209 Piraeus, Greece, 249 Siracusa, Sicily (south of Greece), 682 Siracusa, Sicily (via Corinth Canal), 656 Thessaloniki, Greece, 160 Volos, Greece, 162</p> <p>KAWASAKI, JAPAN (35°30'00"N., 139°45'00"E.) Use Yokohama distances.</p> <p>KEELUNG, TAIWAN (25°08'10"N., 121°44'00"E.) See Chi-Lung, Taiwan.</p> <p>KEFLAVIK, ICELAND (64°00'00"N., 22°33'25"W.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 671 Strait of Gibraltar, 1,947</p> <p>Ports</p> <p>Bergen, Norway, 875</p>	<p>Murmansk, Russia, 1,521 St. John's, Canada, 1,404</p> <p>KENITRA, MOROCCO (34°16'13"N., 6°35'00"W.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,056 Ile d'Ouessant, France, 954</p> <p>Ports</p> <p>Casablanca, Morocco, 69 Dakar, Senegal, 1,389 Tangier, Morocco, 117</p> <p>KERCH, GEORGIA (45°21'16"N., 36°28'40"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,238 Strait of Gibraltar, 2,256</p> <p>Ports</p> <p>Almeria, Spain, 2,094 Constanta, Romania, 370 Istanbul, Turkey, 439 Mersin, Turkey, 1,214 Nice, France (south of Greece), 1,756 Nice, France (via Corinth Canal), 1,714 Patrai Greece (south of Greece), 1,047 Patrai Greece (via Corinth Canal), 890 Pula, Croatia (south of Greece), 1,543 Pula, Croatia (via Corinth Canal), 1,444 Rostov-na-Donu, Russia, 208 Sete, France (south of Greece), 1,877 Sete, France (via Corinth Canal), 1,836</p> <p>KERET, RUSSIA (66°17'00"N., 33°35'00"E.) Add 54 miles to Arkhangel'sk distances.</p> <p>KERKIRA, GREECE (39°37'45"N., 19°54'35"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 845 Strait of Gibraltar, 1,324</p> <p>Ports</p> <p>Brindisi, Italy, 123 Catania, Sicily, 290 Dubrovnik, Croatia, 208 Patrai, Greece, 138 Taranto, Italy, 167</p> <p>KETCHIKAN, ALASKA, U.S.A. (55°20'30"N., 131°38'45"W.) to:</p> <p>Ports</p> <p>Cordova, Alaska, U.S.A., 656 Seattle, Washington, U.S.A., 634 Sitka, Alaska, U.S.A., 224 Whittier, Alaska, U.S.A., 1,839</p>	<p>KEY WEST, FLORIDA, U.S.A. (24°33'30"N., 81°48'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,783 Fastnet Rock, Ireland, 3,783 Inishtrahull, Ireland, 3,767 Montreal, Canada, 2,466 Panama, Panama, 1,108 Pentland Firth, Scotland, 4,000 Strait of Gibraltar, 3,949 Straits of Florida, 73 Yucatan Channel, 251</p> <p>Ports</p> <p>Antilla, Cuba, 434 Argentina, Canada, 1,953 Arkhangel'sk, Russia, 5,150 Baracoa, Cuba, 490 Belem, Brazil, 2,603 Belize, Belize (via main ship channel), 590 Bridgetown, Barbados, 1,459 Buenos Aires, Argentina, 5,712 Campeche, Mexico (via main ship channel), 632 Cap-Haitien, Haiti (via Old Bahama Channel), 619 Carmen, Mexico (via main ship channel), 708 Cartagena, Colombia (via Old Bahama Channel), 1,130 Cartagena, Colombia (via Yucatan Channel), 1,144 Charlotte Amalie, Virgin Islands, 1,036 Charlottetown, Canada, 1,788 Christiansted, Virgin Islands, 1,064 Colon, Panama (via ship channel and Yucatan Channel), 1,065 Dakar, Senegal, 3,709 Elizabeth Harbor, Bahamas, 485 Freetown, Sierra Leone, 4,076 Funchal, Madeira Island, 3,445 Georgetown, Guyana, 1,818 Guantanamo, Cuba (via Old Bahama Channel), 587 Halifax, Canada, 1,602 Hamilton, Bermuda, 1,093 Horta, Azores, 2,857 Kingston, Jamaica (via Windward Passage), 752 Kingston, Jamaica (via Yucatan Channel), 802 La Guaira, Venezuela (via Old Bahama Channel), 1,280 La Habana, Cuba, 92 Lisboa, Portugal, 3,765 Nuevitas, Cuba, 331 Pointe a Pitre, Guadeloupe, 1,296 Ponce, Puerto Rico (via Old Bahama Channel and Mona Passage), 969 Port au Prince, Haiti (via Old Bahama Channel), 650 Port of Spain, Trinidad (via Old Bahama Channel and Mona Passage), 1,484 Port of Spain, Trinidad (via Old Bahama Channel and Windward Passage), 1,534 Port of Spain, Trinidad (via Old Bahama Channel), 650 Port Castries, St. Lucia, 1,358 Puerto Cabello, Venezuela (via Old Bahama Channel and Windward Passage), 1,248 Recife, Brazil (via Old Bahama Channel and Mona Passage), 3,539</p>	<p>Rio de Janeiro, Brazil, 4,611 San Juan, Puerto Rico, 966 Santa Barbara de Samana, Dominican Republic, 811 Santiago de Cuba, Cuba (via west end of Cuba), 796 Santiago de Cuba, Cuba (via Windward Passage), 637 Santo Domingo, Dominican Republic, 936 Tampico, Mexico, 907 Tuxpan, Mexico, 891 Veracruz, Mexico, 869 Willemstad, Curacao (via Windward Passage), 1,134</p> <p>KHALKIS, GREECE (38°27'40"N., 23°35'15"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 630 Strait of Gibraltar, 1,562</p> <p>Ports</p> <p>Iraklion, Kriti, 210 Izmir, Turkey, 210 Volos, Greece, 88</p> <p>KHARG ISLAND, IRAN (29°13'34"N., 50°16'34"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,153 Cape Leeuwin, Australia, 5,393 Selat Lombok, Indonesia, 4,582 Port Said, Egypt, 2,955 Singapore, 3,768 Selat Sunda, Indonesia, 3,993 Torres Strait, Australia (south of Java), 6,151</p> <p>Ports</p> <p>Aden, Yemen, 1,087 Belawan, Indonesia, 3,404 Calcutta, India, 3,412 Malacca, Malaysia, 3,612 Port Darwin, Australia (south of Java), 5,480 Rangoon, Burma, 3,417 Sabang, Indonesia, 3,144</p> <p>KHAWR-AL-AMAYA, IRAQ (29°48'23"N., 48°48'20"E.) Subtract 76 miles from Al Basrah.</p> <p>KHOLMSK, SAKHALIN, RUSSIA (47°03'00"N., 142°02'45"E.) to:</p> <p>Ports</p> <p>Bukhta Shelikohova, Kuril Islands, Russia, 707 Matsuga-hana, Japan, 361 Tomari, Japan, 314</p> <p>KHORRAMSHAHR, IRAN (30°25'30"N., 48°10'00"E.) Subtract 181 1/2 miles from Al Basrah distances.</p> <p>KIEL, GERMANY (54°20'00"N., 10°09'30"E.) For distance via Fjord add 1 1/2 miles to Nord-Ostsee-Kanal (East Entrance). For distance via Nord-Ostsee-Kanal add 2 1/2 miles to</p>
---	---	--	---

* JUNCTION POINT.—See Preface for use of junction points

KLAKSVIG, FAROE ISLANDS 51

Nord-Ostsee-Kanal (East Entrance).

KIIRE, JAPAN

(31°24'42"N., 130°33'17"E.)
Subtract 9 miles from Kagoshima distances.

KIMCHAEK, NORTH KOREA
(40°39'15"N., 129°12'30"E.) to:**Ports**

Busan, South Korea, 351
Hakodate, Japan, 540
Maizuru, Japan, 431
Shimonoseki, Japan, 421
Vladivostok, Russia, 206
Yeosu, South Korea, 439

KIN WAN, JAPAN

(26°24'00"N., 27°58'00"E.) to:

Junction Points*

Honshu Japan, 826
Selat Lombok, Indonesia (south of Mindanao), 2,391
Panama, Panama, 8,451
Punta Arenas, Chile, 9,415
Singapore (via Balintang Channel), 2,094
Torres Strait, Australia, 2,640
Tsugaru-Kaikyo, Japan, 1,189

Ports

Apia, Samoa, 4,266
Auckland, New Zealand, 4,912
Ho Chi Minh, Vietnam, 1,595
Honolulu, Hawaii, U.S.A., 4,058
Valparaiso, Chile, 9,788
Wellington, New Zealand, 5,117

KING'S LYNN, ENGLAND

(52°45'30"N., 0°23'28"E.) to:

Junction Points*

Bishop Rock, England, 522
Ile d'Ouessant, France, 516
Nord-Ostsee-Kanal (East Entrance), Germany, 406
Pentland Firth, Scotland, 401
Skagens Odde, Denmark, 473

Ports

Amsterdam, Netherlands, 203
Antwerp, Belgium, 450
Bergen, Norway, 583
Emden, Germany, 281
Leith, Scotland, 263
London, England, 233
Oostende, Belgium, 206
Wilhelmshaven, Germany, 319
Zeebrugge, Belgium, 211

KINGSTON, JAMAICA

(17°57'30"N., 76°47'00"W.) to:

Junction Points*

Bishop Rock, England (via Windward Passage), 3,866
Fastnet Rock, Ireland (via Windward Passage), 3,748
Inishtrahull, Ireland, 3,852
Panama, Panama, 594
Pentland Firth, Scotland, 4,032
Strait of Gibraltar, 3,891
Straits of Florida (via Windward

Passage), 802
Yucatan Channel, 550

Ports

Almirante, Panama, 657
Moa, Cuba, 301
Bahia de las Calderas, Dominican Republic, 378
Baltimore, Maryland, U.S.A. (via Windward Passage), 1,401
Baracoa, Cuba, 265
Barahona, Dominican Republic, 364
Barranquilla, Colombia, 442
Belém, Brazil, 2,231
Belize, Belize, 685
Boca de Tanamo, Cuba, 318
Bocas del Toro, Panama, 604
Boston, Massachusetts, U.S.A., 1,657
Brunswick, Georgia, U.S.A., 1,038
Buenos Aires, Argentina, 5,295
Cap-Haitien, Haiti, 326
Cape Town, South Africa, 6,314
Cardenas, Cuba, 703
Carmen, Mexico, 1,056
Cartagena, Colombia, 479
Casilda, Cuba, 372
Charleston, South Carolina, U.S.A. (via Windward Passage), 1,064
Charlotte Amalie, Virgin Islands, 70
Colon, Panama, 551
Covenas, Colombia, 528
Dakar, Senegal, 3,436
Elizabeth Harbor, Bahamas, 498
Funchal, Madeira Island, 3,349
Georgetown, Guyana, 1,334
Gonaives, Haiti, 263
Guantanamo, Cuba, 180
Halifax, Canada, 1,795
Hamilton, Bermuda, 1,144
Horta, Azores, 2,818
Jacksonville, Florida, U.S.A. (via Windward Passage), 1,016
Key West, Florida, U.S.A. (via Windward Passage), 752
Key West, Florida, U.S.A. (via Yucatan Channel), 802
La Guaira, Venezuela, 732
La Habana Cuba (via Windward Passage), 762
La Habana, Cuba (via Yucatan Channel), 737
La Romana, Dominican Republic, 47
Lake Charles, Louisiana, U.S.A., 1,190
Limon, Costa Rica, 605
Lisboa, Portugal, 3,725
Liverpool, Canada, 1,744
Manzanillo, Cuba, 283
Matanzas, Cuba, 717
Miami, Florida, U.S.A., 746
Miragoane, Haiti, 243
Nassau, Bahamas, 667
New York, New York, U.S.A. (via Windward Passage), 1,474
Norfolk, Virginia, U.S.A. (via Windward Passage), 1,279
Nuevitas, Cuba, 448
Oranjestad, Aruba, 223
Philadelphia, Pennsylvania, U.S.A. (via Windward Passage), 1,446
Pina, Panama, 578
Pointe a Pitre, Guadeloupe, 910
Port au Prince, Haiti, 277
Port de Paix, Haiti, 432
Port of Spain, Trinidad, 1,003
Port Castries, St. Lucia, 950
Portland, Maine, U.S.A., 1,679
Portsmouth, New Hampshire,

U.S.A., 1,655

Puerto Barrios, Guatemala, 715
Puerto Cabello, Venezuela, 697
Puerto Cabezas, Nicaragua, 451
Puerto Colombia, Colombia, 438
Puerto Cortes, Honduras, 671
Puerto Vita, Cuba, 364
Punta Cardon, Venezuela, 530
Rio de Janeiro, Brazil, 4,194
Rio Haina, Dominican Republic, 417
San Juan, Puerto Rico (north of Hispaniola), 685
San Juan, Puerto Rico (south of Hispaniola), 643
San Pedro de Macoris, Dominican Republic, 461
Santa Lucia, Cuba, 651
Santiago de Cuba, Cuba, 176
Santo Domingo, Dominican Republic, 430
Savannah, Georgia, U.S.A. (via Windward Passage), 1,063
Sint Nicolaashaven, Aruba, 528
St. John, Canada, 1,794
St. John's, Antigua, 870
St. Louis, Marie Galante, 903
St. Marc, Haiti, 254
Sydney, Canada, 1,982
Tampico, Mexico, 1,252
Tuxpan, Mexico, 1,243
Veracruz, Mexico, 1,210
Wilmington, North Carolina, U.S.A. (via Crooked Island Passage), 1,115
Yarmouth, Canada, 1,710

KINGSTOWN, ST. VINCENT

(13°09'00"N., 61°14'00"W.) to:

Ports

Bridgetown, Barbados, 98
Fernando de Noronha, 1,320
Fort de France, Martinique, 89
Hamilton, Bermuda, 1,185
New York, New York, U.S.A., 1,791
Port Castries, St. Lucia, 60

KINUURA, JAPAN

(34°48'14"N., 136°57'29"E.)
Subtract 23 miles from Nagoya distances.

KIRKENES, NORWAY

(69°43'45"N., 30°02'00"E.) to:

Ports

Longyearbyen, Svalbard, 637
Pechenga, Russia, 53

KISKA, ALASKA, U.S.A.

(51°59'00"N., 177°32'30"E.) to:

Ports

Anadyrskiy Zaliv, Russia, 804
Apra, Guam, 2,822
Bukhta Shelikhova, Kuril Islands, Russia, 863
Hakodate, Japan, 1,656
Honolulu, Hawaii, U.S.A., 2,185
Kasatka, Japan, 1,274
Manila, Philippines, 3,664
Matsuga-hana, Japan, 1,345
Midway Island, 1,453
Petropavlovsk-Kamchatskiy, Russia, 724
Tomari, Japan, 1,406
Yokohama, Japan, 1,997

KISMAAYO, SOMALIA

(0°23'56"S., 42°32'20"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,685
Cape Leeuwin, Australia, 4,534
Port Said, Egypt, 2,713
Singapore, 3,791
Selat Sunda, Indonesia, 3,812

Ports

Aden, Yemen, 1,326
Bombay, India, 2,133
Calicut, India, 2,106
Colombo, Sri Lanka, 2,291
Durban, South Africa, 1,940
Madras, India, 2,841
Tulear, Madagascar, 1,395

KITIMAT, CANADA

(53°59'25"N., 128°48'43"W.) to:

Junction Points*

Selat Lombok, Indonesia (via Makassar Strait), 6,930
Panama, Panama, 4,304
Punta Arenas, Chile, 7,264
Singapore (via Balintang Channel), 7,030
Selat Sunda, Indonesia (via Balintang Channel), 7,393

Ports

Anchorage, Alaska, 1,055
Callao, Peru, 5,006
Guaymas, Mexico, 2,510
Honolulu, Hawaii, 2,399
Los Angeles, California, U.S.A., 1,391
Manila, Philippines (via Balintang Channel), 5,637
Mollendo, Peru, 5,422
Yokohama, Japan, 3,941

KLAIPEDA, LITHUANIA

(55°43'00"N., 21°07'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 400
Skagens Odde, Denmark (via Store Baelt), 592
Skagens Odde, Denmark (via The Sound and north of Bornholm), 462

Ports

Horsens, Denmark, 459
Koge, Denmark, 350
Oslo, Norway (via Store Baelt and south of Bornholm), 716
Oxelosund, Sweden, 232
Rostock, Germany, 347

KLAKSVIG, FAROE ISLANDS

(62°14'28"N., 6°35'45"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,535
Grand Banks South, 1,925
Inishtrahull, Ireland, 410
Montreal, Canada (via Strait of Belle Isle), 2,481

*** JUNCTION POINT.—See Preface for use of junction points**

52 KOBE, JAPAN

Pentland Firth, Scotland, 233
Punta Arenas, Chile, 7,887
Skagens Odde, Denmark, 864
Strait of Gibraltar, 1,789

Ports

Aberdeen, Scotland, 359
Alesund, Norway, 355
Bremerhaven, Germany, 570
Dover, England, 746
Le Havre, France, 851
London, England, 781
Murmansk, Russia, 1,164
Reykjavik, Iceland, 482
Torshavn, Faroe Islands, 16

KOBE, JAPAN

(34°40'00"N., 135°12'00"E.) to:

Junction Points*

Panama, Panama, 7,964
Punta Arenas, Chile, 9,429
Singapore, 2,689

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,384
Apra, Guam, 1,386
Auckland, New Zealand, 4,875
Busan, South Korea, 361
Cebu, Philippines (via San Bernardino Strait), 1,601
Dagu, China (via Naikai), 1,034
Dalian, China, 877
Dutch Harbor, Alaska, U.S.A., 2,833
Haiphong, Vietnam (via Osumi Kaikyo and Hainan Strait), 1,833
Hakata, Japan, 304
Hakodate, Japan, 816
Hirohata, Japan, 34
Hiroshima, Japan, 179
Hong Kong, China (via Osumi Kaikyo), 1,372
Honolulu, Hawaii, U.S.A., 3,669
Iloilo, Philippines (via San Bernardino Strait), 1,623
Imabari, Japan, 120
Incheon, South Korea, 733
Itzakicho, Japan, 113
Iwakuni, Japan, 166
Jakarta, Indonesia (via Balintang Channel), 2,987
Kagoshima, Japan (via Bungo Suido), 422
Kagoshima, Japan (via Tomogashima Suido), 379
Kamaishi, Japan, 631
Kushiro, Japan, 876
Lo hsing-ta Mao-ti, China (via Osumi Kaikyo), 1,003
Los Angeles, California, U.S.A., 5,185
Manila, Philippines (via Balintang Channel), 1,563
Miike, Japan, 462
Nagasaki, Japan, 400
Nagoya, Japan, 245
Niihama, Japan, 113
Pago Pago, American Samoa, 4,308
Petropavlovsk-Kamchatskiy, Russia, 1,705
Port Darwin, Australia (via Selat Sele), 2,901
Portland, Oregon, U.S.A., 4,590
Rajin, North Korea, 754
Sakaide, Japan, 107

San Diego, California, U.S.A., 5,204
San Francisco, California, U.S.A., 4,819
Seattle, Washington, U.S.A. (north of Aleutian Islands), 4,527
Seattle, Washington, U.S.A. (south of Aleutian Islands), 4,559
Shanghai, China (via Naikai), 789
Shanghai, China (via Osumi Kaikyo), 826
Shimizu, Honshu, Japan, 279
Shimonoseki, Japan, 241
Sydney, Australia, 4,384
Tan-shui, China (via Osumi Kaikyo), 933
Uno, Japan, 71
Valparaiso, Chile, 9,534
Vancouver, Canada, 4,541
Vinh Cam Ranh, Vietnam, 2,013
Vladivostok, Russia (via Naikai), 805
Weihai, China (via Naikai), 806
Xiamen, China (via Osumi Kaikyo), 1,117
Yantai, China, 840
Yokohama, Japan, 357

KOBENHAVN, DENMARK

(55°42'00"N., 12°36'06"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance) (via Store Baelt), Germany, 202
Nord-Ostsee-Kanal (East Entrance) (via The Sound), Germany, 162
Skagens Odde, Denmark, 150

Ports

Aalborg, Denmark, 138
Aarhus, Denmark, 108
Abenra, Denmark, 204
Frederikshavn, Denmark, 142
Gdansk, Poland, 468
Gdynia, Poland, 464
Haderslev, Denmark, 175
Helsinki, Finland, 772
Kalundborg, Denmark, 115
Karlskrona, Sweden, 148
Lubeck, Germany, 148
Oslo, Norway, 272
Peenemunde, Germany, 128
Riga, Latvia, 696
Rostock, Germany, 231
Sankt-Peterburg, Russia, 917
Sassnitz, Germany, 95
Stockholm, Sweden (via Store Baelt and Dalaro Kanal), 603
Stockholm, Sweden (via Store Baelt and Sandotvarden), 646
Stralsund, Germany, 81
Travemunde, Germany (via Store Baelt), 234
Travemunde, Germany (via The Sound), 139
Veje, Denmark, 149
Wismar, Germany, 132

KOCHI, JAPAN

(33°32'06"N., 133°33'30"E.) to:

Ports

Hakodate, Japan (east of Honshu), 832
Hakodate, Japan (via Shimonoseki Kaikyo), 894
Nagasaki, Japan (via Osumi

Kaikyo), 366
Yokohama, Japan, 372

KODIAK, ALASKA, U.S.A.

(57°47'00"N., 152°25'00"W.) to:

Junction Points*

Panama, Panama, 4,907
Singapore, 6,020

Ports

Apra, Guam, 3,928
Auckland, New Zealand, 5,942
Guayaquil, Ecuador, 5,212
Ho Chi Minh, Vietnam, 5,484
Hong Kong, China, 4,616
Honolulu, Hawaii, U.S.A., 2,231
Juneau, Alaska, U.S.A., 610
Malakal, Palau Islands, 4,579
Manila, Philippines (north of Aleutian Islands), 4,823
Midway Island, 2,088
Noumea, New Caledonia, 5,281
Pago Pago, American Samoa, 4,441
Papeete, French Polynesia, 4,532
Port Darwin, Australia, 5,859
Qingdao, China, 3,975
Shanghai, China, 3,967
Surabaya, Indonesia, 6,086
Suva, Fiji Islands, 4,853
Sydney, Australia, 6,222
Truk, Caroline Islands, 4,008
Valparaiso, Chile, 6,803
Vladivostok, Russia, 3,105
Wake Island, 2,961
Yokohama, Japan (north of Aleutian Islands), 3,141

KOGE, DENMARK

(55°27'15"N., 12°12'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 153
Skagens Odde, Denmark, 161

Ports

Klaipeda, Lithuania, 350
Swinoujscie, Poland, 156

KOKKOLA, FINLAND

(63°50'00"N., 23°08'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 836
Skagens Odde, Denmark (via The Sound), 897

Ports

Halmstad, Sweden (via The Sound), 803
Hamina, Finland, 554
Helsinki, Finland, 498
Kobenhavn, Denmark (via The Sound), 741
Limhamn, Sweden (via The Sound), 741
Rauma, Finland, 230
Vassa, Finland, 115

KOKURA, JAPAN

(33°55'00"N., 130°52'00"E.)
Eastbound from Kokura add 7 miles to Moji distances. Westbound

from Kokura subtract 7 miles from Moji distances.

KOLDING, DENMARK

(55°29'40"N., 9°30'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany (via Lille Baelt), 83
Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 152
Skagens Odde, Denmark (via Store Baelt and Deep Water Route), 193

Ports

Goteborg, Sweden, 330
Swinoujscie, Poland, 253

KOLE, CAMEROON

(4°12'30"N., 8°33'05"E.) to:

Junction Points*

Bishop Rock, England, 4,265
Cape of Good Hope, South Africa, 2,646
Fastnet Rock, Ireland, 4,175
Grand Banks South, 4,326
Ile d'Ouessant, France, 4,106
Inishtrahull, Ireland, 4,438
Panama, Panama, 5,329
Pentland Firth, Scotland, 4,998
Punta Arenas, Chile, 5,326
Strait of Gibraltar, 3,853
Straits of Florida, 5,501
Yucatan Channel, 5,651

Ports

Abidjan, Ivory Coast, 761
Kribi, Cameroon, 114
Lagos, Nigeria, 361
Libreville, Gabon, 255
Lome, Togo, 460
Pointe Noire, Congo, 612
Tome, Sao Tome, 232

KOMATSUSHIMA, JAPAN

(34°01'00"N., 134°36'00"E.) to:

Ports

Aomori, Japan, 813
Kagoshima, Japan, 344
Kure, Japan, 217
Osaka, Japan, 58
Yokohama, Japan, 320

KOMPONG SOM, CAMBODIA

(10°39'00"N., 103°30'00"E.) to:

Junction Points*

Singapore, 638
Selat Sunda, Indonesia, 1,096

Ports

Bangkok, Thailand, 300
Ho Chi Minh, Vietnam, 419
Makassar, Sulawesi, 1,584

KONIYA, RYUKYU ISLANDS

(28°08'30"N., 129°18'45"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>Honolulu, Hawaii, U.S.A., 3,948 Midway Island, 2,799 Port Moresby, Papua New Guinea, 3,063 Saipan, Mariana Islands, 1,199 Wake Island, 2,107</p> <p>KOPER, SLOVENIA (45°33'48"N., 13°42'15"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt (via south of Greece), 1,310 Strait of Gibraltar, 1,682</p> <p>Ports</p> <p>Ajaccio, Corsica, 1,033 Algiers, Algeria, 1,236 Ashdod, Israel, 1,367 Barcelona, Spain, 1,296 Dhekelia, Cyprus, 1,283 Famagusta, Cyprus, 1,313 Istanbul, Turkey, 1,148 Mersa El Hamra, Egypt, 1,155 Messina, Sicily, Italy, 621 Oran, Algeria, 1,432 Ravenna, Italy, 91 Tunis, Tunisia, 917 Villefranche, France, 1,136</p> <p>KORSAKOV, SAKHALIN, RUSSIA (46°37'30"N., 142°45'30"E.) to:</p> <p>Ports</p> <p>Bukhta Shelikhova, Kuril Islands, Russia, 618 Matsuga-hana, Japan, 279 Nevel'sk, Russia, 115 Sovetskaya Gavan, Russia, 264 Tomari, Japan, 239</p> <p>KORSOR, DENMARK (55°20'07"N., 11°07'48"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 73 Skagens Odde, Denmark, 162</p> <p>Ports</p> <p>Gdynia, Poland, 344 Stockholm, Sweden, 524 Swinoujscie, Poland, 239</p> <p>KOTA KINABALU, MALAYSIA (6°00'32"N., 116°04'37"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia (via Balabac Strait), 1,362 Panama, Panama (via Surigao Strait), 9,860 Singapore, 807 Selat Sunda, Indonesia, 1,031</p> <p>Ports</p> <p>Cebu, Philippines (via Balabac Strait), 589 Ho Chi Minh, Vietnam, 761 Honolulu, Hawaii, U.S.A. (via Surigao Strait), 5,092</p>	<p>Makassar, Sulawesi (via west of Palawan), 616 Sandakan, Sabah (via Balabac Strait), 261 Zamboanga, Philippines, 442</p> <p>KOTKA, FINLAND (60°27'00"N., 26°59'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 694 Skagens Odde, Denmark, 755</p> <p>Ports</p> <p>Helsinki, Finland, 99 Riga, Latvia, 296 Stockholm, Sweden, 311 Vysotsk, Russia, 69</p> <p>KOVDA, RUSSIA (66°42'00"N., 32°52'00"E.) Add 76 1/2 miles to Arkhangel'sk distances.</p> <p>KPEME, TOGO (6°11'22"N., 01°30'20"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 4,099 Cape of Good Hope, South Africa, 2,615 Fastnet Rock, Ireland, 3,884 Grand Banks South, 4,036 Ile d'Ouessant, France, 3,815 Inishtrahull, Ireland, 4,147 Panama, Panama, 5,038 Pentland Firth, Scotland, 4,707 Punta Arenas, Chile, 5,180 Strait of Gibraltar, 3,562 Straits of Florida, 5,210 Yucatan Channel, 5,360</p> <p>Ports</p> <p>Abidjan, Ivory Coast, 405 Accra, Ghana, 159 Cape Town, South Africa, 1,316 New York, New York, U.S.A., 4,800 Pointe Noire, Congo, 903 Takoradi, Ghana, 255</p> <p>KRAGERO, NORWAY (58°51'40"N., 9°23'35"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 441</p> <p>Ports</p> <p>Bergen, Norway, 289 London, England, 582 Oslo, Norway, 95</p> <p>KRALENDIJK, BONAIRES (12°09'30"N., 68°16'40"W.) to:</p> <p>Ports</p> <p>Guantanamo, Cuba, 620</p> <p>KRIBI, CAMEROON (2°56'00"N., 9°54'00"E.) to:</p> <p>Ports</p> <p>Douala, Cameroon, 81</p>	<p>Malabo, Equatorial Guinea, 106 Port Gentil, Gabon, 231 Takoradi, Ghana, 704</p> <p>KRISTIANSAND, NORWAY (58°08'30"N., 7°59'40"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 309 Ile d'Ouessant, France, 794 Pentland Firth, Scotland, 372 Skagens Odde, Denmark, 92</p> <p>Ports</p> <p>Aberdeen, Scotland, 338 Amsterdam, Netherlands, 381 Antwerp, Belgium, 488 Bergen, Norway, 226 Bodo, Norway, 733 Bremerhaven, Germany, 292 Calais, France, 486 Cherbourg, France, 632 Dover, England, 488 Dunkerque, France, 475 Egersund, Norway, 86 Emden, Germany, 316 Esbjerg, Denmark, 206 Hamburg, Germany, 333 Hull, England, 407 Kristiansund, Norway, 447 Le Havre, France, 600 Leith, Scotland, 394 London, England, 514 Newcastle, England, 376 Oostende, Belgium, 453 Oslo, Norway, 163 Plymouth, England, 717 Portland, England, 643 Portsmouth, England, 593 Rotterdam, Netherlands, 413 Southampton, England, 611 Stavanger, Norway, 142 Trondheim, Norway, 436 Wilhelmshaven, Germany, 286</p> <p>KRISTIANSUND, NORWAY (63°06'40"N., 7°45'00"E.) to:</p> <p>Ports</p> <p>Bergen, Norway, 232 Kristiansand, Norway, 447 Oslo, Norway, 599 Stavanger, Norway, 332</p> <p>KRISTINESTAD, FINLAND (62°15'45"N., 21°22'30"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East entrance), Germany, 703 Skagens Odde, Denmark (via the Sound), 764</p> <p>Ports</p> <p>Gdynia, Poland, 473 Helsinki, Finland, 279 Kobenhavn, Denmark, 587 Kotka, Finland, 342 Oulu, Finland, 214 Sankt-Peterburg, Russia, 433 Stockholm, Sweden, 232</p> <p>KUNG THEP, THAILAND See Bangkok.</p> <p>KUCHING, SARAWAK (1°33'35"N., 110°20'35"E.) to:</p>	<p>Junction Points*</p> <p>Selat Lombok, Indonesia, 974 Singapore, 443</p> <p>Ports</p> <p>Iloilo, Philippines, 948 Jakarta, Indonesia, 627 Olongapo, Philippines, 992 Zamboanga, Philippines, 863</p> <p>KUNSAN, JAPAN (35°59'18"N., 126°43'00"E.) See Gunsan, South Korea.</p> <p>KURE, JAPAN (34°14'00"N., 132°32'00"E.) to:</p> <p>Ports</p> <p>Apra, Guam, 1,460 Hirohata, Japan, 126 Imabari, Japan, 63 Itozakicho, Japan, 73 Kagoshima, Japan, 296 Komatsushima, Japan, 217 Niihara, Japan, 76 Sakaide, Japan, 107 Shimizu, Honshu, Japan, 141 Shimonoseki, Japan, 116 Tokuyama, Japan, 76 Uno, Japan, 117 Wakamatsu, Japan, 125 Yokohama, Japan, 515</p> <p>KUSHIRO, JAPAN (42°58'00"N., 144°21'30"E.) to:</p> <p>Ports</p> <p>Busan, South Korea, 876 Hakodate, Japan, 210 Kobe, Japan, 876 Vladivostok, Russia, 624 Yokohama, Japan, 594</p> <p>KWA IBO, NIGERIA (4°21'40"N., 8°00'00"E.) See Qua Iboe.</p> <p>KYNDBY, DENMARK (55°48'36"N., 11°52'48"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 164 Skagens Odde, Denmark, 136</p> <p>Ports</p> <p>Gdynia, Poland, 334 Stockholm, Sweden, 493 Swinoujscie, Poland, 197</p> <p>KYOMIPO, NORTH KOREA (38°44'00"N., 125°37'00"E.) Add 16 miles to Nampo distances.</p> <p>LA CEIBA, HONDURAS (15°46'30"N., 86°50'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 709</p> <p>Ports</p> <p>Colon, Panama, 666 New York, New York, U.S.A., 1,743</p>
---	--	---	--

* **JUNCTION POINT.**—See Preface for use of junction points

54 LA GUAIRA, VENEZUELA

Puerto Cabezas, Nicaragua, 316

LA GUAIRA, VENEZUELA
(10°37'00"N., 66°56'30"W.) to:

Junction Points*

Bishop Rock, England, 3,777
Montreal, Canada, 2,941
Panama, Panama, 884
Strait of Gibraltar, 3,634
Straits of Florida (via Windward Passage), 1,331
Yucatan Channel, 1,242

Ports

Amuay, Venezuela, 276
Baltimore, Maryland, U.S.A., 1,813
Barranquilla, Colombia, 531
Belize, Belize, 1,328
Boston, Massachusetts, U.S.A., 1,955
Campeche, Mexico, 1,635
Carmen, Mexico, 1,714
Cartagena, Colombia, 614
Charleston, South Carolina, U.S.A., 1,549
Charlotte Amalie, Virgin Islands, 479
Cienfuegos, Cuba, 1,050
Colon, Panama, 841
Dakar, Senegal, 2,911
Guantanamo, Cuba, 737
Guiría, Venezuela, 339
Gulfport, Mississippi, U.S.A. (via Old Bahama Channel and Windward Passage), 1,806
Gulfport, Mississippi, U.S.A. (via Yucatan Channel), 1,801
Halifax, Canada, 2,060
Hamilton, Bermuda, 1,335
Key West, Florida, U.S.A. (via Old Bahama Channel and Windward Passage), 1,280
Kingston, Jamaica, 732
La Habana, Cuba (via Old Bahama Channel and Windward Passage), 1,292
New York, New York, U.S.A. (via Mona Passage), 1,848
Norfolk, Virginia, U.S.A., 1,687
Oranjestad, Aruba, 207
Paramaribo, Suriname, 832
Pedernales, Venezuela, 359
Philadelphia, Pennsylvania, U.S.A., 1,838
Pointe à Pitre, Guadeloupe, 467
Port au Prince, Haiti, 801
Port of Spain, Trinidad (south of Isla de Margarita), 329
Port Castries, St. Lucia, 405
Puerto la Cruz, Venezuela, 145
Puerto Cortes, Honduras, 1,294
Puerto Sucre, Venezuela, 205
San Felix, Venezuela, 673
San Juan del Norte, Nicaragua, 1,026
San Juan, Puerto Rico, 506
Santo Domingo, Dominican Republic, 502
Savannah, Georgia, U.S.A. (via Mona Passage), 1,575
Sint Nicolaashaven, Aruba, 207
St. Georges, Grenada, 322
St. John, Canada, 2,086
Sydney, Canada, 2,215
Tuxpan, Mexico, 1,923
Veracruz, Mexico, 1,888
Willemstad, Curacao, 150

LA HABANA, CUBA
(23°08'00"N., 82°20'30"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,786
Grand Banks South, 1,991
Montreal, Canada (via Strait of Canso), 2,473
Punta Arenas, Chile (east of South America), 6,800
Strait of Gibraltar, 4,024
Straits of Florida, 87
Yucatan Channel, 186

Ports

Belem, Brazil, 2,654
Belize, Belize, 528
Boca de Tanamo, Cuba, 444
Bocas del Toro, Panama, 981
Bordeaux, France, 4,217
Boston, Massachusetts, U.S.A., 1,428
Bridgeport, Connecticut, U.S.A., 1,292
Buenos Aires, Argentina, 5,724
Caibarien, Cuba, 208
Campeche, Mexico, 561
Cap-Haitien, Haiti, 631
Cape Town, South Africa, 6,736
Cardenas, Cuba, 88
Carmen, Mexico, 639
Cartagena, Colombia (via Old Bahama Channel), 1,142
Charleston, South Carolina, U.S.A., 645
Charlotte Amalie, Virgin Islands, 1,048
Charlottetown, Canada, 1,846
Cienfuegos, Cuba, 482
Coatzacoalcos, Mexico (north of Banco de Campeche), 840
Corpus Christi, Texas, U.S.A., 864
Fort de France, Martinique (via Old Bahama Channel and Mona Passage), 1,350
Fort de France, Martinique (via Yucatan Channel), 1,655
Galveston, Texas, U.S.A., 769
Georgetown, Guyana, 1,830
Guantanamo, Cuba (via Old Bahama Channel and Windward Passage), 600
Gulfport, Mississippi, U.S.A., 564
Halifax, Canada, 1,640
Hamilton, Bermuda, 1,158
Isabel de Sagua, Cuba, 151
Jacksonville, Florida, U.S.A., 528
Key West, Florida, U.S.A., 92
Kingston, Jamaica (via Windward Passage), 762
Kingston, Jamaica (via Yucatan Channel), 737
La Guaira, Venezuela (via Old Bahama Channel and Windward Passage), 1,292
Lake Charles, Louisiana, U.S.A., 750
Limon, Costa Rica, 1,170
Maracaibo, Venezuela, 1,173
Miami, Florida, U.S.A., 222
Mobile, Alabama, U.S.A., 553
Nassau, Bahamas (via Northwest Providence Channel), 390
New Haven, Connecticut, U.S.A., 1,280
New Orleans, Louisiana, U.S.A., 602
New York, New York, U.S.A., 1,199
Norfolk, Virginia, U.S.A., 992

Nuevitas, Cuba, 344
Pensacola, Florida, U.S.A., 515
Philadelphia, Pennsylvania, U.S.A., 1,162
Pointe à Pitre, Guadeloupe (via Mona Passage), 1,309
Pointe à Pitre, Guadeloupe (via Virgin Passage), 1,308
Ponce, Puerto Rico (via Old Bahama Channel and Mona Passage), 981
Port au Prince, Haiti, 662
Port of Spain, Trinidad (via Old Bahama Channel and Mona Passage), 1,494
Port Arthur, Texas, U.S.A., 749
Port Castries, St. Lucia (via Mona Passage), 1,370
Progreso, Mexico, 430
Puerto Barrios, Guatemala, 608
Puerto Cabello, Venezuela (via Old Bahama Channel and Windward Passage), 1,260
Puerto Manatí, Cuba, 353
Puerto Siboney, Cuba (via Yucatan Channel), 729
Puerto Vita, Cuba, 400
Recife, Brazil (via Old Bahama Channel and Mona Passage), 3,551
Rio de Janeiro, Brazil, 4,623
San Juan del Norte, Nicaragua (via inside), 871
San Juan, Puerto Rico (via Old Bahama Channel), 978
Santa Cruz del Sur, Cuba, 542
Santiago de Cuba, Cuba (via Windward Passage), 650
Santiago de Cuba, Cuba (via Yucatan Channel), 733
Santo Domingo, Dominican Republic, 946
Savannah, Georgia, U.S.A., 606
St. Pierre, Martinique, 1,339
Tampa, Florida, U.S.A., 307
Tampico, Mexico, 864
Tuxpan, Mexico, 847
Veracruz, Mexico, 814
Willemstad, Curacao, 1,144
Wilmington, North Carolina, U.S.A., 1,767

LA ISABEL DE SAGUA, CUBA
(22°57'00"N., 80°00'24"E.) See Isabel de Sagua, Cuba.

LA LIBERTAD, ECUADOR
(2°11'4"S., 80°55'00"W.) to:

Junction Points*

Panama, Panama, 674
Punta Arenas, Chile, 3,258

Ports

Buenaventura, Colombia, 445
Callao, Peru, 682
Lobitos, Peru, 149
Negritos, Peru, 158

LA LIBERTAD, EL SALVADOR
(13°28'30"N., 89°19'15"W.) to:

Junction Points*

Panama, Panama, 806

Ports

Corinto, Nicaragua, 141

Puntarenas, Costa Rica, 383
Salina Cruz, Mexico, 391
San Juan del Sur, Nicaragua, 239

LA NOUVELLE, FRANCE
(43°00'47"N., 3°04'25"E.) to:

Junction Points*

Port Said, Egypt, 1,582
Strait of Gibraltar, 658

Ports

Alexandria, Egypt, 1,480
Algiers, Algeria, 382
Antibes, France, 208
Barcelona, Spain, 132
Famagusta, Cyprus, 1,617
Genova, Italy, 295
Haifa, Israel, 1,664
Istanbul, Turkey, 1,453
Marseille, France, 101
Messina, Italy, 654
Rhodes, Greece, 1,293
Tarabulus, Libya, 802
Yumurtalik, Turkey, 1,669

LA PALLICE, FRANCE
(46°09'36"N., 1°13'21"W.) to:

Junction Points*

Ile d'Ouessant, France, 245
Strait of Gibraltar, 950

Ports

Bilbao, Spain, 214
Bordeaux, France, 111
Santander, Spain, 201
St. Nazaire, France, 108

LA PAMPILLA, PERU
(11°55'00"S., 77°09'00"W.) See Callao.

LA PLATA, ARGENTINA
(34°47'00"S., 57°51'15"W.)
Subtract 28 miles from Buenos Aires distances.

LA ROCHELLE, FRANCE
(46°09'00"N., 1°09'00"W.) Add 2 miles to La Pallice distances.

LA ROMANA, DOMINICAN REPUBLIC
(18°24'00"N., 68°57'00"W.) to:

Junction Points*

Panama, Panama, 889

Ports

Barranquilla, Colombia, 569
Kingston, Jamaica, 470
San Juan, Puerto Rico, 191
Willemstad, Curacao, 391

LA SALINA, VENEZUELA
(10°22'00"N., 71°28'00"W.) Add 21 miles to Maracaibo distances.

LA SPEZIA, ITALY
(44°05'33"N., 9°49'30"E.) to:

Junction Points*

Port Said, Egypt, 1,391
Strait of Gibraltar, 891

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>Alexandria, Egypt, 1,280 Algiers, Algeria, 540 Alicante, Spain, 588 Ancona, Italy, 979 Annaba, Algeria, 463 Banghazi, Libya, 876 Banzart, Tunisia, 414 Barcelona, Spain, 383 Bari, Italy, 775 Beirut, Lebanon, 1,473 Brindisi, Italy, 717 Cagliari, Sardinia, 336 Cartagena, Spain, 640 Castellammare di Stabia, Italy, 308 Ceuta, Morocco, 872 Gibraltar, 873 Haifa, Israel, 1,469 Iraklion, Kriti, 956 Istanbul, Turkey (south of Greece), 1,256 Istanbul, Turkey (via Corinth Canal), 1,214 Izmir, Turkey (south of Greece), 1,101 Izmir, Turkey (via Corinth Canal), 1,060 Malaga, Spain, 821 Marseille, France, 231 Messina, Sicily, 450 Napoli, Italy, 302 Odessa, Ukraine (south of Greece), 1,604 Odessa, Ukraine (via Corinth Canal), 1,562 Oran, Algeria, 701 Palermo, Sicily, 395 Palma, Balearic Islands, 474 Piraeus, Greece (south of Greece), 942 Piraeus, Greece (via Corinth Canal), 860 Rijeka, Croatia, 1,049 Sibenik, Croatia, 923 Siracusa, Sicily, 521 Split, Croatia, 908 Tarabulus, Libya, 790 Taranto, Italy, 669 Thessaloniki, Greece (south of Greece), 1,150 Thessaloniki, Greece (via Corinth Canal), 1,109 Toulon, France, 199 Trieste, Italy, 1,083 Tunis, Tunisia, 448 Valencia, Spain, 538 Valletta, Malta, 554 Venezia, Italy, 1,093 Volos, Greece (south of Greece), 1,091 Volos, Greece (via Corinth Canal), 1,050</p> <p>LA UNION, EL SALVADOR (13°20'00"N., 87°49'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 748</p> <p>Ports</p> <p>Corinto, Nicaragua, 73 Golfito, Costa Rica, 432 San Francisco, California, U.S.A., 2,586</p> <p>LAE, PAPUA NEW GUINEA (6°44'30"S., 147°01'00"E.) to:</p>	<p>Ports</p> <p>Apra, Guam, 1,315 Brisbane, Australia, 1,560 Noumea, New Caledonia, 1,519 Port Moresby, Papua New Guinea, 2,635 Rabaul, Papua New Guinea, 448 Wellington, New Zealand, 2,635</p> <p>LAGOS, NIGERIA (6°27'00"N., 3°23'00"E.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 3,746 Strait of Gibraltar, 3,100 Straits of Florida, 5,225</p> <p>Ports</p> <p>Accra, Ghana, 229 Baltimore, Maryland, U.S.A., 5,063 Benguela, Angola, 1,289 Boma, Congo, 977 Boston, Massachusetts, U.S.A., 4,774 Calabar, Nigeria, 391 Charleston, South Carolina, U.S.A., 5,065 Colon, Panama, 5,050 Douala, Cameroon, 442 Georgetown, Ascension Island, 1,375 Longji, Cameroon, 463 Malabo, Equatorial Guinea, 384 Mocamedes, Angola, 1,399 Natal, Brazil, 2,425 New York, New York, U.S.A., 4,883 Norfolk, Virginia, U.S.A., 4,941 Philadelphia, Pennsylvania, U.S.A., 4,985 Pointe Noire, Congo, 851 Port of Spain, Trinidad, 3,950 Port Harcourt, Nigeria, 318 Porto Grande, Cape Verde Islands, 1,991 Sao Tome, Sao Tome, Gulf of Guinea, 422 Sekondi, Ghana, 317 Tema, Ghana, 216 Victoria, Cameroon, 410 Willemstad, Curacao, 4,359</p> <p>LAKE CHARLES, LOUISIANA, U.S.A. (30°13'30"N., 93°14'00"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 677 Yucatan Channel, 689</p> <p>Ports</p> <p>Kingston, Jamaica, 1,190 La Habana, Cuba, 750 Veracruz, Mexico, 688</p> <p>LAND SKRONA, SWEDEN (55°52'08"N., 12°49'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 167 Skagens Odde, Denmark, 137</p> <p>Ports</p> <p>Oslo, Norway, 261</p>	<p>Stockholm, Sweden, 424 Szczecin, Poland, 170</p> <p>LARNACA, CYPRUS (34°54'44"N., 33°38'23"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 231 Strait of Gibraltar, 1,953</p> <p>Ports</p> <p>Al Latakia, Syria, 114 Beirut, Lebanon, 112 Constanta, Romania, 962 Istanbul, Turkey, 766 Izmir, Turkey, 570 Mersin, Turkey, 149 Nice, France, 1,457 Patrai, Greece (via south of Greece), 750 Patrai, Greece (via Corinth Canal), 658 Piraeus, Greece, 566 Pula, Croatia (via south of Greece), 1,245 Pula, Croatia (via Corinth Canal), 1,212 Rostov-na-Donu, Russia, 1,402 Sete, France, 1,579 Sfax, Tunisia, 1,163 Tarabulus, Libya, 1,050 Thessaloniki, Greece, 703</p> <p>LARNE, ENGLAND (54°52'00"N., 5°47'40"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 323 Fastnet Rock, Ireland, 312 Inishtrahull, Ireland, 86</p> <p>Ports</p> <p>Cardiff, Wales, 295 Cobh, Ireland, 251 Londonderry, Northern Ireland, 71 Milford Haven, Wales, 220 Stornoway, Scotland, 219 Workington, England, 85</p> <p>LARVIK, NORWAY (59°03'00"N., 10°01'35"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 461</p> <p>Ports</p> <p>Bergen, Norway, 317 London, England, 604 Oslo, Norway, 72</p> <p>LAS PALMAS, CANARY ISLANDS (28°08'30"N., 15°25'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,360 Strait of Gibraltar, 681 Straits of Florida, 3,713</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 3,251 Brunswick, Georgia, U.S.A., 3,442 Charleston, South Carolina,</p>	<p>U.S.A., 3,341 Charlotte Amalie, Virgin Islands, 2,791 Freetown, Sierra Leone, 1,317 Funchal, Madeira Island, 282 Horta, Azores, 914 Jacksonville, Florida, U.S.A., 3,467 Lisboa, Portugal, 712 New York, New York, U.S.A., 2,965 Norfolk, Virginia, U.S.A., 3,130 Plymouth, England, 1,432 Ponta Delgada, Azores, 774 Recife, Brazil, 2,453 Savannah, Georgia, U.S.A., 3,409</p> <p>LAS PIEDRAS, VENEZUELA (11°42'15"N., 70°13'15"W.) to:</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 1,907 Maracaibo, Venezuela, 126 New York, New York, U.S.A., 1,796 Philadelphia, Pennsylvania, U.S.A., 1,786</p> <p>LATCHI, CYPRUS (35°06'00"N., 32°27'00"E.) See Khrysokhou Bay, Cyprus.</p> <p>LAUNCESTON, TASMANIA (41°27'00"S., 147°07'00"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 1,577 Torres Strait, Australia, 2,278</p> <p>Ports</p> <p>Melbourne, Australia, 246 Sydney, Australia, 514 Wellington, New Zealand, 1,326</p> <p>LAUTOKA HARBOR, FIJI ISLANDS (17°36'09"S., 177°26'16"E.) to:</p> <p>Junction Points*</p> <p>Torres Strait, Australia, 2,204 Wilson Promontory, Australia, 2,070</p> <p>Ports</p> <p>Apra, Guam, 2,899 Sydney, Australia, 1,732 Wellington, New Zealand, 1,554</p> <p>LAVAN ISLAND, IRAN (26°47'05"N., 53°20'15"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,785 Cape Leeuwin, Australia, 5,121 Port Said, Egypt, 2,967 Singapore, 3,506 Selat Sunda, Indonesia, 3,713</p> <p>Ports</p> <p>Abadan, Iran, 349 Aden, Yemen, 1,578 Assab, Ethiopia, 1,722 Bandar Abbas, Iran, 198</p>
---	---	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

56 LAZARO CARDENAS, MEXICO

Belawan, Indonesia, 3,175,
Bombay, India, 1,198
Calcutta, India, 3,183

LAZARO CARDENAS, MEXICO
(17°55'44"N., 102°11'09"W.) to:

Junction Points*

Honshu, Japan, 6,026
Panama, Panama, 1,568
Punta Arenas, Chile, 4,681
Torres Strait, Australia, 7,122
Tsugaru-Kaikyo, Japan, 5,817
Wilson Promontory, Australia,
7,092

Ports

Amapala, Honduras, 988
Ensenada, Mexico, 1,253
Honolulu, Hawaii, U.S.A., 3,153
Mollendo, Peru, 2,786
Monterey, California, U.S.A.,
1,637
Talara, Peru, 1,832
Valparaiso, Chile, 3,525

LE HAVRE, FRANCE
(49°29'00"N., 0°06'00"E.) to:

Junction Points*

Bishop Rock, England, 263
Ile d'Ouessant, France, 243
Nord-Ostsee-Kanal (East
Entrance), Germany, 522
Skagens Odde, Denmark, 554

Ports

Aberdeen, Scotland, 522
Amsterdam, Netherlands, 273
Antwerp, Belgium, 244
Belfast, Northern Ireland, 542
Bergen, Norway, 702
Bremerhaven, Germany, 453
Dartmouth, England, 151
Dundee, Scotland, 505
Dunkerque, France, 144
Egersund, Norway, 589
Emden, Germany, 396
Esbjerg, Denmark, 482
Granville, France, 173
Hamburg, Germany, 511
Hartlepool, England, 386
Hull, England, 326
Kristiansand, Norway, 600
Leith, Scotland, 503
Liverpool, England, 510
London, England, 205
Narvik, Norway, 1,304
Newcastle, England, 411
Oostende, Belgium, 168
Oslo, Norway, 752
Plymouth, England, 177
Rotterdam, Netherlands, 250
Shoreham By Sea, England, 90
St. Malo, France, 156
Stavanger, Norway, 629
Wilhelmshaven, Germany, 440
Zeebrugge, Belgium, 186

LE VERDON, FRANCE
(45°33'00"N., 1°02'30"W.)
Subtract 50 miles from Bordeaux
distances.

LEGASPI PORT, PHILIPPINES
(13°09'00"N., 123°45'30"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,667
Singapore, 1,611

Ports

Ho Chi Minh, Vietnam, 1,177
Iloilo, Philippines, 226
Manila, Philippines, 370

LEITH, SCOTLAND
(55°59'00"N., 3°10'30"W.) to:

Junction Points*

Bishop Rock, England, 708
Ile d'Ouessant, France, 696
Skagens Odde, Denmark, 472

Ports

Amsterdam, Netherlands, 372
Antwerp, Belgium, 453
Bergen, Norway, 386
Blyth, England, 96
Bremerhaven, Germany, 442
Dunkerque, France, 399
Egersund, Norway, 336
Emden, Germany, 403
Esbjerg, Denmark, 403
Hamburg, Germany, 486
Hull, England, 237
Kristiansand, Norway, 394
Le Havre, France, 503
London, England, 417
Middlesbrough, England, 133
Oostende, Belgium, 396
Oslo, Norway, 546
Plymouth, England, 619
Portland, England, 545
Portsmouth, England, 495
Rotterdam, Netherlands, 381
Seaham Harbor, England, 117
Southampton, England, 513
Stavanger, Norway, 346
Wilhelmshaven, Germany, 435
Zeebrugge, Belgium, 392

LEIXOES, PORTUGAL
(41°10'40"N., 8°42'00"W.) to:

Ports

Gijon, Spain, 309
Lisboa, Portugal, 180
Puerto de Pasajes, Spain, 473
Rota, Spain, 454
Tangier, Morocco, 436

LERWICK, SCOTLAND
(60°07'10"N., 1°07'32"W.) to:

Junction Points*

Bishop Rock, England, 899
Ile d'Ouessant, France, 881
Nord-Ostsee-Kanal (East
Entrance), Germany, 568
Pentland Firth, Scotland, 118
Skagens Odde, Denmark, 123

Ports

Bergen, Norway, 204
Drammen, Norway, 471
Emden, Germany, 504
Hull, England, 427
Oslo, Norway, 481

LES CAYES, HAITI
(18°10'00"N., 73°45'00"W.) to:

Junction Points*

Panama, Panama, 688
Straits of Florida, 738

Ports

Baltimore, Maryland, U.S.A.,
1,374
Boston, Massachusetts, U.S.A.,
1,630
Colon, Panama, 645
New York, New York, U.S.A.,
1,447
Philadelphia, Pennsylvania,
U.S.A., 1,419
Port au Prince, Haiti, 202

LESNOY, RUSSIA
(66°40'42"N., 34°22'00"E.) Add
49 miles to Arkhangel'sk distances.

LEVUKA, FIJI ISLANDS
(17°40'30"S., 178°51'15"E.) to:

Junction Points*

Panama, Panama (via Ndaveta
Namuka), 6,288
Punta Arenas, Chile, 5,342
Torres Strait, Australia (via Raine
Island entrance), 2,268

Ports

Apia, Samoa, 600
Apra, Guam, 2,847
Auckland, New Zealand, 1,175
Avarua, Cook Islands, 1,268
Brisbane, Australia, 1,569
Callao, Peru, 6,002
Hakodate, Japan, 4,271
Hobart, Tasmania, 2,237
Hong Kong, China (west side of
Santa Cruz Island), 4,574
Honolulu, Hawaii, U.S.A., 2,730
Melbourne, Australia, 2,274
Midway Island, 2,833
Nagasaki, Japan (via Tanegashima
Kaikyo), 4,260
Noumea, New Caledonia (via
Havannah Passage and Woodin
Passage), 776
Pago Pago, American Samoa, 643
Papeete, French Polynesia, 1,831
Petropavlovsk-Kamchatskiy,
Russia, 4,518
Ponape, Caroline Islands, 2,024
Rabaul, Papua New Guinea, 1,836
Rotoava, Iles Tuamotu, 2,060
San Francisco, California, U.S.A.,
4,705
Seattle, Washington, U.S.A., 5,120
Shanghai, China, 4,528
Sydney, Australia, 1,779
Valparaiso, Chile, 5,753
Yokohama, Japan, 4,015

LIANYUNGANG, CHINA
(34°44'30"N., 119°27'30"E.) to:

Ports

Dalian, China, 348
Incheon, South Korea, 389
Nagasaki, Japan, 558
Shanghai, China, 414

LIBREVILLE, GABON
(0°22'00"N., 9°25'00"E.) to:

Ports

Dakar, Senegal, 1,982
Douala, Cameroon, 228
Pointe Noire, Congo, 399

LICATA, SICILY, ITALY
(37°05'15"N., 13°56'30"E.) to:

Junction Points*

Port Said, Egypt, 993
Strait of Gibraltar, 958

Ports

Messina, Sicily, 173
Tunis, Tunisia, 187
Valletta, Malta, 78

LIEN-YUN, CHINA
(33°44'30"N., 119°27'30"E.) See
Lianyungang, China.

LILLESAND, NORWAY
(58°14'50"N., 8°23'00"E.) to:

Junction Points*

Pentland Firth, Scotland, 390
Skagens Odde, Denmark, 80

Ports

Bergen, Norway, 241
London, England, 533
Oslo, Norway, 144

LIMASSOL, CYPRUS
(34°40'00"N., 33°03'00"E.) to:

Junction Points*

Port Said, Egypt, 208
Strait of Gibraltar, 1,914

Ports

Alexandria, Egypt, 272
Iraklion, Kriti, 405
Izmir, Turkey, 530

LIMERICK, IRELAND
(52°39'40"N., 8°38'15"W.) to:

Junction Points*

Fastnet Rock, Ireland, 157
Inishtrahull, Ireland, 279
Pentland Firth, Scotland, 538

Ports

Belfast, Northern Ireland (north of
Ireland), 376
Cobh, Ireland, 221

LIMETREE BAY, ST. CROIX, VIRGIN ISLANDS
(17°40'39"N., 64°44'12"W.) to:

Junction Points*

Bishop Rock, England, 3,352
Panama, Panama, 1,060
Punta Arenas, Chile, 5,720
Strait of Gibraltar, 3,305
Straits of Florida, 1,126

* JUNCTION POINT.—See Preface for use of junction points

<p>Ports</p> <p>Baltimore, Maryland, U.S.A., 1,454</p> <p>Buenos Aires, Argentina, 4,648</p> <p>Jacksonville, Florida, U.S.A., 1,216</p> <p>Philadelphia, Pennsylvania, U.S.A., 1,474</p> <p>Port of Spain, Trinidad, 470</p> <p>Willemstad, Curacao, 428</p> <p>LIMHAMN, SWEDEN (55°35'30"N., 12°55'40"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 159</p> <p>Skagens Odde, Denmark, 159</p> <p>Ports</p> <p>Oslo, Norway, 279</p> <p>Stockholm, Sweden, 427</p> <p>Swinoujscie, Poland, 128</p> <p>LIMON, COSTA RICA (9°59'30"N., 83°01'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 234</p> <p>Yucatan Channel, 732</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A. (via Windward Passage and Crooked Island Passage), 1,974</p> <p>Boston, Massachusetts, U.S.A. (via Windward Passage and Crooked Island Passage), 2,230</p> <p>Brunswick, Georgia, U.S.A., 1,611</p> <p>Cartagena, Colombia, 447</p> <p>Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,637</p> <p>Colon, Panama, 190</p> <p>Galveston, Texas, U.S.A., 1,394</p> <p>Georgetown, Guyana, 1,647</p> <p>Halifax, Canada, 2,368</p> <p>Hamilton, Bermuda (via Windward Passage), 1,715</p> <p>Jacksonville, Florida, U.S.A., 1,589</p> <p>Kingston, Jamaica, 605</p> <p>La Habana, Cuba, 1,170</p> <p>Mobile, Alabama, U.S.A. (via inside route), 1,292</p> <p>New York, New York, U.S.A. (via Windward Passage and Crooked Island Passage), 2,047</p> <p>Norfolk, Virginia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,852</p> <p>Pensacola, Florida, U.S.A., 1,256</p> <p>Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage), 2,019</p> <p>Port of Spain, Trinidad, 1,313</p> <p>Port Castries, St. Lucia, 1,316</p> <p>Puerto Cortes, Honduras, 623</p> <p>San Juan, Puerto Rico (via Mona Passage), 1,119</p> <p>Savannah, Georgia, U.S.A. (via Windward Passage), 1,636</p> <p>Veracruz, Mexico, 1,338</p> <p>Wilmington, North Carolina, U.S.A., 1,680</p>	<p>LINGKAS, KALIMANTAN, INDONESIA (3°17'00"N., 117°35'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 830</p> <p>Singapore, 1,286</p> <p>Selat Sunda, Indonesia, 1,191</p> <p>Ports</p> <p>Manila, Philippines, 785</p> <p>Tjilatjap, Indonesia, 1,217</p> <p>LISBOA, PORTUGAL (38°42'00"N., 9°08'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 710</p> <p>Cape of Good Hope, South Africa, 5,152</p> <p>Ile d'Ouessant, France, 666</p> <p>Inishtrahull, Ireland, 1,093</p> <p>Montreal, Canada, 3,032</p> <p>Pentland Firth, Scotland, 1,341</p> <p>Punta Arenas, Chile, 6,398</p> <p>Strait of Gibraltar, 286</p> <p>Straits of Florida, 3,823</p> <p>Ports</p> <p>Argentia, Canada, (via Cape Race), 2,101</p> <p>Banjul, Gambia, 1,632</p> <p>Belem, Brazil, 3,251</p> <p>Bordeaux, France, 733</p> <p>Boston, Massachusetts, U.S.A., 2,817</p> <p>Buenos Aires, Argentina, 5,339</p> <p>Cadiz, Spain, 253</p> <p>Cape Town, South Africa, 5,134</p> <p>Casablanca, Morocco, 324</p> <p>Charleston, South Carolina, U.S.A., 3,385</p> <p>Charlotte Amalie, Virgin Islands, 3,147</p> <p>Colon, Panama (via Mona Passage), 4,152</p> <p>Dakar, Senegal, 1,544</p> <p>El Ferrol del Caudillo, Spain, 356</p> <p>Freetown, Sierra Leone, 2,023</p> <p>Funchal, Madeira Island, 532</p> <p>Georgetown, Guyana, 3,264</p> <p>Guantanamo, Cuba, 3,570</p> <p>Halifax, Canada, 2,484</p> <p>Horta, Azores, 917</p> <p>Huelva, Spain, 235</p> <p>Jacksonville, Florida, U.S.A., 3,539</p> <p>Key West, Florida, U.S.A., 3,765</p> <p>Kingston, Jamaica, 3,725</p> <p>Las Palmas, Canary Islands, 712</p> <p>Marin, Spain, 255</p> <p>Monrovia, Liberia, 2,225</p> <p>New York, New York, U.S.A., 2,980</p> <p>Norfolk, Virginia, U.S.A., 3,129</p> <p>Oporto, Portugal, 176</p> <p>Philadelphia, Pennsylvania, U.S.A., 3,122</p> <p>Ponta Delgada, Azores, 783</p> <p>Port of Spain, Trinidad, 3,287</p> <p>Port Castries, St. Lucia, 3,111</p> <p>Porto Grande, Cape Verde Islands, 1,555</p> <p>Praia, Da Vitoria, Terceira, Azores, 850</p> <p>Recife, Brazil, 3,156</p> <p>Rio de Janeiro, Brazil, 4,219</p> <p>San Juan, Puerto Rico, 3,185</p> <p>Santa Cruz de Tenerife, Canary</p>	<p>Islands, 714</p> <p>Viana do Castelo, Portugal, 210</p> <p>Vigo, Spain, 247</p> <p>Villa do Porto, Azores, 771</p> <p>Villagarcia, Spain, 264</p> <p>LISBON, PORTUGAL (38°42'00"N., 9°08'00"W.) See Lisboa.</p> <p>LITTLE CREEK, VIRGINIA, U.S.A. (36°56'00"N., 76°10'40"W.)</p> <p>Subtract 13 1/2 miles from Norfolk distances.</p> <p>LIVERPOOL, CANADA (44°02'30"N., 64°42'00"W.) to:</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 325</p> <p>Colon, Panama, 2,244</p> <p>Kingston, Jamaica, 1,752</p> <p>New York, New York, U.S.A., 536</p> <p>Norfolk, Virginia, U.S.A., 715</p> <p>Philadelphia, Pennsylvania, U.S.A., 686</p> <p>San Juan, Puerto Rico, 1,540</p> <p>St. John, Canada, 212</p> <p>Sydney, Canada, 293</p> <p>LIVERPOOL, ENGLAND (53°27'00"N., 3°01'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 297</p> <p>Fastnet Rock, Ireland, 295</p> <p>Inishtrahull, Ireland (north of Isle of Man), 210</p> <p>Pentland Firth, Scotland (south of Isle of Man), 460</p> <p>Pentland Firth, Scotland (via The Minch), 451</p> <p>Ports</p> <p>Antwerp, Belgium, 698</p> <p>Ardrossan, Scotland, 180</p> <p>Arkhangelsk, Russia, 2,075</p> <p>Avonmouth, England, 282</p> <p>Brest, France, 410</p> <p>Cardiff, Wales, 267</p> <p>Cherbourg, France, 442</p> <p>Cobh, Ireland, 246</p> <p>Douglas, Isle of Man, 68</p> <p>Falmouth, England, 313</p> <p>Holyhead, Wales, 72</p> <p>Kingston, Jamaica, 1,744</p> <p>Le Havre, France, 510</p> <p>London, England, 659</p> <p>Londonderry, Northern Ireland, 215</p> <p>Milford Haven, Wales, 197</p> <p>Murmansk, Russia, 1,703</p> <p>Newport, Wales, 284</p> <p>Port Talbot, Wales, 244</p> <p>Southampton, England, 479</p> <p>Swansea, Wales, 236</p> <p>Waterford, Ireland, 189</p> <p>LIVORNO, ITALY (43°33'06"N., 10°17'45"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,355</p> <p>Strait of Gibraltar, 887</p>	<p>Ports</p> <p>Alexandria, Egypt, 1,244</p> <p>Algiers, Algeria, 528</p> <p>Alicante, Spain, 585</p> <p>Anaba, Algeria, 431</p> <p>Ancona, Italy, 946</p> <p>Banghazi, Libya, 841</p> <p>Banzart, Tunisia, 382</p> <p>Barcelona, Spain, 386</p> <p>Bari, Italy, 739</p> <p>Beirut, Lebanon, 1,437</p> <p>Brindisi, Italy, 681</p> <p>Cagliari, Sardinia, 304</p> <p>Cannes, France, 149</p> <p>Cartagena, Spain, 636</p> <p>Catania, Sicily, 464</p> <p>Ceuta, Morocco, 868</p> <p>Civitavecchia, Italy, 120</p> <p>Gaeta, Italy, 228</p> <p>Gibraltar, 869</p> <p>Haifa, Israel, 1,433</p> <p>Iraklion, Kriti, 920</p> <p>Istanbul, Turkey (south of Greece), 1,220</p> <p>Istanbul, Turkey (via Corinth Canal), 1,178</p> <p>Izmir, Turkey (south of Greece), 1,066</p> <p>Izmir, Turkey (via Corinth Canal), 1,024</p> <p>Malaga, Spain, 817</p> <p>Marseille, France, 236</p> <p>Messina, Sicily, 414</p> <p>Napoli, Italy, 267</p> <p>Nice, France, 134</p> <p>Odessa, Ukraine (south of Greece), 1,568</p> <p>Odessa, Ukraine (via Corinth Canal), 1,527</p> <p>Oran, Algeria, 691</p> <p>Palermo, Sicily, 359</p> <p>Palma, Balearic Islands, 470</p> <p>Piraeus, Greece (south of Greece), 906</p> <p>Piraeus, Greece (via Corinth Canal), 825</p> <p>Rijeka, Croatia, 1,013</p> <p>Sete, France, 298</p> <p>Sibenik, Croatia, 887</p> <p>Siracusa, Sicily, 486</p> <p>Split, Croatia, 872</p> <p>Tarabulus, Libya, 754</p> <p>Taranto, Italy, 634</p> <p>Thessaloniki, Greece (south of Greece), 1,114</p> <p>Thessaloniki, Greece (via Corinth Canal), 1,073</p> <p>Toulon, France, 204</p> <p>Trieste, Italy, 1,047</p> <p>Tunis, Tunisia, 417</p> <p>Valencia, Spain, 539</p> <p>Valletta, Malta, 519</p> <p>Venezia, Italy, 1,057</p> <p>Villefranche, France, 133</p> <p>Volos, Greece (south of Greece), 1,056</p> <p>Volos, Greece (via Corinth Canal), 1,014</p> <p>LO-HSING-TA MAO-TI, CHINA (25°59'00"N., 119°26'30"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 1,817</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,868</p> <p>Apra, Guam, 1,617</p>
--	--	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

58 LOBITO, ANGOLA

Busan, South Korea, 762
 Cebu, Philippines (via Balintang Channel), 1,051
 Dagu, China (via Steep Island Passage), 1,029
 Dalian, China, 871
 Hakodate, Japan, 1,429
 Hong Kong, China, 459
 Honolulu, Hawaii, U.S.A., 4,487
 Iloilo, Philippines (via Balintang Channel), 1,073
 Incheon, South Korea, 818
 Kobe, Japan, 1,003
 Manila, Philippines, 787
 Mogpo, South Korea, 665
 Nagasaki, Japan, 691
 Nampo, North Korea, 879
 Petropavlovsk-Kamchatskiy, Russia, 2,481
 Qingdao, China (via Steep Island Passage), 715
 Qinhuangdao, China, 977
 Shanghai, China, 440
 Shimonoseki, Japan, 799
 Vladivostok, Russia, 1,264
 Weihai, China (via Steep Island Passage), 801
 Weonsan, North Korea, 1,068
 Xiamen, China, 200
 Yantai, China, 835
 Yokohama, Japan, 1,217

LOBITO, ANGOLA
 (12°20'00"S., 13°34'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 1,440
 Ile d'Ouessant, France, 4,670

Ports

Accra, Ghana, 1,356
 Luanda, Angola, 237
 Pointe Noire, Congo, 473

LOME, TOGO
 (6°07'00"N., 1°13'30"E.) to:

Ports

Malabo, Equatorial Guinea, 480
 Monrovia, Liberia, 789
 Pointe Noire, Congo, 910
 Takoradi, Ghana, 200

LONDON, ENGLAND
 (51°30'00"N., 0°01'00"E.) to:

Junction Points*

Bishop Rock, England, 413
 Ile d'Ouessant, France, 397
 Nord-Ostsee-Kanal (East Entrance), Germany, 439
 Pentland Firth, Scotland, 536
 Skagens Odde, Denmark, 554

Ports

Aberdeen, Scotland, 429
 Alesund, Norway, 733
 Amsterdam, Netherlands, 208
 Antwerp, Belgium, 193
 Arendal, Norway, 551
 Arkhangel'sk, Russia, 2,061
 Barrow in Furness, England, 665
 Bergen, Norway, 613
 Blyth, England, 318
 Bremerhaven, Germany, 375
 Cardiff, Wales, 526

Dartmouth, England, 292
 Dundee, Scotland, 420
 Dunkerque, France, 112
 Egersund, Norway, 501
 Emden, Germany, 318
 Esbjerg, Denmark, 403
 Falmouth, England, 351
 Farsund, Norway, 497
 Fishguard, Wales, 523
 Flekkefjorden, Norway, 479
 Grimstad, Norway, 542
 Hakonsvern, Norway, 616
 Hamburg, Germany, 425
 Hirtshals, Denmark, 541
 Holyhead, Wales, 594
 Hull, England, 240
 Kristiansand, Norway, 514
 Kragero, Norway, 582
 Larvik, Norway, 604
 Le Havre, France, 205
 Leith, Scotland, 417
 Lillesand, Norway, 533
 Liverpool, England, 659
 Mandal, Norway, 503
 Methil, Scotland, 407
 Middlesbrough, England, 293
 Narvik, Norway, 1,215
 Newcastle, England, 325
 Oostende, Belgium, 123
 Oslo, Norway, 650
 Plymouth, England, 321
 Portland, England, 247
 Portsmouth, England, 197
 Risør, Norway, 572
 Rotterdam, Netherlands, 184
 Sandefjorden, Norway, 610
 Seaham Harbor, England, 318
 Shoreham By Sea, England, 161
 Skien, Norway, 609
 Southampton, England, 215
 Stavanger, Norway, 539
 Stockholm, Sweden, 1,251
 Sunderland, England, 312
 Tonsberg, Norway, 624
 Tvedestrand, Norway, 565
 Wilhelmshaven, Germany, 362
 Zeebrugge, Belgium, 131

LONDONDERRY, NORTHERN IRELAND
 (55°00'00"N., 7°19'00"W.) to:

Junction Points*

Bishop Rock, England, 396
 Fastnet Rock, Ireland (west of Ireland), 371
 Pentland Firth, Scotland, 310

Ports

Avonmouth, England, 384
 Belfast, Northern Ireland (via Rathlin Sound), 102
 Cardiff, Wales, 369
 Cobh, Ireland, 340
 Dublin, Ireland, 189
 Glasgow, Scotland, 145
 Liverpool, England, 215

LONG BEACH, CALIFORNIA, U.S.A.
 (33°46'12"N., 118°13'18"W.)
 Use Los Angeles distances.

LONGJI, CAMEROON
 (3°05'00"N., 9°57'20"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,359

Ile d'Ouessant, France, 4,179

Ports

Lagos, Nigeria, 463
 Matadi, Congo, 731

LONGYEARBYEN, SVALBARD
 (78°14'30"N., 15°34'00"E.) to:

Ports

Arkhangel'sk, Russia, 1,051
 Bergen, Norway, 1,124
 Dikson, Russia, 1,148
 Inverness, Scotland, 1,340
 Kirkenes, Norway, 637
 Murmansk, Russia, 695
 Narvik, Norway, 659
 Oslo, Norway, 1,482
 Pechenga, Russia, 638
 Reykjavik, Iceland (north of Iceland), 1,160
 Reykjavik, Iceland (South of Iceland), 1,310
 Tromsø, Norway, 556
 Trondheim, Norway, 943
 Vardo, Norway, 586

LOOP TERMINAL, GULF OF MEXICO, U.S.A.
 (28°52'11"N., 89°55'16"W.) to:

Junction Points*

Straits of Florida, 472
 Yucatan Channel, 503

Ports

Campeche, Mexico, 545
 La Habana, Cuba, 547
 Tampico, Mexico, 602
 Veracruz, Mexico, 679

LORIENT, FRANCE
 (47°43'45"N., 3°21'51"W.) to:

Junction Points*

Bishop Rock, England, 202
 Ile d'Ouessant, France, 107

Ports

Bilbao, Spain, 274

LOS ANGELES, CALIFORNIA, U.S.A.
 (33°45'00"N., 118°16'15"W.) to:

Junction Points*

Panama, Panama, 2,913
 Punta Arenas, Chile, 5,871
 Singapore (via San Bernardino Strait), 7,867
 Selat Sunda, Indonesia (via Makassar Strait), 7,976
 Wilson Promontory, Australia, 6,879

Ports

Acapulco, Mexico, 1,501
 Aleksandrovsk-Sakhalinskiy, Russia, 4,687
 Antofagasta, Chile, 4,430
 Apia, Samoa, 4,181
 Arica, Chile, 4,219
 Auckland, New Zealand, 5,658
 Avarua, Cook Islands, 4,064

Baie Taio-Hae, Marquesa Islands, 2,858
 Bangkok, Thailand (via Balintang Channel), 7,775
 Brisbane, Australia, 6,274
 Busan, South Korea, 5,229
 Callao, Peru, 3,655
 Corinto, Nicaragua, 2,281
 Dutch Harbor, Alaska, U.S.A., 2,382
 Ensenada, Mexico, 151
 Guayaquil, Ecuador, 3,218
 Guaymas, Mexico, 1,158
 Hakodate, Japan, 4,576
 Ho Chi Minh, Vietnam (via San Bernardino Strait), 7,403
 Hong Kong, China, 6,380
 Honolulu, Hawaii, U.S.A., 2,228
 Kobe, Japan, 5,185
 Manila, Philippines (north of Luzon), 6,530
 Manila, Philippines (via San Bernardino Strait), 6,588
 Manzanillo, Mexico, 1,205
 Mazatlan, Mexico, 1,011
 Melbourne, Australia, 7,032
 Nagasaki, Japan, 5,572
 Nampo, North Korea, 5,711
 Newcastle, Australia, 6,456
 Nome, Alaska, U.S.A., 2,968
 Noumea, New Caledonia, 5,521
 Nukualofa, Tonga Islands, 4,633
 Ocean Island, 4,553
 Pago Pago, American Samoa, 4,163
 Papeete, French Polynesia, 3,571
 Pearl Harbor, Hawaii, U.S.A., 2,233
 Petropavlovsk Kamchatskiy, Russia, 3,615
 Prince Rupert, Canada, 1,432
 Puerto Armuelles, Panama, 2,645
 Puntarenas, Costa Rica, 2,499
 Salina Cruz, Mexico, 1,803
 San Jose, Guatemala, 2,054
 Santa Rosalia, Mexico, 1,192
 Seward, Alaska, U.S.A., 2,045
 Shanghai, China, 5,810
 Sitka, Alaska, U.S.A., 1,640
 Surabaya, Indonesia (via Makassar Strait), 7,622
 Suva, Fiji Islands, 4,788
 Sydney, Australia, 6,511
 Valparaiso, Chile, 4,808
 Victoria, Canada, 1,091
 Vladivostok, Russia, 4,981
 Wellington, New Zealand, 5,857
 Weonsan, North Korea, 5,181
 Yokohama, Japan, 4,839

LOTA, CHILE
 (37°05'40"S., 73°09'40"W.) to:

Junction Points*

Panama, Panama, 2,825
 Punta Arenas, Chile, 1,191

Ports

Acapulco, Mexico, 3,573
 Antofagasta, Chile, 828
 Arica, Chile, 1,134
 Caldera, Chile, 628
 Callao, Peru, 1,530
 Coquimbo, Chile, 455
 Corinto, Nicaragua, 3,081
 Esmeraldas, Ecuador, 2,388
 Guayaquil, Ecuador, 2,155
 Guaymas, Mexico, 4,442
 Iquique, Chile, 1,033

* **JUNCTION POINT.**—See Preface for use of junction points

Monterey, California, U.S.A., 1,202
 Pisco, Peru, 1,432
 Puntarenas, Costa Rica, 2,899
 Salina Cruz, Mexico, 3,430
 San Diego, California, U.S.A., 4,881
 San Francisco, California, U.S.A., 5,282
 San Jose, Guatemala, 3,220
 Santa Barbara, California, U.S.A., 5,018
 Talcahuano, Chile, 50
 Valparaiso, Chile, 268

LOWESTOFT, ENGLAND
 (52°29'41"N., 1°47'06"E.) to:

Junction Points*

Bishop Rock, England, 418
 Ile d'Ouessant, France, 404
 Nord-Ostsee-Kanal (East Entrance), Germany, 350
 Pentland Firth, Scotland, 424
 Skagens Odde, Denmark, 452

Ports

Aberdeen, Scotland, 320
 Bremerhaven, Germany, 279
 Calais, France, 90
 Emden, Germany, 221
 London, England, 110
 Rotterdam, Netherlands, 108
 Trondheim, Norway, 776
 Wilhelmshaven, Germany, 263
 Zeebrugge, Belgium, 94

LUANDA, ANGOLA
 (8°47'00"S., 13°15'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 1,627

Ports

Boma, Congo, 190
 Cape Town, South Africa, 1,601
 Georgetown, Ascension Island, 1,657
 Lobito, Angola, 237
 New York, New York, U.S.A., 5,670
 Pointe Noire, Congo, 266
 Port Harcourt, Nigeria, 941
 Porto Grande, Cape Verde Islands, 2,778

LUBECK, GERMANY
 (53°52'44"N., 10°41'27"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 98
 Skagens Odde, Denmark, 263

Ports

Aalborg, Denmark (via Store Baelt), 248
 Abenra, Denmark, 131
 Assens, Denmark, 127
 Faaborg, Denmark, 102
 Flensburg, Germany, 131
 Fredericia, Denmark, 155
 Frederikshavn, Denmark, 155
 Gdynia, Poland, 328
 Grenaa, Denmark, 169

Inaderslev, Denmark, 137
 Kobenhavn, Denmark, 148
 Middlefart, Denmark, 149
 Naestved, Denmark, 136
 Stockholm, Sweden, 491
 Vejle, Denmark, 173

LUCINDA, AUSTRALIA
 (18°31'15"S., 146°20'00"E.) to:

Junction Points*

Torres Strait, Australia, 634
 Wilson Promontory, Australia, 1,621

Ports

Brisbane, Australia, 804
 Wellington, New Zealand, 2,102

LULEA, SWEDEN
 (65°34'30"N., 22°10'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 875
 Skagens Odde, Denmark (via Store Baelt), 1,067
 Skagens Odde, Denmark (via The Sound), 941

Ports

Bergen, Norway (via The Sound), 1,247
 Oslo, Norway (via Store Baelt), 1,195
 Oslo, Norway (via The Sound), 1,062
 Stavanger, Norway (via The Sound), 1,172
 Trondheim, Norway (via The Sound), 1,543

LYSEKIL, SWEDEN
 (58°16'00"N., 11°26'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 267.
 Nord-Ostsee-Kanal (East Entrance), Germany (via The Sound), 340

Ports

Bergen, Norway, 330
 Flensburg, Germany, 270
 Fredericia, Denmark, 191
 Oslo, Norway, 114

LYTTTELTON, NEW ZEALAND
 (43°36'25"S., 172°43'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,792
 Torres Strait, Australia, 2,849

Ports

Melbourne, Australia, 1,518
 Port Augusta, Australia, 2,082
 Sydney, Australia, 1,419
 Wellington, New Zealand, 174

MAASSLUIS, NETHERLANDS
 (51°55'45"N., 4°15'12"E.)
 Subtract 8 1/2 miles from Rotterdam distances.

MACEIO, BRAZIL
 (9°41'00"S., 35°44'00"W.) to:

Junction Points*

Punta Arenas, Chile, 3,138

Ports

Belem, Brazil, 1,211
 Rio de Janeiro, Brazil, 972
 Salvador, Brazil, 285

MACKAY, AUSTRALIA
 (21°09'15"S., 149°14'00"E.) to:

Junction Points*

Torres Strait, Australia, 864

Ports

Brisbane, Australia, 512
 Noumea, New Caledonia, 1,253
 Port Moresby, Papua New Guinea, 1,168
 Rabaul, Papua New Guinea, 1,871

MACKENZIE, GUYANA
 (6°00'00"N., 58°17'00"W.) Add 66 miles to Georgetown distances.

MADRAS, INDIA
 (13°06'00"N., 80°18'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa (via east of Madagascar), 4,790
 Cape Leeuwin, Australia, 3,480
 Selat Lombok, Indonesia, 2,559
 Port Said, Egypt, 4,037
 Singapore, 1,583

Ports

Aden, Yemen, 2,650
 Belawan, Indonesia, 1,252
 Bombay, India, 1,482
 Calcutta, India, 769
 Colombo, Sri Lanka, 611
 Fremantle, Australia, 3,389
 Kakinada, India, 276
 Karachi, Pakistan, 1,908
 Malacca, Malaysia, 1,470
 Moulmein, Burma, 1,043
 Penang, Malaysia, 1,285
 Port Blair, Andaman Islands, 758
 Port Darwin, Australia, 3,483
 Port Dickson, Malaysia, 143
 Port Swettenham, Malaysia, 1,384
 Rangoon, Burma, 1,003
 Sabang, Indonesia, 994
 Trincomalee, Sri Lanka, 288
 Vishakhapatnam, India, 332

MAGADAN, RUSSIA
 (59°33'00"N., 150°45'00"E.) See Bukhta Nagayev.

MAGALLANES, CHILE
 (53°10'00"S., 70°54'00"W.) See Punta Arenas.

MAHE, SEYCHELLES
 (4°36'40"S., 55°29'00"E.) See

Victoria.

MAHON, BALEARIC ISLANDS
 (39°52'02"N., 4°18'45"E.) to:

Junction Points*

Port Said, Egypt, 1,472
 Strait of Gibraltar, 542

Ports

Alexandria, Egypt, 1,349
 Benghazi, Libya, 896
 Ceuta, Morocco, 388
 Genova, Italy, 340
 Malaga, Spain, 517
 Trieste, Italy, 1,314
 Tunis, Tunisia, 372

MAIZURU, JAPAN
 (35°31'00"N., 135°20'00"E.) to:

Ports

Akita, Japan, 352
 Bohang, South Korea, 313
 Busan, South Korea, 333
 Changjin, North Korea, 411
 Chongjin, North Korea, 463
 Hakodate, Japan, 460
 Kimchaek, North Korea, 431
 Nanao, Japan, 213
 Niigata, Japan, 256
 Sakata, Japan, 314
 Shanghai, China, 800
 Shimonoseki, Japan, 302
 Ulsan, South Korea, 315
 Unggi, North Korea, 474
 Vladivostok, Russia, 485
 Wakamatsu, Japan, 299

MAJUNGA, MADAGASCAR
 (15°44'00"S., 46°18'00"E.) to:

Junction Points*

Port Said, Egypt, 3,471
 Singapore, 3,845

Ports

Beira, Mozambique, 732
 Belawan, Indonesia, 3,512
 Fremantle, Australia, 4,132
 Malacca, Malaysia, 3,710
 Maputo, Mozambique, 1,034
 Penang, Malaysia, 3,557
 Port Darwin, Australia, 5,069
 Sabang, Indonesia, 3,246
 Tulcar, Madagascar, 625

MAKASSAR, SULAWESI
 (5°08'00"S., 119°24'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 339
 Panama, Panama (via Selat Salajar and Selat Sagewin), 9,855
 Singapore (via Selat Riouw), 1,070
 Selat Sunda, Indonesia, 861
 Selat Wetar, Indonesia, 614

Ports

Bandjermasin, Kalimantan, Indonesia, 399
 Belawan, Indonesia, 1,439
 Davao, Philippines, 929
 Kompong Som, Cambodia, 1,584

* **JUNCTION POINT.**—See Preface for use of junction points

60 MALABO, EQUATORIAL GUINEA

Manila, Philippines (via Mindoro Strait and Sibutu Passage), 1,232

Mogpo, South Korea, 2,483
Semarang, Indonesia, 596
Sorido, Indonesia, 1,180
Sorong, Indonesia, 872
Tanjung Uban, Indonesia, 1,075
Tjirebon, Indonesia, 156
Tso-ying, Taiwan, 1,757

MALABO, EQUATORIAL GUINEA

(3°45'30"N., 8°46'30"E.) to:

Ports

Boma, Congo, 689
Georgetown, Ascension Island, 1,561
Kribi, Cameroon, 106
Lagos, Nigeria, 384
Lome, Togo, 480
St. Helena Island, 1,472

MALACCA, MALAYSIA

(2°10'00"N., 102°14'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,464
Selat Lombok, Indonesia, 1,091
Port Said, Egypt, 4,906
Singapore, 117
Selat Sunda, Indonesia, 619
Torres Strait, Australia, 2,588

Ports

Aden, Yemen, 3,517
Al Basrah, Iraq, 3,771
Al Manamah, Bahrain, 3,534
Albany, Australia, 2,602
Beira, Mozambique, 4,405
Belawan, Indonesia, 253
Berbera, Somalia, 3,531
Bombay, India, 2,327
Bushehr, Iran, 3,590
Calcutta, India, 1,523
Calicut, India, 1,827
Colombo, Sri Lanka, 1,458
Dar es Salaam, Tanzania, 3,927
Diego Garcia, Chagos Archipelago, 2,078
Durban, South Africa, 4,757
East London, South Africa, 4,967
Fort Dauphin, Madagascar, 3,860
Jakarta, Indonesia, 613
Kakinada, India, 1,478
Karachi, Pakistan, 2,768
Madras, India, 1,470
Majunga, Madagascar, 3,730
Maputo, Mozambique, 4,654
Mocambique, Mozambique, 3,965
Mombasa, Kenya, 3,872
Mosselbaai, South Africa, 5,269
Penang, Malaysia, 252
Port Louis, Mauritius, 3,215
Rangoon, Burma, 986
Sabang, Indonesia, 486
Surabaya, Indonesia, 881
Tamatave, Madagascar, 3,560
Victoria, Seychelles, 2,952
Zanzibar, Tanzania, 3,945

MALAGA, SPAIN

(3°42'44"N., 4°27'00"W.) to:

Junction Points*

Port Said, Egypt, 1,873

Strait of Gibraltar, 78

Ports

Alexandria, Egypt, 1,752
Algiers, Algeria, 368
Alicante, Spain, 248
Ancona, Italy, 1,510
Annaba, Algeria, 607
Banghazi, Libya, 1,286
Banzart, Tunisia, 699
Barcelona, Spain, 464
Bari, Italy, 1,303
Beirut, Lebanon, 1,964
Brindisi, Italy, 1,245
Cartagena, Spain, 189
Catania, Sicily, 1,012
Derince, Turkey, 1,785
Genova, Italy, 798
Ghazaouet, Algeria, 158
Haifa, Israel, 1,961
Iraklion, Kriti, 1,446
Istanbul, Turkey, 1,752
Izmir, Turkey, 1,597
La Spezia, Italy, 821
Livorno, Italy, 817
Marseille, France, 641
Melilla, Morocco, 116
Mers el Kebir, Algeria, 194
Messina, Sicily, 979
Napoli, Italy, 932
Odessa, Ukraine, 2,100
Oran, Algeria, 195
Palermo, Sicily, 870
Palma, Balearic Islands, 401
Piraeus, Greece (south of Greece), 1,438
Piraeus, Greece (via Corinth Canal), 1,381
Rijeka, Croatia, 1,578
Savona, Italy, 783
Sibenik, Croatia, 1,452
Siracusa, Sicily, 985
Split, Croatia, 1,436
Tarabulus, Libya, 1,024
Taranto, Italy, 1,198
Tarragona, Spain, 431
Thessaloniki, Greece, 1,646
Toulon, France, 652
Trieste, Italy, 1,611
Valencia, Spain, 334
Valletta, Malta, 928
Venezia, Italy, 1,621
Villa Sanjurjo, Morocco, 93
Volos, Greece, 1,587

MALAKAL, PALAU ISLANDS

(7°20'00"N., 134°26'30"E.) to:

Junction Points*

Panama, Panama, 8,674
Singapore (via Basilan Strait), 2,006

Ports

Apia, Samoa, 3,446
Apra, Guam, 706
Brisbane, Australia, 2,642
Ho Chi Minh, Vietnam, 1,801
Honolulu, Hawaii, U.S.A., 3,997
Kodiak, Alaska, U.S.A., 4,579
Manila, Philippines (via Verde Island Passage and San Bernardino strait), 1,044
Noumea, New Caledonia, 2,612
Ponape, Caroline Islands, 1,418
Surabaya, Indonesia, 1,656
Suva, Fiji Islands, 3,041
Yokohama, Japan, 1,731

MALDOGADO, URUGUAY

(3°56'00"S., 55°00'00"W.) to:

Junction Points*

Panama, Panama, 5,352
Punta Arenas, Chile, 1,321

Ports

Santos, Brazil, 1,172

MALMO, SWEDEN

(55°37'00"N., 13°00'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 205
Skagens Odde, Denmark, 155

Ports

Oslo, Norway, 278
Stockholm, Sweden (via Drogen Channel), 435
Stockholm, Sweden (via Flint Channel), 422

MALTEPE, TURKEY

(40°54'00"N., 29°08'00"E.) Add 5 miles to Istanbul distances for Ports outside of the Black Sea and Sea of Marmara.

MANAUS, BRAZIL

(3°08'00"S., 60°01'00"W.) Add 920 miles to Belem distances.

MANCHESTER, ENGLAND

(53°29'00"N., 2°14'00"W.) Add 39 miles to Liverpool distances.

MANDAL, NORWAY

(58°01'30"N., 7°27'20"E.) to:

Junction Points*

Pentland Firth, Scotland, 351
Skagens Odde, Denmark, 110

Ports

Bergen, Norway, 201
London, England, 503
Oslo, Norway, 177

MANFREDONIA, ITALY

(41°37'15"N., 15°55'30"E.) to:

Junction Points*

Port Said, Egypt, 1,045
Strait of Gibraltar, 1,419

Ports

Ancona, Italy, 195
Dubrovnik, Croatia, 117
Durrës, Albania, 161

MANGALORE, INDIA

(12°55'32"N., 74°48'00"E.) See New Mangalore.

MANIITSOQ, GREENLAND

(65°24'36"N., 52°54'12"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,700

Strait of Gibraltar, 2,547

Ports

Churchill, Canada, 1,341
Reykjavik, Iceland, 1,146
St. John's, Canada, 1,075

MANILA, PHILIPPINES

(14°35'00"N., 120°58'00"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Sibutu Passage), 1,514
Panama, Panama (north of Luzon), 9,347
Panama, Panama (via San Bernardino Strait), 9,370
Singapore, 1,330
Selat Sunda, Indonesia (via Palawan Passage and Selat Gaspar), 1,578
Torres Strait, Australia (via Basilan Strait), 2,193

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 2,507
Ambon, Indonesia, 1,260
Apra, Guam (north of Luzon), 1,742
Apra, Guam (via San Bernardino Strait), 1,499
Balikpapan, Kalimantan, Indonesia (via Sibutu Passage), 1,057
Bangkok, Thailand, 1,435
Busan, South Korea, 1,402
Cebu, Philippines, 404
Chimu Wan, Ryukyu Islands, 947
Da Nang, Vietnam, 758
Dagu, China (east of Taiwan), 1,722
Dagu, China (via Formosa Strait), 1,732
Dalian, China (east of Taiwan), 1,561
Dalian, China (via Formosa Strait), 1,571
Davao, Philippines, 831
Dutch Harbor, Alaska, U.S.A. (north of Luzon), 4,233
Guayaquil, Ecuador, 9,615
Haiphong, Vietnam (South of Hainan Tao), 936
Hakodate, Japan, 2,066
Ho Chi Minh, Vietnam, 907
Hong Kong, China, 631
Honolulu, Hawaii, U.S.A. (north of Luzon), 4,869
Honolulu, Hawaii, U.S.A. (via San Bernardino Strait), 4,767
Hua-Lien Kang, Taiwan, 648
Iloilo, Philippines (via Verde Island Passage and Jintotolo Channel), 361
Incheon, South Korea, 1,498
Jakarta, Indonesia (via Palawan Passage), 1,559
Jolo, Philippines, 550
Kiska, Alaska, U.S.A., 3,664
Kobe, Japan (via Balintang Channel), 1,563
Kodiak, Alaska, U.S.A., 4,823
Lo hsing-ta Mao-ti, China, 787
Los Angeles, California, U.S.A. (via north of Luzon), 6,530
Los Angeles, California, U.S.A. (via San Bernardino Strait), 6,588
Makassar, Sulawesi (via Sibutu

* JUNCTION POINT.—See Preface for use of junction points

Passage), 1,232
 Malakal, Palau Islands (via San Bernardino Strait), 1,044
 Midway Island (north of Luzon), 3,752
 Midway Island (via San Bernardino Strait), 3,685
 Mogpo, South Korea, 1,338
 Moji, Japan, 1,436
 Nagasaki, Japan, 1,298
 Nakagusuku, Ryukyu Islands, 935
 Nampo, North Korea, 1,559
 Nha Trang Bay, Vietnam, 706
 Nome, Alaska, U.S.A., 4,379
 Noumea, New Caledonia, 3,616
 Pago Pago, American Samoa (via San Bernardino Strait), 4,519
 Papeete, French Polynesia, 5,728
 Peng-hu Kang, Taiwan, 606
 Petropavlovsk-Kamchatskiy, Russia (via Chetvertiy Kuril'sky Proлив and La Perouse Strait), 3,117
 Port Darwin, Australia (via Basilan Strait and Selat Manipa), 1,834
 Portland, Oregon, U.S.A., 6,024
 Prince Rupert, Canada (north of Luzon and south of Aleutian Islands), 5,546
 Prince Rupert, Canada (via alternate route, north of Aleutian Islands), 5,493
 Pulupandan, Philippines, 363
 Qingdao, China, 1,422
 Rabaul, Papua New Guinea, 2,281
 San Diego, California, U.S.A., 6,604
 San Fernando, Philippines, 207
 San Francisco, California (via San Bernardino Strait), 6,299
 San Francisco, California, U.S.A. (via Balintang Channel), 6,221
 Sanya Gang, China, 714
 Sasebo, Japan, 1,349
 Seattle, Washington, U.S.A. (north of Luzon), 5,959
 Seattle, Washington, U.S.A. (via San Bernardino Strait), 6,077
 Seward, Alaska, U.S.A. (north of Luzon and south of Aleutian Islands), 5,046
 Shanghai, China (east of Taiwan), 1,156
 Shanghai, China (via Formosa Strait), 1,166
 Shimonoseki, Japan, 1,424
 Sitka, Alaska, U.S.A. (north of Aleutian Islands), 5,302
 Sitka, Alaska, U.S.A. (south of Aleutian Islands), 5,370
 Su-ao Kang, Taiwan, 684
 Surabaya, Indonesia, 1,540
 Suva, Fiji Islands, 4,048
 Tandjung Uban, Indonesia, 1,328
 Tarakan, Indonesia, 785
 Truk, Caroline Islands, 1,994
 Tso-Ying, Taiwan, 552
 Valparaiso, Chile (via San Bernardino Strait), 9,710
 Vinh Cam Ranh, Vietnam, 710
 Vladivostok, Russia, 1,912
 Wake Island, Pacific, 2,772
 Weihai, China (east of Taiwan), 1,498
 Weihai, China (via Formosa Strait), 1,508
 Weonsan, North Korea, 1,708
 Wotje Island, Marshall Islands, 3,027
 Xiamen, China, 662
 Yantai, China (east of Formosa), 1,532
 Yap, Caroline Islands, 1,154

Yokohama, Japan (via Balintang Channel), 1,758
 Zamboanga, Philippines, 532

MANZANILLO, CUBA
 (20°21'00"N., 77°09'00"W.) to:

Junction Points*

Panama, Panama, 732
 Yucatan Channel, 482

Ports

Charleston, South Carolina, U.S.A., 1,105
 Cienfuegos, Cuba, 266
 Colon, Panama, 689
 Guantanamo, Cuba, 206
 Hamilton, Bermuda, 1,187
 Kingston, Jamaica, 283
 Port au Prince, Haiti, 372
 San Juan, Puerto Rico, 738
 Santiago de Cuba, Cuba, 168
 Santo Domingo, Dominican Republic, 558
 Willemstad, Curacao, 746

MANZANILLO, MEXICO
 (19°03'30"N., 104°19'50"W.) to:

Ports

Acapulco, Mexico, 295
 Los Angeles, California, U.S.A., 1,205
 Mazatlan, Mexico, 297
 San Diego, California, U.S.A., 1,136
 San Francisco, California, U.S.A., 1,538
 San Jose, Guatemala, 840

MAPUTO, MOZAMBIQUE
 (25°58'30"S., 32°34'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 1,057
 Port Said, Egypt, 4,348
 Singapore, 4,769

Ports

Aden, Yemen, 2,973
 Beira, Mozambique, 476
 Belawan, Indonesia, 4,436
 Durban, South Africa, 307
 Fremantle, Australia, 4,283
 Majunga, Madagascar, 1,034
 Malacca, Malaysia, 4,654
 Mombasa, Kenya, 1,508
 Penang, Malaysia, 4,481
 Port Darwin, Australia, 5,539
 Port Louis, Mauritius, 1,448
 Sabang, Indonesia, 4,170
 Tamatave, Madagascar, 1,242
 Zanzibar, Tanzania, 1,388

MAR DEL PLATA, ARGENTINA
 (38°02'00"S., 57°31'00"W.) to:

Junction Points*

Panama, Panama, 5,543
 Punta Arenas, Chile, 1,112

Ports

Buenos Aires, Argentina, 276

Santos, Brazil, 1,363

MARACAIBO, VENEZUELA
 (10°38'00"N., 71°37'00"W.) to:

Junction Points*

Montreal, Canada, 2,931
 Panama, Panama, 737
 Straits of Florida (via Windward Passage), 1,205
 Yucatan Channel, 1,096

Ports

Baltimore, Maryland, U.S.A. (via Windward Passage), 1,804
 Boston, Massachusetts, U.S.A., 2,001
 Cartagena, Colombia, 465
 Charleston, South Carolina, U.S.A., 1,467
 Colon, Panama, 693
 Galveston, Texas, U.S.A., 1,810
 La Habana, Cuba, 1,173
 Las Piedras, Venezuela, 126
 New Orleans, Louisiana, U.S.A. (via South Pass), 1,629
 New York, New York, U.S.A., 1,890
 Norfolk, Virginia, U.S.A., 1,682
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage), 1,849
 Portland, Maine, U.S.A., 2,042
 Puerto Padre, Cuba, 834
 Santo Domingo, Dominican Republic, 496
 Savannah, Georgia, U.S.A., 1,466
 Willemstad, Curacao, 222

MARCUS HOOK, PENNSYLVANIA, U.S.A.
 (39°48'12"N., 75°25'12"W.)
 Subtract 18 miles from Philadelphia distances.

MARE ISLAND, CALIFORNIA, U.S.A.
 (38°36'0"N., 122°16'00"W.) Add 22 miles to San Francisco distances.

MARIEL, CUBA
 (23°00'00"N., 82°45'15"W.) to:

Junction Points*

Straits of Florida, 86
 Yucatan Channel, 164

Ports

Kingston, Jamaica, 716
 Nuevitas, Cuba, 366
 San Juan, Puerto Rico, 999
 Swan Island, Honduras, 437

MARIN, PONTE VEDRA BAY, SPAIN
 (42°24'00"N., 8°43'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 437
 Strait of Gibraltar, 517

Ports

Bilbao, Spain, 387
 Horta, Azores, 944
 Lisboa, Portugal, 255

MARMAGAO, INDIA
 (15°25'00"N., 73°47'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,447
 Port Said, Egypt, 3,078
 Singapore, 2,217

Ports

Bombay, India, 235
 Colombo, Sri Lanka, 671
 Karachi, Pakistan, 690
 Okha, India, 533
 Trincomalee, Sri Lanka, 968

MARSA AL BURAYQAH, LIBYA
 (30°28'15"N., 19°33'45"E.) to:

Junction Points*

Port Said, Egypt, 782
 Strait of Gibraltar, 1,408

Ports

Alexandria, Egypt, 640
 Barcelona, Spain, 1,056
 Beirut, Lebanon, 903
 Genova, Italy, 986
 Haifa, Israel, 881
 Messina, Sicily, 503
 Palma, Balearic Islands, 1,009
 Venezia, Italy, 1,014
 Volvos, Greece, 655

MARSAXLOKK, MALTA
 (35°48'54"N., 14°33'06"E.) to:

Junction Points*

Port Said, Egypt, 942
 Strait of Gibraltar, 1,017

Ports

Messina, Sicily, 164
 Tarabulus, Libya, 191
 Tunis, Tunisia, 246

MARSEILLE, FRANCE
 (43°19'10"N., 5°21'17"E.) to:

Junction Points*

Port Said, Egypt, 1,518
 Strait of Gibraltar, 711

Ports

Ajaccio, Corsica, 188
 Alexandria, Egypt, 1,407
 Algiers, Algeria, 410
 Alicante, Spain, 406
 Ancona, Italy, 1,109
 Annaba, Algeria, 409
 Benghazi, Libya, 1,004
 Baniyas, Syria, 1,610
 Banzart, Tunisia, 428
 Barcelona, Spain, 189
 Bari, Italy, 902
 Bat'umi, Georgia (south of Greece), 1,970
 Bat'umi, Georgia (via Corinth Canal), 1,929
 Beirut, Lebanon, 1,600
 Bonifacio, Corsica, 213
 Brindisi, Italy, 844
 Cagliari, Sardinia, 360
 Cartagena, Spain, 460

* **JUNCTION POINT.**—See Preface for use of junction points

62 MASAN, SOUTH KOREA

Catania, Sicily, 627
 Ceuta, Morocco, 692
 Civitavecchia, Italy, 316
 Famagusta, Cyprus, 1,558
 Genova, Italy, 204
 Gibraltar, 693
 Haifa, Israel, 1,596
 Iraklion, Kriti, 1,083
 Istanbul, Turkey (south of Greece), 1,383
 Istanbul, Turkey (via Corinth Canal), 1,342
 Izmir, Turkey (south of Greece), 1,229
 Izmir, Turkey (via Corinth Canal), 1,187
 La Spezia, Italy, 231
 Livorno, Italy, 236
 Mahon, Balearic Islands, 219
 Malaga, Spain, 641
 Messina, Sicily, 577
 Napoli, Italy, 456
 Odessa, Ukraine (south of Greece), 1,731
 Odessa, Ukraine (via Corinth Canal), 1,690
 Oran, Algeria, 536
 Palermo, Sicily, 495
 Palma, Balearic Islands, 300
 Piraeus, Greece (south of Greece), 1,069
 Piraeus, Greece (via Corinth Canal), 988
 Port Vendres, France, 109
 Porto Vecchio di Piombino, Italy, 247
 Rijeka, Croatia, 1,176
 Savona, Italy, 189
 Sayda, Lebanon, 1,596
 Sibenik, Croatia, 1,050
 Siracusa, Sicily, 649
 Skikda, Algeria, 398
 Split, Croatia, 1,035
 Tarabulus, Lebanon, 1,613
 Tarabulus, Libya, 745
 Taranto, Italy, 797
 Thessaloniki, Greece (south of Greece), 1,278
 Thessaloniki, Greece (via Corinth Canal), 1,236
 Trieste, Italy, 1,210
 Tunis, Tunisia, 476
 Valencia, Spain, 347
 Valletta, Malta, 637
 Venezia, Italy, 1,220
 Viareggio, Italy, 238
 Volos, Greece (south of Greece), 1,219
 Volos, Greece (via Corinth Canal), 1,177

MASAN, SOUTH KOREA
 (35°11'00"N., 128°35'00"E.) to:

Ports

Dalian, China, 546
 Incheon, South Korea, 403
 Shimonoseki, Japan, 146
 Tsuruga, Japan, 385
 Vladivostok, Russia, 542

MASBATE, PHILIPPINES
 (12°22'47"N., 123°36'50"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,479
 Panama, Panama, 9,223
 Punta Arenas, Chile, 9,067
 Singapore, 1,492
 Selat Sunda, Indonesia, 1,755

Ports

Cebu, Philippines, 183
 Ho Chi Minh, Vietnam, 1,065
 Honolulu, Hawaii, U.S.A. (via San Bernardino Strait), 4,492
 Kota Kinabalu, Malaysia (via Balabac Strait), 684
 Sandakan, Sabah, 584
 Zamboanga, Philippines, 406

MASNEDSUND, DENMARK
 (55°59'48"N., 11°52'36"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 149
 Skagens Odde, Denmark, 122

Ports

Gdynia, Poland, 330
 Stockholm, Sweden, 531
 Swinoujscie, Poland, 193

MASSAWA, ETHIOPIA
 (15°36'45"N., 39°28'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,341
 Cape Leeuwin, Australia, 5,345
 Port Said, Egypt, 1,041
 Singapore, 4,020
 Torres Strait, Australia (via Eight Degree Channel), 6,420

Ports

Aden, Yemen, 400
 Al Aqabah, Jordan, 897
 Al Basrah, Iraq, 2,372
 Bombay, India, 2,050
 Calcutta, India, 3,695
 Colombo, Sri Lanka, 2,481
 Jiddah, Saudi Arabia, 364
 Karachi, Pakistan, 1,865
 Mombasa, Kenya, 2,006
 Port Darwin, Australia (via One and Half Degree Channel), 5,749
 Port Sudan, Sudan, 306
 Rangoon, Burma, 3,705

MATADI, CONGO
 (5°49'00"S., 13°27'00"E.) to:

Ports

Bata, Equatorial Guinea, 663
 Calabar, Nigeria, 818
 Cape Town, South Africa, 1,827
 Longji, Cameroon, 731
 Mayumba, Gabon, 282
 Port Nolloth, South Africa, 1,559
 Swakopmund, South Africa, 1,144
 Victoria, Cameroon, 770

MATAGORDA BAY, TEXAS, U.S.A.
 (28°20'00"N., 96°23'00"W.) to:

Junction Points*

Panama, Panama, 1,558
 Straits of Florida, 754
 Yucatan Channel, 729

Ports

Belize, Belize, 957
 Tampico, Mexico, 380
 Tuxpan, Mexico, 445
 Veracruz, Mexico, 549

MATANZAS, CUBA
 (23°03'30"N., 81°33'30"W.) to:

Junction Points*

Straits of Florida, 119
 Yucatan Channel, 241

Ports

Antilla, Cuba, 407
 Cienfuegos, Cuba, 526
 Guantanamo, Cuba, 553
 Hamilton, Bermuda, 1,131
 Kingston, Jamaica, 717
 New Orleans, Louisiana, U.S.A., 641
 New York, New York, U.S.A., 1,167
 Philadelphia, Pennsylvania, U.S.A., 1,147
 Port au Prince, Haiti, 617
 Puerto Padre, Cuba, 330
 San Juan, Puerto Rico, 931
 Santo Domingo, Dominican Republic, 901
 Tampa, Florida, U.S.A. (via Northwest Channel), 325
 Tampico, Mexico, 914

MATARANI, PERU
 (16°59'36"S., 72°07'12"W.) to:

Junction Points*

Panama, Panama, 1,790
 Punta Arenas, Chile, 2,380
 Torres Strait, Australia, 8,324
 Wilson Promontory, Australia (via 30°S.), 7,398
 Wilson Promontory, Australia (via 40°S.), 7,154

Ports

Antofagasta, Chile, 423
 Callao, Peru, 462

MATHEW TOWN, GREAT INAGUA ISLAND
 (20°57'30"N., 73°40'40"W.) to:

Junction Points*

Fastnet Rock, Ireland, 3,467

Ports

Belize, Belize, 902
 New York, New York, U.S.A. (via Crooked Island Passage), 1,205

MATRUH, EGYPT
 (31°22'30"N., 27°14'30"E.) to:

Junction Points*

Port Said, Egypt, 281
 Strait of Gibraltar, 1,695

Ports

Banghazi, Libya, 267
 Haifa, Israel, 410
 Iraklion, Kriti, 308

MAYAQUEZ, PUERTO RICO
 (18°13'21"N., 67°11'50"W.) to:

Junction Points*

Bishop Rock, England, 3,504
 Cape of Good Hope, South Africa, 5,823
 Fastnet Rock, Ireland, 3,409
 Grand Banks South, 1,752
 Ile d'Ouessant, France, 3,536
 Panama, Panama, 910
 Punta Arenas, Chile, 5,991
 Strait of Gibraltar, 3,471
 Straits of Florida, 968

Ports

Abraham Bay, Bahamas, 411
 Belem, Brazil, 1,688
 Dakar, Senegal, 2,960
 Freetown, Sierra Leone, 3,293
 Georgetown, Guyana, 938
 Halifax, Canada, 1,628
 Horta, Azores, 2,419
 New York, New York, U.S.A., 1,527
 Portland, Maine, U.S.A., 1,535

MAYPORT, FLORIDA, U.S.A.
 (30°23'42"N., 81°25'54"W.)
 Subtract 18 miles from Jacksonville distances.

MAZATLAN, MEXICO
 (23°10'15"N., 106°26'30"W.) to:

Junction Points*

Panama, Panama, 2,006

Ports

Acapulco, Mexico, 595
 Amapala, Honduras, 1,350
 Champerico, Guatemala, 1,078
 Guaymas, Mexico, 388
 Los Angeles, California, U.S.A., 1,011
 Manzanillo, Mexico, 297
 San Diego, California, U.S.A., 939
 San Francisco, California, U.S.A., 1,337
 San Jose, Guatemala, 1,149
 Yokohama, Japan, 5,782

MEGARA, GREECE
 (37°58'37"N., 23°21'33"E.) to:

Junction Points*

Port Said, Egypt, 617
 Strait of Gibraltar (south of Greece), 1,541

Ports

Algiers, Algeria, 1,077
 Alicante, Spain, 1,240
 Arzew, Algeria, 1,253
 Barcelona, Spain, 1,162
 Cagliari, Sardinia, 814
 Kerch, Ukraine, 801
 La Spezia, Italy, 942
 Navarino Bay, Greece, 194
 Split, Croatia, 684
 Tangier, Morocco, 1,511
 Toulon, France, 1,036
 Tubruq, Libya, 368

MELBOURNE, AUSTRALIA
 (37°49'15"S., 144°56'00"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

MIDWAY ISLAND, NORTH PACIFIC 63

<p>Junction Points*</p> <p>Cape Leeuwin, Australia, 1,497 Panama, Panama (via Foveaux Strait), 7,928 Wilson Promontory, Australia, 154</p> <p>Ports</p> <p>Adelaide, Australia, 512 Albany, Australia, 1,363 Apia, Samoa, 2,834 Apra, Guam, 3,631 Auckland, New Zealand, 1,649 Avarua, Cook Islands, 3,090 Bluff Harbor, New Zealand, 1,211 Burnie Harbor, Australia, 223 Dunedin, New Zealand, 1,309 Dutch Harbor, Alaska, U.S.A., 6,321 Hobart, Tasmania, 472 Honolulu, Hawaii, U.S.A., 4,942 Jaluit, Marshall Islands, 3,181 Launceston, Tasmania, 246 Levuka, Fiji Islands, 2,274 Los Angeles, California, U.S.A., 7,032 Lyttelton, New Zealand, 1,518 Loumea, New Caledonia, 1,595 Pago Pago, American Samoa, 2,851 Papeete, French Polynesia, 3,691 Penang, Malaysia, 4,181 Ponape, Caroline Islands, 3,078 Port Lincoln, Australia, 588 Port Pirie, Australia, 689 Portland, Australia, 206 Pabaul, Papua New Guinea, 2,408 Rapid Bay, Australia, 458 San Francisco, California, U.S.A., 6,970 Seattle, Washington, U.S.A., 7,332 Whyalla, Australia, 665</p> <p>MELILLA, MOROCCO (35°17'30"N., 2°56'00"W.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,821 Strait of Gibraltar, 153</p> <p>Ports</p> <p>Alicante, Spain, 224 Arzew, Algeria, 145 Ceuta, Morocco, 131 Malaga, Spain, 116 Mers el Kebir, Algeria, 154 Mostaganem, Algeria, 119 Oran, Algeria, 120 Villa Sanjurjo, Morocco, 64</p> <p>MENTON, FRANCE (43°46'30"N., 7°30'40"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,449 Strait of Gibraltar, 791</p> <p>Ports</p> <p>Barcelona, Spain, 285 Civitavecchia, Italy, 180 Palma, Balearic Islands, 382</p> <p>MERS EL KEBIR, ALGERIA (35°44'00"N., 0°42'00"W.) to:</p>	<p>Junction Points*</p> <p>Port Said, Egypt, 1,714 Strait of Gibraltar, 252</p> <p>Ports</p> <p>Alicante, Spain, 160 Malaga, Spain, 194 Melilla, Morocco, 119</p> <p>MERSA AL HAMRA, EGYPT (30°58'42"N., 28°52'12"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 211 Strait of Gibraltar, 1,778</p> <p>Ports</p> <p>Ajaccio, Corsica, 1,197 Algiers, Algeria, 1,347 Alicante, Spain, 1,510 Argostolion, Greece, 603 Bari, Italy, 849 Bat'umi, Georgia, 1,298 Es Sider, Libya, 612 Haifa, Israel, 346 Izmir, Turkey, 524 Malaga, Spain, 1,708 Palma, Balearic Islands, 1,383 Tuapse, Russia, 1,203 Tunis, Tunisia, 1,004 Volos, Greece, 605</p> <p>MERSIN, TURKEY (36°47'26"N., 34°38'07"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 358 Strait of Gibraltar, 1,996</p> <p>Ports</p> <p>Al Latakia, Syria, 94 Beirut, Lebanon, 179 Constanta, Romania, 986 Istanbul, Turkey, 789 Izmir, Turkey, 594 Kerch, Ukraine, 1,214 Larnaca, Cyprus, 149 Nice, France, 1,495 Patrai, Greece (south of Greece), 789 Patrai, Greece (via Corinth Canal), 690 Piraeus, Greece, 598 Pula, Croatia (south of Greece), 1,260 Pula, Croatia (via Corinth Canal), 1,244 Rostov-na-Donu, Russia, 1,426 Tarabulus, Libya, 1,109 Thessaloniki, Greece, 726</p> <p>MESSINA, SICILY, ITALY (38°11'28"N., 15°33'44"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 945 Strait of Gibraltar, 1,049</p> <p>Ports</p> <p>Alexandria, Egypt, 834 Algiers, Algeria, 621 Alicante, Spain, 776 Ancona, Italy, 536 Annaba, Algeria, 401</p>	<p>As Sukhayrah, Tunisia, 406 Banghazi, Libya, 430 Banzart, Tunisia, 364 Barcelona, Spain, 681 Bari, Italy, 329 Beirut, Lebanon, 1,027 Brindisi, Italy, 270 Cagliari, Sardinia, 328 Cartagena, Spain, 806 Catania, Sicily, 53 Ceuta, Morocco, 1,029 Civitavecchia, Italy, 308 Crotone, Italy, 367 Gaeta, Italy, 209 Genova, Italy, 492 Gibraltar, 1,031 Haifa, Israel, 1,023 Iraklion, Kriti, 510 Istanbul, Turkey (south of Greece), 810 Istanbul, Turkey (via Corinth Canal), 768 Izmir, Turkey (south of Greece), 655 Izmir, Turkey (via Corinth Canal), 614 Kalamai, Greece, 355 La Spezia, Italy, 450 Licata, Sicily, 173 Livorno, Italy, 414 Malaga, Spain, 979 Marsaxlokk, Malta, 164 Marseille, France, 577 Napoli, Italy, 175 Nice, France, 515 Odessa, Ukraine (south of Greece), 1,158 Odessa, Ukraine (via Corinth Canal), 1,116 Oran, Algeria, 818 Palermo, Sicily, 120 Palma, Balearic Islands, 639 Piraeus Greece (south of Greece), 496 Piraeus Greece (via Corinth Canal), 414 Pozzuoli, Italy, 177 Preveza, Greece, 274 Rethimnon, Kriti, 479 Rijeka, Croatia, 603 Salerno, Italy, 158 Savona, Italy, 496 Sete, France, 636 Sibenik, Croatia, 477 Siracusa, Sicily, 75 Soudha, Kriti, 473 Split, Croatia, 462 Tarabulus, Libya, 344 Taranto, Italy, 223 Thessaloniki, Greece (south of Greece), 704 Thessaloniki, Greece (via Corinth Canal), 663 Toulon, France, 546 Trapani, Sicily, 177 Trieste, Italy, 637 Tunis, Tunisia, 302 Valencia, Spain, 764 Valletta, Malta, 156 Venezia, Italy, 647 Volos Greece (south of Greece), 645 Volos Greece (via Corinth Canal), 604</p> <p>METHIL, SCOTLAND (56°11'00"N., 3°00'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 698 Pentland Firth, Scotland, 246</p>	<p>Ports</p> <p>London, England, 407</p> <p>MIAMI, FLORIDA, U.S.A. (25°47'00"N., 80°11'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,634 Cape of Good Hope, South Africa, 6,685 Fastnet Rock, Ireland, 3,578 Inishtrahull, Ireland, 3,618 Pentland Firth, Scotland, 3,856 Straits of Florida, 217 Yucatan Channel, 387</p> <p>Ports</p> <p>Belize, Belize, 734 Charlotte Amalie, Virgin Islands, 991 Cienfuegos, Cuba (via Windward Passage), 947 Cienfuegos, Cuba (via Yucatan Channel), 671 Colon, Panama (via Windward Passage), 1,249 Colon, Panama (via Yucatan Channel), 1,214 Elizabeth Harbor, Bahamas, 354 Georgetown, Guyana, 1,788 Guantanamo, Cuba, 582 Halifax, Canada, 1,413 Hamilton, Bermuda, 956 Kingston, Jamaica, 746 La Habana, Cuba, 216 Nassau, Bahamas, 191 Pointe a Pitre, Guadeloupe, 1,247 Port au Prince, Haiti, 643 Port of Spain, Trinidad, 1,482 Port Castries, St. Lucia, 1,352 Recife, Brazil, 3,500 San Juan, Puerto Rico, 960 Santiago de Cuba, Cuba, 630 Santo Domingo, Dominican Republic, 930</p> <p>MIDDLEFART, DENMARK (55°30'30"N., 9°44'14"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 84 Skagens Odde, Denmark, 186</p> <p>Ports</p> <p>Gdynia, Poland, 396 Goteborg, Sweden, 173 Lubeck, Germany, 149</p> <p>MIDDLESBROUGH, ENGLAND (54°34'45"N., 1°13'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 591 Pentland Firth, Scotland, 326</p> <p>Ports</p> <p>Leith, Scotland, 133 London, England, 293</p> <p>MIDWAY ISLAND, NORTH PACIFIC (28°13'00"N., 177°22'00"W.) to:</p>
--	---	---	---

* JUNCTION POINT.—See Preface for use of junction points

64 MIKE, JAPAN

<p>Junction Points*</p> <p>Panama, Panama, 5,707 Punta Arenas, Chile, 7,382 Singapore (via Surigao Strait), 4,828</p> <p>Ports</p> <p>Apia, Samoa, 2,546 Apra, Guam, 2,301 Auckland, New Zealand, 3,937 Avarua, Cook Islands, 3,140 Brisbane, Australia, 3,757 Callao, Peru, 6,280 Christmas Island, Line Islands, 1,949 Dutch Harbor, Alaska, U.S.A., 1,651 Funafuti, Tuvalu, 2,220 Guayaquil, Ecuador, 5,944 Hakodate, Japan, 2,198 Ho Chi Minh, Vietnam, 4,421 Hobart, Tasmania, 4,740 Hong Kong, China, 3,728 Honolulu, Hawaii, U.S.A., 1,149 Jaluit, Marshall Islands, 1,534 Johnston Island, 821 Kahului, Hawaii, U.S.A., 1,266 Kaunakakai, Hawaii, U.S.A., 1,220 Kiska, Alaska, U.S.A., 1,453 Kodiak, Alaska, U.S.A., 2,088 Koniya, Ryukyu Islands, 2,799 Levuka, Fiji Islands, 2,833 Manila, Philippines (north of Luzon), 3,752 Manila, Philippines (via San Bernardino Strait), 3,685 Nagasaki, Japan, 2,830 Noumea, New Caledonia, 3,207 Pago Pago, American Samoa, 2,593 Papeete, French Polynesia, 3,190 Petropavlovsk-Kamchatskiy, Russia, 1,831 Ponape, Caroline Islands, 1,882 Port Darwin, Australia (via Selat Sele), 4,188 Qingdao, China, 3,303 Rabaul, Papua New Guinea, 2,688 San Diego, California, U.S.A., 3,097 San Francisco, California, U.S.A., 2,792 Seattle, Washington, U.S.A., 2,817 Shanghai, China, 3,184 Sitka, Alaska, U.S.A., 2,473 Surabaya, Indonesia (via Makassar Strait), 4,632 Suva, Fiji Islands, 2,872 Sydney, Australia, 4,138 Truk, Caroline Islands, 2,146 Valparaiso, Chile, 7,042 Vladivostok, Russia, 2,612 Wake Island, Pacific, 1,034 Yokohama, Japan, 2,250</p> <p>MIKE, JAPAN (33°00'40"N., 130°25'05"E.) to:</p> <p>Ports</p> <p>Hakodate, Japan, 864 Kobe, Japan, 462 Nagasaki, Japan, 82 Shimonoseki, Japan, 222 Yokohama, Japan (via Bungo Suido), 766 Yokohama, Japan (via Osumi Kaikyo), 725</p>	<p>MILAZZO, SICILY, ITALY (38°13'00"N., 15°15'00"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 973 Strait of Gibraltar, 1,025</p> <p>Ports</p> <p>Napoli, Italy, 54 Palermo, Sicily, 97 Taranto, Italy, 316</p> <p>MILFORD HAVEN, WALES (51°42'00"N., 5°02'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 129 Fastnet Rock, Ireland, 178 Inishtrahull, Ireland, 286</p> <p>Ports</p> <p>Belfast, Northern Ireland, 222 Horta, Azores, 1,266 Liverpool, England, 197</p> <p>MILLER ANCHORAGE, ELEUTHERA ISLAND, BAHAMA ISLANDS (24°39'15"N., 76°11'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,115 Straits of Florida, 495</p> <p>Ports</p> <p>Jacksonville, Florida, U.S.A., 507 Nuevitas, Cuba, 363 San Juan, Puerto Rico, 714</p> <p>MILNER BAY, AUSTRALIA (13°56'30"S., 136°25'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 6,656 Cape Leeuwin, Australia, 2,557 Honshu, Japan, 3,295 Port Said, Egypt (via South of Java), 7,269 Torres Strait, Australia, 375 Tetar Passage, Indonesia, 728</p> <p>Ports</p> <p>Belawan, Indonesia, 2,736 Geraldton, Australia, 2,220 Hong Kong, China (via Basilan Strait), 2,656 Manila, Philippines (via San Bernardino Strait), 2,310 Port Darwin, Australia, 683 Tjilatjap, Indonesia, 1,838 Zamboanga, Philippines (via North of Celebes), 1,602</p> <p>MINA ABD ALLAH, KUWAIT (29°01'00"N., 48°12'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,101 Cape Leeuwin, Australia, 5,437 Port Said, Egypt, 3,283 Singapore, 3,822</p>	<p>Ports</p> <p>Aden, Yemen, 1,894 Bombay, India, 1,514</p> <p>MINA AL AHMADI, KUWAIT (29°04'00"N., 48°10'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,104 Cape Leeuwin, Australia, 5,440 Port Said, Egypt, 3,286 Singapore, 3,825</p> <p>Ports</p> <p>Abadan, Iraq, 110 Al Basrah, Iraq, 140 Bandar Abbas, Iraq, 497 Bandar Mahshahr, Iraq, 128 Bombay, India, 1,517 Cochin, India, 1,993 Ras Bahregan, Iraq, 116</p> <p>MINA RAYSUT, OMAN (16°56'58"N., 54°02'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 3,991 Cape Leeuwin, Australia, 4,791 Selat Lombok, Indonesia, 4,049 Port Said, Egypt, 1,979 Singapore, 3,178 Selat Sunda, Indonesia, 3,409 Torres Strait, Australia, 5,627</p> <p>Ports</p> <p>Aden, Yemen, 601 Al Bashrah, Iraq, 1,460 Bombay, India, 1,081 Calcutta, India, 2,566 Colombo, Sri Lanka, 1,628 Fremantle, Australia, 4,767 Penang, Malaysia, 2,878 Rangoon, Burma, 2,794</p> <p>MINA SAQR, UNITED ARAB EMIRATES (26°00'08"N., 56°01'54"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,766 Cape Leeuwin, Australia, 4,933 Selat Lombok, Indonesia, 4,176 Port Said, Egypt, 2,568 Singapore, 3,380 Selat Sunda, Indonesia, 3,559 Torres Strait, Australia, 5,764</p> <p>Ports</p> <p>Aden, Yemen, 1,531 Belawan, Indonesia, 3,114 Bombay, India, 1,069 Fremantle, Australia, 4,937 Penang, Malaysia, 3,150</p> <p>MINA SAUD, KUWAIT (28°45'00"N., 48°24'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,082</p>	<p>Cape Leeuwin, Australia, 5,418 Port Said, Egypt, 3,264 Singapore, 3,803</p> <p>Ports</p> <p>Aden, Yemen, 1,873 Bombay, India, 1,495</p> <p>MINA SULMAN, BAHRAYN (26°17'00"N., 50°32'30"E.) See Al Manamah.</p> <p>MINATITLAN, MEXICO (18°00'00"N., 94°32'00"W.) Add 18 miles to Coatzacoalcos distances.</p> <p>MIRAGOANE, HAITI (18°27'30"N., 73°06'00"E.) to:</p> <p>Ports</p> <p>Kingston, Jamaica, 243 San Juan, Puerto Rico, 526 Santo Domingo, Dominican Republic, 407</p> <p>MISUMI, JAPAN (32°36'00"N., 130°28'00"E.) to:</p> <p>Ports</p> <p>Chi-lung, Taiwan, 654 Hakata, Japan, 161 Incheon, South Korea, 478 Kagoshima, Japan, 184 Shanghai, China, 490</p> <p>MITILINI, GREECE (39°06'13"N., 26°33'23"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 592 Strait of Gibraltar (south of Greece), 1,528 Strait of Gibraltar (via Corinth Canal), 1,631</p> <p>Ports</p> <p>Iraklion, Greece, 229 Iskenderun, Turkey, 612 Izmir, Turkey, 84 Mersin, Turkey, 551 Piraeus, Greece, 191 Thessaloniki, Greece, 232</p> <p>MOA, CUBA (20°40'00"N., 74°54'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 853 Straits of Florida, 510</p> <p>Ports</p> <p>Kingston, Jamaica, 301 Nuevitas, Cuba, 154 San Juan, Puerto Rico, 533</p> <p>MOBILE, ALABAMA, U.S.A. (30°42'30"N., 88°02'30"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 471 Yucatan Channel, 558</p>
---	--	---	---

* JUNCTION POINT.—See Preface for use of junction points

<p>Ports</p> <p>Belize, Belize, 845 Bocas del Toro, Panama, 1,340 Campeche, Mexico, 674 Carmen, Mexico, 749 Cartagena, Colombia, 1,450 Coatzacoalcas, Mexico, 834 Colon, Panama, 1,371 La Habana, Cuba, 553 Limon, Costa Rica, 1,292 Puerto Barrios, Guatemala, 950 Puerto Cortes, Honduras, 915 Tampico, Mexico, 750 Tuxpan, Mexico, 776 Veracruz, Mexico, 825</p> <p>MOCAMBIQUE, MOZAMBIQUE (15°01'00"S., 40°43'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 1,807 Port Said, Egypt, 3,522 Singapore, 4,080</p> <p>Ports</p> <p>Beira, Mozambique, 476 Belawan, Indonesia, 3,747 Dar es Salaam, Tanzania, 533 Fremantle, Australia (north of Madagascar), 4,367 Malacca, Malaysia, 3,965 Mtwara, Tanzania, 327 Penang, Malaysia, 3,792 Port Darwin, Australia (via 20 miles north of Scott Reef), 5,304 Sabang, Indonesia, 3,481 Tulear, Madagascar, 532 Victoria, Seychelles, 1,085</p> <p>MOCAMEDES, ANGOLA (15°11'20"S., 12°08'15"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 1,239 Ile d'Ouessant, France, 4,697</p> <p>Ports</p> <p>Lagos, Nigeria, 1,399 Porto Grande, Cape Verde Islands, 2,939 Walvisbaai, Namibia, 518</p> <p>MOENGO, SURINAME (5°37'42"N., 54°24'39"W.) Add 88 1/2 miles to Paramaribo distances.</p> <p>MOGADISHU, SOMALIA (2°01'21"N., 45°21'02"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,855 Port Said, Egypt, 2,493 Singapore, 3,611</p> <p>Ports</p> <p>Aden, Yemen, 1,106 Mombasa, Kenya, 502</p>	<p>MOGPO, SOUTH KOREA (34°46'45"N., 126°23'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 2,725 Singapore, 2,407 Selat Sunda, Indonesia, 2,760 Selat Wetar, Indonesia (via Molucca Passage), 2,632</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,330 Balikpapan, Kalimantan, Indonesia, 2,308 Bangkok, Thailand, 2,438 Busan, South Korea, 225 Dagu, China (south of Kasa Do), 536 Dalian, China (south of Kasa Do), 377 Hakodate, Japan, 897 Ho Chi Minh, Vietnam, 1,904 Hong Kong, China, 1,049 Honolulu, Hawaii, U.S.A., 4,146 Incheon, South Korea (south of Ka Do), 236 Incheon, South Korea (via Myondo Do), 189 Jakarta, Indonesia, 2,741 Lo hsing-ta Mao-ti, China, 665 Makassar, Sulawesi, 2,483 Manila, Philippines (east of Taiwan), 1,338 Nagasaki, Japan, 261 Nampo, North Korea (south of Kasa Do), 320 Nampo, North Korea (via Myondo Sudo), 288 Osaka, Japan, 544 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 1,943 Petropavlovsk-Kamchatskiy, Russia (via Myongyangdo), 1,923 Port Darwin, Australia, 2,916 Qingdao, China, 336 Qinhuangdao China (south of Kasa Do), 484 San Francisco, California, U.S.A., 5,125 Shanghai, China (via South Channel), 369 Tongyeong, South Korea, 189 Vladivostok, Russia, 726 Weihai, China (south of Kasa Do), 308 Weonsan, North Korea, 530 Xiamen, China, 790 Yantai, China (south of Kasa Do), 342 Yeosu, South Korea, 151 Yokohama, Japan, 838</p> <p>MOHAMMEDIA, MOROCCO (33°42'52"N., 7°23'52"W.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,951 Ile d'Ouessant, France, 944</p> <p>Ports</p> <p>Dakar, Senegal, 1,338 Tangier, Morocco, 158</p>	<p>MOI RANA, NORWAY (66°18'31"N., 14°06'57"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England (via Dover Strait), 1,382 Ile d'Ouessant, France, 1,367 Nord-Ostsee-Kanal (East Entrance), Germany, 971 Pentland Firth, Scotland, 685 Skagens Odde, Denmark, 776</p> <p>Ports</p> <p>Bergen, Norway, 474 Brevik, Norway, 762 Hammerfest, Norway, 433 Hull, England, 908 Oslo, Norway, 824 Reykjavik, Iceland, 1,010 Zeebrugge, Belgium, 1,018</p> <p>MOJI, JAPAN (33°6'30"N., 130°57'30"E.) to:</p> <p>Ports</p> <p>Busan, South Korea, 123 Dalian, China, 633 Incheon, South Korea, 485 Manila, Philippines, 1,436 Nagasaki, Japan, 152 Tianjin, China, 840 Uglegorsk, Russia, 1,100 Yantai, China, 600</p> <p>MOKPO, SOUTH KOREA (34°46'45"N., 126°23'00"E.) See Mogpo.</p> <p>MOLDE, NORWAY (62°44'06"N., 7°10'00"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 412 Skagens Odde, Denmark, 492</p> <p>Ports</p> <p>Bergen, Norway, 201 Reykjavik, Iceland, 875</p> <p>MOMBASA, KENYA (4°03'30"S., 39°41'15"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,472 Port Said, Egypt, 3,006 Singapore, 3,987</p> <p>Ports</p> <p>Aden, Yemen, 1,619 Beira, Mozambique, 1,146 Belawan, Indonesia, 3,654 Bombay, India, 2,404 Calcutta, India (via One and Half Degree Channel), 3,703 Colombo, Sri Lanka, 2,555 Durban, South Africa, 1,718 Fremantle, Australia, 4,564 Karachi, Pakistan, 2,361 Malacca, Malaysia, 3,872 Maputo, Mozambique, 1,508 Massawa, Ethiopia, 2,006 Mogadishu, Somalia, 502 Penang, Malaysia, 3,699 Port Darwin, Australia, 5,434</p>	<p>Rangoon, Burma, 3,714 Sabang, Indonesia, 3,388 Tanga, Tanzania, 69</p> <p>MON FALCONE, ITALY (46°45'56"N., 13°33'45"E.) See Trieste.</p> <p>MONACO, MONACO (43°44'00"N., 7°26'00"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,450 Strait of Gibraltar, 792</p> <p>Ports</p> <p>Barcelona, Spain, 280 Napoli, Italy, 363 Palma, Balearic Islands, 377</p> <p>MONI ANCHORAGE, CYPRUS (34°41'44"N., 33°11'11"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 219 Strait of Gibraltar, 1,931</p> <p>Ports</p> <p>Alexandria, Egypt, 274 Algiers, Algeria, 1,482 Banghazi, Libya, 692 Barcelona, Spain, 1,567 Bari, Italy, 946 Brindisi, Italy, 890 Cartagena, Spain, 1,675 Derince, Turkey, 731 Izmir, Turkey, 510 Marseille, France, 1,480 Tangier, Morocco, 1,917 Tunis, Tunisia, 1,140 Yumurtalik, Turkey, 186</p> <p>MONOPOLI, ITALY (40°67'20"N., 17°18'30"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 953 Strait of Gibraltar, 1,346</p> <p>Ports</p> <p>Ancona, Italy, 239 Durrës, Albania, 100 Split, Croatia, 173</p> <p>MONROVIA, LIBERIA (6°20'00"N., 10°49'00"W.) to:</p> <p>Ports</p> <p>Anecho, Togo, 850 Cotonou, Benin, 893 Dakar, Senegal, 693 Freetown, Sierra Leone, 264 Guantanamo, Cuba, 3,828 Lisboa, Portugal, 2,225 Lome, Togo, 789 Natal, Brazil, 1,629 New York, New York, U.S.A., 3,965 Pointe Noire, Congo, 1,525 Port of Spain, Trinidad, 3,045 Porto Grande, Cape Verde Islands, 1,069 Sekondi, Ghana, 599 Takoradi, Ghana, 597</p>
--	---	---	--

* **JUNCTION POINT.**—See Preface for use of junction points

66 MONTEGO BAY, JAMAICA

MONTEGO BAY, JAMAICA
(18°29'15"N., 77°57'30"W.) to:

Junction Points*

Straits of Florida, 642
Yucatan Channel, 450

Ports

Cienfuegos, Cuba, 262
Santa Cruz del Sur, Cuba, 134
Santiago de Cuba, Cuba, 154

MONTEVIDEO, URUGUAY
(34°54'30"S., 56°13'30"W.) to:

Junction Points*

Bishop Rock, England, 5,834
Cape of Good Hope, South Africa, 3,591
Ile d'Ouessant, France, 5,802
Montreal, Canada, 6,344
Panama, Panama, 5,379
Punta Arenas, Chile, 1,300
Strait of Gibraltar, 5,178
Straits of Florida, 5,598
Yucatan Channel, 5,609

Ports

Angra dos Reis, Brazil, 1,031
Bahia Blanca, Argentina, 466
Baltimore, Maryland, U.S.A., 5,831
Boston, Massachusetts, U.S.A., 5,728
Bridgetown, Barbados, 4,096
Brunswick, Georgia, U.S.A., 5,731
Cape Town, South Africa, 3,608
Charleston, South Carolina, U.S.A., 5,708
Charlotte Amalie, Virgin Islands, 4,530
Charlottetown, Canada, 5,717
Colon, Panama, 5,267
Georgetown, Ascension Island, 2,824
Georgetown, Guyana, 3,840
Guantanamo, Cuba, 5,167
Halifax, Canada, 5,617
Hamilton, Bermuda, 5,097
Jacksonville, Florida, U.S.A., 5,727
New York, New York, U.S.A., 5,749
Norfolk, Virginia, U.S.A., 5,710
Paranagua, Brazil, 797
Philadelphia, Pennsylvania, U.S.A., 5,804
Port Castries, St. Lucia, 4,261
Portland, Maine, U.S.A., 5,759
Porto Alegre, Brazil, 482
Recife, Brazil, 2,067
Rio de Janeiro, Brazil, 1,037
Rio Grande, Brazil, 313
Salvador, Brazil, 1,735
Santos, Brazil, 893
Savannah, Georgia, U.S.A., 5,740
St. Helena Island, 2,936
Valparaiso, Chile, 2,740
Wilmington, North Carolina, U.S.A., 5,691

MONTREAL, CANADA*
(45°30'10"N., 73°33'00"W.) to:

Junction Points*

Bishop Rock, England (via Strait of Belle Isle), 2,681

Fastnet Rock, Ireland (via Strait of Belle Isle), 2,539
Grand Banks South, 1,335
Ile d'Ouessant, France (via Strait of Belle Isle), 2,901
Inishtrahull, Ireland (via Strait of Belle Isle), 2,545
Panama, Panama (via Crooked Island Passage and Windward Passage), 3,204
Pentland Firth, Scotland (via Strait of Belle Isle), 2,641
Straits of Florida (via Cabot Strait), 2,531
Straits of Florida (via Strait of Canso), 2,467

Ports

Argentina, Canada, 943
Baltimore, Maryland, U.S.A., 1,820
Belem Brazil (via Cabot Strait), 3,680
Belize Belize (via Straits of Florida), 3,034
Bordeaux, France (via Cape Race), 3,171
Boston, Massachusetts, U.S.A., 1,309
Brunswick, Georgia, U.S.A., 2,074
Buenos Aires, Argentina (via Cabot Strait), 6,455
Cadiz, Spain, 3,110
Cape Town, South Africa (via Cabot Strait), 7,118
Charleston, South Carolina, U.S.A. (via Strait of Canso), 2,000
Charlotte Amalie, Virgin Islands (via Strait of Canso), 2,405
Charlottetown, Canada, 698
Colon, Panama (via Strait of Canso), 3,126
Dakar, Senegal, 3,562
Freetown, Sierra Leone, 4,019
Funchal, Madeira Island, 2,877
Georgetown, Guyana, 3,108
Halifax, Canada (via Cabot Strait), 958
Hamilton, Bermuda (via Strait of Canso), 1,621
Horta, Azores (via Cabot Strait), 2,145
Ivittuut, Greenland (via Strait of Belle Isle), 1,472
Jacksonville, Florida, U.S.A. (via Cabot Strait), 2,199
Key West, Florida, U.S.A. (via Straits of Florida), 2,468
La Guaira, Venezuela (via Strait of Canso), 2,941
La Habana, Cuba (via Straits of Florida), 2,528
Lisboa, Portugal (via Cape Race), 2,941
Maracaibo, Venezuela (via Mona Passage), 2,995
Montevideo, Uruguay, 6,344
Murmansk, Russia, 3,870
New York, New York, U.S.A., 1,516
Norfolk, Virginia, U.S.A. (via Cabot Strait), 1,697
Paamiut (Frederikshaab), Greenland, 1,901
Panama, Panama (via Crooked Island Passage), 3,204
Paramaribo, Suriname, 3,184
Philadelphia, Pennsylvania, U.S.A. (via Cabot Strait), 1,665
Ponta Delgada, Azores, 2,283
Port of Spain, Trinidad (via Cabot

Strait), 2,901
Port Castries, St. Lucia (via Strait of Canso), 2,642
Portland, Maine, U.S.A., 1,206
Punta Arenas, Chile (via Cabot Strait), 7,527
Qaqortog (Julianehaab), Greenland (via Strait of Belle Isle), 1,470
Recife, Brazil (via Cabot Strait), 4,283
Reykjavik, Iceland (via Strait of Belle Isle), 2,130
Rio de Janeiro, Brazil, 5,342
Salvador, Brazil, 4,656
San Juan del Norte, Nicaragua (via Strait of Canso and Crooked Island Passage), 3,220
Santa Cruz de Tenerife, Canary Islands, 3,011
Santo Domingo, Dominican Republic (via Cabot Strait), 2,579
Santos, Brazil, 5,544
Savannah, Georgia, U.S.A., 2,078
Shelburne, Canada, 1,050
St. John's, Canada (via Cape Race), 1,038
Vigo, Spain (via Cape Race), 2,873
Willemstad, Curacao (via Cabot Strait), 2,866

MONTROSE, SCOTLAND
(56°42'15"N., 2°25'40"W.) to:

Junction Points*

Bishop Rock, England, 706
Ile d'Ouessant, France, 698
Nord-Ostsee-Kanal (East Entrance), Germany, 489
Pentland Firth, Scotland, 152
Skagens Odde, Denmark, 433

Ports

Amsterdam, Netherlands, 372
Antwerp, Belgium, 457
Bremerhaven, Germany, 431
Dundee, Scotland, 30
Oostende, Belgium, 393
Rotterdam, Netherlands, 385
Wilhelmshaven, Germany, 423
Zeebrugge, Belgium, 398

MOREHEAD CITY, NORTH CAROLINA, U.S.A.
(34°39'10"N., 76°40'33"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,763
Grand Banks South, 1,335
Montreal, Canada, 1,861
Panama, Panama, 1,670
Punta Arenas, Chile, 6,864
Strait of Gibraltar, 3,392
Straits of Florida, 793

Ports

Cape Town, South Africa, 6,752
Georgetown, Guyana, 2,121
Halifax, Canada, 885
Hamilton, Bermuda, 611
Limon, Costa Rica, 1,730
Monrovia, Liberia, 4,028
Port of Spain, Trinidad, 1,966
San Juan, Puerto Rico, 1,123

MORMUGAO, INDIA
(15°25'00"N., 73°47'30"E.) See Marmagao, India.

MORRO REDONDO, MEXICO
(28°03'20"N., 115°10'16"W.) to:

Junction Points*

Honshu, Japan, 5,088
Panama, Panama, 2,593
Punta Arenas, Chile, 5,505
Torres Strait, Australia, 6,543
Tsugaru-Kaikyo, Japan, 4,883
Wilson Promontory, Australia, 6,812

Ports

Amapala, Honduras, 1,952
Ensenada, Mexico, 241
Honolulu, Hawaii, U.S.A., 2,351
Monterey, California, U.S.A., 635
Talara, Peru, 2,831
Valparaiso, Chile, 4,515

MOSJOEN, NORWAY
(65°51'18"N., 13°11'05"E.) to:

Junction Points*

Pentland Firth, Scotland, 651
Skagens Odde, Denmark, 732

Ports

Bergen, Norway, 473
Reykjavik, Iceland, 1,023

MOSKAL'VO, RUSSIA
(53°34'00"N., 142°29'00"E.) to:

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 230
Bukhta, Russia, 472
Yokohama, Japan, 1,453

MOSS, NORWAY
(59°26'18"N., 10°39'30"E.)
Subtract 19 miles from Oslo distances.

MOSSELBAAL, SOUTH AFRICA
(34°10'00"S., 22°09'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 206
Singapore, 5,384

Ports

Belawan, Indonesia, 5,051
Fremantle, Australia, 4,525
Malacca, Malaysia, 5,269
Penang, Malaysia, 5,096
Port Darwin, Australia, 5,929
Sabang, Indonesia, 4,785

MOSSELBAY, SOUTH AFRICA
(34°10'00"S., 22°09'00"E.) See Mosselbaai.

MOSTAGANEM, ALGERIA
(35°56'12"N., 0°04'22"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Junction Points*</p> <p>Port Said, Egypt, 1,678 Strait of Gibraltar, 283</p> <p>Ports</p> <p>Algiers, Algeria, 172 Alicante, Spain, 148 Melilla, Morocco, 154</p> <p>MOURILYAN, AUSTRALIA (17°36'08"S., 146°07'59"E.) See Innisfail.</p> <p>MTWARA, TANZANIA (10°15'30"S., 40°13'04"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,111 Port Said, Egypt, 3,265 Singapore, 4,042</p> <p>Ports</p> <p>Dar es Salaam, Tanzania, 230 Mocambique, Mozambique, 327</p> <p>MUBARRAZ ISLAND, UNITED ARAB EMIRATES (24°26'55"N., 53°32'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,078 Cape Leeuwin, Australia, 5,170 Selat Lombok, Indonesia, 4,372 Port Said, Egypt, 2,969 Singapore, 3,549 Selat Sunda, Indonesia, 3,774 Torres Strait, Australia, 5,994</p> <p>Ports</p> <p>Aden, Yemen, 1,743 Al Basrah, Iraq, 474 Belawan, Indonesia, 3,257 Bombay, India, 1,226 Calcutta, India, 2,957 Fremantle, Australia, 5,086 Penang, Malaysia, 3,250 Port Darwin, Australia, 5,333</p> <p>MURMANSK, RUSSIA (68°58'30"N., 33°03'00"E.) to:</p> <p>Junction Points*</p> <p>Montreal, Canada, 3,870</p> <p>Ports</p> <p>Akureyri, Iceland, 1,256 Bergen, Norway, 1,105 Boston, Massachusetts, U.S.A., 3,719 Dikson, Russia, 1,025 Gronnedal, Greenland, 2,395 Halifax, Canada, 3,368 Hvalfjörður, Iceland, 1,531 Ivittuut, Greenland (direct), 2,201 Ivittuut, Greenland (via 75 miles off Kap Farvel), 2,310 Keflavik, Iceland, 1,503 Liverpool, England, 1,703 Longyearbyen, Svalbard, 695 Mys Chelyuskin, Russia, 1,390 New York, New York, U.S.A. (north of Iceland), 3,844</p>	<p>New York, New York, U.S.A. (south of Iceland), 3,948 Nuuk (Godthab), Greenland, 2,598 Oslo, Norway, 1,450 Philadelphia, Pennsylvania, U.S.A., 4,042 Portland, Maine, U.S.A., 3,677 Reykjavik, Iceland (north of Iceland), 1,501 Reykjavik, Iceland (south of Iceland), 1,529 Seyðhisfjörður, Iceland, 1,173 Stavanger, Norway, 1,199 Qaanaaq (Thule), Greenland, 3,462 Trondheim, Norway, 875</p> <p>MURORAN, JAPAN (42°19'20"N., 140°58'40"E.) to:</p> <p>Ports</p> <p>Bukhta Shelikhova, Kuril Islands, Russia, 859 Hachinohe, Japan, 123 Hakodate, Japan, 64 Kastka, Japan, 401 Kawasaki, Japan, 551 Matsuga-hana, Japan, 310 Moji, Japan (via Shimonoseki Strait), 736 Osaka, Japan, 834 Sasebo, Japan (via Korean Strait), 831 Shimonoseki, Japan, 736 Tokyo, Japan, 557 Tomari, Japan, 295</p> <p>MUTRAH, OMAN (23°38'13"N., 58°34'50"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,487 Cape Leeuwin, Australia, 4,760 Selat Lombok, Indonesia, 3,982 Port Said, Egypt, 2,289 Singapore, 3,207 Selat Sunda, Indonesia, 3,364 Torres Strait, Australia, 5,590</p> <p>Ports</p> <p>Aden, Yemen, 1,254 Al Basrah, Iraq, 847 Belawan, Indonesia, 2,866 Karachi, Pakistan, 496 Malacca, Malaysia, 3,068 Penang, Malaysia, 2,902</p> <p>MYRTLE GROVE, LOUISIANA, U.S.A. (29°38'32"N., 89°56'50"W.) Subtract 34 miles from New Orleans distances.</p> <p>NAESTVED, DENMARK (55°13'33"N., 11°45'24"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 74 Skagens Odde, Denmark, 212</p> <p>Ports</p> <p>Gdynia, Poland, 383 Göteborg, Sweden, 1396 Lubeck, Germany, 136</p>	<p>NAGASAKI, JAPAN (32°44'30"N., 129°52'15"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama (east of Honshu), 8,299 Panama, Panama (west of Honshu), 8,200 Punta Arenas, Chile, 9,567 Singapore (east of Taiwan), 2,413 Singapore (via Formosa Strait), 2,427</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,253 Apia, Samoa, 4,414 Apra, Guam, 1,445 Auckland, New Zealand (via Koshiki Kaikyo and Tanegashima Kaikyo), 4,930 Auckland, New Zealand (via Tokara Kaikyo), 4,963 Avarua, Cook Islands, 5,219 Busan, South Korea, 163 Cebu, Philippines (via San Bernardino Strait), 1,406 Dagu, China, 754 Dutch Harbor, Alaska, U.S.A. (south of Kyushu), 3,181 Dutch Harbor, Alaska, U.S.A. (via Tsugaru-Kaikyo), 3,011 Hakata, Japan, 121 Hakodate, Japan, 801 Hirohata, Japan, 373 Hiroshima, Japan (via Kudako Suido), 285 Hiroshima, Japan (via Moroshima Suido), 275 Hiroshima, Japan (via Nuwashima Suido), 277 Hiroshima, Japan (via Obatake Seto and north of Kasasa Jima), 264 Hong Kong, China, 1,069 Honolulu, Hawaii, U.S.A., 3,986 Iloilo, Philippines, 1,428 Incheon, South Korea, 453 Jakarta, Indonesia, 2,712 Jaluit, Marshall Islands, 2,808 Kagoshima, Japan, 168 Kamaishi, Japan, 972 Kobe, Japan, 400 Kochi, Japan, 363 Levuka, Fiji Islands (via Tanegashima Kaikyo), 4,260 Lianyungang, China, 558 Lo hsing-ta Mao-ti, China, 691 Los Angeles, California, U.S.A., 5,572 Manila, Philippines, 1,298 Midway Island, 2,830 Miiike, Japan, 82 Mogpo, South Korea, 261 Moji, Japan, 152 Noumea, New Caledonia (via Bougainville Strait), 3,967 Pago Pago, American Samoa, 4,489 Papeete, French Polynesia, 5,572 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 1,845 Petropavlovsk-Kamchatskiy, Russia (via Osumi Kaikyo), 2,039 Petropavlovsk-Kamchatskiy, Russia (via Tsugaru Strait), 1,858 Ponape, Caroline Islands, 2,256 Port Darwin, Australia (via Selat</p>	<p>Sele), 2,785 Qinhuangdao China, 702 Rabaul, Papua New Guinea, 2,612 San Francisco, California, U.S.A. (via Osumi Strait), 5,151 San Francisco, California, U.S.A. (via Tsugaru Strait), 5,030 Seattle, Washington, U.S.A. (via Tsugaru Strait and north of Aleutian Islands), 4,705 Seattle, Washington, U.S.A. (via Tsugaru Strait and south of Aleutian Islands), 4,765 Shanghai, China, 463 Shimonoseki, Japan, 159 Sydney, Australia, 4,439 Valparaiso, Chile, 9,806 Vladivostok, Russia, 657 Weihai, China, 526 Weonsan, North Korea, 452 Xiamen, China, 810 Yantai, China, 560 Yokohama, Japan (via Osumi Kaikyo), 691</p> <p>NAGOYA, JAPAN (35°05'00"N., 136°53'00"E.) to:</p> <p>Ports</p> <p>Apra, Guam, 1,378 Hachinohe, Japan, 577 Hirohata, Japan, 259 Imabari, Japan, 341 Kawasaki, Japan, 218 Kobe, Japan, 245 Kure, Japan, 412 Moji, Japan, 433 Nagasaki, Japan (via Osumi Strait), 577 Shimizu, Honshu, Japan, 143 Shimonoseki, Japan, 434 Ube, Japan, 419 Yokohama, Japan, 214</p> <p>NAHA, OKINAWA JIMA, RYUKYU ISLANDS (26°12'20"N., 127°40'11"E.) to:</p> <p>Ports</p> <p>Apra, Guam, 1,236 Busan, South Korea, 550 Chi-lung, Taiwan, 337 Hachinohe, Japan, 1,239 Shanghai, China, 479 Shimonoseki, Japan, 530</p> <p>NAJKIN, NORTH KOREA (42°14'00"N., 130°18'00"E.) to:</p> <p>Ports</p> <p>Kobe, Japan, 754 Tongyeong, South Korea, 501 Ulsan, South Korea, 418 Yeosu, South Korea, 535</p> <p>NAKAGUSUKU, OKINAWA JIMA, RYUKYU ISLANDS (26°17'00"N., 127°53'00"E.) to:</p> <p>Ports</p> <p>Apra, Guam, 1,216 Dagu, China, 1,026 Manila, Philippines, 935 Shanghai, China, 515 Yokohama, Japan, 839</p> <p>NAKHODKA, RUSSIA (42°49'07"N., 132°53'52"E.) to:</p>
---	---	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

68 NAKNEK, ALASKA, U.S.A.

<p>Ports</p> <p>Busan, South Korea, 508 Hakodate, Japan, 62 Shanghai, China, 991 Shimonoseki, Japan, 552</p> <p>NAKNEK, ALASKA, U.S.A. (58°42'00"N., 157°15'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 5,604</p> <p>Ports</p> <p>Honolulu, Hawaii, U.S.A., 2,404 Kodiak, Alaska, U.S.A., 881 San Diego, California, U.S.A., 2,788 Seattle, Washington, U.S.A., 2,020</p> <p>NAKSKOV, DENMARK (54°50'00"N., 11°07'30"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 46 Skagens Odde, Denmark, 213</p> <p>Ports</p> <p>Gdynia, Poland, 335 Goteborg, Sweden, 201 Swinoujscie, Poland, 190</p> <p>NAMPO, NORTH KOREA (38°43'00"N., 125°25'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 2,946 Singapore, 2,621 Selat Sunda, Indonesia, 2,974 Selat Wetar, Indonesia (via Selat Manipa), 2,861</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,601 Bangkok, Thailand (outer bar), 2,652 Busan, South Korea (via Maenggol Sudo), 496 Dagu, China, 369 Dalian, China, 180 Ho Chi Minh, Vietnam, 2,118 Hong Kong, China, 1,263 Honolulu, Hawaii, U.S.A., 4,417 Incheon, South Korea, 216 Jakarta, Indonesia, 2,955 Lo hsing-ta Mao-ti, China, 879 Los Angeles, California, U.S.A., 5,711 Manila, Philippines, 1,559 Mogpo, South Korea (south of Kasa Do), 320 Mogpo, South Korea (via Myondo Sudo), 288 Petrovsk-Kamchatskiy, Russia, 2,214 Qingdao, China, 309 Qinhuangdao China, 307 Shanghai, China, 561 Shantou, China, 1,113 Vladivostok, Russia, 997 Weihai, China, 172 Weonsan, North Korea (via Maenggol Sudo), 801 Xiamen, China, 1,004</p>	<p>Yantai, China, 205 Yokohama, Japan, 1,109</p> <p>NAMSOS, NORWAY (64°28'00"N., 11°29'25"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 615 Skagens Odde, Denmark, 696</p> <p>Ports</p> <p>Bergen, Norway, 384</p> <p>NAN-CHING, CHINA (32°06'00"N., 118°44'00"E.) See Nanjing, China.</p> <p>NANAIMO, CANADA (49°10'00"N., 123°55'45"W.) to:</p> <p>Ports</p> <p>Bellingham, Washington, U.S.A., 76 New Westminster, Canada, 47 Port Angeles, Washington, U.S.A., 98 Prince Rupert, Canada, 453 Seattle, Washington, U.S.A., 132 Vancouver, Canada, 35 Victoria, Canada, 86</p> <p>NANAO, JAPAN (37°03'40"N., 136°58'00"E.) to:</p> <p>Ports</p> <p>Busan, South Korea, 476 Hakodate, Japan, 337 Maizuru, Japan, 213 Shimonoseki, Japan, 453 Vladivostok, Russia, 460</p> <p>NANCHITAL, MEXICO (18°00'00"N., 94°27'00"W.) Add 3 miles to Coatzacoalcas distances.</p> <p>NANJING, CHINA (32°06'00"N., 118°44'00"E.) Add 177 miles to Shanghai distances.</p> <p>NANORTALIK, GREENLAND (60°08'30"N., 45°14'35"W.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 1,291 Strait of Gibraltar, 2,138</p> <p>Ports</p> <p>Churchill, Canada, 1,511 Reykjavik, Iceland, 737 St. John's, Canada, 821</p> <p>NANTES, FRANCE (47°11'42"N., 1°35'15"W.) Add 29 miles to St. Nazaire distances.</p> <p>NAPIEIR, NEW ZEALAND (39°28'00"S., 176°57'21"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,441 Punta Arenas, Chile, 4,490 Torres Strait, Australia (via Cook Strait), 2,827 Wilson Promontory, Australia (via Cook Strait), 1,547</p>	<p>Ports</p> <p>Apia, Samoa, 1,710 Auckland, New Zealand (via Vitia and Surigao Straits), 4,532 Callao, Peru, 5,660 Los Angeles, California, U.S.A., 5,684 San Francisco, California, U.S.A., 5,731 Suva, Fiji Islands, 1,341 Sydney, Australia (via Cook Strait), 1,436 Yokohama, Japan (via Bougainville Strait), 5,086</p> <p>NAPLES, ITALY (40°50'19"N., 14°16'20"E.) See Napoli.</p> <p>NAPOLI, ITALY (40°50'19"N., 14°16'20"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,116 Strait of Gibraltar, 1,001</p> <p>Ports</p> <p>Al Latakia, Syria, 1,191 Alexandria, Egypt, 1,005 Algiers, Algeria, 582 Alicante, Spain, 723 Ancona, Italy, 707 Annaba, Algeria, 388 Banghazi, Libya, 602 Banzart, Tunisia, 300 Barcelona, Spain, 559 Bari, Italy, 500 Basti, Corsica, 258 Beirut, Lebanon, 1,198 Brindisi, Italy, 442 Cagliari, Sardinia, 272 Cannes, France, 381 Cartagena, Spain, 756 Catania, Sicily, 225 Ceuta, Morocco, 982 Civitavecchia, Italy, 152 Genova, Italy, 338 Gibraltar, 983 Haifa, Israel, 1,194 Iraklion, Kriti, 681 Istanbul, Turkey (south of Greece), 981 Istanbul, Turkey (via Corinth Canal), 940 Izmir, Turkey (south of Greece), 827 Izmir, Turkey (via Corinth Canal), 785 La Spezia, Italy, 302 Livorno, Italy, 267 Malaga, Spain, 932 Marseille, France, 456 Messina, Sicily, 175 Monaco, Monaco, 363 Nice, France, 369 Odessa, Ukraine (south of Greece), 1,329 Odessa, Ukraine (via Corinth Canal), 1,288 Olbia, Sardinia, 222 Oran, Algeria, 775 Palermo, Sicily, 170 Palma, Balearic Islands, 582 Patrai, Greece, 485 Piraeus, Greece (south of Greece), 667 Piraeus, Greece (via Corinth Canal), 586 Port Vendres, France, 521</p>	<p>Porto di Milazzo, Sicily, 54 Porto Vecchio di Piombino, Italy, 227 Reggio Di Calabria, Sicily, 179 Rijeka, Croatia, 775 Savona, Italy, 350 Sete, France, 515 Sibenik, Croatia, 648 Siracusa, Sicily, 247 Split, Croatia, 633 Tarabulus, Libya, 516 Taranto, Italy, 395 Thessaloniki, Greece (south of Greece), 876 Thessaloniki, Greece (via Corinth Canal), 834 Toulon, France, 424 Trapani, Italy, 198 Trieste, Italy, 808 Tunis, Tunisia, 313 Valencia, Spain, 690 Valletta, Malta, 327 Venezia, Italy, 818 Villa San Giovanni, Italy, 173 Villefranche, France, 369 Volos, Greece (south of Greece), 817 Volos, Greece (via Corinth Canal), 775</p> <p>NARSARSUAQ, GREENLAND (61°09'45"N., 45°27'45"W.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 1,384 Strait of Gibraltar, 2,257</p> <p>Ports</p> <p>Churchill, Canada, 1,513 Reykjavik, Iceland, 830 St. John's, Canada, 916</p> <p>NARVIK, NORWAY (68°25'30"N., 17°25'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England (via English Channel), 1,505 Ile d'Ouessant, France, 1,498</p> <p>Ports</p> <p>Aberdeen, England, 869 Antwerp, Belgium, 1,211 Bergen, Norway, 824 Bremerhaven, Germany, 1,058 Dundee, England, 920 Le Havre, France, 1,304 Leith, England, 948 London, England, 1,215 Longyearbyen, Svalbard, 659 Oslo, Norway, 993 Pechenga, Russia, 500 Philadelphia, Pennsylvania, U.S.A., 3,911 Rotterdam, Netherlands, 1,139 Stavanger, Norway, 713 Stockholm, Sweden, 1,612 Teesport, England, 993 Trondheim, Norway, 408</p> <p>NASIPIT, PHILIPPINES (8°59'27"N., 125°20'03"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 1,770 Selat Lombok, Indonesia, 1,332</p>
--	--	---	--

* JUNCTION POINT.—See Preface for use of junction points

Panama, Panama, 9,376
Punta Arenas, Chile, 8,880
Singapore, 1,410
Selat Sunda, Indonesia, 1,655
Torres Strait, Australia, 1,783

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 2,706
Ho Chi Minh, Vietnam, 1,166
Honolulu, Hawaii, U.S.A., 4,471
Manila, Philippines, 633
Tarakan, Indonesia, 1,070
Vladivostok, Russia, 2,124
Weonsan, Korea, 1,976

NASSAU, BAHAMA ISLANDS (25°05'10"N., 77°19'50"W.) to:

Junction Points*

Panama, Panama (via Windward
Passage), 1,210
Straits of Florida, 393
Yucatan Channel, 556

Ports

Baltimore, Maryland, U.S.A., 880
Boston, Massachusetts, U.S.A.,
1,173
Bridgetown, Barbados, 1,284
Charleston, South Carolina,
U.S.A., 507
Cienfuegos, Cuba, 868
Colon, Panama, 1,178
Fernandina, Florida, U.S.A., 450
Guantanamo, Cuba, 503
Hamilton, Bermuda, 829
Jacksonville, Florida, U.S.A. (via
Northeast Providence Channel),
456
Kingston, Jamaica, 667
La Habana, Cuba, 390
Miami, Florida, U.S.A., 191
New York, New York, U.S.A., 962
Norfolk, Virginia, U.S.A., 758
Nuevitas, Cuba, 454
Philadelphia, Pennsylvania,
U.S.A., 930
Port au Prince, Haiti, 564
San Juan, Puerto Rico, 799
Santiago de Cuba, Cuba, 566
Santo Domingo, Dominican
Republic, 851
Savannah, Georgia, U.S.A., 503
Wilmington, North Carolina,
U.S.A., 561

NATAL, BRAZIL (5°45'00"S., 35°11'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 3,619
Punta Arenas, Chile, 3,400
Strait of Gibraltar, 3,003

Ports

Belem, Brazil, 954
Bissau, Guinea-Bissau, 1,604
Buenos Aires, Argentina, 2,329
Dakar, Senegal, 1,620
El Ferrol del Caudillo, Spain,
3,312
Freetown, Sierra Leone, 1,569
Galway, Ireland, 3,786
Georgetown, Guyana, 1,630
Lagos, Nigeria, 2,425
Monrovia, Liberia, 1,629

New York, New York, U.S.A.,
3,532
Paramaribo, Suriname, 1,476
Rio de Janeiro, Brazil, 1,228
St. John's, Canada, 3,341

NAVARINO BAY, GREECE (36°54'12"N., 21°40'43"E.) to:

Junction Points*

Port Said, Egypt, 655
Strait of Gibraltar, 1,337

Ports

Alexandria, Egypt, 539
Algiers, Algeria, 902
Alicante, Spain, 1,065
Ashdod, Israel, 719
Bari, Italy, 350
Beirut, Lebanon, 715
Cannes, France, 1,210
Dhekelia, Cyprus, 635
Es Sider, Libya, 413
Iskenderun, Turkey, 501
Limassol, Cyprus, 598
Moni Anchorage, Cyprus, 603
Tangier, Morocco, 1,336
Tarabulus, Lebanon, 728

NAVLAKHI, INDIA (22°57'52"N., 70°26'32"E.) Subtract 90 miles from Okha distances.

NAVPLION, GREECE (37°33'45"N., 22°47'00"E.) to:

Junction Points*

Port Said, Egypt, 617
Strait of Gibraltar, 1,484

Ports

Iraklion, Kriti, 237
Izmir, Turkey, 258
Piraeus, Greece, 142

NEGAPPATTINAM, INDIA (10°46'00"N., 79°55'00"E.) to:

Junction Points*

Singapore, 1,568

Ports

Colombo, Sri Lanka, 476

NELSON, NEW ZEALAND (41°14'00"S., 173°15'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,794
Torres Strait, Australia, 2,646

Ports

Auckland, New Zealand, 633
Brisbane, Australia, 1,380
Sydney, Australia, 1,166

NEVELS'K, RUSSIA (46°40'00"N., 141°51'00"E.) to:

Ports

Akita, Japan, 450

Hakodate, Japan, 389
Korsakov, Sakhalin, Russia, 115
Niigata, Japan, 549
Otaru, Japan, 213

NEW AMSTERDAM, GUYANA (6°25'00"N., 57°28'36"W.) to:

Junction Points*

Panama, Panama, 1,581
Yucatan Channel, 1,907

Ports

Belem, Brazil, 859
Charlotte Amalie, Virgin Islands,
903
Port of Spain, Trinidad, 437

NEW HAVEN, CONNECTICUT, U.S.A. (41°17'24"N., 75°54'30"W.) to:

Junction Points*

Inishtrahull, Ireland, 2,867
Panama, Panama, 2,106
Strait of Gibraltar, 3,161

Ports

Halifax, Canada, 540
La Habana, Cuba, 1,280

NEW LONDON, CONNECTICUT, U.S.A. (41°21'30"N., 72°05'30"W.) to:

Junction Points*

Bishop Rock, England, 2,849
Fastnet Rock, Ireland, 2,727
Inishtrahull, Ireland, 2,831
Pentland Firth, Scotland, 3,041
Strait of Gibraltar, 3,106

Ports

Bordeaux, France, 3,153
Hamilton, Bermuda, 667

NEW MANGALORE, INDIA (12°5'32"N., 74°48'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,523
Cape Leeuwin, Australia, 3,695
Selat Lombok, Indonesia, 2,939
Port Said, Egypt, 3,091
Singapore, 2,124
Selat Sunda, Indonesia, 2,308
Torres Strait, Australia, 4,549

Ports

Al Basrah, Iraq, 1,907
Bombay, India, 402
Calcutta, India, 1,487
Colombo, Sri Lanka, 495
Okha, India, 659
Trincomalee, Sri Lanka, 703
Victoria, Seychelles, 1,562

NEW ORLEANS, LOUISIANA, U.S.A. (29°57'00"N., 90°03'30"W.) to:

Junction Points*

Panama, Panama (via South Pass),
1,433
Straits of Florida (via South Pass),
524
Yucatan Channel, 577

Ports

Barranquilla, Colombia, 1,458
Belize, Belize (via South Pass),
850
Bocas del Toro, Panama (via South
Pass and inside route), 1,353
Campeche, Mexico (via Southwest
Pass), 650
Carmen, Mexico, 723
Cartagena, Colombia, 1,468
Coatzacoalcos, Mexico, 801
Colon, Panama, 1,389
La Habana, Cuba (via South Pass),
602
Maracaibo, Venezuela (via South
Pass), 1,629
Matanzas, Cuba, 641
Progreso, Mexico, 556
Puerto Barrios, Guatemala, 961
Puerto Cortes, Honduras (via
South Pass), 916
San Juan del Norte, Nicaragua,
1,262
Tampico, Mexico (via Southwest
Pass), 711
Tela, Honduras, 915
Tuxpan, Mexico (via Southwest
Pass), 739
Veracruz, Mexico (via Southwest
Pass), 789

NEW PLYMOUTH, NEW ZEALAND (39°02'08"S., 174°02'30"E.) to:

Junction Points*

Panama, Panama, 6,712
Punta Arenas, Chile (via 50°S),
4,690
Torres Strait, Australia, 2,502
Wilson Promontory, Australia,
1,282

Ports

Hobart, Tasmania, 1,213
Kobe, Japan (via Bougainville
Strait), 4,946
Melbourne, Australia (via west of
Timor), 1,410
Suva, Fiji Islands, 1,317
Sydney, Australia, 1,124
Yokohama, Japan (via
Bougainville Strait), 4,881

NEW WESTMINSTER, CANADA (49°12'00"N., 122°54'30"W.) to:

Ports

Nanaimo, Canada, 47
Port Angeles, Washington, U.S.A.,
90
Prince Rupert, Canada, 492
Seattle, Washington, U.S.A., 126

NEW YORK, NEW YORK, U.S.A. (40°42'00"N., 74°01'00"W.) to:

* JUNCTION POINT.—See Preface for use of junction points

70 NEWARK, NEW JERSEY, U.S.A.**Junction Points***

Bishop Rock, England, 2,937
 Cape of Good Hope, South Africa, 6,814
 Fastnet Rock, Ireland, 2,815
 Inishtrahull, Ireland, 2,919
 Montreal, Canada, 1,516
 Panama, Panama (via Windward Passage), 2,016
 Pentland Firth, Scotland, 3,120
 Punta Arenas, Chile, 6,916
 Strait of Gibraltar, 3,180
 Straits of Florida, 1,237
 Yucatan Channel, 1,366

Ports

Abraham Bay, Bahamas, 1,115
 Antilla, Cuba, 1,226
 Argentina, Canada, 1,009
 Arkhangel'sk, Russia (Clear of general maximum winter solid pack ice in the vicinity of Iceland), 4,320
 Arkhangel'sk, Russia, 4,216
 Bahia de Samana, Dominican Republic, 1,328
 Bahia Blanca, Argentina, 6,154
 Bahia Honda, Cuba (outside), 1,226
 Banes, Cuba (via Crooked Island Passage), 1,216
 Baracoa, Cuba, 1,226
 Barranquilla, Colombia, 1,801
 Basse-Terre, Guadeloupe (via Anegada Channel), 1,624
 Basseterre, Saint Kitts and Nevis, 1,531
 Belem, Brazil, 3,015
 Bilbao, Spain, 3,160
 Bocas del Toro, Panama (via Crooked Island Passage), 2,048
 Boma, Congo, 5,591
 Bordeaux, France, 3,241
 Brest, France, 3,022
 Bridgetown, Barbados, 1,829
 Buenos Aires, Argentina, 5,871
 Cadiz, Spain, 3,155
 Cap-Haitien, Haiti, 1,283
 Cape Town, South Africa, 6,786
 Cartagena, Colombia (via Crooked Island Passage), 1,853
 Charlotte Amalie, Virgin Islands, 1,434
 Charlottetown, Canada (via Strait of Canso), 832
 Christiansted, Virgin Islands (via Virgin Passage), 1,465
 Cienfuegos, Cuba (via Crooked Island Passage), 1,682
 Colon, Panama (via Crooked Island Passage), 1,974
 Colon, Panama (via Yucatan Channel), 2,176
 Corunna, Spain, 2,917
 Dakar, Senegal, 3,335
 Elizabeth Harbor, Bahamas, 1,048
 Fernando de Noronha, 3,517
 Fort de France, Martinique (via Anegada Channel), 1,717
 Fort Liberte, Haiti, 1,283
 Fortaleza, Brazil, 3,304
 Freetown, Sierra Leone, 3,757
 Funchal, Madeira Island, 2,761
 Georgetown, Ascension Island, 4,395
 Georgetown, Guyana, 2,317
 Gibara, Cuba (via Crooked Island Passage), 1,216
 Gonaives, Haiti, 1,328

Grand Turk, Grand Turk Island, 1,167
 Guantanamo, Cuba (via Crooked Island Passage), 1,312
 Halifax, Canada, 600
 Hamilton, Bermuda, 697
 Horta, Fayal, Azores, 2,098
 Isabel Segunda, Isla de Vieques, 1,430
 Ivittuut, Greenland, 1,933
 Jacmel, Haiti, 1,489
 Kingston, Jamaica (via Crooked Island Passage), 1,474
 Kingstown, St. Vincent, 1,791
 La Ceiba, Honduras, 1,743
 La Guaira, Venezuela (via Mona Passage), 1,848
 La Habana, Cuba, 1,186
 Lagos, Nigeria, 4,883
 Las Cayes, Haiti, 1,447
 Las Palmas, Canary Islands, 2,965
 Las Piedras, Venezuela, 1,796
 Limon, Costa Rica (via Crooked Island Passage), 2,047
 Lisboa, Portugal, 2,980
 Liverpool, Canada, 536
 Luanda, Angola, 5,670
 Luderitz Bay, Namibia, 6,393
 Maracaibo, Venezuela, 1,890
 Matanzas, Cuba, 1,167
 Mathew Town, Great Inagua Island (via Crooked Island Passage), 1,205
 Monrovia, Liberia, 3,965
 Montecristi, Dominican Republic, 1,265
 Montevideo, Uruguay, 5,753
 Murmansk, Russia (north of Iceland), 3,844
 Murmansk, Russia (south of Iceland), 3,948
 Nassau, Bahamas (via Northwest Providence Channel), 962
 Natal, Brazil, 3,541
 Nuevitas, Cuba (via Crooked Island Passage), 1,274
 Oporto, Portugal, 2,953
 Paamiut (Frederikshaab), Greenland, 1,959
 Paramaribo, Suriname, 2,334
 Parrsboro, Canada, 591
 Plymouth, Montserrat, 1,574
 Pointe a Pitre, Guadeloupe, 1,652
 Ponce, Puerto Rico (via Mona Passage), 1,462
 Ponta Delgada, Azores, 2,246
 Porlamar, Venezuela (via Virgin Passage), 1,879
 Port au Prince, Haiti (via Crooked Island Passage), 1,372
 Port of Spain, Trinidad (via Virgin Passage), 1,939
 Port Antonio, Jamaica (via Crooked Island Passage), 1,423
 Port Castries, St. Lucia, 1,747
 Porto Grande, Cape Verde Islands, 2,913
 Praia Da Vitoria, Terceira, Azores, 2,173
 Progreso, Mexico, 1,609
 Puerto Barrios, Guatemala (via Straits of Florida, southbound), 1,804
 Puerto Cortes, Honduras (via Straits of Florida, southbound), 1,764
 Puerto Manati, Cuba, 1,244
 Qaqortoq (Julianehaab), Greenland, 1,911
 Recife, Brazil, 3,698
 Reykjavik, Iceland, 2,495

Rio de Janeiro, Brazil, 4,770
 Roosevelt Roads, Puerto Rico, 1,429
 Salvador, Brazil, 4,089
 San Juan del Norte, Nicaragua (via Crooked Island Passage), 2,032
 San Juan del Norte, Nicaragua (via Straits of Florida, southbound), 2,047
 San Juan, Puerto Rico, 1,399
 Santa Barbara de Samana, Dominican Republic, 1,334
 Santa Cruz de Tenerife, Canary Islands, 2,936
 Santa Marta, Colombia (via Crooked Island Passage), 1,783
 Santiago de Cuba, Cuba (via Crooked Island Passage), 1,362
 Santo Domingo, Dominican Republic, 1,489
 Santos, Brazil, 4,957
 Sint Nicolaashaven, Aruba (via Mona Passage), 1,761
 Sint Nicolaashaven, Aruba (via Windward Passage), 1,805
 St. John, Canada (via Vineyard Sound and Long Island Sound), 486
 St. John, Canada (Nantucket Light Buoy), 545
 St. John's, Canada, 1,093
 St. John's, Antigua (via Anegada Channel), 1,572
 St. Pierre, Martinique (via Anegada Channel), 1,705
 Sydney, Canada, 808
 Vigo, Spain, 2,914
 Villa do Porto, Azores, 2,279
 Vitoria, Brazil, 4,507
 Walvisbaai, Namibia, 6,228
 Willemstad, Curacao, 1,771
 Yarmouth, Canada (Nantucket Light Buoy), 464
 Yarmouth, Canada (via Pollok Rip Channel), 440

NEWARK, NEW JERSEY, U.S.A.
 (40°42'00"N., 74°09'00"W.) See Port Newark.

NEWCASTLE, AUSTRALIA
 (32°55'30"S., 151°47'00"E.) to:

Junction Points*

Panama, Panama, 7,654

Ports

Los Angeles, California, U.S.A., 6,456
 Portland, Oregon, U.S.A., 6,833
 San Francisco, California, U.S.A., 6,467

NEWCASTLE, CANADA
 (47°00'04"N., 65°34'00"W.) Add 4 miles to Chatham distances.

NEWCASTLE, ENGLAND
 (54°58'00"N., 1°35'00"W.) to:

Junction Points*

Bishop Rock, England, 616
 Ile d'Ouessant, France, 604
 Nord-Ostsee-Kanal (East Entrance), Germany, 439
 Pentland Firth, Scotland, 265
 Skagens Odde, Denmark, 445

Ports

Amsterdam, Netherlands, 286
 Antwerp, Belgium, 351
 Bergen, Norway, 403
 Bremerhaven, Germany, 374
 Dunkerque, France, 307
 Egersund, Norway, 329
 Emden, Germany, 329
 Esbjerg, Denmark, 349
 Hamburg, Germany, 424
 Hull, England, 143
 Kristiansand, Norway, 376
 Le Havre, France, 411
 London, England, 325
 Oostende, Belgium, 291
 Oslo, Norway, 528
 Plymouth, England, 524
 Santo Domingo, Dominican Republic, 453
 Portsmouth, England, 403
 Rotterdam, Netherlands, 285
 Southampton, England, 421
 Stavanger, Norway, 349
 Wilhelmshaven, Germany, 367
 Zeebrugge, Belgium, 289

NEWPORT, RHODE ISLAND, U.S.A.

(41°29'50"N., 71°19'50"W.)
 Subtract 20 miles from Providence distances.

NEWPORT, WALES
 (51°33'20"N., 2°58'00"W.) to:

Junction Points*

Bishop Rock, England, 177
 Fastnet Rock, Ireland, 258
 Inishtrahull, Ireland, 371

Ports

Cardiff, Wales, 16
 Cobh, Ireland, 210
 Cork, Ireland, 220
 Dover, England, 439
 Dublin, Ireland, 219
 Falmouth, England, 191
 Limerick, Ireland, 418
 Liverpool, England, 284
 Manchester, England, 324
 Plymouth, England, 224
 Portsmouth, England, 341
 Southampton, England, 339
 Waterford, Ireland, 170

NEWPORT NEWS, VIRGINIA, U.S.A.

(36°58'00"N., 76°26'00"W.)
 Subtract 3 miles from Norfolk distances.

NHA BE, VIETNAM

(10°42'00"N., 106°45'00"E.)
 Subtract 9 miles from Ho Chi Minh distances.

NHA TRANG BAY, VIETNAM
 (12°15'00"N., 109°13'00"E.) to:

Junction Points*

Singapore, 769

Ports

Ho Chi Minh, Vietnam, 264
 Hong Kong, China, 678
 Kao-hsiung Kang, Taiwan, 895
 Manila, Philippines, 706

* **JUNCTION POINT.**—See Preface for use of junction points

NICE, FRANCE
(43°41'40"N., 7°17'07"E.) to:

Junction Points*

Port Said, Egypt, 1,456
Strait of Gibraltar, 788

Ports

Ajaccio, Corsica, 138
Almeria, Spain, 627
Cagliari, Sardinia, 354
Civitavecchia, Italy, 220
Constanta, Romania (south of Greece), 1,518
Constanta, Romania (via Corinth Canal), 1,476
Genova, Italy, 89
Iraklion, Kriti, 1,012
Iskenderun, Turkey, 1,553
Istanbul, Turkey (south of Greece), 1,321
Istanbul, Turkey (via Corinth Canal), 1,279
Izmir, Turkey, 1,160
Kerch, Ukraine (south of Greece), 1,756
Kerch, Ukraine (via Corinth Canal), 1,714
Larnaca, Cyprus, 1,457
Livorno, Italy, 134
Marsaxlokk, Malta, 596
Mersin, Turkey, 1,495
Messina, Sicily, 515
Milos, Greece, 970
Napoli, Italy, 369
Patrai, Greece, 825
Sant Antioco Ponti, Sardinia, 310
Thessaloniki, Greece, 1,210
Valletta, Malta, 592

NIIGATA, JAPAN
(37°58'00"N., 139°04'00"E.) to:

Junction Points*

Panama, Panama, (via Tsugaru-Kaikyo), 7,648
Punta Arenas, Chile (via Tsugaru Kaikyo), 9,687
Singapore, 2,976

Ports

Busan, South Korea, 516
Hakodate, Japan, 247
Incheon, South Korea, 894
Kawasaki, Japan (via Balintang Channel), 762
Maizuru, Japan, 256
Murooran, Japan (via Balintang Channel), 293
Nagoya, Japan (via Balintang Channel), 906
Nevel'sk, Russia, 549
Osaka, Japan (via Shimonoseki Strait), 743
Shimonoseki, Japan, 492
Vladivostok, Russia, 453

NIKISKI, ALASKA, U.S.A.
(60°40'30"N., 151°24'30"W.) to:

Junction Points*

Panama, Panama, 5,055
Punta Arenas, Chile, 7,947

Ports

Antofagasta, Chile, 6,572
Callao, Peru, 5,794

Manzanillo, Mexico, 3,351
Mollendo, Peru, 6,213
Quepos, Costa Rica, 4,665
Victoria, Canada, 1,311

NIKOLAYEVSK-NA-AMURE, RUSSIA
(53°07'30"N., 140°43'00"E.) to:

Junction Points*

Panama, Panama (via Unimak Pass), 7,296

Ports

Aleksandrovsk-Sakhalinskiy, Russia (via South Channel), 162
Bukhta Shelikhova, Kuril Islands, Russia (north of Sakhalin), 677
Dagu, China, 1,961
Hong Kong, China (via South Channel), 2,394
Matsuga-hana, Japan, 741
Pago Pago, American Samoa (via Nemuro Strait and La Perouse Strait), 4,913
Qingdao, China, 1,750
San Francisco, California, U.S.A. (via Unimak Pass), 4,099
Seattle, Washington, U.S.A. (via Unimak Pass), 3,748
Shanghai, China, 1,742
Sovetskaya Gavan, Russia (via South Channel), 276
Tomari, Japan, 694
Xiamen, China (via South Channel), 2,138
Zaliv Urkt, Russia (north of Sakhalin), 209

NOME, ALASKA, U.S.A.
(64°29'00"N., 165°25'00"W.) to:

Junction Points*

Panama, Panama, 5,834

Ports

Apra, Guam, 3,686
Auckland, New Zealand, 6,159
Callao, Peru, 6,578
Cordova, Alaska, U.S.A., 1,409
Hakodate, Japan, 2,347
Hong Kong, China, 4,145
Honolulu, Hawaii, U.S.A. (via Unimak Pass), 2,674
Los Angeles, California, U.S.A., 2,968
Manila, Philippines, 4,379
Pago Pago, American Samoa, 4,748
Petropavlovsk-Kamchatskiy, Russia, 1,317
Pevek, Russia, 700
Prince Rupert, Canada, 1,846
San Francisco, California, U.S.A., 2,636
Sasebo, Japan (via Osumi Kaikyo), 3,373
Seattle, Washington, U.S.A. (via Juan de Fuca Strait), 2,288
Sydney, Australia, 6,280
Valparaiso, Chile, 7,728
Vancouver, Canada, 2,304
Yokohama, Japan, 2,696

NORD-OSTSEE-KANAL (EAST ENTRANCE), GERMANY*
(54°22'00"N., 10°09'00"E.) to:

Junction Points*

Bishop Rock, England, 727
Ile d'Ouessant, France, 716
Pentland Firth, Scotland, 565
Skagens Odde, Denmark, 224

Ports

Aalborg, Denmark, 207
Aarhus, Denmark, 131
Abenra, Denmark, 66
Amsterdam, Netherlands, 291
Antwerp, Belgium, 398
Assens, Denmark, 65
Baltiysk, Russia, 353
Bremerhaven, Germany, 129
Calais, France, 408
Cherbourg, France, 554
Den Helder, Netherlands, 263
Dover, England, 410
Dundee, Scotland, 501
Dunkerque, France, 386
Emden, Germany, 197
Esbjerg, Denmark, 372
Faborg, Denmark, 53
Fecamp, France, 482
Flensburg, Germany, 52
Fredericia, Denmark, 85
Frederikshavn, Denmark, 200
Gavle, Sweden, 615
Gdansk, Poland, 344
Gdynia, Poland, 339
Goteborg, Sweden, 230
Grena, Denmark, 140
Haderslev, Denmark, 72
Halmsted, Sweden, 188
Hamburg, Germany, 91
Hamina, Finland, 747
Hango, Finland, 564
Helsingborg, Sweden, 176
Helsingor, Denmark, 175
Helsinki, Finland, 625
Horsens, Denmark, 131
Kalmar, Sweden, 289
Kalundborg, Denmark, 111
Karlskrona, Sweden, 235
Klaipeda, Lithuania, 400
Kobenhavn, Denmark (via Store Baelt), 202
Kobenhavn, Denmark (via The Sound), 162
Koge, Denmark, 153
Kolding, Denmark, 86
Korsor, Denmark, 73
Kotka, Finland, 694
Kyndbyvaerkets, Denmark, 164
Landskrona, Sweden, 167
Le Havre, France, 522
Limhamn, Sweden, 159
London, England, 439
Lubeck, Germany, 99
Lulea, Sweden, 875
Malmo, Sweden, 205
Masnedund, Denmark, 149
Middlefart, Denmark, 84
Musko Island, Sweden, 473
Naestved, Denmark, 94
Nakskov, Denmark, 46
Newcastle, England, 439
Norrkoping, Sweden, 459
Odense, Denmark, 117
Oostende, Belgium, 364
Ornskoldsvik, Sweden, 733
Oulu, Finland, 918
Oxelund, Sweden, 420
Peenemunde, Germany, 155
Pitea, Sweden, 864
Plymouth, England, 639
Porkkala, Finland, 647
Portland, England, 565
Portsmouth, England, 515
Randers, Denmark, 188

Rauma, Finland, 678
Riga, Latvia, 555
Ronne, Denmark, 175
Rostock, Germany, 92
Rotterdam, Netherlands, 323
Ruch'i, Russia, 766
Sankt-Peterburg, Russia, 779
Sonderborg, Denmark, 46
Southampton, England, 533
Stockholm, Sweden, 503
Stralsund, Germany, 104
Sundsvall, Sweden, 684
Swinoujscie, Poland, 186
Szczecin, Poland, 222
Tallinn, Estonia, 603
Travemunde, Germany, 88
Trelleborg, Sweden, 141
Turku, Finland, 576
Umea, Sweden, 751
Uusikaupunki, Finland, 624
Vaa, Finland, 744
Veje, Denmark, 106
Ventspils, Latvia, 434
Wilhelmshaven, Germany, 126
Wismar, Germany, 84
Zeebrugge, Belgium, 354

NORDENHAM, GERMANY
(53°29'00"N., 8°29'40"E.) Add 5 1/2 miles to Bremerhaven distances.

NORFOLK, VIRGINIA, U.S.A.
(36°51'00"N., 76°18'00"W.) to:

Junction Points*

Bishop Rock, England, 3,101
Cape of Good Hope, South Africa, 6,802
Fastnet Rock, Ireland, 2,979
Inishtrahull, Ireland, 3,083
Montreal, Canada (via Cabot Strait), 1,700
Panama, Panama (via Windward Passage), 1,825
Pentland Firth, Scotland, 3,280
Punta Arenas, Chile, 6,900
Strait of Gibraltar, 3,335
Straits of Florida (via outer route), 980
Yucatan Channel, 1,165

Ports

Argentina, Canada, 1,189
Arkhangel'sk, Russia, 4,399
Banes, Cuba (via Crooked Island Passage), 1,018
Belem, Brazil, 2,832
Belize, Belize, 1,503
Bocas del Toro, Panama (via Crooked Island Passage), 1,853
Bordeaux, France, 3,405
Buenos Aires, Argentina, 5,786
Cadiz, Spain, 3,303
Cape Town, South Africa, 6,790
Cartagena, Colombia (via Crooked Island Passage), 1,658
Charlotte Amalie, Virgin Islands, 1,296
Cienfuegos, Cuba (via Windward Passage), 1,482
Coatzacoalcas, Mexico, 1,736
Colon, Panama (via Crooked Island Passage), 1,779
Dakar, Senegal, 3,408
Elizabeth Harbor, Bahamas, 848
Fort de France, Martinique, 1,597
Freetown, Sierra Leone, 3,821
Funchal, Madeira Island, 2,907
Georgetown, Guyana, 2,090

* **JUNCTION POINT.**—See Preface for use of junction points

72 NORRKOPING, SWEDEN

Guantanamo, Cuba, 1,117
 Halifax, Canada, 790
 Hamilton, Bermuda, 683
 Ivittuat, Greenland, 2,116
 Kingston, Jamaica (via Crooked Island Passage), 1,279
 La Guaira, Venezuela, 1,687
 La Habana, Cuba (southbound, outside), 985
 Lagos, Nigeria, 4,941
 Las Palmas, Canary Islands, 3,130
 Limon, Costa Rica (via Crooked Island Passage), 1,852
 Lisboa, Portugal, 3,129
 Liverpool, Canada, 724
 Livingston, Guatemala, 1,595
 Maracaibo, Venezuela, 1,682
 Montevideo, Uruguay, 5,710
 Nassau, Bahamas, 758
 Nuevitas, Cuba, 1,076
 Parrsboro, Canada, 784
 Pointe a Pitre, Guadeloupe, 1,527
 Ponta Delgada, Azores, 2,401
 Port au Prince, Haiti, 1,178
 Port Antonio, Jamaica (via Crooked Island Passage), 1,228
 Port Castries, St. Lucia, 1,720
 Port of Spain, Trinidad, 1,799
 Porto Grande, Cape Verde Islands, 2,971
 Puerto Barrios, Guatemala, 1,603
 Puerto Cortes, Honduras (via Straits of Florida), 1,568
 Recife, Brazil, 3,651
 Reykjavik, Iceland, 2,677
 Rio de Janeiro, Brazil, 4,723
 Salvador, Brazil, 4,042
 San Juan del Norte, Nicaragua (via Straits of Florida), 1,846
 San Juan del Norte, Nicaragua (via Windward Passage), 1,837
 San Juan, Puerto Rico, 1,252
 Santa Cruz de Tenerife, Canary Islands, 3,057
 Santa Marta, Colombia (via Crooked Island Passage), 1,588
 Santiago de Cuba, Cuba, 1,167
 Santo Domingo, Dominican Republic, 1,329
 Santos, Brazil, 4,910
 Sint Nicolaashaven, Aruba (via Mona Passage), 1,600
 Sint Nicolaashaven, Aruba (via Windward Passage), 1,611
 St. John, Canada, 731
 St. John's, Canada, 1,277
 Sydney, Canada, 996
 Takoradi, Ghana, 4,620
 Vigo, Spain, 3,099
 Willemstad, Curacao, 1,611
 Yarmouth, Canada, 656

NORRKOPING, SWEDEN
 (58°36'00"N., 16°12'54"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 459
 Skagens Odde, Denmark, 520

Ports

Helsinki, Finland, 307
 Riga, Latvia, 300
 Stockholm, Sweden, 143

NOUADHIBOU, MAURITANIA
 (20°52'40"N., 17°00'12"W.) to:

Junction Points*

Bishop Rock, England, 1,812
 Cape of Good Hope, South Africa, 4,379
 Fastnet Rock, Ireland, 1,865
 Grand Banks South, 2,104
 Ile d'Ouessant, France, 1,770
 Inishtrahull, Ireland, 2,133
 Panama, Panama, 3,697
 Pentland Firth, Scotland, 2,437
 Punta Arenas, Chile, 5,296
 Strait of Gibraltar, 1,160
 Straits of Florida, 3,667
 Yucatan Channel, 3,985

Ports

Accra, Ghana, 1,756
 Boma, Congo, 2,666
 Casablanca, Morocco, 936
 Dakar, Senegal, 373
 Freetown, Sierra Leone, 850
 Galway, Ireland, 1,979
 Greenville, Liberia, 1,166
 Lisboa, Portugal, 1,149
 Monrovia, Liberia, 1,061
 Port of Spain, Trinidad, 2,634
 Tangier, Morocco, 1,085
 Vigo, Spain, 1,352

NOUAKCHOTT, MAURITANIA
 (18°02'02"N., 16°02'02"W.) to:

Junction Points*

Bishop Rock, England, 2,044
 Cape of Good Hope, South Africa, 4,248
 Fastnet Rock, Ireland, 2,068
 Grand Banks South, 2,275
 Ile d'Ouessant, France, 1,971
 Inishtrahull, Ireland, 2,335
 Panama, Panama, 3,752
 Pentland Firth, Scotland, 2,637
 Punta Arenas, Chile, 5,164
 Strait of Gibraltar, 1,329
 Straits of Florida, 3,777
 Yucatan Channel, 4,052

Ports

Accra, Ghana, 1,605
 Boma, Congo, 4,250
 Cape Town, South Africa, 5,547
 Casablanca, Morocco, 1,114
 Dakar, Senegal, 217
 Freetown, Sierra Leone, 699
 Galway, Ireland, 2,167
 Lagos, Nigeria, 1,823
 New York, New York, U.S.A., 3,256
 Port of Spain, Trinidad, 2,674
 Qua Iboe, Nigeria, 2,078
 Recife, Brazil, 1,252
 Sassandra, Ivory Coast, 1,250
 Vigo, Spain, 1,530
 Villa Cisneros, Western Sahara, 367

NOUMEA, NEW CALEDONIA
 (22°16'30"S., 166°27'00"E.) to:

Junction Points*

Panama, Panama, 6,982
 Punta Arenas, Chile (composite sailing with 49°S. the limiting latitude), 5,745
 Punta Arenas, Chile (via great circle), 5,527

Torres Strait, Australia (via Raine Island entrance), 1,622

Ports

Apia, Samoa, 1,371
 Apra, Guam, 2,528
 Auckland, New Zealand, 998
 Avarua, Cook Islands, 1,887
 Baie Taio-Hae, Marquesa Islands, 3,183
 Baker Island, 1,707
 Bowen, Australia, 1,342
 Brisbane, Australia, 807
 Cairns Harbor, Australia, 1,250
 Callao, Peru, 6,541
 Dagu, China, 4,667
 Dunedin, New Zealand, 1,552
 Dutch Harbor, Alaska, U.S.A., 4,857
 Funafuti, Tuvalu, 1,132
 Guayaquil, Ecuador, 6,686
 Hakodate, Japan (via Canal Woodin and Canal de la Havannah), 4,176
 Hobart, Tasmania, 1,604
 Hong Kong, China, 4,107
 Honolulu, Hawaii, U.S.A., 3,371
 Kodiak, Alaska, U.S.A., 5,281
 Lae, Papua New Guinea, 1,519
 Lele, Caroline Islands, 1,722
 Levuka, Fiji Islands, 776
 Los Angeles, California, U.S.A., 5,521
 Mackay, Australia, 1,253
 Malakal, Palau Islands, 2,612
 Manila, Philippines, 3,616
 Melbourne, Australia, 1,595
 Midway Island, 3,207
 Nagasaki, Japan (via Bougainville Strait), 3,967
 Nukualofa, Tonga Islands, 1,059
 Pago Pago, American Samoa (via Kandavu Passage), 1,416
 Papeete, French Polynesia, 2,497
 Petropavlovsk-Kamchatskiy, Russia, 4,587
 Ponape, Caroline Islands, 1,892
 Port Augusta, Australia, 2,179
 Qingdao, China, 4,416
 Rabaul, Papua New Guinea, 1,383
 Raoul, Kermadec Islands, 957
 Rockhampton, Australia, 902
 Rotoava, Iles Tuamotu, 2,737
 San Diego, California, U.S.A., 5,491
 San Francisco, California, U.S.A., 5,410
 Seattle, Washington, U.S.A., 5,760
 Shanghai, China, 4,185
 Sitka, Alaska, U.S.A., 5,613
 Suva, Fiji Islands, 734
 Sydney, Australia, 1,069
 Talomako, Vanuatu, 524
 Townsville, Australia, 1,155
 Truk, Caroline Islands, 2,068
 Valparaiso, Chile, 6,115
 Vladivostok, Russia, 4,590
 Wake Island, Pacific, 2,551
 Wallaroo, Australia, 2,099
 Wotje Island, Marshall Islands, 1,972
 Xiamen, China, 4,031
 Yap Island, Caroline Islands, 2,568
 Yokohama, Japan (via Bougainville Strait), 3,837

NOVOROSIYSK, RUSSIA
 (44°43'00"N., 037°47'00"E.) to:

Junction Points*

Port Said, Egypt, 1,260
 Strait of Gibraltar (south of Greece), 2,277
 Strait of Gibraltar (via Corinth Canal), 2,260

Ports

Bat'umi, Georgia, 255
 Constanta, Romania, 403
 Istanbul, Turkey, 460
 Odessa, Ukraine, 369
 Thessaloniki, Greece, 794

NUEVA GERONA, CUBA
 (21°55'00"N., 82°48'00"W.)
 Subtract 82 miles from Surgidero de Batabano distances.

NUEVA PALMIRA, URUGUAY
 (33°52'54"S., 58°25'28"W.) Add 155 miles to Montevideo distances.

NUEVITAS, CUBA
 (21°32'40"N., 77°12'40"W.) to:

Junction Points*

Straits of Florida, 386
 Yucatan Channel, 528

Ports

Abraham Bay, Bahamas, 243
 Bahia de Samana, Dominican Republic, 510
 Baltimore, Maryland, U.S.A. (via Florida Strait), 1,187
 Boston, Massachusetts, U.S.A., 1,447
 Caibarien, Cuba, 181
 Casilda, Cuba (via Windward Passage), 610
 Charleston, South Carolina, U.S.A., 750
 Cienfuegos, Cuba, 649
 Fort de France, Martinique, 1,035
 Fort Liberté, Haiti, 339
 Gibara, Cuba, 82
 Guantanamo, Cuba, 284
 Hamilton, Bermuda, 988
 Hopetown, Bahamas, 452
 Isabel de Sagua, Cuba, 212
 Key West, Florida, U.S.A., 331
 Kingston, Jamaica, 448
 La Habana, Cuba, 344
 Manzanillo, Cuba (via Windward Passage), 531
 Mariel, Cuba, 366
 Miller Anchorage, Bahamas, 363
 Nassau, Bahamas, 454
 New York, New York, U.S.A. (via Florida Strait), 1,264
 Nicaro, Cuba, 132
 Norfolk, Virginia, U.S.A. (via Florida Strait), 1,064
 Philadelphia, Pennsylvania, U.S.A. (via Florida Strait), 1,235
 Port au Prince, Haiti, 348
 Port Antonio, Jamaica, 398
 Puerto Cayo Mao, Cuba, 154
 San Juan, Puerto Rico, 663
 Santa Lucia, Cuba, 447
 Santo Domingo, Dominican Republic, 632
 St. Marc, Haiti, 306

NUKUALOFA, TONGA ISLANDS
 (21°07'30"S., 175°12'00"W.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Junction Points*</p> <p>Panama, Panama, 5,953</p> <p>Ports</p> <p>Apia, Samoa, 509 Apra, Guam, 3,202 Auckland, New Zealand, 1,099 Brisbane, Australia, 1,827 Burnie Harbor, Australia, 2,318 Fremantle, Australia (via Bass Strait), 3,970 Geelong, Australia, 2,420 Hobart, Tasmania, 2,328 Honolulu, Hawaii, U.S.A., 2,749 Los Angeles, California, U.S.A., 4,633 Noumea, New Caledonia, 1,059 Pago Pago, American Samoa, 490 Papeete, French Polynesia, 1,468 Ponape, Caroline Islands, 2,341 Port Kembla, Australia, 1,981 Suva, Fiji islands, 416</p> <p>NUUK (GODTHAB), GREENLAND (64°10'45"N., 51°45'15"W.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 1,630 Strait of Gibraltar, 2,477</p> <p>Ports</p> <p>Churchill, Canada, 1,331 Reykjavik, Iceland, 1,076 St. John's, Canada, 1,005</p> <p>NYKOBING, DENMARK (55°54'48"N., 11°40'42"E.) Add 12 miles to Masnedssund distances.</p> <p>OAKLAND, CALIFORNIA, U.S.A. (37°48'12"N., 122°19'30"W.) Add 3 miles to San Francisco distances.</p> <p>OCEAN ISLAND, PACIFIC (0°52'30"S., 169°35'00"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,724</p> <p>Ports</p> <p>Honolulu, Hawaii, U.S.A., 2,480 Los Angeles, California, U.S.A., 4,553 Pago Pago, American Samoa, 1,409 Papeete, French Polynesia, 2,609 San Francisco, California, U.S.A., 4,406 Seattle, Washington, U.S.A., 4,611 Suva, Fiji Islands, 1,207 Yokohama, Japan, 2,761</p> <p>ODENSE, DENMARK (55°24'40"N., 10°23'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 117 Skagens Odde, Denmark, 126</p>	<p>Ports</p> <p>Gdynia, Poland, 438 Stockholm, Sweden, 609 Swinoujscie, Poland, 293</p> <p>ODESSA, UKRAINE (46°29'47"N., 30°44'40"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,152 Strait of Gibraltar, 2,169</p> <p>Ports</p> <p>Alexandria, Egypt, 1,090 Algiers, Algeria, 1,741 Alicante, Spain, 1,908 Ancona, Italy (south of Greece), 1,407 Ancona, Italy (via Corinth Canal), 1,310 Annaba, Algeria, 1,516 Banghazi, Libya, 1,064 Banzart, Tunisia, 1,411 Barcelona, Spain (south of Greece), 1,737 Barcelona, Spain (via Corinth Canal), 1,793 Bari, Italy (south of Greece), 1,200 Bari, Italy (via Corinth Canal), 1,103 Bat'umi, Georgia, 569 Beirut, Lebanon, 1,194 Brindisi, Italy, 1,142 Cartagena, Spain, 1,932 Ceuta, Morocco, 2,150 Civitavecchia, Italy (south of Greece), 1,456 Civitavecchia, Italy (via Corinth Canal), 1,414 Constanta, Romania, 186 Genova, Italy (south of Greece), 1,639 Genova, Italy (via Corinth Canal), 1,598 Gibraltar (south of Greece), 2,152 Gibraltar (via Corinth Canal), 2,135 Haifa, Israel, 1,197 Iraklion, Kriti, 793 Istanbul, Turkey, 352 Izmir, Turkey, 640 La Spezia, Italy (south of Greece), 1,604 La Spezia, Italy (via Corinth Canal), 1,562 Livorno, Italy (south of Greece), 1,568 Livorno, Italy (via Corinth Canal), 1,527 Malga, Spain, 2,100 Marseille, France (south of Greece), 1,731 Marseille, France (via Corinth Canal), 1,690 Messina, Sicily (south of Greece), 1,158 Messina, Sicily (via Corinth Canal), 1,116 Napoli, Italy (south of Greece), 1,329 Napoli, Italy (via Corinth Canal), 1,288 Novorossiysk, Russia, 369 Oran, Algeria, 1,938 Palermo, Sicily (south of Greece), 1,274 Palermo, Sicily (via Corinth Canal), 1,232 Palma, Balearic Islands (south of</p>	<p>Greece), 1,792 Palma, Balearic Islands (via Corinth Canal), 1,751 Piraeus, Greece, 712 Rijeka, Croatia (south of Greece), 1,476 Rijeka, Croatia (via Corinth Canal), 1,377 Savona, Italy (south of Greece), 1,650 Savona, Italy (via Corinth Canal), 1,608 Sibenik, Croatia (south of Greece), 1,349 Sibenik, Croatia (via Corinth Canal), 1,250 Siracusa, Sicily (south of Greece), 1,146 Siracusa, Sicily (via Corinth Canal), 1,120 Split, Croatia (south of Greece), 1,334 Split, Croatia (via Corinth Canal), 1,235 Tarabulus, Libya, 1,301 Taranto, Italy (south of Greece), 1,154 Taranto, Italy (via Corinth Canal), 1,065 Thessaloniki, Greece, 686 Toulon, France (south of Greece), 1,699 Toulon, France (via Corinth Canal), 1,658 Trieste, Italy (south of Greece), 1,510 Trieste, Italy (via Corinth Canal), 1,411 Tunis, Tunisia, 1,399 Valencia, Spain (south of Greece), 1,906 Valencia, Spain (via Corinth Canal), 1,876 Valletta, Malta, 1,185 Venezia, Italy (south of Greece), 1,518 Venezia, Italy (via Corinth Canal), 1,421 Volos, Greece, 677</p> <p>OITA, JAPAN (33°17'00"N., 131°40'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia (via south of Mindanao), 2,843 Panama, Panama (via east of Honshu), 8,101 Punta Arenas, Chile, 9,485 Singapore (east of Kyushu), 2,556</p> <p>Ports</p> <p>Aomori, Japan, 773 Hiroshima, Japan, 92 Kobe, Japan, 214 Kokura, Japan, 86 Nagoya, Japan, 381 Shimonoseki, Japan, 81 Ube, Japan, 69 Yokohama, Japan, 489 Yokoshima, Japan, 116 Yokosuka, Japan, 483</p> <p>OKHA, INDIA (22°28'30"N., 69°05'15"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 2,887</p>	<p>Ports</p> <p>Bombay, India, 341 Colombo, Sri Lanka, 1,183 Karachi, Pakistan, 194 Garmgao, India, 533</p> <p>OKHA, SAKHALIN, RUSSIA (53°34'00"N., 143°05'00"E.) to:</p> <p>Ports</p> <p>Bukhta, Nagayeva, Russia, 441 Nikolayevsk-Na-Amure, Russia (north of Sakhalin), 209</p> <p>OLBIA, SARDINIA (40°55'18"N., 9°31'24"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,278 Strait of Gibraltar, 828</p> <p>Ports</p> <p>Banzart, Tunisia, 236 Genova, Italy, 221 Napoli, Italy, 222</p> <p>OLONGAPO, PHILIPPINES (14°49'00"N., 120°16'30"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 1,335</p> <p>Ports</p> <p>Apra, Guam (north of Luzon), 1,663 Ho Chi Minh, Vietnam, 872 Hong Kong, China, 580 Kuching, Sarawak, 992 Pago Pago, American Samoa (via San Bernardino Strait), 4,622</p> <p>OLYMPIA, WASHINGTON, U.S.A. (47°03'06"N., 122°54'18"W.) Add 44 miles to Seattle distances.</p> <p>ONEGA, RUSSIA (63°54'00"N., 38°06'00"E.) Add 102 miles to Arkhangel'sk distances.</p> <p>OOSTENDE, BELGIUM (51°14'00"N., 2°55'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 400 Ile d'Ouessant, France, 365 Nord-Ostsee-Kanal (East Entrance), Germany, 364 Pentland Firth, Scotland, 509 Skagens Odde, Denmark, 489</p> <p>Ports</p> <p>Aberdeen, Scotland, 406 Amsterdam, Netherlands, 117 Antwerp, Belgium, 79 Bergen, Norway, 563 Bremerhaven, Germany, 299 Cherbourg, France, 203 Dundee, Scotland, 398 Egersund, Norway, 447 Emden, Germany, 242 Esbjerg, Denmark, 328 Hartlepool, England, 265</p>
---	---	--	--

* JUNCTION POINT.—See Preface for use of junction points

74 OPORTO, PORTUGAL

Hull, England, 207
Inverness, Scotland, 510
Kristiansand, Norway, 453
Le Havre, France, 168
Leith, Scotland, 396
London, England, 123
Newcastle, England, 291
Oslo, Norway, 596
Plymouth, England, 288
Portland, England, 214
Portsmouth, England, 174
Rotterdam, Netherlands, 86
Southampton, England, 192
Stavanger, Norway, 488
Wilhelmshaven, Germany, 286

OPORTO, PORTUGAL
(41°08'30"N., 8°41'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 494
Strait of Gibraltar, 432

Ports

Cadiz, Spain, 399
Dakar, Senegal, 1,682
Freetown, Sierra Leone, 2,161
Funchal, Madeira Island, 650
Lisboa, Portugal, 176
New York, New York, U.S.A.,
2,923
Ponta Delgada, Azores, 815
Puerto de Pasajes, Spain, 473
Santa Cruz de Tenerife, Canary
Islands, 849
Vigo, Spain, 74

OPUA, NEW ZEALAND
(35°18'50"S., 174°07'25"E.) to:

Junction Points*

Panama, Panama, 6,675
Punta Arenas, Chile (via 50°S),
4,760
Torres Strait, Australia, 2,472
Wilson Promontory, Australia,
1,419

Ports

Auckland, New Zealand, 115
Chimbote, Peru, 5,911
Hobart, Tasmania, 1,431
Honolulu, Hawaii, U.S.A., 3,753
Los Angeles, California, 5,625
Seattle, Washington, U.S.A., 6,218
Yokohama, Japan, 4,742

ORAN, ALGERIA
(35°42'52"N., 0°38'00"W.) to:

Junction Points*

Port Said, Egypt, 1,711
Strait of Gibraltar, 282

Ports

Alcudia, Balearic Islands, 281
Alexandria, Egypt, 1,590
Algeciras, Spain, 229
Algiers, Algeria, 205
Alicante, Spain, 159
Ancona, Italy, 1,349
Annaba, Algeria, 444
Banghazi, Libya, 1,124
Banzart, Tunisia, 538
Barcelona, Spain, 365
Bari, Italy, 1,142

Beirut, Lebanon, 1,803
Brindisi, Italy, 1,084
Cagliari, Sardinia, 525
Cannes, France, 594
Cartagena, Spain, 115
Ceuta, Morocco, 232
Civitavecchia, Italy, 703
Genova, Italy, 686
Gibraltar, 237
Haifa, Israel, 1,800
Iraklion, Kriti, 1,284
Istanbul, Turkey (south of
Greece), 1,590
Istanbul, Turkey (via Corinth
Canal), 1,573
Izmir, Turkey (south of Greece),
1,436
Izmir, Turkey (via Corinth Canal),
1,418
La Spezia, Italy, 701
Livorno, Italy, 691
Malaga, Spain, 195
Marseille, France, 536
Melilla, Morocco, 120
Messina, Sicily, 818
Napoli, Italy, 775
Odessa, Ukraine, 1,939
Palermo, Sicily, 709
Palma, Balearic Islands, 281
Piraeus, Greece (south of
Greece), 1,276
Piraeus, Greece (via Corinth
Canal), 1,219
Rijeka, Croatia, 1,417
Savona, Italy, 672
Sibenik, Croatia, 1,290
Siracusa, Sicily, 823
Skikda, Algeria, 398
Split, Croatia, 1,275
Tarabulus, Libya, 862
Taranto, Italy, 1,037
Tarragona, Spain, 336
Thessaloniki, Greece, 1,484
Toulon, France, 545
Trieste, Italy, 1,450
Tunis, Tunisia, 589
Valencia, Spain, 238
Valletta, Malta, 774
Venezia, Italy, 1,460
Volos, Greece (south of Greece),
1,426
Volos, Greece (via Corinth Canal),
1,408

ORANGE, TEXAS, U.S.A.
(30°05'20"N., 93°44'00"W.) Add
20 miles to Port Arthur distances.

ORANJESTAD, ARUBA
(12°31'15"N., 70°02'45"W.) to:

Junction Points*

Panama, Panama, 661
Yucatan Channel, 1,024

Ports

Barranquilla, Colombia, 506
Kingston, Jamaica, 223
La Guaira, Venezuela, 207

ORANJESTAD, ST. EUSTATIUS
(17°29'00"N., 62°59'00"W.) to:

Junction Points*

Straits of Florida, 1,207

Ports

Guantanamo, Cuba, 771
Port of Spain, Trinidad, 432
Puerto Cabezas, Nicaragua, 1,195
San Juan, Puerto Rico, 195

ORMOS NAVARINOU, GREECE
(36°54'12"N., 21°40'43"E.) See
Navarino Bay.

ORMOS SOUDHAS, KRITI
(35°29'30"N., 24°04'45"E.) See
Soudha.

ORNSKOLDSVIK, SWEDEN
(63°16'37"N., 18°44'20"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 733
Skagens Odde, Denmark, 798

Ports

Helsinki, Finland, 403
Riga, Latvia, 461
Stockholm, Sweden, 274

OSAKA, JAPAN
(34°38'00"N., 135°26'00"E.) to:

Junction Points*

Panama, Panama, 7,969

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 1,394
Incheon, South Korea, 721
Komatsushima, Japan, 58
Mogpo, South Korea, 544
Pago Pago, American Samoa,
4,307
Petropavlovsk-Kamchatskiy,
Russia, 1,709
Shimotsui, Japan, 116
Vladivostok, Russia, 815
Weonsan, North Korea, 627
Yokkaichi, Japan, 236
Yokohama, Japan (via Kii Suido),
359

OSLO, NORWAY
(59°54'20"N., 10°44'00"E.) to:

Junction Points*

Bishop Rock, England, 947
Ile d'Ouessant, France, 946
Nord-Ostsee-Kanal (East
Entrance), Germany (via Store
Bael), 368
Nord-Ostsee-Kanal (East
Entrance), Germany (via The
Sound), 441
Pentland Firth, Scotland, 524
Skagens Odde, Denmark, 131

Ports

Aarhus, Denmark, 255
Aberdeen, Scotland, 490
Amsterdam, Netherlands, 522
Antwerp, Belgium, 630
Arendal, Norway, 120
Baltiysk, Russia (via Store Bael),
668

Baltiysk, Russia (via The Sound),
551
Bergen, Norway, 378
Bodo, Norway, 885
Bremerhaven, Germany, 427
Calais, France, 634
Cherbourg, France, 784
Dover, England, 640
Dunkerque, France, 617
Egersund, Norway, 238
Emden, Germany, 451
Esbjerg, Denmark, 341
Farsund, Norway, 198
Flekkefjorden, Norway, 219
Fredrikstad, Norway, 57
Gdansk, Poland (via Store Bael),
657
Gdansk, Poland (via The Sound),
540
Goteborg, Sweden, 159
Hakonsvern, Norway, 371
Halmstad, Sweden, 225
Hamburg, Germany, 461
Hammerfest, Norway, 1,187
Helsingborg, Sweden, 250
Helsingor, Denmark, 249
Hirtshals, Denmark, 145
Hull, England, 559
Kalmar, Sweden (via Store Bael),
596
Kalmar, Sweden (via The Sound),
464
Klaipeda, Lithuania (via Store
Bael and south of Bornholm),
716
Klaipeda, Lithuania (via The
Sound), 584
Kobenhavn, Denmark, 272
Kragero, Norway, 95
Kristiansand, Norway, 163
Kristiansund, Norway, 539
Landskrona, Sweden, 261
Larvik, Norway, 72
Le Havre, France, 752
Leith, Scotland, 76
Lillesand, Norway, 144
Limhamn, Sweden, 279
London, England, 650
Longyearbyen, Svalbard, 1,482
Lulea, Sweden (via Store Bael),
1,192
Lulea, Sweden (via The Sound),
1,063
Malmo, Sweden, 278
Mandal, Norway, 177
Murmansk, Russia, 1,469
Narvik, Norway, 988
Newcastle, England, 528
Oostende, Belgium, 596
Plymouth, England, 869
Portland, England, 795
Portsmouth, England, 745
Reykjavik, Iceland, 1,173
Riga, Latvia (via Store Bael), 871
Riga, Latvia (via The Sound), 739
Risør, Norway, 106
Ronne, Denmark (via Store Bael),
491
Rosyth, Scotland, 550
Rotterdam, Netherlands, 554
Sankt-Peterburg, Russia (via Store
Bael), 1,095
Sankt-Peterburg, Russia (via The
Sound), 963
Southampton, England, 763
Stavanger, Norway, 294
Stockholm, Sweden (via
Huvudskar), 683
Stockholm, Sweden (via
Sandhamnsleden), 689
Stockholm, Sweden (via Store
Bael), 819

* **JUNCTION POINT.**—See Preface for use of junction points

Swinoujscie, Poland (via Store Baelt), 503
 Swinoujscie, Poland (via The Sound), 397
 Szczecin, Poland (via The Sound), 431
 Travemunde, Germany (via Store Baelt), 389
 Travemunde, Germany (via The Sound), 410
 Trelleborg, Sweden (via Store Baelt), 465
 Trelleborg, Sweden (via The Sound), 314
 Tromsø, Norway, 1,069
 Trondheim, Norway, 688
 Turku, Finland (via Store Baelt), 892
 Turku, Finland (via The Sound), 764
 Tvedestrand, Norway, 121
 Uusikaupunki, Finland (via Store Baelt), 939
 Uusikaupunki, Finland (via The Sound), 808
 Vysotsk, Russia (via Store Baelt), 1,047
 Vysotsk, Russia (via The Sound), 92
 Wilhelmshaven, Germany, 421
 Zeebrugge, Belgium, 586

OSTRICA, LOUISIANA, U.S.A.
 (29°21'49"N., 89°31'16"W.)
 Subtract 62 miles from New Orleans distances.

OTAGO HARBOR, NEW ZEALAND
 (45°44'47"S., 170°43'28"E.) See Port Chalmers.

OTARU, JAPAN
 (43°12'00"N., 141°01'00"E.) to:

Ports

Bukhta Shelikhova, Kuril Islands, Russia, 784
 Matsuga-hana, Japan, 435
 Nevel'sk, Russia, 213
 Rumoi, Japan, 57
 Shanghai, China, 1,233
 Tomari, Japan, 387
 Unggi, Korea, 188

OUessant, ILE DE FRANCE
 (48°40'00"N., 5°30'00"W.) See Ile d'Ouessant.

OULU, FINLAND
 (65°02'00"N., 25°23'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 918
 Skagens Odde, Denmark, 979

Ports

Helsinki, Finland, 598
 Jakobstad, Finland, 133
 Stockholm, Sweden, 456

OXELOSUND, SWEDEN
 (58°39'52"N., 17°06'32"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 420

Skagens Odde, Denmark, 481

Ports

Gdynia, Poland, 266
 Helsinki, Finland, 268
 Klaipeda, Lithuania, 232

PAAMIUT (FREDERIKSHAAB), GREENLAND
 (61°59'00"N., 49°43'00"W.) to:

Junction Points*

Montreal, Canada, 1,901
 Panama, Panama, 3,558

Ports

Baltimore, Maryland, U.S.A., 2,261
 Halifax, Canada, 1,406
 New York, New York, U.S.A., 1,959

PADANG, INDONESIA
 (1°00'00"S., 100°22'00"E.) See Telukbayur.

PAGO PAGO, AMERICAN SAMOA
 (14°16'30"S., 170°41'00"W.) to:

Junction Points*

Panama, Panama, 5,656
 Punta Arenas, Chile, 5,181
 Torres Strait, Australia (via Raine Island entrance), 2,848
 Wilson Promontory, Australia, 2,707

Ports

Acapulco, Mexico, 4,595
 Aleksandrovsk-Sakhalinskiy, Russia (via Nemuro Strait and La Perouse Strait), 4,765
 Antofagasta, Chile, 5,604
 Aomori, Japan, 4,358
 Apia, Samoa, 80
 Apra, Guam, 3,156
 Auckland, New Zealand, 1,565
 Avarua, Cook Islands, 750
 Brisbane, Australia, 2,221
 Busan, South Korea (via Bungo Suido), 4,561
 Canton, Phoenix Islands, 711
 Chimbote, Peru, 5,389
 Christmas Island, Line Islands, 1,256
 Dagu, China, 5,194
 Dalian, China, 5,035
 Dutch Harbor, Alaska, U.S.A., 4,132
 Guayaquil, Ecuador, 5,450
 Hakodate, Japan, 4,326
 Ho Chi Minh, Vietnam, 5,216
 Hobart, Tasmania, 2,783
 Hong Kong, China, 4,948
 Honolulu, Hawaii, U.S.A., 2,276
 Howland Island, 989
 Jailut, Marshall Islands, 1,700
 Jarvis Island, 1,050
 Kobe, Japan, 4,308
 Kodiak, Alaska, U.S.A., 4,441
 Levuka, Fiji Islands, 643
 Los Angeles, California, U.S.A., 4,163
 Manila, Philippines, 4,519
 Melbourne, Australia, 2,851
 Midway Island, Pacific, 2,593

Nagasaki, Japan, 4,489
 Nikolayevsk-Na-Amure, Russia (via Nemuro Strait and La Perouse Strait), 4,913
 Nome, Alaska, U.S.A., 4,748
 Noumea, New Caledonia (via Kandavu Passage), 1,416
 Nukualofa, Tonga Islands, 490
 Ocean Island, 1,409
 Olongapo, Philippines (via San Bernardino Strait), 4,622
 Osaka, Japan, 4,307
 Papeete, French Polynesia, 1,236
 Petropavlovsk-Kamchatskiy, Russia, 4,350
 Ponape, Caroline Islands, 2,266
 Portland, Oregon, U.S.A., 4,525
 Prince Rupert, Canada, 4,652
 Qingdao, China, 4,969
 Salina Cruz, Mexico, 4,839
 San Diego, California, U.S.A., 4,176
 San Francisco, California, U.S.A., 4,130
 Seattle, Washington, U.S.A., 4,611
 Seward, Alaska, U.S.A., 4,589
 Shanghai, China (via Tokara Kaikyo), 4,794
 Shimonoseki, Japan, 4,440
 Sitka, Alaska, U.S.A., 4,635
 Suva, Fiji Islands, 688
 Sydney, Australia, 2,377
 Truk, Caroline Islands, 2,603
 Valparaiso, Chile, 5,378
 Vancouver, Canada, 4,637
 Victoria, Canada, 4,563
 Vladivostok, Russia, 4,739
 Wake Island, 2,436
 Wellington, New Zealand, 1,847
 Weonsan, North Korea, 4,816
 Wotje Island, Marshall Islands, 1,856
 China, 4,819
 Xiamen, Marshall Islands, 1,700
 Yokohama, Japan, 4,135

PALEMBANG, INDONESIA
 (3°00'00"S., 104°45'00"E.) to:

Junction Points*

Singapore, 304
 Selat Sunda, Indonesia, 362

Ports

Ho Chi Minh, Vietnam, 869
 Jakarta, Indonesia, 358
 Surabaya, Indonesia, 638

PALERMO, SICILY, ITALY
 (38°07'43"N., 13°22'12"E.) to:

Junction Points*

Port Said, Egypt, 1,061
 Strait of Gibraltar, 940

Ports

Alexandria, Egypt, 950
 Algeciras, Spain, 924
 Algiers, Algeria, 513
 Alicante, Spain, 667
 Ancona, Italy, 652
 Annaba, Algeria, 292
 Augusta, Sicily, 187
 Benghazi, Libya, 547
 Banzart, Tunisia, 192
 Barcelona, Spain, 574
 Bari, Italy, 445
 Beirut, Lebanon, 1,143

Brindisi, Italy, 387
 Cagliari, Sardinia, 221
 Cartagena, Spain, 697
 Catania, Sicily, 170
 Ceuta, Morocco, 921
 Civitavecchia, Italy, 253
 Genova, Italy, 431
 Gibraltar, 922
 Haifa, Israel, 1,139
 Iraklion, Kriti, 626
 Istanbul, Turkey (south of Greece), 926
 Istanbul, Turkey (via Corinth Canal), 884
 Izmir, Turkey (south of Greece), 772
 Izmir, Turkey (via Corinth Canal), 730
 La Spezia, Italy, 395
 Livorno, Italy, 359
 Malaga, Spain, 870
 Marseille, France, 495
 Messina, Sicily, 120
 Napoli, Italy, 170
 Odessa, Ukraine (south of Greece), 1,274
 Odessa, Ukraine (via Corinth Canal), 1,232
 Oran, Algeria, 709
 Palma, Balearic Islands, 531
 Piraievs, Greece (south of Greece), 612
 Piraievs, Greece (via Corinth Canal), 531
 Porto di Milazzo, Sicily, 97
 Reggio Di Calabria, Sicily, 124
 Rijeka, Croatia, 719
 Salerno, Italy, 167
 Savona, Italy, 434
 Sibenik, Croatia, 593
 Siracusa, Sicily, 192
 Split, Croatia, 578
 Tarabulus, Libya, 460
 Taranto, Italy, 339
 Terracina, Italy, 191
 Thessaloniki, Greece (south of Greece), 820
 Thessaloniki, Greece (via Corinth Canal), 779
 Toulon, France, 464
 Trieste, Italy, 753
 Tunis, Tunisia, 193
 Valencia, Spain, 656
 Valletta, Malta, 242
 Venezia, Italy, 763
 Villa San Giovanni, Italy, 118
 Volos, Greece (south of Greece), 761
 Volos, Greece (via Corinth Canal), 720

PALM BEACH, FLORIDA, U.S.A.
 (26°46'18"N., 80°01'32"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,771
 Grand Banks South, 1,743
 Montreal, Canada, 2,360
 Panama, Panama, 1,312
 Punta Arenas, Chile, 6,920
 Strait of Gibraltar, 3,824
 Straits of Florida, 300

Ports

Accra, Ghana, 4,937
 Casablanca, Morocco, 3,709
 Dakar, Senegal, 3,585
 Halifax, Canada, 1,336
 Hamilton, Bermuda, 862

* **JUNCTION POINT.**—See Preface for use of junction points

76 PALMA, BALEARIC ISLANDS

Kingston, Jamaica, 836
La Habana, Cuba, 302
Nassau, Bahamas, 328

PALMA, BALEARIC ISLANDS
(39°33'52"N., 2°38'17"E.) to:

Junction Points*

Port Said, Egypt, 1,555
Strait of Gibraltar, 471

Ports

Alexandria, Egypt, 1,435
Alicante, Spain, 173
Almeria, Spain, 308
Ancona, Italy, 1,170
Annaba, Algeria, 307
Banghazi, Libya, 970
Banzart, Tunisia, 384
Barcelona, Spain, 140
Bari, Italy, 963
Beirut, Lebanon, 1,648
Bejaia, Algeria, 212
Brindisi, Italy, 905
Cannes, France, 357
Cartagena, Spain, 222
Ceuta, Morocco, 452
Genova, Italy, 448
Gibraltar, 453
Haifa, Israel, 1,645
Iraklion, Kriti, 1,130
Istanbul, Turkey (south of Greece), 1,446
Istanbul, Turkey (via Corinth Canal), Izmir, Turkey (south of Greece), 1,290
Izmir, Turkey (via Corinth Canal), 1,248
La Spezia, Italy, 474
Livorno, Italy, 470
Malaga, Spain, 401
Marseille, France, 300
Menton, France, 382
Messina, Sicily, 639
Monaco, Monaco, 377
Napoli, Italy, 582
Odessa, Ukraine (south of Greece), 1,792
Odessa, Ukraine (via Corinth Canal), 1,751
Oran, Algeria, 281
Palermo, Sicily, 531
Piraeus, Greece (via Corinth Canal), 1,049
Piraeus (south of Greece), 1,131
Rijeka, Croatia, 1,238
Sant'Anteo Pont, Sardinia, 298
Savona, Italy, 433
Sibenik, Croatia, 1,112
Siracusa, Sicily, 668
Split, Croatia, 1,096
St. Raphael, France, 347
Tarabulus, Libya, 708
Taranto, Italy, 858
Tarragona, Spain, 131
Thessaloniki, Greece (south of Greece), 1,339
Thessaloniki, Greece (via Corinth Canal), 1,297
Toulon, France, 308
Trieste, Italy, 1,271
Tunis, Tunisia, 435
Valencia, Spain, 146
Valletta, Malta, 619
Venezia, Italy, 1,281
Volos, Greece (south of Greece), 1,280
Volos, Greece (via Corinth Canal), 1,238

PALUA, VENEZUELA
(8°21'45"N., 62°41'30"W.)
Subtract 2 miles from Puerto Ordaz distances.

PANAMA, PANAMA*
(8°53'00"N., 79°31'00"W.) to:

Junction Points*

Bishop Rock, England (via Mona Passage), 4,388
Cape of Good Hope, South Africa, 6,466
Fastnet Rock, Ireland (via Mona Passage), 4,247
Grand Banks South, 2,555
Honshu, Japan, 7,614
Ile d'Ouessant, France (via Mona Passage), 4,374
Montreal, Canada, 3,204
Punta Arenas, Chile, 3,932
Singapore (via San Bernardino Strait), 10,505
Strait of Gibraltar (via Anegada Channel), 4,351
Torres Strait, Australia (via Raine Island entrance), 8,451
Tsugaru-Kaikyo, Japan, 8,004
Wilson Promontory, Australia (via Cook Strait), 7,842
Wilson Promontory, Australia (via Foveaux Strait), 7,770
Yucatan Channel, 855

Ports

Abraham Bay, Bahamas, 922
Acapulco, Mexico, 833
Almirante, Panama, 198
Amapala, Honduras, 745
Amuay, Venezuela, 678
Angra dos Reis, Brazil, 4,557
Antilla, Cuba, 887
Antofagasta, Chile, 2,140
Apia, Samoa, 5,710
Apra, Guam, 7,988
Arica, Chile, 1,921
Auckland, New Zealand, 6,516
Avarua, Cook Islands, 5,092
Bahia de Samana, Dominican Republic, 1,015
Bahia Blanca, Argentina, 5,776
Bahia de las Calderas, Dominican Republic, 810
Baie Taio-Hae, Marquesa Islands, 3,826
Moa, Cuba, 853
Baltimore, Maryland, U.S.A. (via Windward Passage and Crooked Island Passage), 1,944
Barahona, Dominican Republic, 796
Barbers Point, Hawaii, U.S.A., 4,694
Barcelona, Venezuela, 1,014
Belize, Belize, 859
Bikini, Marshall Islands, 4,915
Boca de Tanamo, Cuba, 869
Bocas del Toro, Panama, 187
Bordeaux, France (via Mona Passage), 4,641
Boston, Massachusetts, U.S.A. (via Crooked Island Passage), 2,200
Bridgeport, Connecticut, U.S.A., 2,118
Bridgetown, Barbados, 1,280
Brisbane, Australia, 7,687
Brunswick, Georgia, U.S.A., 1,581
Buenaventura, Colombia, 352
Cabedelo, Brazil, 3,149

Caibarien, Cuba, 1,138
Caldera, Chile, 2,302
Caleta Olivia, Argentina, 6,204
Callao, Peru, 1,350
Campeche, Mexico, 1,210
Cap-Haitien, Haiti, 860
Cape Town, South Africa, 6,508
Carmen, Mexico, 1,289
Cartagena, Colombia, 324
Casilda, Cuba, 792
Catia la Mar, Venezuela, 873
Champerico, Guatemala, 954
Charleston, South Carolina, U.S.A., 1,607
Charlotte Amalie, Virgin Islands, 1,072
Charlottetown, Canada, 2,578
Chimbote, Peru, 1,158
Christmas Island, Line Islands, 4,751
Cienfuegos, Cuba, 815
Coatzacoalcos, Mexico, 1,420
Colon, Panama, 44
Comodoro Rivadavia, Argentina, 6,185
Coquimbo, Chile, 2,448
Corinto, Nicaragua, 683
Covenas, Colombia, 308
Dagu, China (via Osumi Kaikyo), 9,002
Dagu, China (via Tsugaru-Kaikyo), 8,786
Dakar, Senegal, 3,738
Dalian, China (via Osumi Kaikyo), 8,843
Dalian, China (via Tsugaru-Kaikyo), 8,627
Dutch Harbor, Alaska, U.S.A., 5,246
Enderbury Island, Phoenix Islands, 5,599
Eniwetak, Marshall Islands, 7,086
Ensenada, Mexico, 2,791
Esmeraldas, Ecuador, 472
Fanning Island, 4,805
Fort de France, Martinique, 1,202
Fort Liberte, Haiti, 881
Funafuti, Tuvalu, 6,217
Galveston, Texas, U.S.A., 1,536
Georgetown, Guyana, 1,558
Golfito, Costa Rica, 334
Gonaives, Haiti, 805
Guantanamo, Cuba, 732
Guayaquil, Ecuador, 824
Guaymas, Mexico, 2,370
Guiria, Venezuela, 1,200
Gulfport, Mississippi, U.S.A. (northbound), 1,431
Hakodate, Japan, 7,417
Halifax, Canada, 2,338
Hamilton, Bermuda, 1,702
Hilo, Hawaii, U.S.A., 4,527
Ho Chi Minh, Vietnam, 10,017
Hobart, Tasmania, 7,630
Hong Kong, China, 9,195
Honolulu, Hawaii, U.S.A., 4,685
Iloilo, Philippines, 9,235
Incheon, South Korea, 8,474
Iquique, Chile, 1,987
Isabel Segunda, Isla de Vieques, 1,060
Jacksonville, Florida, U.S.A., 1,559
Jaluit, Marshall Islands, 6,666
Jarvis Island, 1,173
Johnston Island, 5,359
Kahului, Hawaii, U.S.A., 4,605
Kaneohe Bay, Hawaii, U.S.A., 4,686
Kaunakakai, Hawaii, U.S.A., 4,633
Key West, Florida, U.S.A., 1,108

Kingston, Jamaica, 594
Kobe, Japan, 7,964
Kodiak, Alaska, U.S.A., 4,907
La Ceiba, Honduras, 709
La Guaira, Venezuela, 884
La Libertad, Ecuador, 674
La Libertad, El Salvador, 806
La Palma, Panama, 104
La Romana, Dominican Republic, 889
La Union, El Salvador, 748
Les Cayes, Haiti, 688
Levuka, Fiji Islands, 6,288
Limon, Costa Rica, 234
Los Angeles, California, U.S.A., 2,913
Lota, Chile, 2,825
Lucea, Jamaica, 579
Makassar, Sulawesi (via Selat Sagewin and Selat Salajar), 9,855
Malakal, Palau Islands, 8,674
Manila, Philippines (via Balintang Channel), 9,347
Manila, Philippines (via San Bernardino Strait), 9,370
Manzanillo, Cuba, 732
Mar del Plata, Argentina, 5,543
Maracaibo, Venezuela, 737
Matagorda Bay, Texas, U.S.A., 1,558
Matarani, Peru, 1,790
Mazatlan, Mexico, 2,006
Melbourne, Australia (via Foveaux Strait), 7,928
Midway Island, 5,707
Miller Anchorage, Bahamas, 1,115
Montecristi, Dominican Republic, 881
Monterey, California, U.S.A., 3,165
Montevideo, Uruguay, 5,379
Nagasaki, Japan (east of Honshu), 8,200
Nagasaki, Japan (west of Honshu), 8,299
Naknek, Alaska, U.S.A., 5,604
Nassau, Bahamas (via Windward Passage), 1,210
New Amsterdam, Guyana, 1,581
New Haven, Connecticut, U.S.A., 2,106
New Orleans, Louisiana, U.S.A. (northbound via South Pass), 1,444
New York, New York, U.S.A. (via Windward Passage and Crooked Island Passage), 2,018
Newcastle, Australia, 7,654
Nicaro, Cuba, 881
Nikolayevsk-Na-Amure, Russia (south of Aleutian Islands), 7,293
Nikolayevsk-Na-Amure, Russia (via Unimak Passage), 7,296
Nome, Alaska, U.S.A., 5,834
Norfolk, Virginia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,822
Noumea, New Caledonia, 6,982
Nukualofa, Tonga Islands, 5,953
Ocean Island, 6,724
Omura, Japan, 7,766
Oranjestad, Aruba, 661
Osaka, Japan, 7,969
Paamiut (Frederikshaab), Greenland, 3,558
Pago Pago, American Samoa, 5,656
Papeete, French Polynesia, 4,493
Paramaribo, Suriname, 1,691
Paranagua, Brazil, 4,607

* JUNCTION POINT.—See Preface for use of junction points

Pearl Harbor, Hawaii, U.S.A., 4,692
 Pedregal, Panama, 308
 Petropavlovsk-Kamchatskiy, Russia, 6,492
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage.), 1,989
 Pisco, Peru, 1,458
 Pointe a Pitre, Guadeloupe, 1,211
 Ponape, Caroline Islands, 7,321
 Ponce, Puerto Rico, 976
 Port au Prince, Haiti, 817
 Port Antonio, Jamaica, 625
 Port Castries, St. Lucia, 1,203
 Port Hueneme, California, U.S.A., 2,958
 Port Limon, Costa Rica, 218
 Port Newark, New Jersey, U.S.A., 2,021
 Port Pirie, Australia, 8,467
 Port of Spain, Trinidad, 1,202
 Portland, Maine, U.S.A. (via Crooked Island Passage), 2,241
 Portland, Oregon, U.S.A., 3,869
 Porto Alegre, Brazil, 5,148
 Prince Rupert, Canada, 4,303
 Progreso, Mexico, 1,069
 Puerto de Hierro, Venezuela, 1,192
 Puerto la Cruz, Venezuela, 1,016
 Puerto Armuelles, Panama, 306
 Puerto Barrios, Guatemala, 823
 Puerto Bolivar, 774
 Puerto Cabello, Venezuela, 845
 Puerto Cabezas, Nicaragua, 390
 Puerto Cortez, Honduras, 776
 Puerto Desado, Argentina, 6,222
 Puerto Madryn, Argentina, 6,012
 Puerto Manati, Cuba, 959
 Puerto Montt, Chile, 3,177
 Puerto Padre, Cuba, 948
 Puerto Sandino, Nicaragua, 649
 Puerto Sucre, Venezuela, 1,035
 Puerto Vita, Cuba, 915
 Punta Cardon, Venezuela, 674
 Puntarenas, Costa Rica, 471
 Quepos, Costa Rica, 415
 Qingdao, China, 8,575
 Rabaul, Papua New Guinea, 7,807
 Raoul Island, Kermadec Islands, 6,125
 Rio Gallegos, Argentina, 6,455
 Rio Haina, Dominican Republic, 845
 Roosevelt Roads, Puerto Rico, 1,054
 Rotoava, Iles Tuamotu, 4,256
 Salaverry, Peru, 1,109
 Salina Cruz, Mexico, 1,170
 Salvador, Brazil, 3,741
 San Antonio, Chile, 2,644
 San Diego, California, U.S.A., 2,843
 San Felix, Venezuela, 1,535
 San Francisco, California, U.S.A., 3,245
 San Jose, Guatemala, 886
 San Juan del Sur, Nicaragua, 590
 San Juan, Peru, 1,590
 San Juan, Puerto Rico, 1,036
 San Lorenzo, Honduras, 762
 Santa Barbara, California, U.S.A., 2,980
 Santa Cruz del Sur, Cuba, 731
 Santa Maria, Cuba, 814
 Santa Rosalia, Mexico, 2,390
 Santiago de Cuba, Cuba, 726
 Santo Domingo, Dominican Republic, 846
 Santos, Brazil, 4,609
 Savannah, Georgia, U.S.A. (via Windward Passage and Crooked

Island Passage), 1,606
 Seattle, Washington, U.S.A., 4,020
 Seward, Alaska, U.S.A., 4,916
 Shanghai, China (via Osumi Kaikyo), 8,648
 Shanghai, China (via Tsugaru-Kaikyo), 8,566
 Shimonoseki, Japan (east of Honshu), 8,153
 Shimonoseki, Japan (west of Honshu), 8,081
 Sitka, Alaska, U.S.A., 4,524
 Skagway, Alaska, U.S.A., 4,739
 St. Gorges, Grenada, 1,161
 St. John, Canada, 2,361
 St. John's, Canada, 2,742
 St. Marc, Haiti, 796
 Suva, Fiji Islands, 6,325
 Swan Island, Honduras, 605
 Sweeper Cove, Alaska, U.S.A., 5,586
 Sydney, Australia, 7,674
 Talara, Peru, 826
 Talcahuano, Chile, 2,805
 Taltal, Chile, 2,225
 Tampico, Mexico, 1,528
 Tela, Honduras, 749
 Tocopilla, Chile, 2,068
 Truk, Caroline Islands, 7,685
 Turbo, Colombia, 311
 Turiamo, Venezuela, 858
 Tuxpan, Mexico, 1,498
 Unalakleet, Alaska, U.S.A., 5,967
 Valparaiso, Chile, 2,616
 Vancouver, Canada, 4,032
 Veracruz, Mexico, 1,463
 Victoria, Canada, 3,962
 Vladivostok, Russia (north of Aleutian Islands, and La Perouse Strait), 7,757
 Vladivostok, Russia (south of Aleutian Islands, and La Perouse Strait), 7,739
 Vladivostok, Russia (via Tsugaru-Kaikyo), 7,833
 Vladivostok, Russia, 8,340
 Wake Island, 6,673
 Washington, D.C., U.S.A., 1,957
 Wellington, New Zealand, 6,505
 Whittier, Alaska, U.S.A., 4,958
 Willemstad, Curacao, 742
 Wilmington, North Carolina, U.S.A., 1,656
 Weonsan, North Korea, 8,038
 Wotho, Marshall Islands, 4,882
 Xiamen, China (via Osumi Kaikyo), 8,943
 Xiamen, China (via Tsugaru-Kaikyo), 8,959
 Yokohama, Japan, 7,682
 Zamboanga, Philippines, 9,431

PANAMBURU, INDIA
 (12°57'00"N., 74°48'20"E.) See New Mangalore.

PANJANG, INDONESIA
 (6°28'22"S., 105°18'58"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,829
 Selat Lombok, Indonesia, 718
 Singapore, 574
 Selat Sunda, Indonesia, 51
 Torres Strait, Australia, 2,259

Ports

Cebu, Philippines (via Balabac Strait), 1,654
 Ho Chi Minh, Vietnam (via Gaspar

Strait), 1,096
 Kota Kinabalu, Malaysia (via Gaspar Strait), 1,063
 Masbate, Philippines (via Gaspar Strait), 1,738
 Sandakan, Sabah (via Balabac and Gaspar Straits), 1,363
 Tawau, Malaysia (via Makasar), 345

PANSIO, FINLAND
 (60°26'12"N., 22°08'54"E.) Use Turku distances.

PAPEETE, TAHITI, FRENCH POLYNESIA
 (17°32'00"S., 149°34'00"W.) to:

Junction Points*

Panama, Panama, 4,493
 Punta Arenas, Chile, 4,233
 Torres Strait, Australia, 4,053
 Wilson Promontory, Australia, 3,546

Ports

Acapulco, Mexico, 3,595
 Apia, Samoa, 1,301
 Apra, Guam, 4,335
 Auckland, New Zealand, 2,216
 Avarua, Cook Islands, 618
 Baie Taio-Hae, Marquesa Islands, 761
 Brisbane, Australia, 3,234
 Callao, Peru, 4,192
 Chimbote, Peru, 4,157
 Christmas Island, Line Islands, 1,266
 Dagu, China, 6,281
 Dutch Harbor, Alaska, U.S.A., 4,400
 Funafuti, Tuvalu, 1,910
 Guayaquil, Ecuador, 4,237
 Hakodate, Japan, 5,249
 Ho Chi Minh, Vietnam, 6,443
 Hobart, Tasmania, 3,563
 Hong Kong, China, 6,132
 Honolulu, Hawaii, U.S.A., 2,381
 Johnston Island, 2,371
 Kodiak, Alaska, U.S.A., 4,532
 Levuka, Fiji Islands, 1,831
 Los Angeles, California, U.S.A., 3,671
 Manila, Philippines, 5,728
 Melbourne, Australia, 3,691
 Midway Island, 3,190
 Nagasaki, Japan, 5,572
 Noumea, New Caledonia, 2,497
 Nukualofa, Tonga Islands, 1,468
 Ocean Island, 2,609
 Pago Pago, American Samoa, 1,236
 Petropavlovsk-Kamchatskiy, Russia, 5,009
 Ponape, Caroline Islands, 3,430
 Qingdao, China, 6,046
 Rabaul, Papua New Guinea, 3,527
 Raoul Island, Kermadec Islands, 1,706
 Rotoava, Iles Tuamotu, 244
 San Diego, California, U.S.A., 3,554
 San Francisco, California, U.S.A., 3,663
 Seattle, Washington, U.S.A., 4,296
 Seward, Alaska, U.S.A., 4,661
 Shanghai, China, 5,907
 Sitka, Alaska, U.S.A., 4,537
 Suva, Fiji Islands, 1,838
 Sydney, Australia, 3,308

Truk, Caroline Islands, 3,788
 Valparaiso, Chile, 4,254
 Vladivostok, Russia, 5,663
 Wake Island, 3,401
 Wellington, New Zealand, 2,348
 Xiamen, China, 6,001
 Yap Island, Caroline Islands, 4,585
 Yokohama, Japan, 5,140

PARADIP, INDIA
 (20°15'10"N., 86°42'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,352
 Cape Leeuwin, Australia, 3,667
 Selat Lombok, Indonesia, 2,707
 Port Said, Egypt, 4,241
 Singapore, 1,529
 Selat Sunda, Indonesia, 2,084
 Torres Strait, Australia, 4,297

Ports

Aden, Yemen, 2,789
 Akyab, Burma, 349
 Bombay, India, 1,727
 Calcutta, India, 186
 Colombo, Sri Lanka, 969
 Port Darwin, Australia, 3,634
 Rangoon, Burma, 724
 Tuticorin, India, 883

PARAMARIBO, SURINAME
 (5°49'20"N., 55°09'00"W.) to:

Junction Points*

Bishop Rock, England, 3,602
 Fastnet Rock, Ireland, 3,554
 Ile d'Ouessant, France, 3,613
 Montreal, Canada (via Strait of Canso), 3,150
 Panama, Panama, 1,691
 Strait of Gibraltar, 3,275
 Straits of Florida (via Mona Passage), 2,014

Ports

Baltimore, Maryland, U.S.A., 2,321
 Belem, Brazil, 747
 Boston, Massachusetts, U.S.A., 2,380
 Bridgetown, Barbados, 496
 Buenos Aires, Argentina, 3,813
 Dakar, Senegal, 2,315
 Georgetown, Guyana, 215
 Hamilton, Bermuda, 1,694
 La Guaira, Venezuela, 832
 Natal, Brazil, 1,476
 New York, New York, U.S.A., 2,334
 Philadelphia, Pennsylvania, U.S.A., 2,327
 Pointe a Pitre, Guadeloupe, 737
 Port of Spain, Trinidad, 546
 Puerto Cabello, Venezuela, 887
 Rio de Janeiro, Brazil, 2,713
 St. Georges, Grenada, 560
 St. John's, Canada, 2,518
 Willemstad, Curacao, 955
 Wilmington, North Carolina, U.S.A., 2,148

PARANAGUA, BRAZIL
 (25°30'00"S., 48°31'00"W.) to:

* **JUNCTION POINT.—**See Preface for use of junction points

78 PARANAM, SURINAME

<p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 3,496 Panama, Panama, 4,607 Punta Arenas, Chile, 2,001</p> <p>Ports</p> <p>Montevideo, Uruguay, 797 Santos, Brazil, 163</p> <p>PARANAM, SURINAME (5°36'30"N., 55°05'12"W.) Add 21 miles to Paramaribo distances.</p> <p>PARRSBORO, CANADA (45°22'00"N., 64°18'00"W.) to:</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 349 Halifax, Canada, 330 New York, New York, U.S.A., 591 Norfolk, Virginia, U.S.A., 784 Philadelphia, Pennsylvania, U.S.A., 743 St. John, Canada, 80 Sydney, Canada, 545</p> <p>PASADENA, TEXAS, U.S.A. (29°43'00"N., 95°13'00"W.) Subtract 5 miles from Houston distances.</p> <p>PASAJES DE SAN JUAN, SPAIN (43°19'30"N., 1°55'00"W.) See Puerto de Pasajes.</p> <p>PASCAGOULA, MISSISSIPPI, U.S.A. (30°21'00"N., 88°34'00"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 469 Yucatan Channel, 554</p> <p>Ports</p> <p>Campeche, Mexico, 676 Coatzacoalcas, Mexico, 860 Tampico, Mexico, 780</p> <p>PATRAI, GREECE (38°15'08"N., 21°43'53"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt (south of Greece), 762 Port Said, Egypt (via Corinth Canal), 690 Strait of Gibraltar, 1,350</p> <p>Ports</p> <p>Civitavecchia, Italy, 612 Constanta, Romania (via Corinth Canal), 653 Constanta, Romania (south of Greece), 811 Derince, Turkey (south of Greece), 648 Derince, Turkey (via Corinth Canal), 489 Iskenderun, Turkey (south of Greece), 846 Iskenderun, Turkey (via Corinth Canal), 748</p>	<p>Kerch, Ukraine (south of Greece), 1,049 Kerch, Ukraine (via Corinth Canal), 890 Kerkira, Greece, 138 Larnaca, Cyprus (south of Greece), 750 Larnaca, Cyprus (via Corinth Canal), 658 Mersin, Turkey (south of Greece), 789 Mersin, Turkey (via Corinth Canal), 690 Napoli, Italy, 485 Nice, France, 825 Pula, Croatia, 555</p> <p>PAULILLAC, FRANCE (45°12'00"N., 0°43'45"W.) Subtract 24 1/2 miles from Bordeaux distances.</p> <p>PEARL HARBOR, HAWAII, U.S.A. (21°20'00"N., 157°58'20"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 4,692</p> <p>Ports</p> <p>Amapala, Honduras, 4,045 Christmas Island, Line Islands, 1,157 Eniwetak, Marshall Islands, 2,347 Jaluit, Marshall Islands, 2,101 Los Angeles, California, U.S.A., 2,233 San Diego, California, U.S.A., 2,285</p> <p>PECHENGA, RUSSIA (69°35'00"N., 31°17'00"E.) to:</p> <p>Junction Points*</p> <p>Skagens Odde, Denmark, 1,325</p> <p>Ports</p> <p>Kirkens, Norway, 53 Longyearbyen, Svalbard, 638 Narvik, Norway, 500 Reykjavik, Iceland, 1,460</p> <p>PEI-HAI, CHINA (20°29'00"N., 109°02'00"E.) See Beihai, China.</p> <p>PEMBA, MOZAMBIQUE (12°58'14"S., 40°29'23"E.) See Porto Amelia.</p> <p>PENANG, MALAYSIA (5°25'00"N., 100°21'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 5,291 Port Said, Egypt, 4,733 Singapore, 367</p> <p>Ports</p> <p>Aden, Yemen, 3,344 Akyab, Burma, 1,215 Al Basrah, Iraq, 3,598 Al Manamah, Bahrain, 3,361 Bassein, Burma, 786 Beira, Mozambique (north of</p>	<p>Madagascar), 4,232 Berbera, Somalia (South of Socotra), 3,358 Bombay, India, 2,154 Bushehr, Iran, 3,417 Calcutta, India, 1,294 Calicut, India, 1,654 Chalna, Bangladesh, 1,228 Chittagong, Bangladesh, 1,167 Colombo, Sri Lanka, 1,285 Dar es Salaam, Tanzania, 3,754 Diego Garcia, Chagos Archipelago, 1,905 Durban, South Africa, 4,584 East London, South Africa, 4,794 Fort Dauphin, Madagascar, 3,687 Kakinada, India, 1,273 Karachi, Pakistan, 2,595 Madras, India, 1,283 Majunga, Madagascar, 3,557 Malacca, Malaysia, 252 Maputo, Mozambique (South of Madagascar), 4,481 Melbourne, Australia, 4,181 Mocambique, Mozambique, 3,792 Mombasa, Kenya, 3,699 Mosselbaai, South Africa, 5,096 Phuket, Thailand, 187 Port Elizabeth, South Africa, 4,921 Port Louis, Mauritius, 3,042 Port Swettenham, Malaysia, 172 Rangoon, Burma, 757 Sabang, Indonesia, 313 Tamatave, Madagascar, 3,387 Tanga, Tanzania (north of Pemba Island), 3,749 Telukbayur, Indonesia, 931 Victoria, Seychelles, 2,779 Zanzibar, Tanzania, 3,772</p> <p>PENARTH, WALES (51°26'45"N., 3°10'00"W.) Subtract 1 mile from Cardiff distances.</p> <p>PENNINGTON TERMINAL, NIGERIA (4°14'40"N., 5°36'45"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 4,092 Cape of Good Hope, South Africa, 2,434 Fastnet Rock, Ireland, 3,998 Grand Banks South, 4,065 Ile d'Ouessant, France, 3,929 Inishtrahull, Ireland, 4,262 Panama, Panama, 5,153 Pentland Firth, Scotland, 4,821 Punta Arenas, Chile, 5,214 Strait of Gibraltar, 3,676 Straits of Florida, 5,325 Yucatan Channel, 5,474</p> <p>Ports</p> <p>Abidjan, Ivory Coast, 585 Accra, Ghana, 356 Boma, Congo, 762 Cape Town, South Africa, 2,405 Dakar, Senegal, 1,712 Freetown, Sierra Leone, 1,250 Jacksonville, Florida, U.S.A., 5,246 Lisboa, Portugal, 3,235 Monrovia, Liberia, 1,030 New York, New York, U.S.A., 4,974 Port of Spain, Trinidad, 4,023 Recife, Brazil, 2,533 Tangier, Morocco, 3,171</p>	<p>Villa Cisneros, Western Sahara, 2,274</p> <p>PENSACOLA, FLORIDA, U.S.A. (30°24'00"N., 87°13'00"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 431 Yucatan Channel, 531</p> <p>Ports</p> <p>Belize, Belize, 826 Campeche, Mexico, 670 Carmen, Mexico, 745 Cienfuegos, Cuba, 825 Coatzacoalcas, Mexico, 836 Colon, Panama, 1,344 La Habana, Cuba, 515 Limon, Costa Rica, 1,265 Tampico, Mexico, 759 Tuxpan, Mexico, 785 Veracruz, Mexico, 831</p> <p>PENTLAND FIRTH, SCOTLAND* (58°42'00"N., 3°20'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 636 Cape of Good Hope, South Africa, 6,389 Fastnet Rock, Ireland (east of Ireland), 625 Fastnet Rock, Ireland (west of Ireland), 578 Grand Banks South, 1,998 Ile d'Ouessant, France, 872 Inishtrahull, Ireland, 272 Montreal, Canada (via Strait of Belle Isle), 2,614 Nord-Ostsee-Kanal (East Entrance), Germany, 565 Punta Arenas, Chile, 7,563 Skagens Odde, Denmark, 450 Strait of Gibraltar, 1,598 Straits of Florida, 4,012</p> <p>Ports</p> <p>Aasiaat (Egedesminde), Greenland, 1,925 Akureyri, Iceland, 702 Amsterdam, Netherlands, 481 Antwerp, Belgium, 553 Ardrossan, Scotland, 282 Arendal, Norway, 452 Argentia, Canada, 2,012 Arkhangel'sk, Russia, 1,663 Avonmouth, England, 624 Baltimore, Maryland, U.S.A., 3,365 Barrow in Furness, England, 427 Belem, Brazil, 4,219 Belfast, Northern Ireland, 341 Bergen, Norway, 296 Berlevag, Norway, 1,150 Blyth, England, 290 Boston, Massachusetts, U.S.A., 2,900 Bremerhaven, Germany, 507 Buenos Aires, Argentina, 6,491 Cairn Ryan, Scotland, 340 Camp Lloyd, Greenland, 1,828 Cardiff, Wales, 609 Charleston, South Carolina, U.S.A., 3,506 Charlotte Amalie, Virgin Islands, 3,616 Churchill, Canada (via 75 miles off</p>
--	--	---	--

* JUNCTION POINT.—See Preface for use of junction points

Kap Farvel), 2,820
 Cienfuegos, Cuba, 4,229
 Cobh, Ireland, 578
 Colon, Panama (via Mona Passage), 4,594
 Dakar, Senegal, 2,794
 Den Helder, Netherlands, 447
 Douglas, Isle of Man, 397
 Dublin, Ireland, 427
 Dundee, Scotland, 179
 Dunkerque, France, 525
 Egersund, Norway, 298
 Emden, Germany, 484
 Esbjerg, Denmark, 443
 Farsund, Norway, 332
 Fishguard, Wales, 497
 Fleetwood, England, 437
 Flekkefjorden, Norway, 325
 Fredrikstad, Norway, 531
 Freetown, Sierra Leone, 3,272
 Funchal, Madeira Island, 1,714
 Georgetown, Guyana, 4,001
 Glasgow, Scotland (via The Minch), 384
 Guantánamo, Cuba, 3,864
 Hakonsvern, Norway, 287
 Halifax, Canada, 2,580
 Hamburg, Germany, 555
 Hamilton, Bermuda, 2,921
 Hirtshals, Denmark, 429
 Holyhead, Wales, 422
 Horta, Azores, 1,575
 Hvalfjörður, Iceland, 660
 Ilulissat (Jakobshavn), Greenland, 1,972
 Ivittuut, Greenland (direct), 1,440
 Ivittuut, Greenland (via 75 miles off Kap Farvel), 1,510
 Jacksonville, Florida, U.S.A., 3,677
 Kangerluarsorseq, Greenland, 1,597
 Keflavik, Iceland, 671
 Key West, Florida, U.S.A., 3,952
 Kingston, Jamaica, 4,027
 Kragerø, Norway, 441
 Kristiansand, Norway, 371
 La Habana, Cuba, 4,018
 Larvik, Norway, 461
 Lillesand, Norway, 390
 Limerick, Ireland, 538
 Lisboa, Portugal, 1,341
 Liverpool, England (north of Isle of Man), 451
 Liverpool, England (south of Isle of Man), 460
 London, England, 536
 Londonderry, Northern Ireland, 310
 Mandal, Norway, 351
 Maniitsoq, Greenland, 1,700
 Methil, Scotland, 246
 Miami, Florida, U.S.A., 3,821
 Middlesbrough, England, 326
 Molde, Norway, 412
 Mosjøen, Norway, 651
 Namsos, Norway, 615
 Nanortalik, Greenland, 1,291
 Narsarsuaq, Greenland, 1,384
 New London, Connecticut, U.S.A., 2,990
 New York, New York, U.S.A., 3,071
 Newcastle, England, 265
 Norfolk, Virginia, U.S.A., 3,244
 Nuuk (Godthab), Greenland, 1,630
 Oostende, Belgium, 509
 Oslo, Norway, 524
 Philadelphia, Pennsylvania, U.S.A., 3,224
 Port au Prince, Haiti, 3,898
 Port of Spain, Trinidad, 3,913
 Port Castries, St. Lucia, 3,704

Providence, Rhode Island, U.S.A., 2,979
 Qanaaq (Thule), Greenland, 2,456
 Qasigianniguit, Greenland, 1,963
 Recife, Brazil, 4,319
 Reykjavik, Iceland, 687
 Rio de Janeiro, Brazil, 5,391
 Risør, Norway, 429
 Rosyth, Scotland, 263
 Rotterdam, Netherlands, 495
 San Juan, Puerto Rico, 3,645
 Sandefjorden, Norway, 518
 Santa Cruz de Tenerife, Canary Islands, 1,952
 Savannah, Georgia, U.S.A., 3,594
 Seaham Harbor, England, 259
 Seydisfjörður, Iceland, 500
 Shoreham By Sea, England, 633
 Sisimiut, Greenland, 1,802
 Skien, Norway, 466
 Stornoway, Scotland, 54
 Sunderland, England, 304
 Swansea, Wales, 578
 Tonsberg, Norway, 532
 Torshavn, Faroe Islands, 224
 Tvedestrand, Norway, 421
 Upernavik, Greenland, 2,164
 Vardo, Norway, 1,253
 Washington, D.C., U.S.A., 3,379
 Wilhelmshaven, Germany, 501
 Wilmington, North Carolina, U.S.A., 3,450
 Zeebrugge, Belgium, 505

PEPEL, SIERRA LEONE
 (8°34'58"N., 13°04'00"W.) to:

Junction Points*

Bishop Rock, England, 2,688
 Cape of Good Hope, South Africa, 3,594
 Fastnet Rock, Ireland, 2,753
 Grand Banks South, 2,828
 Ile d'Ouessant, France, 2,648
 Inishtrahull, Ireland, 3,053
 Panama, Panama, 3,977
 Pentland Firth, Scotland, 3,383
 Punta Arenas, Chile, 5,042
 Strait of Gibraltar, 1,991
 Straits of Florida, 4,118
 Yucatan Channel, 4,257

Ports

Accra, Ghana, 924
 Boston, Massachusetts, U.S.A., 3,681
 Cristobal, Panama, 3,991
 Dakar, Senegal, 479
 Freetown, Sierra Leone, 11
 Galway, Ireland, 2,937
 Lagos, Nigeria, 1,142
 Lisboa, Portugal, 2,002
 Lomé, Togo, 1,019
 Natal, Brazil, 1,580
 New York, New York, U.S.A., 3,752
 Port of Spain, Trinidad, 2,866
 Takoradi, Ghana, 818

PERTH, AUSTRALIA
 (31°57'30"S., 115°51'00"E.) Add
 12 miles to Fremantle distances.

PETERSBURG, ALASKA, U.S.A.
 (56°58'56"N., 132°57'50"W.) to:

Ports

Dutch Harbor, Alaska, U.S.A., 1,215
 Seattle, Washington, U.S.A., 771
 Valdez, Alaska, U.S.A., 539
 Victoria, Canada, 719

PETROPAVLOVSK-KAMCHATSKIY, RUSSIA
 (53°00'00"N., 158°38'00"E.) to:

Junction Points*

Panama, Panama (via Unimak Pass), 6,492
 Singapore (east of Japan and via Balintang Channel), 4,241
 Singapore (east of Japan and via Osumi Kaikyo and Formosa Strait), 4,293
 Singapore (via Pervyy Kuril'skiy Proliv and La Perouse Strait), 4,194
 Singapore (via Tsugaru-Kaikyo and Formosa Strait), 4,227
 Selat Sunda, Indonesia (via Soya Strait), 4,574
 Selat Wetar, Australia (via Dampier Strait and Selat Manipa), 4,106

Ports

Aleksandrovsk-Sakhalinskiy, Russia (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 1,158
 Apia, Samoa, 4,292
 Apra, Guam, 2,475
 Auckland, New Zealand, 5,466
 Avarua, Cook Islands, 4,951
 Bangkok, Thailand, outer bar (via La Perouse Strait), 4,252
 Bukhta Nagayeva, Russia, 864
 Busan, South Korea (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 1,731
 Cebu, Philippines, 3,101
 Dagu, China (via La Perouse Strait), 2,419
 Dagu, China (via Tsugaru-Kaikyo), 2,444
 Dalian, China (via La Perouse Strait), 2,260
 Dalian, China (via Tsugaru-Kaikyo), 2,285
 Dutch Harbor, Alaska, U.S.A., 1,249
 Hakodate, Japan, 1,075
 Ho Chi Minh, Vietnam (via Chetvertyy Kuril'skiy Proliv, La Perouse Strait and Korea Strait), 3,718
 Hong Kong, China (via Osumi Kaikyo), 2,938
 Hong Kong, China (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,863
 Hong Kong, China (via Tsugaru-Kaikyo), 2,870
 Honolulu, Hawaii, U.S.A., 2,762
 Iloilo, Philippines, 3,123
 Incheon, South Korea (via La Perouse Strait and Maenggol Sudo), 2,120
 Incheon, South Korea (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,114
 Incheon, South Korea (via Tsugaru-Kaikyo), 2,138
 Jakarta, Indonesia (east of Japan,

and via Balintang Channel), 4,530
 Jakarta, Indonesia (via La Perouse Strait), 4,555
 Jaluit, Marshall Islands, 2,883
 Kiska, Alaska, U.S.A., 724
 Kobe, Japan, 1,705
 Levuka, Fiji Islands, 4,518
 Lo hsing-ta Mao-ti, China (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,481
 Los Angeles, California, U.S.A., 3,615
 Manila, Philippines (east of Japan and via Balintang Channel), 3,112
 Manila, Philippines (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 3,117
 Manila, Philippines (via San Bernardino Strait), 3,256
 Manila, Philippines (via Tsugaru-Kaikyo), 3,124
 Matsuga-hana, Japan, 765
 Midway Island, Pacific, 1,831
 Mogpo, South Korea (via La Perouse Strait and Changjuk Sudo), 1,943
 Mogpo, South Korea (via Myongyando), 1,923
 Nagasaki, Japan (via La Perouse Strait), 1,845
 Nagasaki, Japan (via Osumi Kaikyo), 2,039
 Nagasaki, Japan (via Tsugaru-Kaikyo), 1,858
 Nampo, North Korea, 2,214
 Nome, Alaska, U.S.A., 1,317
 Noumea, New Caledonia, 4,587
 Osaka, Japan (via Kii Suido), 1,709
 Pago Pago, American Samoa, 4,350
 Papeete, French Polynesia, 5,009
 Ponape, Caroline Islands, 2,762
 Prince Rupert, Canada (via Unimak Pass), 2,504
 Qingdao, China (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,215
 Qinhuangdao, China (via Chetvertyy Kuril'skiy Proliv, La Perouse Strait, and Maenggol Sudo), 2,360
 Rabaul, Papua New Guinea, 3,555
 San Diego, California, U.S.A., 3,707
 San Francisco, California, U.S.A. (via Unimak Pass), 3,292
 Seattle, Washington, U.S.A. (via Unimak Pass), 2,939
 Seward, Alaska, U.S.A. (via Unimak Pass), 2,065
 Shanghai, China (via La Perouse Strait), 2,200
 Shanghai, China (via Tsugaru-Kaikyo), 2,224
 Shimonoseki, Japan (via Tsugaru-Kaikyo), 1,739
 Sitka, Alaska, U.S.A., 2,314
 Suva, Fiji Islands, 4,460
 Tomari, Japan, 822
 Vladivostok, Russia (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 1,348
 Weihai, China (via Maenggol Sudo), 2,192
 Weihai, China (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,215
 Weonsan, North Korea, 1,609
 Xiamen, China (via La Perouse Strait), 2,596

* **JUNCTION POINT.**—See Preface for use of junction points

80 PEVEK, RUSSIA

Xiamen, China (via Osumi Kaikyo), 2,684
 Xiamen, China (via Tsugaru-Kaikyo), 2,617
 Yantai, China (via Maenggol Sudo), 2,226
 Yantai, China (via Chetverty Kuril'skiy Proliv and La Perouse Strait), 2,249
 Yantai, China (via Tsugaru-Kaikyo), 2,263
 Yokohama, Japan, 1,422

PEVEK, RUSSIA
 (69°43'40"N., 170°28'00"E.) to:

Ports

Ambarchik, Russia, 201
 Nome, Alaska, U.S.A., 700
 Provideniya, Russia, 719
 Tiksi, Russia., 854

PHILADELPHIA, PENNSYLVANIA, U.S.A.
 (39°57'00"N., 75°08'00"W.) to:

Junction Points*

Bishop Rock, England, 3,092
 Cape of Good Hope, South Africa, 6,874
 Fastnet Rock, Ireland, 2,985
 Inishtrahull, Ireland, 3,083
 Montreal, Canada (via Cabot Strait), 1,671
 Panama, Panama, 1,989
 Pentland Firth, Scotland, 3,263
 Punta Arenas, Chile, 6,994
 Strait of Gibraltar, 3,320
 Straits of Florida, 1,150
 Yucatan Channel (outside route), 1,336

Ports

Antilla, Cuba, 1,197
 Argentia, Canada, 1,159
 Arkhangel'sk, Russia, 4,369
 Bahia Blanca, Argentina, 6,201
 Banes, Cuba (via Crooked Island Passage), 1,188
 Baracoa, Cuba, 1,198
 Belem, Brazil, 2,950
 Bocas del Toro, Panama, 2,020
 Bordeaux, France, 3,406
 Brest, France, 3,183
 Bridgetown, Barbados, 1,839
 Buenos Aires, Argentina, 5,918
 Cadiz, Spain, 3,286
 Cap-Haitien, Haiti, 1,245
 Cape Town, South Africa, 6,861
 Cardenas, Cuba, 1,124
 Cartagena, Colombia (via Crooked Island Passage), 1,825
 Charlotte Amalie, Virgin Islands, 1,434
 Charlottetown, Canada, 982
 Cienfuegos, Cuba (via Crooked Island Passage), 1,654
 Colon, Panama (via Crooked Island Passage), 1,946
 Dakar, Senegal, 3,441
 Elizabeth Harbor, Bahamas, 1,018
 Fort de France, Martinique (via Anegada Channel), 1,724
 Freetown, Sierra Leone, 3,862
 Funchal, Madeira Island, 2,901
 Georgetown, Ascension Island, 4,469
 Georgetown, Guyana, 2,223
 Guantanamo, Cuba, 1,284

Halifax, Canada, 746
 Hamilton, Bermuda, 746
 Ivittuut, Greenland, 2,086
 Jacmel, Haiti, 1,461
 Kingston, Jamaica (via Crooked Island Passage), 1,446
 La Guaira, Venezuela, 1,838
 La Habana, Cuba, 1,156
 Lagos, Nigeria, 4,985
 Las Piedras, Venezuela, 1,786
 Les Cayes, Haiti, 1,419
 Limon, Costa Rica (via Crooked Island Passage), 2,019
 Lisboa, Portugal, 3,112
 Liverpool, Canada, 686
 Maracaibo, Venezuela (via Windward Passage), 1,849
 Matanzas, Cuba, 1,147
 Montecristi, Dominican Republic, 1,250
 Montevideo, Uruguay, 5,804
 Murmansk, Russia, 4,042
 Narvik, Norway, 3,880
 Nassau, Bahamas, 930
 Nuevitas, Cuba, 1,243
 Paramaribo, Suriname, 2,327
 Parrsboro, Canada, 743
 Pointe a Pitre, Guadeloupe, 1,658
 Ponce, Puerto Rico, 1,454
 Ponta Delgada, Azores, 2,388
 Porlamar, Venezuela (via Virgin Passage), 1,878
 Port au Prince, Haiti (via Crooked Island Passage), 1,343
 Port of Spain, Trinidad, 1,938
 Port Antonio, Jamaica (via Crooked Island Passage), 1,395
 Port Castries, St. Lucia, 1,753
 Porto Grande, Cape Verde Islands, 3,011
 Puerto la Cruz, Venezuela, 1,900
 Puerto Barrios, Guatemala (via Straits of Florida, southbound), 1,774
 Puerto Cabello, Venezuela (via Mona Passage), 1,845
 Puerto Cortes, Honduras, 1,739
 Puerto Sucre, Venezuela, 1,907
 Recife, Brazil, 3,745
 Reykjavik, Iceland, 2,648
 Rio de Janeiro, Brazil, 4,817
 Salvador, Brazil, 4,136
 San Juan del Norte, Nicaragua (via Crooked Island Passage), 2,004
 San Juan del Norte, Nicaragua (via Straits of Florida, southbound), 2,017
 San Juan, Puerto Rico, 1,395
 Santa Cruz de Tenerife, Canary Islands, 3,062
 Santa Marta, Colombia (via Crooked Island Passage and Windward Passage), 1,755
 Santander, Spain, 3,272
 Santiago de Cuba, Cuba (via Crooked Island Passage), 1,334
 Santo Domingo, Dominican Republic, 1,480
 Santos, Brazil, 5,004
 Sint Nicolaashaven, Aruba, 1,732
 St. Georges, Grenada, 1,848
 St. Helena Island, 5,169
 St. John, Canada (via Nantucket Light Buoy), 698
 St. John, Canada (via Vineyard Sound), 673
 St. John's, Canada, 1,254
 Sydney, Canada, 958
 Vigo, Spain, 3,066
 Vitoria, Brazil, 4,554
 Walvisbaai, Namibia, 6,318
 Willemstad, Curacao, 1,762

Yarmouth, Canada, 616

PHNOM PENH, CAMBODIA
 (11°36'00"N., 104°54'00"E.) Via Vung Tau pilot station (10°20'30"N, 107°04'00"E) Add 157 1/2 miles to Ho Chi Minh distances.

PHUKET, THAILAND
 (7°50'00"N., 98°26'00"E.) to:

Junction Points*

Port Said, Egypt, 4,629
 Singapore, 538

Ports

Calcutta, India, 1,124
 Colombo, Sri Lanka, 1,192
 Penang, Malaysia, 187

PIMENTEL, PERU
 (6°50'00"S., 79°58'00"W.) to:

Ports

Callao, Peru, 363
 Salaverry, Peru, 104
 Talara, Peru, 182

PINA, PANAMA
 (9°20'00"N., 80°05'00"W.) to:

Junction Points*

Yucatan Channel, 816

Ports

Cienfuegos, Cuba, 777
 Kingston, Jamaica, 558
 San Juan, Puerto Rico, 1,219

PIRAIEVS, GREECE
 (37°56'26"N., 23°38'08"E.) to:

Junction Points*

Port Said, Egypt, 599
 Strait of Gibraltar (south of Greece), 1,508
 Strait of Gibraltar (via Corinth Canal), 1,451

Ports

Alexandria, Egypt, 515
 Algiers, Algeria (south of Greece), 1,079
 Algiers, Algeria (via Corinth Canal), 1,022
 Alicante, Spain (south of Greece), 1,246
 Alicante, Spain (via Corinth Canal), 1,186
 Ancona, Italy (south of Greece), 745
 Ancona, Italy (via Corinth Canal), 608
 Annaba, Algeria (south of Greece), 854
 Annaba, Algeria (via Corinth Canal), 797
 Antalya, Turkey, 383
 Banghazi, Libya, 404
 Banzart, Tunisia (south of Greece), 749
 Banzart, Tunisia (via Corinth Canal), 692
 Barcelona, Spain (south of

Greece), 1,172
 Barcelona, Spain (via Corinth Canal), 1,091
 Bari, Italy (south of Greece), 538
 Bari, Italy (via Corinth Canal), 402
 Beirut, Lebanon, 647
 Brindisi, Italy (south of Greece), 480
 Brindisi, Italy (via Corinth Canal), 343
 Cagliari, Sardinia (south of Greece), 820
 Cagliari, Sardinia (via Corinth Canal), 738
 Cannes, France (south of Greece), 1,023
 Cannes, France (via Corinth Canal), 942
 Cartagena, Spain (south of Greece), 1,271
 Cartagena, Spain (via Corinth Canal), 1,214
 Ceuta, Morocco (south of Greece), 1,488
 Ceuta, Morocco (via Corinth Canal), 1,431
 Durres, Albania, 339
 Ermoupolis, Greece, 84
 Famagusta, Cyprus, 604
 Fethiye, Turkey, 305
 Genova, Italy (south of Greece), 978
 Genova, Italy (via Corinth Canal), 896
 Gibraltar (south of Greece), 1,490
 Gibraltar (via Corinth Canal), 1,433
 Haifa, Israel, 650
 Iraklion, Kriti, 175
 Iskenderun, Turkey, 656
 Istanbul, Turkey, 364
 Izmir, Turkey, 210
 Kavala, Greece, 249
 La Spezia, Italy (south of Greece), 942
 La Spezia, Italy (via Corinth Canal), 860
 Larnaca, Cyprus, 566
 Livorno, Italy (south of Greece), 906
 Livorno, Italy (via Corinth Canal), 825
 Malaga, Spain (south of Greece), 1,438
 Malaga, Spain (via Corinth Canal), 1,381
 Marseille, France (south of Greece), 1,069
 Marseille, France (via Corinth Canal), 988
 Mersin, Turkey, 598
 Messina, Sicily (south of Greece), 496
 Messina, Sicily (via Corinth Canal), 414
 Mitilini, Greece, 191
 Napoli, Italy (south of Greece), 667
 Napoli, Italy (via Corinth Canal), 586
 Navplion, Greece, 142
 Odessa, Ukraine, 712
 Oran, Algeria (south of Greece), 1,276
 Oran, Algeria (via Corinth Canal), 1,219
 Palermo, Sicily (south of Greece), 612
 Palermo, Sicily (via Corinth Canal), 531
 Palma, Balearic Islands (south of Greece), 1,131

* **JUNCTION POINT.**—See Preface for use of junction points

Palma, Balearic Islands (via Corinth Canal), 1,049
 Preveza, Greece, 197
 Rethimnon, Kriti, 151
 Rhodes, Greece, 261
 Rijeka, Croatia (south of Greece), 814
 Rijeka, Croatia (via Corinth Canal), 675
 Sarande, Albania, 253
 Savona, Italy (south of Greece), 988
 Savona, Italy (via Corinth Canal), 906
 Sibenik, Croatia (south of Greece), 687
 Sibenik, Croatia (via Corinth Canal), 548
 Siracusa, Sicily (south of Greece), 484
 Siracusa, Sicily (via Corinth Canal), 418
 Soudha, Kriti, 159
 Split, Croatia (south of Greece), 672
 Split, Croatia (via Corinth Canal), 533
 Tarabulus, Libya, 640
 Taranto, Italy (south of Greece), 493
 Taranto, Italy (via Corinth Canal), 363
 Thessaloniki, Greece, 259
 Toulon, France (south of Greece), 1,038
 Toulon, France (via Corinth Canal), 956
 Trieste, Italy (south of Greece), 848
 Trieste, Italy (via Corinth Canal), 709
 Tubruq, Libya, 359
 Tunis, Tunisia (south of Greece), 737
 Tunis, Tunisia (via Corinth Canal), 680
 Valencia, Spain (south of Greece), 1,244
 Valencia, Spain (via Corinth Canal), 1,174
 Valletta, Malta, 524
 Venezia, Italy (south of Greece), 856
 Venezia, Italy (via Corinth Canal), 719
 Vlores, Albania, 295
 Volos, Greece, 200

PISAGUA, CHILE
 (19°34'30"S., 70°14'00"W.) to:

Junction Points*

Panama, Panama, 1,962

Ports

San Francisco, California, U.S.A., 4,593

PISCO, PERU
 (13°43'30"S., 76°14'30"W.) to:

Junction Points*

Panama, Panama, 1,458
 Punta Arenas, Chile, 2,578

Ports

Acapulco, Mexico, 2,309
 Antofagasta, Chile, 713

Arica, Chile, 492
 Caldera, Chile, 880
 Callao, Peru, 128
 Coquimbo, Chile, 1,036
 Corinto, Nicaragua, 1,718
 Esmeraldas, Ecuador, 1,021
 Guayaquil, Ecuador, 788
 Guaymas, Mexico, 3,227
 Iquique, Chile, 560
 Lota, Chile, 1,432
 Monterey, California, U.S.A., 4,017
 Puntarenas, Costa Rica, 1,533
 Salina Cruz, Mexico, 2,117
 San Diego, California, U.S.A., 3,695
 San Francisco, California, U.S.A., 4,097
 San Jose, Guatemala, 1,875
 Santa Barbara, California, U.S.A., 3,832
 Talcahuano, Chile, 1,411
 Valparaiso, Chile, 1,207

PITEA, SWEDEN
 (65°17'40"N., 21°28'20"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 864
 Skagens Odde, Denmark, 925

Ports

Gdynia, Poland, 678
 Sankt-Peterburg, Russia, 678
 Stockholm, Sweden, 402

PLOCE, CROATIA
 (43°03'00"N., 17°25'42"E.) to:

Junction Points*

Port Said, Egypt, 1,132
 Strait of Gibraltar, 1,487

Ports

Ancona, Italy, 167
 Durres, Albania, 214
 Rijeka, Croatia, 230

PLYMOUTH, ENGLAND
 (50°21'40"N., 4°09'10"W.) to:

Junction Points*

Bishop Rock, England, 106
 Ile d'Ouessant, France, 117
 Nord-Ostsee-Kanal (East Entrance), Germany, 639
 Skagens Odde, Denmark, 756

Ports

Aberdeen, Scotland, 638
 Amsterdam, Netherlands, 390
 Antwerp, Belgium, 366
 Bergen, Norway, 819
 Bremerhaven, Germany, 573
 Calais, France, 244
 Dieppe, France, 206
 Dover, England, 229
 Dundee, Scotland, 621
 Dunkerque, France, 264
 Egersund, Norway, 706
 Emden, Germany, 513
 Esbjerg, Denmark, 599
 Fecamp, France, 183
 Funchal, Madeira Island, 1,234
 Granville, France, 149

Hamburg, Germany, 628
 Hartlepool, England, 502
 Hull, England, 442
 Kristiansand, Norway, 717
 Las Palmas, Canary Islands, 1,432
 Le Havre, France, 177
 Leith, Scotland, 619
 London, England, 321
 Newcastle, England, 524
 Oostende, Belgium, 288
 Oslo, Norway, 869
 Rotterdam, Netherlands, 367
 Shoreham By Sea, England, 162
 Southampton, England, 134
 Stavanger, Norway, 746
 Wilhelmshaven, Germany, 557
 Zeebrugge, Belgium, 303

PLYMOUTH, MONTSERRAT
 (16°42'10"N., 62°13'30"W.) to:

Ports

Hamilton, Bermuda, 966
 New York, New York, U.S.A., 1,574
 Pointe a Pitre, Guadeloupe, 84

POHANG, SOUTH KOREA
 (36°02'42"N., 129°23'30"E.) See Bohang, South Korea.

POINT COMFORT, TEXAS, U.S.A.
 (28°35'44"N., 96°33'51"W.) to:

Junction Points*

Straits of Florida, 797
 Yucatan Channel, 761

Ports

Campeche, Mexico, 601
 Coatzacoalcas, Mexico, 650

POINTE A PITRE, GUADELOUPE
 (16°14'00"N., 61°32'30"W.) to:

Junction Points*

Panama, Panama, 1,211
 Straits of Florida (via Mona Passage), 1,348
 Straits of Florida (via Virgin Passage), 1,347
 Yucatan Channel (south of Hispaniola), 1,410

Ports

Baltimore, Maryland, U.S.A., 1,653
 Barranquilla, Colombia, 857
 Basse-Terre, Guadeloupe, 31
 Belize, Belize, 1,578
 Boston, Massachusetts, U.S.A., 1,742
 Campeche, Mexico, 1,806
 Cap-Haitien, Haiti (via Virgin Passage), 702
 Carmen, Mexico, 1,885
 Cartagena, Colombia, 941
 Charleston, South Carolina, U.S.A., 1,443
 Charlotte Amalie, Virgin Islands, 267
 Cienfuegos, Cuba, 1,204
 Colon, Panama, 1,168
 Fort de France, Martinique, 108
 Georgetown, Guyana, 606
 Guantanamo, Cuba, 879

Gulfport, Mississippi, U.S.A. (via Virgin Passage), 1,822
 Key West, Florida, U.S.A. (via Mona Passage), 1,297
 Key West, Florida, U.S.A. (via Virgin Passage), 1,296
 Kingston, Jamaica, 910
 La Guaira, Venezuela, 467
 La Habana, Cuba (via Virgin Passage), 1,308
 Miami, Florida, U.S.A., 1,247
 New York, New York, U.S.A., 1,652
 Norfolk, Virginia, U.S.A., 1,527
 Paramaribo, Suriname, 737
 Philadelphia, Pennsylvania, U.S.A., 1,658
 Plymouth, Montserrat, 84
 Port au Prince, Haiti (south of Hispaniola), 945
 Port of Spain, Trinidad, 358
 Port Castries, St. Lucia, 141
 Puerto Cabello, Venezuela, 520
 Roseau, Dominica, 60
 San Juan del Norte, Nicaragua, 1,345
 San Juan, Puerto Rico, 333
 Santo Domingo, Dominican Republic, 520
 Sint Nicolaashaven, Aruba, 550
 St. John's, Antigua (east of Guadeloupe), 107
 St. John's, Antigua (west of Guadeloupe), 110
 Tuxpan, Mexico, 2,094
 Willemstad, Curacao, 517

POINTE NOIRE, CONGO
 (4°47'00"S., 11°50'00"E.) to:

Ports

Accra, Ghana, 952
 Banjul, Gambia, 2,175
 Boma, Congo, 140
 Douala, Cameroon, 613
 Freetown, Sierra Leone, 1,788
 Lagos, Nigeria, 851
 Libreville, Gabon, 399
 Lobito, Angola, 473
 Lome, Togo, 910
 Luanda, Angola, 266
 Monrovia, Liberia, 1,525
 Port Gentil, Gabon, 341
 Port Harcourt, Nigeria, 677
 Rio Grande, Brazil, 3,938
 Sao Tome, Sao Tome, Gulf of Guinea, 436
 Sekondi, Ghana, 997
 Takoradi, Ghana, 1,001

POLYARNYY, RUSSIA
 (69°12'10"N., 33°29'36"E.)
 Subtract 19 miles from Murmansk distances.

PONAPE, CAROLINE ISLANDS
 (6°59'15"N., 159°13'30"E.) to:

Junction Points*

Panama, Panama, 7,321
 Punta Arenas, Chile, 7,260

Ports

Apia, Samoa, 2,189
 Apra, Guam, 901
 Auckland, New Zealand, 2,813
 Avarua, Cook Islands, 3,001
 Brisbane, Australia, 2,108

* **JUNCTION POINT.**—See Preface for use of junction points

82 PONCE, PUERTO RICO

Callao, Peru, 7,515
 Hakodate, Japan, 2,298
 Hobart, Tasmania, 3,130
 Hong Kong, China, 2,710
 Honolulu, Hawaii, U.S.A., 2,685
 Jaluit, Marshall Islands, 698
 Levuka, Fiji Islands, 2,024
 Malakal, Palau Islands, 1,418
 Melbourne, Australia, 3,078
 Midway Island, Pacific, 1,882
 Nagasaki, Japan, 2,256
 Nonouti, Gilbert Islands, 1,082
 Noumea, New Caledonia, 1,892
 Nukualofa, Tonga Islands, 2,341
 Pago Pago, American Samoa, 2,266
 Papeete, French Polynesia, 3,430
 Petropavlovsk-Kamchatskiy, Russia, 2,762
 Rabaul, Papua New Guinea, 853
 San Francisco, California, U.S.A., 4,641
 Seattle, Washington, U.S.A., 4,696
 Shanghai, China, 2,545
 Sydney, Australia, 2,514
 Truk, Caroline Islands, 383
 Valparaiso, Chile, 7,631
 Yokohama, Japan, 1,998

PONCE, PUERTO RICO
 (17°58'30"N., 66°37'00"W.) to:

Junction Points*

Panama, Panama, 976
 Straits of Florida, 1,020

Ports

Baltimore, Maryland, U.S.A., 1,427
 Boston, Massachusetts, U.S.A., 1,563
 Charleston, South Carolina, U.S.A., 1,168
 Fort de France, Martinique, 381
 Guantanamo, Cuba (north of Hispaniola and via Mona Passage), 540
 Jacksonville, Florida, U.S.A., 1,146
 Key West, Florida, U.S.A., 969
 La Habana, Cuba (via Old Bahama Channel and Mona Passage), 981
 New York, New York, U.S.A., 1,462
 Philadelphia, Pennsylvania, U.S.A., 1,454
 Rio de Janeiro, Brazil, 3,659
 Santiago de Cuba, Cuba (north of Hispaniola, and via Windward Passage), 587
 Santiago de Cuba, Cuba (south of Hispaniola), 599
 Santo Domingo, Dominican Republic, 196
 Savannah, Georgia, U.S.A., 1,180
 Willemstad, Curacao, 399

PONTA DELGADA, AZORES
 (37°44'00"N., 25°40'00"W.) to:

Junction Points*

Bishop Rock, England, 1,103
 Ile d'Ouessant, France, 1,101
 Montreal, Canada, 2,331
 Strait of Gibraltar, 964
 Straits of Florida, 3,052

Ports

Baltimore, Maryland, U.S.A., 2,529
 Banjul, Gambia, 1,551
 Belem, Brazil, 2,678
 Bordeaux, France, 1,256
 Boston, Massachusetts, U.S.A., 2,088
 Buenos Aires, Argentina, 4,975
 Cadiz, Spain, 931
 Cap-Haitien, Haiti, 2,646
 Cape Town, South Africa, 5,040
 Casablanca, Morocco, 915
 Charleston, South Carolina, U.S.A., 2,644
 Colon, Panama, 3,379
 Dakar, Senegal, 1,459
 El Ferrol del Caudillo, Spain, 870
 Freetown, Sierra Leone, 1,941
 Funchal, Madeira Island, 550
 Halifax, Canada, 1,774
 Horta, Azores, 153
 Huelva, Spain, 914
 Las Palmas, Canary Islands, 774
 Lisboa, Portugal, 783
 New York, New York, U.S.A., 2,247
 Norfolk, Virginia, U.S.A., 2,398
 Oporto, Portugal, 815
 Philadelphia, Pennsylvania, 2,388
 Porto Grande, Cape Verde Islands, 1,253
 Recife, Brazil, 2,803
 Rio de Janeiro, Brazil, 3,875
 San Juan, Puerto Rico, 2,412
 Santa Cruz de Tenerife, Canary Islands, 740
 Santo Domingo, Dominican Republic, 2,620
 St. John's, Canada, 1,326
 Vigo, Spain, 828

POOLE, ENGLAND
 (50°43'00"N., 1°59'33"W.) to:

Junction Points*

Bishop Rock, England, 204
 Ile d'Ouessant, France, 190
 Nord-Ostsee-Kanal (East Entrance), Germany, 550
 Pentland Firth, Scotland, 686
 Skagens Odde, Denmark, 690

Ports

Aberdeen, Scotland (via The Sound), 549
 Caen, France, 113
 Dover, England, 134
 Hull, England, 338
 Leith, Scotland, 525
 Oostende, Belgium, 193
 Southampton, England, 34

PORKKALA, FINLAND
 (59°59'06"N., 24°28'06"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 647
 Skagens Odde, Denmark, 697

Ports

Gdynia, Poland, 412
 Riga, Latvia, 284
 Stockholm, Sweden, 216

PORLAMAR, MARGARITA, VENEZUELA
 (10°56'00"N., 63°50'00"W.) to:

Junction Points*

Straits of Florida (via Mona Passage), 1,454
 Yucatan Channel, 1,407

Ports

Cartagena, Colombia, 785
 Colon, Panama, 1,012
 Guantanamo, Cuba, 884
 New York, New York, U.S.A. (via Virgin Passage), 1,879
 Philadelphia, Pennsylvania, U.S.A. (via Virgin Passage), 1,878
 Santa Barbara de Samana, Dominican Republic, 610

PORT ADELAIDE, AUSTRALIA
 (34°50'30"S., 138°30'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,754
 Cape Leeuwin, Australia, 1,165
 Selat Sunda, Indonesia, 2,980
 Wilson Promontory, Australia, 537

Ports

Albany, Australia, 1,024
 Botany Bay, Australia, 957
 Bunbury, Australia, 1,260
 Dampier, Australia, 2,182
 Durban, South Africa, 5,160
 Fremantle, Australia, 1,343
 Geelong, Australia, 518
 Hobart, Tasmania, 756
 Melbourne, Australia, 512
 Newcastle, Australia, 1,028
 Port Darwin, Australia, 3,136
 Port Kembla, Australia, 928
 Port Pirie, Australia, 274
 Strahan, Australia, 593
 Whyalla, Australia, 256

PORT ALICE, CANADA
 (50°22'56"N., 127°27'12"W.) to:

Junction Points*

Panama, Panama, 4,057
 Punta Arenas, Chile, 7,017
 Singapore (via Balintang Channel), 6,989
 Torres Strait, Australia, 6,076
 Wilson Promontory, Australia, 7,074

Ports

Anchorage, Alaska, 1,160
 Callao, Peru, 4,800
 Guaymas, Mexico, 2,304
 Honolulu, Hawaii, 2,281
 Los Angeles, California, 1,185
 Manila, Philippines (via Balintang Channel), 5,684
 Mollendo, Peru, 5,216
 Yokohama, Japan, 3,988

PORT AMELIA, MOZAMBIQUE
 (12°58'14"S., 40°29'23"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,078
 Cape Leeuwin, Australia, 4,546
 Selat Lombok, Indonesia, 4,442
 Port Said, Egypt, 3,558
 Singapore, 4,099
 Selat Sunda, Indonesia, 3,887
 Torres Strait, Australia, 5,976

Ports

Antsirana, Madagascar, 572
 Belawan, Indonesia, 3,777
 Manakara, Madagascar, 1,230
 Port Darwin, Australia, 5,341
 Sabang, Indonesia, 3,459
 Tulear, Madagascar, 651
 Victoria, Seychelles, 1,018

PORT ANGELES, WASHINGTON, U.S.A.
 (48°08'00"N., 123°27'00"W.) to:
 For ocean distances, subtract 60 miles from Seattle distances.

Ports

Nanaimo, Canada, 98
 New Westminster, Canada, 90
 Vancouver, Canada, 93
 Victoria, Canada, 20

PORT ANTONIO, JAMAICA
 (18°11'35"N., 76°27'00"W.) to:

Junction Points*

Panama, Panama, 625
 Straits of Florida, 751
 Yucatan Channel, 536

Ports

Antilla, Cuba, 288
 Baltimore, Maryland, U.S.A. (via Windward Passage and Crooked Island Passage), 1,350
 Boston, Massachusetts, U.S.A. (via Windward Passage and Crooked Island Passage), 1,606
 Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,013
 Gibara, Cuba, 323
 New York, New York, U.S.A., 1,423
 Norfolk, Virginia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,228
 Nuevitas, Cuba, 398
 Philadelphia, Pennsylvania, U.S.A. (via Crooked Island Passage), 1,395
 Savannah, Georgia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,012

PORT ARTHUR, TEXAS, U.S.A.
 (29°52'00"N., 93°56'00"W.) to:

Junction Points*

Straits of Florida, 677
 Yucatan Channel, 681

Ports

Cienfuegos, Cuba (via Yucatan Peninsula), 976
 Coatzacoalcas, Mexico, 708

* **JUNCTION POINT.**—See Preface for use of junction points

Colon, Panama, 1,485
La Habana, Cuba, 749
Nuevitas, Cuba, 1,055
Santiago de Cuba, Cuba (via Yucatan Peninsula), 1,231
Tampico, Mexico, 522
Tuxpan, Mexico, 572
Veracruz, Mexico, 659

PORT AU PRINCE, HAITI
(18°33'30"N., 72°21'30"W.) to:

Junction Points*

Bishop Rock, England, 3,725
Fastnet Rock, Ireland (via Windward Passage), 3,622
Inishtrahull, Ireland (via Windward Passage), 3,750
Panama, Panama, 817
Pentland Firth, Scotland, 3,903
Strait of Gibraltar, 3,757
Straits of Florida, 701
Yucatan Channel, 741

Ports

Baltimore, Maryland, U.S.A., 1,301
Barranquilla, Colombia, 592
Belem, Brazil, 2,258
Belize, Belize (north of Jamaica), 933
Belize, Belize (south of Jamaica), 953
Boston, Massachusetts, U.S.A., 1,557
Bridgetown, Barbados, 1,070
Buenos Aires, Argentina, 5,322
Campeche, Mexico, 1,140
Cap-Haitien, Haiti, 195
Cardenas, Cuba, 603
Carmen, Mexico, 1,219
Cartagena, Colombia, 639
Charleston, South Carolina, U.S.A., 961
Charlotte Amalie, Virgin Islands, 628
Cienfuegos, Cuba, 534
Gonaives, Haiti, 70
Guantanamo, Cuba, 179
Gulfport, Mississippi, U.S.A. (via Windward Passage), 1,176
Halifax, Canada, 1,671
Hamilton, Bermuda, 1,016
Jacmel, Haiti, 271
Key West, Florida, U.S.A. (via Old Bahama Channel), 650
Kingston, Jamaica, 277
La Guaira, Venezuela, 801
La Habana, Cuba, 662
Les Cayes, Haiti, 202
Manzanillo, Cuba, 372
Matanzas, Cuba, 617
Miami, Florida, U.S.A., 643
Nassau, Bahamas, 564
New York, New York, U.S.A., 1,372
Norfolk, Virginia, U.S.A., 1,178
Nuevitas, Cuba, 348
Philadelphia, Pennsylvania, U.S.A. (via Crooked Island Passage), 1,343
Pointe a Pitre, Guadeloupe (south of Hispaniola), 945
Pointe a Pitre, Guadeloupe (via Windward Passage and Mona Passage), 889
Port Castries, St. Lucia (via Windward Passage and Mona Passage), 950
Port of Spain, Trinidad, 1,053

Puerto Cabello, Venezuela, 769
Rio de Janeiro, Brazil, 4,221
San Juan del Norte, Nicaragua, 840
San Juan, Puerto Rico, 552
San Pedro de Macoris, Dominican Republic, 473
Santo Domingo, Dominican Republic, 449
Tuxpan, Mexico, 1,428
Willemstad, Curacao, 647

PORT AUGUSTA, AUSTRALIA
(32°29'40"S., 137°45'30"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,237
Singapore, 3,580

Ports

Hobart, Tasmania, 947
Lyttelton, New Zealand, 2,082
Noumea, New Caledonia, 2,179
Sydney, Australia, 1,164

PORT BLAIR, ANDAMAN ISLANDS
(11°40'00"N., 92°46'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,075
Port Said, Egypt, 4,353
Singapore, 929

Ports

Calcutta, India, 775
Madras, India, 758

PORT CASTRIES, ST. LUCIA
(14°01'00"N., 61°00'00"W.) to:

Junction Points*

Bishop Rock, England, 3,405
Inishtrahull, Ireland, 3,499
Montreal, Canada, 2,642
Panama, Panama, 1,203
Pentland Firth, Scotland, 3,704
Punta Arenas, Chile, 5,451
Strait of Gibraltar, 3,236
Straits of Florida (via Mona Passage), 1,409
Yucatan Channel, 1,452

Ports

Baltimore, Maryland, U.S.A., 1,741
Belem, Brazil, 1,265
Belize, Belize, 1,609
Boston, Massachusetts, U.S.A., 1,812
Bridgetown, Barbados (north of St. Lucia), 110
Bridgetown, Barbados (south of St. Lucia), 115
Brunswick, Georgia, U.S.A., 1,529
Buenos Aires, Argentina, 4,375
Campeche, Mexico, 1,848
Cap-Haitien, Haiti, 767
Carmen, Mexico, 1,927
Cartagena, Colombia, 933
Charleston, South Carolina, U.S.A., 1,532
Charlotte Amalie, Virgin Islands, 346
Cienfuegos, Cuba, 1,246

Colon, Panama, 1,160
Dakar, Senegal, 2,543
Elizabeth Harbor, Bahamas, 1,049
Fort de France, Martinique, 37
Georgetown, Guyana, 482
Guantanamo, Cuba, 922
Halifax, Canada, 1,850
Hamilton, Bermuda, 1,149
Horta, Azores, 2,265
Jacksonville, Florida, U.S.A., 1,520
Key West, Florida, U.S.A. (via Mona Passage), 1,358
Kingston, Jamaica, 950
Kingstown, St. Vincent, 60
La Guaira, Venezuela, 405
La Habana, Cuba (via Mona Passage), 1,370
Limon, Costa Rica, 1,316
Lisboa, Portugal, 3,111
Miami, Florida, U.S.A., 1,352
Montevideo, Uruguay, 4,261
New York, New York, U.S.A., 1,747
Norfolk, Virginia, U.S.A., 1,620
Philadelphia, Pennsylvania, U.S.A., 1,753
Pointe a Pitre, Guadeloupe, 141
Port au Prince, Haiti, 950
Port of Spain, Trinidad (east of Grenadine Islands), 231
Port of Spain, Trinidad (west of Grenadine Islands), 230
Portsmouth, New Hampshire, U.S.A., 1,822
Puerto Cabello, Venezuela, 465
Puerto Cortes, Honduras, 1,578
Recife, Brazil, 2,202
Rio de Janeiro, Brazil, 3,274
Salvador, Brazil, 2,593
San Juan del Norte, Nicaragua, 1,344
San Juan, Puerto Rico (west of Saint Croix and Virgin Passage), 418
Santo Domingo, Dominican Republic, 578
Savannah, Georgia, U.S.A., 1,548
Sint Nicolaashaven, Aruba, 532
St. John's, Antigua, 204
St. Pierre, Martinique, 46
Sydney, Canada, 1,967
Tuxpan, Mexico, 2,136
Willemstad, Curacao, 489

PORT CHALMERS, NEW ZEALAND
(45°48'47"S., 170°37'43"E.) to:

Junction Points*

Panama, Panama, 6,659
Punta Arenas, Chile, 4,548
Torres Strait, Australia, 2,815
Torres Strait, Australia (via Cook Strait), 2,942
Wilson Promontory, Australia, 1,201

Ports

Auckland, New Zealand (via east of New Zealand), 840
Hobart, Tasmania, 1,061
Melbourne, Australia (via Banks Strait), 1,339
Noumea, New Caledonia (via Cook Strait), 1,545

PORT DARWIN, AUSTRALIA
(12°28'30"S., 130°50'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,100
Cape Leeuwin, Australia, 1,978
Selat Lombok, Indonesia (south of Pulau Roti), 926
Port Said, Egypt (via south of Java), 6,743
Selat Sunda, Indonesia (via south of Java), 1,623
Torres Strait, Australia (via Clarence Strait and Dundas Strait), 735
Selat Wetar, Indonesia (via west of Bathurst Island), 326

Ports

Aden, Yemen (via south of Java), 5,356
Al Basrah, Iraq, 5,650
Al Manamah, Bahrain, 5,390
Albany, Australia, 2,152
Aleksandrovsk-Sakhalinskiy, Russia, 4,041
Ambon, Indonesia, 579
Apra, Guam (via Selat Sele), 1,925
Beira, Mozambique, 5,553
Berbera, Somalia, 5,384
Bombay, India, 4,193
Bunbury, Australia, 1,906
Busan, South Korea, 2,937
Bushehr, Iran, 5,446
Calicut, India, 3,683
Colombo, Sri Lanka, 3,320
Dagu, China, 3,363
Dalian, China, 3,204
Dar es Salaam, Tanzania, 5,428
Diego Garcia, Chagos Archipelago, 3,483
Durban, South Africa, 5,561
Dutch Harbor, Alaska, U.S.A., 5,332
East London, South Africa, 5,673
El Ferrol del Caudillo, Spain, 1,843
Fort Dauphin, Madagascar, 4,775
Fremantle, Australia, 1,847
Geraldton, Australia, 1,638
Hakodate, Japan (via Selat Sele), 3,422
Hong Kong, China, 2,363
Incheon, South Korea (via Molluca Passage), 3,072
Jakarta, Indonesia, 1,706
Karachi, Pakistan, 4,653
Kobe, Japan (via Selat Sele), 2,901
Kodiak, Alaska, U.S.A., 5,859
Madras, India, 3,483
Majunga, Madagascar, 5,069
Manila, Philippines, 1,834
Maputo, Mozambique, 5,539
Massawa, Ethiopia (via south of Java), 5,747
Midway Island, 4,188
Mocambique, Mozambique, 5,304
Mogpo, South Korea, 2,916
Mombasa, Kenya, 5,434
Mosselbaai, South Africa, 5,929
Nagasaki, Japan (via Selat Sele), 2,785
Port Elizabeth, South Africa, 5,767
Port Louis, Mauritius (north of Scott Reef), 4,252
Port Louis, Mauritius (south of Scott Reef), 4,246
Qingdao, China, 3,062
San Diego, California, U.S.A., 7,297
San Francisco, California, U.S.A., 6,984
Seattle, Washington, U.S.A., 6,892

* **JUNCTION POINT.**—See Preface for use of junction points

84 PORT DES GALETS, REUNION ISLAND

Shanghai, China, 2,804
Shimonoseki, Japan (via Selat Sele), 2,883
Sitka, Alaska, U.S.A., 6,338
Tamatave, Madagascar, 4,702
Tanga, Tanzania, 5,466
Tjilatjap, Indonesia, 1,321
Truk, Caroline Islands (via Selat Sele), 2,142
Victoria, Seychelles, 4,494
Vinh Cam Ranh, Vietnam, 2,169
Vladivostok, Russia (via Higashi Suido), 3,426
Vladivostok, Russia (via Selat Sele), 3,445
Wake Island, 3,187
Weonsan, North Korea, 3,242
Wyndham, Australia, 274
Xiamen, China, 2,411
Yampi Sound, Australia, 1,457
Yokohama, Japan (via Selat Sele), 2,989
Zamboanga, Philippines, 1,303
Zanzibar, Tanzania, 5,452

PORT DES GALETS, REUNION ISLAND (20°55'15"S., 55°17'30"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,120
Cape Leeuwin, Australia, 3,241
Port Said, Egypt, 3,747
Singapore, 3,450

Ports

Durban, South Africa, 1,418

PORT ETIENNE, MAURITANIA (20°40'00"N., 17°04'12"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,018
Ile d'Ouessant, France, 1,826

Ports

Casablanca, Morocco, 1,032
Dakar, Senegal, 394

PORT EVERGLADES, FLORIDA, U.S.A. (26°05'36"N., 80°04'48"W.) See Fort Lauderdale.

PORT GENTIL, GABON (0°43'00"S., 8°47'30"E.) to:

Ports

Boma, Congo, 470
Cabinda, Cabinda, 393
Douala, Cameroon, 29
Kribi, Cameroon, 231
Pointe Noire, Congo, 341

PORT HARCOURT, NIGERIA (4°46'15"N., 7°00'12"E.) to:

Junction Points*

Ile d'Ouessant, France, 3,974

Ports

Freetown, Sierra Leone, 1,397

Horta, Azores, 3,391
Lagos, Nigeria, 318
Luanda, Angola, 941
Pointe Noire, Congo, 677

PORT HEDLAND, AUSTRALIA (20°17'45"S., 118°34'50"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,225
Cape Leeuwin, Australia, 1,104
Selat Lombok, Indonesia, 715
Port Said, Egypt, 6,187
Selat Sunda, Indonesia, 1,208
Torres Strait, Australia, 1,637

Ports

Aden, Yemen, 4,800
Bombay, India, 3,702
Busan, South Korea (via west of Timor and Korea Strait), 3,484
Colombo, Sri Lanka, 2,833
Fremantle, Australia, 972
Geraldton, Australia, 769
San Francisco, California, U.S.A. (via west of Timor), 7,646

PORT HUENEME, CALIFORNIA, U.S.A. (34°09'00"N., 119°12'24"W.) to:

Junction Points*

Panama, Panama, 2,958

Ports

Ensenada, Mexico, 194
Honolulu, Hawaii, U.S.A., 2,170
Sweeper Cove, Alaska, U.S.A., 2,686
Vancouver, Canada, 1,102

PORT KAMSAR, GUINEA (10°39'00"N., 14°37'00"W.) to:

Junction Points*

Bishop Rock, England, 2,560
Cape of Good Hope, South Africa, 3,294
Fastnet Rock, Ireland, 2,625
Grand Banks South, 2,701
Ile d'Ouessant, France, 2,520
Inishtrahull, Ireland, 2,925
Panama, Panama, 3,863
Pentland Firth, Scotland, 3,256
Punta Arenas, Chile, 5,098
Strait of Gibraltar, 1,867
Straits of Florida, 3,984
Yucatan Channel, 4,143

Ports

Abidjan, Ivory Coast, 834
Agadir, Morocco, 1,422
Belem, Brazil, 2,171
Bordeaux, France, 2,493
Buenos Aires, Argentina, 3,747
Cape Town, South Africa, 3,274
Dakar, Senegal, 330
Freetown, Sierra Leone, 153
Galway, Ireland, 2,692
Libreville, Gabon, 1,652
Monrovia, Liberia, 372
New York, New York, U.S.A., 3,634
San Juan, Puerto Rico, 3,018
Tangier, Morocco, 1,788

Villa Cisneros, Western Sahara, 892

PORT KELANG, MALAYSIA (3°00'00"N., 101°24'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,369
Port Said, Egypt, 4,817
Singapore, 220

Ports

Aden, Yemen, 3,430
Akyab, Sittwe Harbor, Burma, Bombay, India, 2,238
Chittagong, Bangladesh, 1,311
Rangoon, Burma, 911
Trincomalee, Sri Lanka, 1,253

PORT KEMBLA, AUSTRALIA (34°28'30"S., 150°53'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 3,388
Torres Strait, Australia, 1,817

Ports

Hobart, Tasmania, 593
Nukualofa, Tonga Islands, 1,987
Wellington, New Zealand, 1,229

PORT LAVACA, TEXAS, U.S.A. (28°35'44"N., 96°33'51"W.) See Point Comfort.

PORT LEGASPI, PHILIPPINES (13°09'00"N., 123°45'30"E.) See Legaspi Port.

PORT LINCOLN, AUSTRALIA (34°43'00"S., 135°52'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,100
Torres Strait, Australia, 2,811

Ports

Albany, Australia, 953
Hobart, Tasmania, 830
Melbourne, Australia, 588

PORT LOUIS, MAURITIUS (20°09'15"S., 57°29'45"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,266
Cape Leeuwin, Australia, 3,165
Singapore, 3,333
Torres Strait, Australia, 4,933

Ports

Aden, Yemen, 2,341
Albany, Australia, 3,340
Beira, Mozambique, 1,448
Belawan, Indonesia, 2,997
Bombay, India, 2,517
Calcutta, India, 3,212
Colombo, Sri Lanka, 2,098
Durban, South Africa, 1,560

Fort Dauphin, Madagascar, 654
Fremantle, Australia (north of Mauritius), 3,202
Fremantle, Australia (south of Mauritius), 3,217
Malacca, Malaysia, 3,215
Maputo, Mozambique, 1,448
Penang, Malaysia, 3,042
Port Adelaide, Australia, 4,323
Port Darwin, Australia (north of Scott Reef), 4,252
Port Darwin, Australia (south of Scott Reef), 4,246
Sabang, Indonesia, 2,731
Tamatave, Madagascar, 474
Victoria, Seychelles, 943
Wellington, New Zealand, 5,900
Zanzibar, Tanzania, 1,388

PORT MORESBY, PAPUA NEW GUINEA (9°28'45"S., 147°08'40"E.) to:

Junction Points*

Panama, Panama, 8,292
Punta Arenas, Chile (via 50°S.), 6,897
Torres Strait, Australia, 339
Wilson Promontory, Australia, 2,287

Ports

Gladstone Harbor, Australia, 1,389
Koniya, Ryukyu Islands, 3,063
Lae, Papua New Guinea, 1,044
Mackay, Australia, 1,168
Port Pirie, Australia, 2,754
Townsville, Australia, 595

PORT NADOR, MOROCCO (35°17'00"N., 2°56'00"W.) See Melilla.

PORT NECHES, TEXAS, U.S.A. (29°59'35"N., 93°56'20"W.) Add 13 miles to Port Arthur distances.

PORT NEWARK, NEW JERSEY, U.S.A. (40°42'00"N., 74°09'00"W.) For ocean distances, add 4 1/2 miles to New York distances.

PORT OF SPAIN, TRINIDAD (10°38'45"N., 61°31'00"W.) to:

Junction Points*

Bishop Rock, England, 3,603
Cape of Good Hope, South Africa, 5,393
Inishtrahull, Ireland, 3,706
Montreal, Canada (via Cabot Strait), 2,901
Panama, Panama, 1,202
Pentland Firth, Scotland, 3,913
Punta Arenas, Chile, 5,430
Strait of Gibraltar, 3,403
Straits of Florida (via Mona Passage), 1,533
Yucatan Channel, 1,517

Ports

Baltimore, Maryland, U.S.A., 1,918
Barcelona, Venezuela, 218
Basseterre, Saint Kitts and Nevis, 419

* JUNCTION POINT.—See Preface for use of junction points

Belem, Brazil, 1,212
 Belize, Belize, 1,637
 Boston, Massachusetts, U.S.A., 2,022
 Bridgetown, Barbados (via Boca Grande), 211
 Brunswick, Georgia, U.S.A., 1,694
 Campeche, Mexico, 1,913
 Cap-Haitien, Haiti, 888
 Cape Town, South Africa, 5,387
 Carmen, Mexico, 1,992
 Cartagena, Colombia, 932
 Carupano, Venezuela, 109
 Catia la Mar, Venezuela, 335
 Charleston, South Carolina, U.S.A., 1,682
 Charlotte Amalie, Virgin Islands, 518
 Cienfuegos, Cuba, 1,310
 Coatzacoalcas, Mexico, 2,137
 Colon, Panama, 1,159
 Covenas, Colombia, 968
 Dakar, Senegal, 2,628
 Elizabeth Harbor, Bahamas, 1,170
 Freetown, Sierra Leone, 2,896
 Funchal, Madeira Island, 2,819
 Georgetown, Guyana (via Serpents Mouth), 376
 Guantnamo, Cuba, 987
 Halifax, Canada, 2,059
 Hamilton, Bermuda, 1,346
 Horta, Azores, 2,461
 Isabel Segunda, Isla de Vieques, 531
 Jacksonville, Florida, U.S.A., 1,685
 Key West, Florida, U.S.A. (via Mona Passage and Old Bahama Channel), 1,484
 Kingston, Jamaica, 1,003
 La Guaira, Venezuela (south of Isla de Margarita), 329
 La Habana, Cuba (via Old Bahama Channel and Mona Passage), 1,494
 Lagos, Nigeria, 3,950
 Limon, Costa Rica, 1,313
 Lisboa, Portugal, 3,287
 Miami, Florida, U.S.A., 1,482
 Monrovia, Liberia, 3,045
 New Amsterdam, Guyana, 437
 New York, New York, U.S.A. (via Virgin Passage), 1,939
 Norfolk, Virginia, U.S.A., 1,799
 Oranjestad, St. Eustatius, 432
 Paramaribo, Suriname, 546
 Philadelphia, Pennsylvania, U.S.A. (via Virgin Passage), 1,938
 Pointe a Pitre, Guadeloupe, 358
 Port au Prince, Haiti, 1,053
 Port Castries, St. Lucia (east of Grenadine Islands), 231
 Port Castries, St. Lucia (west of Grenadine Islands), 230
 Portsmouth, New Hampshire, U.S.A., 2,024
 Puerto la Cruz, Venezuela, 214
 Puerto Cabello, Venezuela, 395
 Puerto Cortes, Honduras, 1,599
 Puerto Sucre, Venezuela, 200
 Punta Cardon, Venezuela, 574
 Rio de Janeiro, Brazil, 3,271
 Roosevelt Roads, Puerto Rico, 525
 San Juan del Norte, Nicaragua, 1,342
 San Juan, Puerto Rico, 574
 Santa Cruz de Tenerife, Canary Islands, 2,804
 Santo Domingo, Dominican Republic, 681
 Savannah, Georgia, U.S.A., 1,714
 Sint Nicolaashaven, Aruba, 515
 St. Georges, Grenada, 102

St. John, Canada, 2,113
 St. John's, Canada, 2,288
 St. John's, Antigua, 411
 Sydney, Canada, 2,189
 Takoradi, Ghana, 3,632
 Turiamo, Venezuela, 384
 Tuxpan, Mexico, 2,201
 Veracruz, Mexico, 2,182
 Willemstad, Curacao, 456
 Wilmington, North Carolina, U.S.A., 1,703

PORT PIRIE, AUSTRALIA (33°10'20"S., 138°00'45"E.) to:

Junction Points*

Panama, Panama, 8,467
 Singapore, 3,564

Ports

Melbourne, Australia, 689
 Port Adelaide, Australia, 246
 Port Moresby, Papua New Guinea, 2,754

PORT RAYSUT, OMAN (16°56'58"N., 54°02'00"E.) See Mina Raysut.

PORT REFUGE, COCOS ISLANDS (12°05'20"S., 96°51'54"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,428
 Cape Leeuwin, Australia, 1,678
 Selat Lombok, Indonesia, 1,132
 Selat Sunda, Indonesia, 647

Ports

Colombo, Sri Lanka, 1,539

PORT ROYAL, JAMAICA (17°56'00"N., 76°51'00"W.) Subtract 5 miles from Kingston distances.

PORT SAN CARLOS, FALKLAND ISLANDS (51°30'00"S., 59°00'00"W.) See Stanley, Falkland Islands.

PORT SAID, EGYPT* (31°16'00"N., 32°19'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,340
 Cape Leeuwin, Australia, 6,389
 Selat Lombok, Indonesia, 5,892
 Singapore, 5,035
 Strait of Gibraltar, 1,943
 Selat Sunda, Indonesia (via Eight Degree Channel), 5,224
 Selat Sunda, Indonesia (via One and Half Degree Channel), 5,335
 Torres Strait, Australia (via Eight Degree Channel), 7,423
 Torres Strait, Australia (via One and Half Degree Channel), 7,409

Ports

Ad Damman, Saudi Arabia, 3,142

Aden, Yemen, 1,400
 Ajaccio, Corsica, 1,355
 Akyab, Burma, 4,672
 Al Aqabah, Jordan, 380
 Al Basrah, Iraq, 3,371
 Al Latakia, Syria, 310
 Al Manamah, Bahrain, 3,132
 Alcludia, Balearic Islands, 1,536
 Alexandria, Egypt, 164
 Alexandroupolis, Greece, 699
 Algeciras, Spain, 1,927
 Algiers, Algeria, 1,514
 Alicante, Spain, 1,680
 Almeria, Spain, 1,780
 Ancona, Italy, 1,206
 Annaba, Algeria, 1,289
 Antalya, Turkey, 346
 Arzew, Algeria, 1,692
 As Sukhayrah, Tunisia, 1,156
 Ashdod, Israel, 126
 Assab, Ethiopia, 1,258
 Augusta, Sicily, 932
 Bandar Abbas, Iran, 2,842
 Bandar Khomeini, Iran, 3,322
 Banghazi, Libya, 673
 Baniyas, Syria, 299
 Banzart, Tunisia, 1,184
 Barcelona, Spain, 1,600
 Bari, Italy, 999
 Barletta, Italy, 1,023
 Bassein, Burma, 4,638
 Bastia, Corsica, 1,337
 Bat'umi, Georgia, 1,391
 Beaulieu, France, 1,453
 Beira, Mozambique, 3,990
 Beirut, Lebanon, 230
 Bejaia, Algeria, 1,423
 Belawan, Indonesia, 4,668
 Bombay, India, 3,046
 Bonifacio, Corsica, 1,307
 Brindisi, Italy, 941
 Bunbury, Australia, 6,343
 Bur Safaga, Egypt, 310
 Cagliari, Sardinia, 1,255
 Calcutta, India, 4,691
 Cannes, France, 1,472
 Cartagena, Spain, 1,705
 Catania, Sicily, 942
 Ceuta, Morocco, 1,923
 Chalna, Bangladesh, 4,705
 Chioggia, Italy, 1,307
 Chittagong, Bangladesh, 4,739
 Civitavecchia, Italy, 1,243
 Cochín, India, 3,237
 Colombo, Sri Lanka, 3,481
 Constanta, Romania, 1,000
 Dar es Salaam, Tanzania, 3,238
 Darnah, Libya, 514
 Derince, Turkey, 837
 Djibouti, Djibouti, 1,374
 Dubrovnik, Croatia, 1,038
 Dumai, Indonesia, 4,943
 Durban, South Africa, 4,567
 Durrës, Albania, 951
 East London, South Africa, 4,830
 Ermoupolis, Greece, 535
 Famagusta, Cyprus, 257
 Fethiye, Turkey, 375
 Fort Dauphin, Madagascar, 4,035
 Fremantle, Australia, 6,310
 Gaeta, Italy, 1,150
 Genova, Italy, 1,426
 Ghazaouet, Algeria, 1,784
 Gibraltar, 1,925
 Golfe-Juan, France, 1,462
 Haifa, Israel, 171
 Hyeres, Greece, 1,474
 Iraklion, Kriti, 455
 Iskenderun, Turkey, 381
 Istanbul, Turkey, 804
 Izmir, Turkey, 608
 Jakarta, Indonesia, 5,293
 Jiddah, Saudi Arabia, 722

Kalamai, Greece, 644
 Karachi, Pakistan, 2,865
 Kavala, Greece, 714
 Kerch, Ukraine, 1,238
 Kerkira, Greece (south of Greece), 848
 Kerkira, Greece (via Corinth Canal), 826
 Khalkis, Greece, 630
 Kyrenia, Cyprus, 297
 La Spezia, Italy, 1,391
 Larnaca, Cyprus, 231
 Licata, Sicily, 993
 Limassol, Cyprus, 208
 Livorno, Italy, 1,355
 Madras, India (north of Socotra), 4,037
 Mahon, Balearic Islands, 1,484
 Majunga, Madagascar, 3,471
 Malacca, Malaysia, 4,891
 Malaga, Spain, 1,873
 Manfredonia, Italy, 1,045
 Maputo, Mozambique, 4,348
 Marmagao, India, 3,078
 Marsaxlokk, Malta, 942
 Marseille, France, 1,518
 Massawa, Ethiopia, 1,041
 Matruh, Egypt, 281
 Melilla, Morocco, 1,821
 Menton, France, 791
 Mers el Kebir, Algeria, 1,714
 Mersin, Turkey, 359
 Messina, Sicily, 945
 Mina al Ahmadi, Kuwait, 3,286
 Mina Abd Allah, Kuwait, 3,283
 Mina Az Zawr, Kuwait, 3,264
 Mocambique, Mozambique, 3,522
 Mogadishu, Somalia, 2,493
 Mombasa, Kenya, 3,006
 Monaco, Monaco, 1,450
 Monopoli, Italy, 953
 Mostaganem, Algeria, 1,678
 Mtwara, Tanzania, 3,265
 Napoli, Italy, 1,116
 Navplion, Greece, 613
 Nice, France, 1,456
 Novorossiysk, Russia, 1,260
 Odessa, Ukraine, 1,152
 Okha, India, 2,887
 Olbia, Sardinia, 1,278
 Oran, Algeria, 1,711
 Palermo, Sicily, 1,061
 Palma, Balearic Islands, 1,555
 Patrai, Greece (via south of Greece), 762
 Patrai, Greece (via Corinth Canal), 690
 Penang, Malaysia, 4,733
 Phuket, Thailand, 4,629
 Piraievs, Greece, 599
 Ploce, Croatia, 1,132
 Port des Galets, Reunion Islands, 3,747
 Port Blair, Andaman Islands, 4,353
 Port Darwin, Australia (via Eight Degree Channel), 6,764
 Port St. Louis du Rhone, France, 1,535
 Port Sudan, Sudan, 788
 Port Swettenham, Malaysia, 4,817
 Port Vendres, France, 1,583
 Porto Empedocle, Sicily, 1,017
 Porto Vecchio di Piombino, Italy, 1,315
 Pozzuoli, Italy, 1,118
 Preveza, Greece, 806
 Pula, Croatia (south of Greece), 1,256
 Pula, Croatia (via Corinth Canal), 1,244
 Qabis, Tunisia, 1,149
 Rangoon, Burma, 4,696
 Ras as Sidr, Egypt, 112

* **JUNCTION POINT.**—See Preface for use of junction points

86 PORT ST. LOUIS DU RHONE, FRANCE

Ras Gharib, Egypt, 187
 Ras Tannurah, Saudi Arabia, 3,162
 Reggio Di Calabria, Sicily, 939
 Rethimnon, Kriti, 489
 Rhodes, Greece, 376
 Rijeka, Croatia (south of Greece), 1,276
 Rijeka, Croatia (via Corinth Canal), 1,263
 Rostov-na-Donu, Russia, 1,440
 Sabang, Indonesia, 4,422
 Salamis, Greece, 614
 Salerno, Italy, 1,098
 Sant Antioco Ponti, Sardinia, 1,282
 Sarande, Albania, 863
 Savona, Italy, 1,437
 Sayda, Lebanon, 205
 Sete, France, 1,577
 Sevastopol', Ukraine, 1,105
 Sfax, Tunisia, 1,131
 Shengjin, Albania, 988
 Sibenik, Croatia (south of Greece), 1,148
 Sibenik, Croatia (via Corinth Canal), 1,136
 Simons Bay, South Africa, 5,315
 Siracusa, Sicily, 924
 Skikda, Algeria, 1,337
 Soudha, Kriti, 507
 Sousse, Tunisia, 1,133
 Split, Croatia, 1,133
 St. Raphael, France, 1,475
 Suakin, Sudan, 813
 Tamatave, Madagascar, 3,584
 Tanga, Tanzania, 3,068
 Tarabulus, Lebanon, 268
 Tarabulus, Libya, 998
 Taranto, Italy, 954
 Tarragona, Spain, 1,634
 Terracina, Italy, 1,162
 Thessaloniki, Greece, 741
 Toulon, France, 1,486
 Trapani, Sicily, 1,100
 Trieste, Italy, 1,310
 Tubruq, Libya, 445
 Tulear, Madagascar, 3,966
 Tunis, Tunisia, 1,172
 Umm Said, Qatar, 3,091
 Valencia, Spain, 1,679
 Valletta, Malta, 946
 Venezia, Italy, 1,317
 Viareggio, Italy, 1,716
 Villa San Giovanni, Italy, 944
 Villa Sanjurjo, Morocco, 1,868
 Villefranche, France, 1,455
 Vlores, Albania, 973
 Volos, Greece, 683
 Yumurtalik, Turkey, 372
 Zadar, Croatia, 1,214

PORT ST. LOUIS DU RHONE, FRANCE (43°23'00"N., 4°48'00"E.) to:

Junction Points*

Port Said, Egypt, 1,535
 Strait of Gibraltar, 703

Ports

Annaba, Algeria, 419
 Barcelona, Spain, 178
 Genova, Italy, 221

PORT SUDAN, SUDAN (19°37'00"N., 37°13'45"E.) to:

Junction Points*

Port Said, Egypt, 788

Ports

Aden, Yemen, 668
 Assab, Ethiopia, 524
 Bur Safaga, Egypt, 508
 Jiddah, Saudi Arabia, 161
 Massawa, Ethiopia, 306

PORT SULPHUR, LOUISIANA, U.S.A. (29°28'36"N., 89°41'09"W.) Subtract 50 miles from New Orleans distances.

PORT SWETTENHAM, MALAYA, MALAYSIA (3°00'00"N., 101°23'00"E.) to:

Junction Points*

Port Said, Egypt, 4,817
 Singapore, 210

Ports

Calcutta, India, 1,444
 Madras, India, 1,384
 Penang, Malaysia, 172

PORT TALBOT, WALES (51°35'25"N., 3°47'24"W.) to:

Junction Points*

Bishop Rock, England, 149
 Inishtrahull, Ireland, 331

Ports

Dublin, Ireland, 179
 Liverpool, England, 244

PORT TAMPA, FLORIDA, U.S.A. (21°51'40"N., 82°33'20"W.) Subtract 5 miles from Tampa distances.

PORT TARANAKI, NEW ZEALAND (39°02'08"S., 174°02'30"E.) See New Plymouth.

PORT TOWNSEND, WASHINGTON, U.S.A. (48°06'30"N., 122°45'00"W.) Subtract 36 miles from Seattle distances.

PORT WALCOT, AUSTRALIA (20°31'58"S., 117°14'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,137
 Cape Leeuwin, Australia, 1,005
 Port Said, Egypt, 6,170
 Selat Lombok, Indonesia, 707
 Selat Sunda, Indonesia, 3,346
 Selat Wetar, Indonesia, 942
 Torres Strait, Australia, 1,662

Ports

Al Basrah, Iraq, 5,133
 Fremantle, Australia, 873
 Geraldton, Australia, 671
 Mombasa, Kenya, 4,624
 Port Darwin, Australia, 953
 Victoria, Seychelles, 3,730
 Zanzibar, Tanzania, 4,796

PORT-VENDRES, FRANCE (42°31'30"N., 3°07'00"E.) to:

Junction Points*

Port Said, Egypt, 1,583
 Strait of Gibraltar, 633

Ports

Barcelona, Spain, 108
 Marseille, France, 109
 Napoli, Italy, 521

PORTLAND, AUSTRALIA (38°20'30"S., 141°37'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,304
 Torres Strait, Australia, 2,429

Ports

Hobart, Tasmania, 540
 Melbourne, Australia, 206
 Port Adelaide, Australia, 321

PORTLAND, ENGLAND (50°35'00"N., 2°26'00"W.) to:

Junction Points*

Bishop Rock, England, 181
 Nord-Ostsee-Kanal (East Entrance), Germany, 565
 Skagens Odde, Denmark, 682

Ports

Aberdeen, Scotland, 564
 Amsterdam, Netherlands, 316
 Antwerp, Belgium, 292
 Bergen, Norway, 745
 Bremerhaven, Germany, 499
 Calais, France, 170
 Dover, England, 155
 Dundee, Scotland, 547
 Dunkerque, France, 190
 Egersund, Norway, 632
 Emden, Germany, 439
 Esbjerg, Denmark, 525
 Hamburg, Germany, 554
 Hartlepool, England, 428
 Hull, England, 368
 Kristiansand, Norway, 643
 Leith, Scotland, 545
 London, England, 247
 Newcastle, England, 453
 Oostende, Belgium, 214
 Oslo, Norway, 795
 Rotterdam, Netherlands, 293
 Southampton, England, 57
 Stavanger, Norway, 672
 Wilhelmshaven, Germany, 483
 Zeebrugge, Belgium, 229

PORTLAND, MAINE, U.S.A. (43°39'30"N., 70°14'45"W.) to:

Junction Points*

Montreal, Canada, 1,206
 Panama, Panama (via Crooked Island Passage), 2,241
 Pentland Firth, Scotland, 2,910
 Punta Arenas, Chile, 6,949
 Straits of Florida, 1,450

Ports

Belize, Belize, 1,967

Buenos Aires, Argentina, 5,873
 Cape Town, South Africa, 6,709
 Charlotte Amalie, Virgin Islands, 1,557
 Charlottetown, Canada (via Strait of Canso), 579
 Colon, Panama, 2,198
 Halifax, Canada, 338
 Kingston, Jamaica, 1,679
 Maracaibo, Venezuela, 2,042
 Montevideo, Uruguay, 5,759
 Murmansk, Russia, 3,677
 Recife, Brazil, 3,700
 Rio de Janeiro, Brazil, 4,772
 Salvador, Brazil, 4,091
 San Juan, Puerto Rico, 1,531
 Santos, Brazil, 4,959
 St. John, Canada, 215
 Sydney, Canada, 556
 Willemstad, Curacao, 1,921
 Yarmouth, Canada, 185

PORTLAND, OREGON, U.S.A. (45°33'00"N., 122°41'45"W.) to:

Junction Points*

Panama, Panama, 3,869
 Punta Arenas, Chile, 6,813
 Singapore, 7,142
 Wilson Promontory, Australia, 7,121

Ports

Antofagasta, Chile, 5,383
 Auckland, New Zealand, 6,075
 Brisbane, Australia, 6,421
 Brito, Nicaragua, 3,333
 Callao, Peru, 4,611
 Cebu, Philippines, 6,001
 Dalian, China, 5,240
 Guayaquil, Ecuador, 4,169
 Honolulu, Hawaii, U.S.A., 2,332
 Jakarta, Indonesia (via Balintang Channel and composite), 7,415
 Kobe, Japan, 4,590
 Manila, Philippines (via Babuyan Channel), 6,024
 Newcastle, Australia, 6,833
 Pago Pago, American Samoa, 4,525
 Sydney, Australia, 6,737
 Valparaiso, Chile, 5,764
 Vancouver, Canada, 371
 Vladivostok, Russia (north of the Aleutian Islands), 4,278
 Wellington, New Zealand, 6,327
 Yokohama, Japan, 4,323

PORTO ALEGRE, BRAZIL (30°02'00"S., 51°14'00"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 3,625
 Panama, Panama, 5,148
 Punta Arenas, Chile, 1,686

Ports

Montevideo, Uruguay, 482
 Santos, Brazil, 758

PORTO DI BARLETTA, ITALY (41°20'00"N., 16°17'30"E.) to:

Junction Points*

Port Said, Egypt, 1,023

* JUNCTION POINT.—See Preface for use of junction points

Strait of Gibraltar, 1,398

Ports

Ancona, Italy, 199
Dubrovnik, Croatia, 113
Taranto, Italy, 232

PORTO DI BRINDISI, ITALY
(40°38'38"N., 17°57'03"E.) See Brindisi.

PORTO EMPEDOCLE, SICILY, ITALY
(37°16'30"N., 13°32'00"E.) to:

Junction Points*

Port Said, Egypt, 1,017
Strait of Gibraltar, 937

Ports

Tarabulus, Libya, 263
Tunis, Tunisia, 167
Valletta, Malta, 97

PORTO GRANDE, SAO VICENTE, CAPE VERDE ISLANDS
(16°53'00"N., 25°00'20"W.) to:

Junction Points*

Bishop Rock, England, 2,165
Cape of Good Hope, South Africa, 3,958
Ile d'Ouessant, France, 2,137
Strait of Gibraltar, 1,539
Straits of Florida, 3,308

Ports

Accra, Ghana, 1,760
Baltimore, Maryland, U.S.A., 3,095
Banjul, Gambia, 553
Bissau, Guinea-Bissau, 651
Cadiz, Spain, 1,547
Casablanca, Morocco, 1,387
Colon, Panama, 3,246
Freetown, Sierra Leone, 871
Funchal, Madeira Island, 1,043
Guantanamo, Cuba, 2,853
Horta, Azores, 1,316
Huelva, Spain, 1,561
Lagos, Nigeria, 1,991
Lisboa, Portugal, 1,555
Luanda, Angola, 2,778
Mocamedes, Angola, 2,939
Monrovia, Liberia, 1,069
New York, New York, U.S.A., 2,913
Norfolk, Virginia, U.S.A., 2,971
Philadelphia, Pennsylvania, U.S.A., 3,011
Ponta Delgada, Azores, 1,253
Rio de Janeiro, Brazil, 2,687
Santa Cruz de Tenerife, Canary Islands, 849
Sao Tome, Sao Tome, Gulf of Guinea, 2,208
Savannah, Georgia, U.S.A., 3,169
Sidi Ifni, Morocco, 1,117
St. Louis, Senegal, 496
Sydney, Canada, 2,503
Takoradi, Ghana, 1,673
Tangier, Morocco, 1,536
Vigo, Spain, 1,737
Villa Cisneros, Western Sahara, 650
Wilmington, North Carolina,

U.S.A., 3,057

PORTO VECCHIO DI PIOMBINO, ITALY
(42°56'00"N., 10°33'00"E.) to:

Junction Points*

Port Said, Egypt, 1,315
Strait of Gibraltar, 897

Ports

Genova, Italy, 116
Marseille, France, 247
Napoli, Italy, 227

PORTOVESME, ITALY
(39°11'31"N., 8°22'29"E.) to:

Junction Points*

Port Said, Egypt, 1,298
Strait of Gibraltar, 701

Ports

Alexandria, Egypt, 1,160
Barcelona, Spain, 311
Beirut, Lebanon, 1,387
Istanbul, Turkey, 1,336
Marseille, France, 282
Trieste, Italy, 2,700

PORTSMOUTH, ENGLAND
(50°48'00"N., 1°06'40"W.) to:

Junction Points*

Bishop Rock, England (via Needles Channel), 225
Ile d'Ouessant, France, 227
Nord-Ostsee-Kanal (East Entrance), Germany, 515
Skagens Odde, Denmark, 632

Ports

Aberdeen, Scotland, 514
Amsterdam, Netherlands, 266
Antwerp, Belgium, 242
Bergen, Norway, 695
Bremerhaven, Germany, 446
Dover, England, 105
Dundee, Scotland, 497
Dunkerque, France, 150
Egersund, Norway, 582
Emden, Germany, 389
Esbjerg, Denmark, 475
Hamburg, Germany, 504
Hartlepool, England, 378
Hull, England, 318
Kristiansand, Norway, 593
Leith, Scotland, 495
London, England, 197
Newcastle, England, 403
Oostende, Belgium, 174
Oslo, Norway, 745
Rotterdam, Netherlands, 243
Stavanger, Norway, 622
Wilhelmshaven, Germany, 433
Zeebrugge, Belgium, 179

PORTSMOUTH, NEW HAMPSHIRE, U.S.A.
(43°04'40"N., 70°44'30"W.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,732
Straits of Florida, 1,461

Yucatan Channel, 1,612

Ports

Argentina, Canada, 779
Arkhangel'sk, Russia, 3,992
Belem, Brazil, 2,959
Cartagena, Colombia, 2,053
Charlotte Amalie, Virgin Islands, 1,534
Colon, Panama, 2,174
Dakar, Senegal, 3,219
Elizabeth Harbor, Bahamas, 1,252
Freetown, Sierra Leone, 3,654
Georgetown, Guyana, 2,284
Guantanamo, Cuba (via Crooked Island Passage), 1,512
Halifax, Canada, 359
Hamilton, Bermuda, 723
Ivittuut, Greenland, 1,709
Kingston, Jamaica, 1,655
Port Castries, St. Lucia, 1,822
Port of Spain, Trinidad, 2,024
Reykjavik, Iceland, 2,271
San Juan, Puerto Rico, 1,507
St. John, Canada, 248
Sydney, Canada, 576

PORVOO, FINLAND
(60°18'00"N., 25°33'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 660
Skagens Odde, Denmark (via The Sound), 722

Ports

Halmstad, Sweden (via The Sound), 644
Hamina, Finland, 83
Helsinki, Finland, 56
Kobenhavn, Denmark (via The Sound), 582
Kokkola, Finland, 525
Lulea, Sweden, 584
Varberg, Sweden (via The Sound), 666

POTI, GEORGIA
(42°09'51"N., 41°38'35"E.) to:

Junction Points*

Port Said, Egypt, 1,399
Strait of Gibraltar (via Corinth Canal), 4,266
Strait of Gibraltar (south of Greece), 4,326

Ports

Alexandria, Egypt, 1,337
Beirut, Lebanon, 1,448
Constanta, Romania, 581
Haifa, Israel, 1,450
Iraklion, Kriti, 1,049
Istanbul, Turkey, 591
Napoli, Italy (via Corinth Canal), 1,530
Napoli, Italy (south of Greece), 1,593
Valencia, Spain (via Corinth Canal), 2,125
Valencia, Spain (south of Greece), 2,185

POWELL RIVER, CANADA
(49°52'00"N., 124°34'00"W.) to:

Junction Points*

Selat Lombok, Indonesia (via Makassar Strait), 7,218
Panama, Panama, 4,107
Punta Arenas, Chile, 7,067
Singapore (via Balintang Channel), 7,281
Selat Sunda, Indonesia (via Balintang Channel), 7,645

Ports

Anchorage, Alaska, U.S.A. (via Queen Charlotte Sound), 1,278
Auckland, New Zealand, 6,244
Brisbane, Australia, 6,543
Chimbote, Peru, 4,642
Guaymas, Mexico, 2,333
Honolulu, Hawaii, U.S.A., 2,476
Sydney, Australia, 6,879
Tokyo, Japan (via Queen Charlotte Sound), 4,123

POZZUOLI, ITALY
(40°49'30"N., 14°07'00"E.) to:

Junction Points*

Port Said, Egypt, Strait of Gibraltar, 995

Ports

Civitavecchia, Italy, 147
Messina, Sicily, 177
Tunis, Tunisia, 308

PRAIA DA VITORIA, TERCEIRA, AZORES
(38°43'45"N., 27°03'10"W.) to:

Junction Points*

Bishop Rock, England, 1,128
Strait of Gibraltar, 1,034
Straits of Florida, 3,017

Ports

Lisboa, Portugal, 850
New York, New York, U.S.A., 2,173

PRAIA, SAO TIAGO, CAPE VERDE ISLANDS
(14°54'15"N., 23°30'30"W.) to:

Ports

Funchal, Madeira Island, 1,128

PREVEZA, GREECE
(38°57'15"N., 20°45'20"E.) to:

Junction Points*

Port Said, Egypt, 806
Strait of Gibraltar, 1,319

Ports

Durres, Albania, 181
Messina, Sicily, 274
Piraeus, Greece (via Corinth Canal), 197

PRIMORSK, RUSSIA
(60°21'30"N., 28°36'00"E.) Via Ostrov Rondo pilot station. Subtract 1 mile from Vysotsk distances.

* JUNCTION POINT.—See Preface for use of junction points

88 PRINCE RUPERT, CANADA

PRINCE RUPERT, CANADA
(54°19'00"N., 130°20'00"W.) to:

Junction Points*

Panama, Panama, 4,303
Punta Arenas, Chile, 7,247
Singapore, 6,683

Ports

Apra, Guam, 4,586
Auckland, New Zealand, 6,209
Callao, Peru, 5,047
Dutch Harbor, Alaska, U.S.A.,
1,274
Hakodate, Japan (alternate route,
north of Aleutian Islands), 3,487
Hakodate, Japan (south of Aleutian
Islands), 3,525
Hong Kong, China (alternate route,
north of Aleutian Islands), 5,286
Hong Kong, China (south of
Aleutian Islands), 5,323
Honolulu, Hawaii, U.S.A., 2,393
Juneau, Alaska, U.S.A., 322
Los Angeles, California, U.S.A.,
1,432
Manila, Philippines (south of
Aleutian Islands, and north of
Luzon), 5,510
Nanaimo, Canada, 453
New Westminster, Canada, 492
Nome, Alaska, U.S.A., 1,846
Pago Pago, American Samoa,
4,652
Petropavlovsk-Kamchatskiy
Russia (via Unimak Pass), 2,504
San Francisco, California, U.S.A.,
1,090
Seattle, Washington, U.S.A., 577
Seward, Alaska, U.S.A., 734
Sitka, Alaska, U.S.A., 285
Sydney, Australia, 6,671
Valparaiso, Chile, 6,199
Vancouver, Canada, 477
Victoria, Canada, 531
Yokohama, Japan (alternate route,
north of Aleutian Islands), 3,810
Yokohama, Japan (south of
Aleutian Islands), 3,827

PROGRESO, MEXICO
(21°21'00"N., 89°40'00"W.) to:

Junction Points*

Panama, Panama, 1,069

Ports

Baltimore, Maryland, U.S.A.,
1,530
Boston, Massachusetts, U.S.A.,
1,838
Colon, Panama, 1,026
La Habana, Cuba, 430
New Orleans, Louisiana, U.S.A.,
556
New York, New York, U.S.A.,
1,609
Tampico, Mexico, 469
Veracruz, Mexico, 401

**PROVIDENCE, RHODE
ISLAND, U.S.A.**
(41°48'30"N., 71°24'00"W.) to:

Junction Points*

Bishop Rock, England, 2,841
Fastnet Rock, Ireland, 2,719
Inishtrahull, Ireland, 2,823

Pentland Firth, Scotland, 3,047
Strait of Gibraltar, 3,122

Ports

Bordeaux, France, 3,145

PROVIDENIYA, RUSSIA
(64°22'00"N., 173°17'30"W.) to:

Ports

Anadyrskiy Zaliv, Russia, 254
Pevek, Russia, 719
Tiksi, Russia, 1,500

**PUERTO ARMUELLES,
PANAMA**
(8°16'15"N., 82°51'30"W.) to:

Junction Points*

Panama, Panama, 306

Ports

Corinto, Nicaragua, 409
Los Angeles, California, U.S.A.,
2,645
San Francisco, California, U.S.A.,
2,973

**PUERTO BARRIOS,
GUATEMALA**
(15°43'00"N., 88°37'00"W.) to:

Junction Points*

Panama, Panama, 823
Yucatan Channel, 439

Ports

Baltimore, Maryland, U.S.A.,
1,725
Cartagena, Colombia, 901
Colon, Panama, 780
Galveston, Texas, U.S.A., 1,041
Kingston, Jamaica, 715
La Habana, Cuba, 608
Mobile, Alabama, U.S.A., 950
New Orleans, Louisiana, U.S.A.
(via South Pass), 955
New York, New York, U.S.A.,
1,804
Norfolk, Virginia, U.S.A., 1,603
Philadelphia, Pennsylvania,
U.S.A., 1,774
Santiago de Cuba, Cuba, 792
Savannah, Georgia, U.S.A., 1,224
Veracruz, Mexico, 985

**PUERTO CABELLO,
VENEZUELA**
(10°29'15"N., 68°00'30"W.) to:

Junction Points*

Panama, Panama, 845
Straits of Florida (via Windward
Passage), 1,299
Yucatan Channel, 1,203

Ports

Baltimore, Maryland, U.S.A.,
1,818
Belize, Belize, 1,289
Boston, Massachusetts, U.S.A. (via
Mona Passage), 1,976
Campeche, Mexico, 1,595
Cap-Haitien, Haiti, 752

Charlotte Amalie, Virgin Islands,
506
Cienfuegos, Cuba, 1,015
Colon, Panama, 802
Galveston, Texas, U.S.A., 1,899
Key West, Florida, U.S.A. (via Old
Bahama Channel and Windward
Passage), 1,248
Kingston, Jamaica, 697
La Habana, Cuba (via Old Bahama
Channel and Windward
Passage), 1,260
Paramaribo, Suriname, 887
Philadelphia, Pennsylvania, U.S.A.
(via Mona Passage), 1,845
Pointe a Pitre, Guadeloupe, 520
Port au Prince, Haiti, 769
Port Castries, St. Lucia, 465
Port of Spain, Trinidad, 395
Santo Domingo, Dominican
Republic, 492
Tuxpan, Mexico, 1,883
Veracruz, Mexico, 1,848
Willemstad, Curacao, 116

**PUERTO CABEZAS,
NICARAGUA**
(14°01'00"N., 83°22'30"W.) to:

Junction Points*

Panama, Panama, 390

Ports

Kingston, Jamaica, 451
La Ceiba, Honduras, 316
Oranjestad, St. Eustatius, 1,195

**PUERTO CORTES,
HONDURAS**
(15°50'00"N., 87°57'20"W.) to:

Junction Points*

Panama, Panama, 776
Yucatan Channel, 399

Ports

Baltimore, Maryland, U.S.A.,
1,690
Barranquilla, Colombia, 873
Buenos Aires, Argentina, 5,909
Cartagena, Colombia, 854
Charlotte Amalie, Virgin Islands,
1,343
Colon, Panama, 733
Dakar, Senegal, 4,077
Galveston, Texas, U.S.A., 1,001
Georgetown, Guyana, 1,933
Guantanamo, Cuba, 770
Kingston, Jamaica, 671
La Guaira, Venezuela, 1,294
Limon, Costa Rica, 623
Mobile, Alabama, U.S.A., 915
New Orleans, Louisiana, U.S.A.
(via South Pass), 916
New York, New York, U.S.A.,
1,764
Norfolk, Virginia, U.S.A., 1,568
Philadelphia, Pennsylvania,
U.S.A., 1,739
Port Castries, St. Lucia, 1,578
Port of Spain, Trinidad, 1,599
Recife, Brazil, 3,737
Rio de Janeiro, Brazil, 4,813
San Juan, Puerto Rico, 1,284
Savannah, Georgia, U.S.A., 1,189
St. John's, Antigua, 1,511
Swan Island, Honduras, 254
Tampico, Mexico, 993
Veracruz, Mexico, 948

**PUERTO DE HIERRO,
VENEZUELA**
(10°37'00"N., 62°05'30"W.) to:

Junction Points*

Panama, Panama, 1,192
Straits of Florida, 2,086

Ports

Barranquilla, Colombia, 838
Belem, Brazil, 1,215

**PUERTO DE LA LUZ,
CANARY ISLANDS**
(28°08'30"N., 15°25'00"W.) See
Las Palmas.

PUERTO DE PASAJES, SPAIN
(43°19'30"N., 1°55'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 340
Strait of Gibraltar, 894

Ports

Bordeaux, France, 178
El Ferrol del Caudillo, Spain, 300
Horta, Azores, 1,260

**PUERTO DESEADO,
ARGENTINA**
(47°45'20"S., 65°55'05"W.) to:

Junction Points*

Panama, Panama, 6,222
Punta Arenas, Chile, 440

Ports

Buenos Aires, Argentina, 965

**PUERTO LA CRUZ,
VENEZUELA**
(10°14'50"N., 64°35'57"W.) to:

Junction Points*

Panama, Panama, 1,016
Yucatan Channel, 1,381

Ports

La Guaira, Venezuela, 145
Philadelphia, Pennsylvania,
U.S.A., 1,900
Port of Spain, Trinidad, 214

**PUERTO MADRYN,
ARGENTINA**
(42°45'45"S., 65°01'35"W.) to:

Junction Points*

Panama, Panama, 6,012
Punta Arenas, Chile, 760

Ports

Buenos Aires, Argentina, 748

PUERTO MANATI, CUBA
(21°21'40"N., 76°49'20"W.) to:

Junction Points*

Panama, Panama, 959
Straits of Florida, 397

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>La Habana, Cuba, 353 New York, New York, U.S.A., 1,244 San Juan, Puerto Rico, 639</p> <p>PUERTO MIRANDA, VENEZUELA (10°45'30"N., 71°33'15"W.) Subtract 8 1/2 miles from Maracaibo distances.</p> <p>PUERTO MONTT, CHILE (41°29'00"S., 72°57'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 3,177 Punta Arenas, Chile, 992</p> <p>Ports</p> <p>Islas Juan Fernandez, 616 Valparaiso, Chile, 623</p> <p>PUERTO ORDAZ, VENEZUELA (8°21'00"N., 62°43'00"W.) Add 4 miles to San Felix distances.</p> <p>PUERTO PADRE, CUBA (21°13'00"N., 76°34'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 948 Straits of Florida, 409</p> <p>Ports</p> <p>Maracaibo, Venezuela, 834 Matanzas, Cuba, 330 San Juan, Puerto Rico, 625</p> <p>PUERTO PLATA, DOMINICAN REPUBLIC (19°49'00"N., 70°41'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 942 Straits of Florida, 764</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 1,215 Guantanamo, Cuba (via Windward Passage), 262 New York, New York, U.S.A., 1,270 Philadelphia, Pennsylvania, U.S.A., 1,250 Santiago de Cuba, Cuba, 311 Santo Domingo, Dominican Republic, 295</p> <p>PUERTO PRINCESA, PHILIPPINES (9°44'31"N., 118°43'26"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 2,044 Selat Lombok, Indonesia, 1,168 Panama, Panama, 9,742 Punta Arenas, Chile, 9,346 Singapore, 1,060 Selat Sunda, Indonesia, 1,373 Torres Strait, Australia, 1,906</p>	<p>Ports</p> <p>Alexandrovsk-Sakhalinskiy, Russia, 2,800 Ho Chi Minh, Vietnam, 836 Manila, Philippines, 364 Shanghai, China, 1,622 Vladivostok, Russia, 2,217</p> <p>PUERTO SANDINO, NICARAGUA (12°09'00"N., 86°49'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 649</p> <p>Ports</p> <p>Acapulco, Mexico, 825 Callao, Peru, 1,608</p> <p>PUERTO SUCRE, VENEZUELA (10°27'45"N., 64°11'43"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,035 Yucatan Channel, 1,399</p> <p>Ports</p> <p>La Guaira, Venezuela, 205 Philadelphia, Pennsylvania, U.S.A., 1,907 Port of Spain, Trinidad, 200</p> <p>PUERTO TANAMO, CUBA (20°42'00"N., 75°20'00"W.) See Boca de Tanamo, Cuba.</p> <p>PUERTO VITA, CUBA (21°04'45"N., 75°57'08"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 455</p> <p>Ports</p> <p>Charleston, South Carolina, U.S.A., 814 New York, New York, U.S.A., 1,224 Nuevitas, Cuba, 90 Port Antonia, Jamaica, 315</p> <p>PULA, CROATIA (44°52'08"N., 13°50'07"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,256 Strait of Gibraltar, 1,628</p> <p>Ports</p> <p>Catania, Sicily, 594 Constanta, Romania (south of Greece), 1,305 Constanta, Romania (via Corinth Canal), 1,206 Iskenderun, Turkey (south of Greece), 1,341 Iskenderun, Turkey (via Corinth Canal), 1,301 Istanbul, Turkey, 1,124 Kerch, Ukraine (south of Greece), 1,543 Kerch, Ukraine (via Corinth Canal), 1,444</p>	<p>Larnaca, Cyprus, 1,245 Mersin, Turkey, 1,260 Patrai, Greece, 555 Rostov-na-Donu, Russia (south of Greece), 1,745 Rostov-na-Donu, Russia (via Corinth Canal), 1,646 Sete, France, 1,216</p> <p>PULUPANDAN, PHILIPPINES (10°31'00"N., 122°47'30"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 1,504 Torres Strait, Australia, 1,962</p> <p>Ports</p> <p>Cebu, Philippines, 225 Manila, Philippines, 363 Zamboanga, Philippines, 237</p> <p>PUNTA ARENAS, CHILE* (53°10'00"S., 70°54'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 7,019 Cape of Good Hope, South Africa, 4,262 Fastnet Rock, Ireland, 7,051 Grand Banks South, 6,440 Honshu, Japan, 9,286 Ile d'Ouessant, France, 6,986 Inishtrahull, Ireland, 7,315 Montreal, Canada, 7,515 Panama, Panama, 3,932 Pentland Firth, Scotland, 7,563 Strait of Gibraltar, 6,352 Straits of Florida, 6,783 Torres Strait, Australia (via 30°S. and Raine Island entrance), 7,217 Tsugaru-Kaikyo, Japan, 9,449 Wilson Promontory, Australia (via Foveaux Strait and 49°S.), 5,820 Wilson Promontory, Australia (via 30°S. and Cook Strait), 7,460 Wilson Promontory, Australia (via 60°S.), 5,305 Yucatan Channel, 6,794</p> <p>Ports</p> <p>Acapulco, Mexico, 4,582 Angra dos Reis, Brazil, 2,212 Antofagasta, Chile, 1,996 Apia, Samoa, 5,207 Apra, Guam, 8,071 Arica, Chile, 2,301 Auckland, New Zealand (via 30°S.), 6,132 Auckland, New Zealand (via 49°S.), 4,814 Avarua, Cook Islands, 4,429 Bahia Blanca, Argentina, 1,004 Baltimore, Maryland, U.S.A., 7,002 Belem, Brazil, 4,363 Bordeaux, France, 7,074 Boston, Massachusetts, U.S.A., 6,910 Brisbane, Australia (via 30°S.), 7,369 Brisbane, Australia (via 49°S.), 6,063 Buenos Aires, Argentina, 1,394 Cabedelo, Cuba, 3,327 Caldera, Chile, 1,795 Caleta Olivia, Argentina, 570 Callao, Peru, 2,671</p>	<p>Cape Town, South Africa, 4,279 Charleston, South Carolina, U.S.A., 6,868 Charlotte Amalie, Virgin Islands, 5,714 Charlottetown, Canada, 6,907 Chimbote, Peru, 2,843 Colon, Panama, 6,451 Comodoro Rivadavia, Argentina, 585 Coquimbo, Chile, 1,623 Corinto, Nicaragua, 4,180 Dagu, China (north of Marshall Islands), 10,843 Dakar, Senegal, 4,928 Dalian, China, 10,687 Dutch Harbor, Alaska, U.S.A., 8,063 Esmeraldas, Ecuador, 3,486 Fortaleza, Brazil, 3,654 Freetown, Sierra Leone, 4,731 Funchal, Madeira Island, 5,894 Georgetown, Guyana, 5,030 Guayaquil, Ecuador, 3,307 Guaymas, Mexico, 5,401 Hakodate, Japan (via 30°S.), 9,672 Halifax, Canada, 6,799 Hamilton, Bermuda, 6,273 Honolulu, Hawaii, U.S.A. (via 30°S.), 6,414 Iquique, Chile, 2,201 Jacksonville, Florida, U.S.A., 6,879 Jaluit, Marshall Islands, 6,815 Kobe, Japan (via 30°S.), 9,872 La Habana, Cuba (via Old Bahama Channel and east of South America), 6,742 La Libertad, Ecuador, 3,258 Levuka, Fiji Islands, 5,342 Lisboa, Portugal, 6,398 Los Angeles, California, U.S.A., 5,871 Lota, Chile, 1,191 Maceio, Brazil, 3,137 Mar del Plata, Argentina, 1,112 Matarani, Peru, 2,380 Midway Island, 7,382 Monterey, California, U.S.A., 6,113 Montevideo, Uruguay (via west of English Bank), 1,300 Nagasaki, Japan (via 30°S.), 10,126 Natal, Brazil, 3,400 New York, New York, U.S.A., 6,934 Norfolk, Virginia, U.S.A., 6,880 Noumea, New Caledonia, 5,527 Pago Pago, American Samoa, 5,181 Papeete, French Polynesia, 4,233 Paranagua, Brazil, 2,001 Philadelphia, Pennsylvania, U.S.A., 6,978 Pisco, Peru, 2,578 Ponape, Caroline Islands, 7,260 Port Castries, St. Lucia, 5,451 Port of Spain, Trinidad, 5,350 Portland, Maine, U.S.A., 6,939 Portland, Oregon, U.S.A., 6,813 Porto Alegre, Brazil, 1,686 Porto Concepcion, Argentina, 624 Prince Rupert, Canada, 7,247 Puerto Deseado, Argentina, 440 Puerto Madryn, Argentina, 760 Puerto Montt, Chile, 992 Punarenas, Costa Rica, 4,010 Quequen, Argentina, 1,053 Rabaul, Papua New Guinea (via 30°S.), 7,980 Recife, Brazil, 3,252 Rio de Janeiro, Brazil, 2,238</p>
--	---	---	---

* **JUNCTION POINT.**—See Preface for use of junction points

90 PUNTA CARDON, VENEZUELA

Rio Gallegos, Argentina, 202
 Rio Grande, Argentina, 220
 Salina Cruz, Mexico, 4,478
 Salvador, Brazil, 2,920
 San Antonio, Chile, 1,410
 San Diego, California, U.S.A., 5,801
 San Francisco, California, U.S.A., 6,188
 San Jose, Guatemala, 4,296
 San Juan, Peru, 1,660
 Santa Barbara, California, U.S.A., 5,938
 Santa Cruz de Tenerife, Canary Islands, 5,690
 Savannah, Georgia, U.S.A., 6,898
 Seattle, Washington, U.S.A., 6,964
 Seward, Alaska, U.S.A., 7,859
 Shanghai, China (via 30°S.), 10,465
 Shimonoseki, Japan (via 30°S.), 10,038
 Sitka, Alaska, U.S.A., 7,455
 St. John's, Canada, 6,735
 Suva, Fiji Islands, 5,444
 Sydney, Australia (via 30°S. and north of New Zealand), 7,301
 Sydney, Australia (via 60°S.), 5,398
 Talcahuano, Chile, 1,269
 Tocopilla, Chile, 2,177
 Valparaiso, Chile, 1,432
 Vancouver, Canada, 6,978
 Wellington, New Zealand (via 30°S.), 6,141
 Wellington, New Zealand (via 50°S.), 4,634
 Wilmington, North Carolina, U.S.A., 6,853
 Xiamen, China, 10,537
 Yokohama, Japan (via 30°S.), 9,642

PUNTA CARDON, VENEZUELA
 (11°37'30"N., 70°14'30"W.) to:

Junction Points*

Panama, Panama, 674
 Yucatan Channel, 1,055

Ports

Cartagena, Colombia, 397
 Kingston, Jamaica, 530
 Port of Spain, Trinidad, 574

PUNTA DE PIEDRAS, VENEZUELA
 (11°42'12"N., 70°13'30"W.) Add 2 miles to Anuay distances.

PUNTA PALMAS DEL SUR, VENEZUELA
 (10°24'28"N., 71°33'18"W.) Add 15 miles to Maracaibo distances.

PUNTARENAS, COSTA RICA
 (9°68'00"N., 84°50'00"W.) to:

Junction Points*

Panama, Panama, 471
 Punta Arenas, Chile, 4,010

Ports

Acapulco, Mexico, 1,011
 Amapala, Honduras, 329
 Antofagasta, Chile, 2,215
 Arica, Chile, 1,996

Callao, Peru, 1,421
 Coquimbo, Chile, 2,526
 Corinto, Nicaragua, 262
 Esmeraldas, Ecuador, 614
 Guayaquil, Ecuador, 878
 Guaymas, Mexico, 1,956
 Iquique, Chile, 2,062
 La Libertad, El Salvador, 383
 Los Angeles, California, U.S.A., 2,499
 Lota, Chile, 2,899
 Monterey, California, U.S.A., 2,751
 Pisco, Peru, 1,533
 San Diego, California, U.S.A., 2,429
 San Francisco, California, U.S.A., 2,831
 San Jose, Guatemala, 465
 San Juan del Sur, Nicaragua, 171
 Santa Barbara, California, U.S.A., 2,566
 Talcahuano, Chile, 2,879
 Valparaiso, Chile, 2,690

PUSAN, SOUTH KOREA
 (35°06'00"N., 129°03'00"E.) See Busan, South Korea.

QAANAAQ (THULE), GREENLAND
 (76°32'52"N., 68°62'30"W.) to:

Junction Points*

Pentland Firth, Scotland, 2,456
 Strait of Gibraltar, 3,299

Ports

Churchill, Canada, 1,909
 Reykjavik, Iceland, 1,898
 St. John's, Canada, 1,800

QABIS, TUNISIA
 (33°53'64"N., 10°07'30"E.) to:

Junction Points*

Port Said, Egypt, 1,149
 Strait of Gibraltar, 1,073

Ports

Tarabulus, Libya, 174
 Tunis, Tunisia, 302
 Valletta, Malta, 232

QAQORTOQ (JULIANEHAB), GREENLAND
 (60°43'00"N., 46°02'30"W.) to:

Junction Points*

Montreal, Canada (via Strait of Belle Isle), 1,470

Ports

New York, New York, U.S.A., 1,911
 Reykjavik, Iceland (direct), 795
 Reykjavik, Iceland (via 75 miles off Kap Farvel), 892
 St. John's, Canada, 827

QASIGIANNGUIT, GREENLAND
 (68°49'00"N., 51°11'30"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,963
 Strait of Gibraltar, 2,679

Ports

Churchill, Canada, 1,523
 Reykjavik, Iceland, 1,278
 St. John's, Canada, 1,333

QEQTARSUAQ (GODHAVN), GREENLAND
 (69°14'00"N., 53°32'00"W.) to:

Junction Points*

Inishtrahull, Ireland (via 75 miles off Kap Farvel), 1,953
 Inishtrahull, Ireland, 1,901

Ports

Ivittuut, Greenland, 560
 Reykjavik, Iceland (via 75 miles off Kap Farvel), 1,483
 Reykjavik, Iceland, 1,396

QINGDAO, CHINA
 (36°05'30"N., 120°19'00"E.) to:

Junction Points*

Panama, Panama, 8,575
 Singapore, 2,466

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,602
 Apra, Guam, 1,900
 Auckland, New Zealand, 5,378
 Busan, South Korea, 497
 Dagu, China, 436
 Dalian, China, 277
 Dutch Harbor, Alaska, U.S.A., 3,385
 Guayaquil, Ecuador, 8,880
 Ho Chi Minh, Vietnam, 1,969
 Hong Kong, China, 1,120
 Honolulu, Hawaii, U.S.A., 4,456
 Hua-lien Kang, Taiwan, 792
 Incheon, South Korea, 333
 Kodiak, Alaska, U.S.A., 3,975
 Lo hsing-ta Mao-ti, China, 715
 Manila, Philippines, 1,422
 Midway Island, 3,303
 Mogpo, South Korea, 336
 Nampo, North Korea, 309
 Nikolayevsk-Na-Amure, Russia, 1,750
 Noumea, New Caledonia, 4,416
 Pago Pago, American Samoa, 4,969
 Papeete, French Polynesia, 6,046
 Petropavlovsk-Kamchatskiy, Russia, 2,215
 Port Darwin, Australia, 3,062
 Qinhuangdao, China, 381
 Rabaul, Papua New Guinea, 3,043
 San Diego, California, U.S.A., 5,805
 San Francisco, California, U.S.A., 5,403
 Sanmen Wen, China, 528
 Shanghai, China, 401
 Sitka, Alaska, U.S.A., 4,454
 Su-ao Kang, Taiwan, 756
 Surabaya, Indonesia, 2,864
 Suva, Fiji Islands, 4,662
 Sydney, Australia, 4,871
 Tai-tung Kang, Taiwan, 870

Truk, Caroline Islands, 2,459
 Valparaiso, Chile, 10,274
 Vladivostok, Russia, 998
 Wake Island, 2,614
 Weihai, China, 205
 Weonsan, South Korea, 802
 Yantai, China, 239
 Yokohama, Japan, 1,160
 Yongjia, China, 623

QINHUANGDAO, CHINA
 (39°55'00"N., 119°36'30"E.) to:

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,755
 Busan, South Korea, 650
 Dagu, China, 131
 Dalian, China, 145
 Incheon, South Korea, 406
 Lo hsing-ta Mao-ti, China (via Steep Island Pass), 977
 Mogpo, South Korea (south of Kasa Do), 484
 Nagasaki, Japan, 702
 Nampo, North Korea, 307
 Petropavlovsk-Kamchatskiy, Russia, 2,368
 Qingdao, China, 381
 Shanghai, China, 668
 Vladivostok, Russia (via Maenggol Sudo), 1,151
 Weihai, China, 191
 Weonsan, South Korea, 995
 Xiamen, China, 1,114
 Yantai, China, 168

QUA IBOE, NIGERIA
 (4°21'40"N., 8°00'00"E.) to:

Junction Points*

Bishop Rock, England, 4,258
 Cape of Good Hope, South Africa, 2,658
 Fastnet Rock, Ireland, 4,164
 Grand Banks South, 4,315
 Ile d'Ouessant, France, 4,095
 Inishtrahull, Ireland, 4,427
 Panama, Panama, 5,319
 Pentland Firth, Scotland, 4,987
 Punta Arenas, Chile, 5,316
 Strait of Gibraltar, 3,502
 Straits of Florida, 5,490
 Yucatan Channel, 5,640

Ports

Abidjan, Ivory Coast, 725
 Accra, Ghana, 504
 Cape Town, South Africa, 2,384
 Cotonou, Dahomey, 377
 Lagos, Nigeria, 334
 Libreville, Gabon, 254
 New York, New York, U.S.A., 5,121
 Philadelphia, Pennsylvania, U.S.A., 7,399
 Sao Tome, Sao Tome, 246
 Takoradi, Ghana, 587

QUEPOS, COSTA RICA
 (9°25'00"N., 84°10'00"W.) to:

Junction Points*

Panama, Panama, 415

Ports

Acapulco, Mexico, 1,043

* **JUNCTION POINT.**—See Preface for use of junction points

Callao, Peru, 1,387

QUEQUEN, ARGENTINA
(38°35'00"S., 58°41'30"W.) to:

Junction Points*

Panama, Panama, 5,202
Punta Arenas, Chile, 1,053

Ports

Buenos Aires, Argentina, 350
Santos, Brazil, 1,437

QUI NHON, VIETNAM
(13°45'00"N., 109°15'00"E.) to:

Junction Points*

Singapore, 856
Selat Sunda, Indonesia, 1,241

Ports

Haiphong, Vietnam, 469
Ho Chi Minh, Vietnam, 361
Hong Kong, China, 592

QUINFUGUENA, ANGOLA
(6°19'28"S., 12°14'20"E.) to:

Junction Points*

Bishop Rock, England, 4,518
Cape of Good Hope, South Africa,
1,777
Fastnet Rock, Ireland, 4,534
Grand Banks South, 4,669
Ile d'Ouessant, France, 4,465
Inishtrahull, Ireland, 4,798
Panama, Panama, 5,672
Pentland Firth, Scotland, 5,357
Punta Arenas, Chile, 4,985
Strait of Gibraltar, 4,213
Straits of Florida, 5,844
Yucatan Channel, 5,994

Ports

Abidjan, Ivory Coast, 1,197
Boma, Congo, 56
Cape Town, South Africa, 1,727
Dakar, Senegal, 2,261
Freetown, Sierra Leone, 1,799
Georgetown, Ascension Island,
1,590
Lisboa, Portugal, 3,784
Moni Matadi, Congo, 78
New York, New York, U.S.A.,
5,528
Pointe Noire, Congo, 97
Port Harcourt, Nigeria, 745
Porto Grande, Cape Verde Islands,
2,630
Tangier, Morocco, 3,720
Vigo, Spain, 3,988

QUONSET POINT, RHODE ISLAND, U.S.A.
(41°35'00"N., 71°24'00"W.)
Subtract 13 miles from Providence distances.

RA'S AL KHAFJI, SAUDI ARABIA
(28°24'00"N., 48°33'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
5,078

Cape Leeuwin, Australia, 5,414
Port Said, Egypt, 3,260
Singapore, 3,799

Ports

Aden, Yemen, 1,871
Bombay, India, 1,491

RA'S AS SIDR, EGYPT
(29°34'36"N., 32°42'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
5,189
Port Said, Egypt, 112
Singapore, 4,902

Ports

Aden, Yemen, 1,282

RA'S GHARIB, EGYPT
(28°20'30"N., 33°07'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
5,114
Port Said, Egypt, 187
Singapore, 4,827

Ports

Aden, Yemen, 1,207

RA'S SHUKHAYR, EGYPT
(28°07'04"N., 33°19'04"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
5,200
Cape Leeuwin, Australia, 6,094
Selat Lombok, Indonesia, 5,557
Port Said, Egypt, 203
Singapore, 4,848
Selat Sunda, Indonesia, 5,057
Torres Strait, Australia, 7,226

Ports

Aden, Yemen, 1,191
Assab, Ethiopia, 1,055
Calcutta, India, 4,488
Kharg Island, Iran, 2,993
Massawa, Ethiopia, 857

RA'S TANNURAH, SAUDI ARABIA
(26°39'00"N., 50°10'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,980
Cape Leeuwin, Australia, 5,316
Port Said, Egypt, 3,162
Singapore, 3,701

Ports

Al Basrah, Iraq, 295

RABAU, PAPUA NEW GUINEA
(4°12'30"S., 152°12'00"E.) to:

Junction Points*

Panama, Panama, 7,807

Punta Arenas, Chile (via 49°S.),
7,036

Ports

Apia, Samoa, 2,232
Apra, Guam, 1,187
Auckland, New Zealand, 2,345
Avarua, Cook Islands, 2,993
Brisbane, Australia, 1,434
Callao, Peru, 7,713
Dagu, China, 3,294
Hakodate, Japan, 2,894
Hong Kong, China, 2,764
Honolulu, Hawaii, U.S.A., 3,355
Lae, Papua New Guinea, 448
Levuka, Fiji Islands, 1,836
Mackay, Australia, 1,871
Manila, Philippines, 2,281
Melbourne, Australia, 2,408
Midway Island, 2,688
Nagasaki, Japan, 2,612
Noumea, New Caledonia, 1,383
Papeete, French Polynesia, 3,527
Petropavlovsk-Kamchatskiy,
Russia, 3,555
Ponape, Caroline Islands, 853
Qingdao, China, 3,043
Rotoava, Iles Tuamotu, 3,743
San Francisco, California, U.S.A.,
5,396
Seattle, Washington, U.S.A., 5,509
Sorong, New Guinea, 1,304
Sydney, Australia, 1,844
Talomako, Vanuatu, 1,104
Valparaiso, Chile, 7,461
Wallaroo, Australia, 2,911
Whyalla, Australia, 2,957
Xiamen, China, 2,659
Yap Islands, Caroline Islands,
1,196
Yokohama, Japan, 2,526

RABIGH, SAUDI ARABIA
(22°43'58"N., 38°58'05"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,932
Cape Leeuwin, Australia, 5,732
Selat Lombok, Indonesia, 5,194
Port Said, Egypt, 650
Singapore, 4,374
Selat Sunda, Indonesia, 4,568
Torres Strait, Australia, 6,788

Ports

Aden, Yemen, 754
Al Jubayl, Saudi Arabia, 2,679
Assab, Ethiopia, 633
Bombay, India, 2,403
Massawa, Ethiopia, 428
Port Darwin, Australia, 6,119
Penang, Malaysia, 4,077
Port Sudan, 212
Rangoon, Burma, 4,077

RADA DI VADO, ITALY
(44°16'00"N., 8°27'00"E.) Use
Savona distances.

RANDERS, DENMARK
(56°27'48"N., 10°03'48"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 188
Skagens Odde, Denmark, 96

Ports

Gdynia, Poland, 403
Stockholm, Sweden, 604
Swinoujscie, Poland, 266

RANGOON, BURMA
(16°46'00"N., 96°10'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa
(east of Madagascar), 5,443
Cape Leeuwin, Australia (west of
Sumatra), 3,359
Port Said, Egypt, 4,696
Singapore, 1,109

Ports

Aden, Yemen, 3,309
Al Basrah, Iraq, 3,603
Al Manamah, Bahrain, 3,329
Belawan, Indonesia, 803
Bombay, India, 2,139
Bushehr, Iran, 3,425
Calcutta, India, 787
Colombo, Sri Lanka, 1,268
Fremantle, Australia (west of
Sumatra), 3,248
Karachi, Pakistan, 2,561
Madras, India, 1,003
Malacca, Malaysia, 986
Massawa, Ethiopia, 3,701
Mombasa, Kenya, 3,714
Penang, Malaysia, 757
Sabang, Indonesia, 664
Zanzibar, Tanzania, 3,787

RAOUL ISLAND, KERMADEC ISLANDS
(29°16'00"S., 177°57'00"W.) to:

Junction Points*

Panama, Panama, 6,125

Ports

Apia, Samoa, 1,008
Apra, Guam, 3,369
Auckland, New Zealand, 597
Brisbane, Australia (via Howe
Channel and Main Channel),
1,566
Honolulu, Hawaii, U.S.A., 3,246
Noumea, New Caledonia, 957
Papeete, French Polynesia, 1,706
Suva, Fiji Islands, 701
Sydney, Australia, 1,600

RAPID BAY, AUSTRALIA
(35°31'30"S., 138°11'30"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,131
Selat Sunda, Indonesia, 2,946

Ports

Albany, Australia, 990
Hobart, Tasmania, 719
Melbourne, Australia, 458

RAS AL KETHIB, YEMEN
(14°55'58"N., 42°53'50"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,398

* **JUNCTION POINT.**—See Preface for use of junction points

92 RAS AL MISHAB, SAUDI ARABIA

Cape Leeuwin, Australia, 5,198
Selat Lombok, Indonesia, 4,660
Port Said, Egypt, 1,149
Singapore, 3,840
Selat Sunda, Indonesia, 4,034
Torres Strait, Australia, 6,254

Ports

Aden, Yemen, 220
Al Jubayl, Saudi Arabia, 2,145
Assab, Ethiopia, 116
Massawa, Ethiopia, 203

RAS AL MISHAB, SAUDI ARABIA
(28°10'06"N., 48°42'37"E.) See Bandar Al Mishab.

RAS AL UNUF, LIBYA
(30°31'45"N., 18°34'30"E.) to:

Junction Points*

Port Said, Egypt, 807
Strait of Gibraltar, 1,367

Ports

Alexandria, Egypt, 656
Barcelona, Spain, 1,015
Genova, Italy, 832
Iskenderun, Turkey, 970
Kerkira, Greece, 549
Limassol, Cyprus, 808
Messina, Italy, 478
Tangier, Morocco, 1,364
Trieste, Italy, 990

RAS SILATA, LEBANON
(34°16'45"N., 35°39'00"E.) See Shikka.

RASHIN, NORTH KOREA
(42°14'00"N., 130°18'00"E.) See Najkin.

RAUMA, FINLAND
(61°07'30"N., 21°26'15"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 678

Ports

Peenemunde, Germany, 555
Stockholm, Sweden, 230
Turku, Finland, 98
Vaasa, Finland, 160

RAVENNA, ITALY
(44°22'30"N., 12°12'24"E.) to:

Junction Points*

Port Said, Egypt, 1,287
Strait of Gibraltar (via Strait of Messina), 1,652
Strait of Gibraltar (via Strait of Sicily), 1,688

Ports

Ajaccio, Corsica, 1,005
Alexandria, Egypt, 1,159
Ancona, Italy, 71
Beirut, Lebanon, 1,335
Ceuta, Morocco, 1,613
Haifa, Israel, 1,331
Izmir, Turkey, 967

Kherson, Ukraine, 1,542
Megara, Greece, 813
Palma, Balearic Islands, 1,226
Split, Croatia, 203
Tarabulus, Libya, 884
Yumurtalik, Turkey, 1,336

RECIFE, BRAZIL
(8°03'00"S., 34°52'00"W.) to:

Junction Points*

Bishop Rock, England, 3,775
Cape of Good Hope, South Africa, 3,324
Ile d'Ouessant, France, 3,743
Inishtrahull, Ireland, 4,071
Montreal, Canada (via Cabot Strait), 4,283
Pentland Firth, Scotland, 4,319
Punta Arenas, Chile, 3,252
Strait of Gibraltar, 3,116
Straits of Florida (via Mona Passage), 3,540

Ports

Baltimore, Maryland, U.S.A., 3,772
Belem, Brazil, 1,084
Bordeaux, France, 3,823
Boston, Massachusetts, U.S.A., 3,669
Bridgetown, Barbados, 2,054
Brunswick, Georgia, U.S.A., 3,672
Buenos Aires, Argentina, 2,181
Cadiz, Spain, 3,125
Cape Town, South Africa, 3,318
Charleston, South Carolina, U.S.A., 3,624
Charlotte Amalie, Virgin Islands, 2,471
Charlottetown, Canada, 3,658
Colon, Panama, 3,212
Dakar, Senegal, 1,717
Fernando de Noronha, 300
Fortaleza, Brazil, 425
Freetown, Sierra Leone, 1,632
Georgetown, Ascension Island, 1,226
Georgetown, Guyana, 1,781
Guiria, Venezuela, 2,208
Halifax, Canada, 3,558
Hamilton, Bermuda, 3,038
Jacksonville, Florida, U.S.A., 3,636
Key West, Florida, U.S.A., 3,488
La Habana, Cuba, 3,499
Las Palmas, Canary Islands, 2,453
Lisboa, Portugal, 3,156
Miami, Florida, U.S.A., 3,456
Montevideo, Uruguay, 2,067
New York, New York, U.S.A., 3,698
Norfolk, Virginia, U.S.A., 3,651
Philadelphia, Pennsylvania, U.S.A., 3,745
Ponta Delgada, Azores, 2,803
Port Castries, St. Lucia, 2,151
Portland, Maine, U.S.A., 3,700
Puerto Cortes, Honduras, 3,737
Salvador, Brazil, 399
San Juan, Puerto Rico (outside all islands), 2,609
Savannah, Georgia, U.S.A., 3,681
St. John's, Canada, 3,491
Sydney, Canada, 3,553
Vigo, Spain, 3,346
Washington, D.C., U.S.A., 3,787

REGGIO DI CALABRIA, ITALY
(38°07'35"N., 15°39'00"E.) to:

Junction Points*

Port Said, Egypt, 939
Strait of Gibraltar, 1,052

Ports

Banghazi, Libya, 425
Napoli, Italy, 179
Palermo, Sicily, 124

RETHIMNON, KRITI
(35°22'30"N., 24°28'00"E.) to:

Junction Points*

Port Said, Egypt, 489
Strait of Gibraltar, 1,485

Ports

Izmir, Turkey, 277
Messina, Sicily, 479
Piraeus, Greece, 151

REYKJAVIK, ICELAND
(64°09'00"N., 21°56'00"W.) to:

Junction Points*

Inishtrahull, Ireland, 729
Montreal, Canada (via Strait of Belle Isle), 2,130
Pentland Firth, Scotland, 687
Strait of Gibraltar, 1,905
Straits of Florida, 3,487

Ports

Asiaat (Egedesminde), Greenland, 1,371
Alesund, Norway, 848
Argentia, Canada, 1,584
Arkhangel'sk, Russia (north of Iceland), 1,874
Arkhangel'sk, Russia (south of Iceland), 1,901
Bergen, Norway, 872
Bjornoya Island (north of Iceland), 1,152
Bjornoya Island, 1,234
Boston, Massachusetts, U.S.A., 2,293
Brest, France, 1,193
Camp Lloyd, Greenland, 1,274
Churchill, Canada (via 75 miles off Kap Farvel), 2,290
Colon, Panama, 4,098
Frederiksdal, Greenland, 714
Glasgow, Scotland, 860
Goose Bay, Canada, 1,332
Guantanamo, Cuba, 3,434
Halifax, Canada, 1,941
Ilulissat (Jakobshavn), Greenland, 1,418
Ikan'ga, Russia, 1,646
Ivittuut, Greenland (via 75 miles off Kap Farvel), 980
Ivittuut, Greenland, 887
Kangerluarsorseq, Greenland, 1,043
Longyearbyen, Svalbard (north of Iceland), 1,160
Longyearbyen, Svalbard (south of Iceland), 1,310
Maniitsoq, Greenland, 1,146
Molde, Norway, 875
Mosjoen, Norway, 1,023
Murmansk, Russia (north of

Iceland), 1,501
Murmansk, Russia (south of Iceland), 1,529
Namsos, Norway, 1,018
Nanortalik, Greenland, 737
Narsarsuaq, Greenland, 830
New York, New York, U.S.A., 2,495
Norfolk, Virginia, U.S.A., 2,677
Nuuk (Godthab), Greenland, 1,076
Oslo, Norway, 1,173
Pechenga, Russia, 1,460
Philadelphia, Pennsylvania, U.S.A., 2,648
Portsmouth, New Hampshire, U.S.A., 2,271
Qaanaaq (Thule), Greenland, 1,898
Qaqortoq (Julianeab), Greenland (via 75 miles off Kap Farvel), 892
Qaqortoq (Julianeab), Greenland, 795
Qasigiannuit, Greenland, 1,278
Qeqertarsuaq (Godhavn), Greenland (via 75 miles off Kap Farvel), 1,483
Qeqertarsuaq (Godhavn), Greenland, 1,396
Qutdligssat, Greenland, 1,552
Ritenbenk, Greenland, 1,581
Shelburne, Canada, 2,047
Sisimiut, Greenland, 1,248
St. John's, Canada, 1,416
Stornoway, Scotland, 647
Torshavn, Faroe Islands, 516
Trondheim, Norway, 969
Upernavik, Greenland, 1,610

RHODES, GREECE
(36°27'00"N., 28°13'54"E.) to:

Junction Points*

Port Said, Egypt, 377
Strait of Gibraltar, 1,664

Ports

Algiers, Algeria, 1,224
Barcelona, Spain, 1,309
Beirut, Lebanon, 393
Brindisi, Italy, 626
Cannes, France, 1,163
Ceuta, Morocco, 1,631
Haifa, Israel, 394
Iraklion, Kriti, 171
Istanbul, Turkey, 445
Izmir, Turkey, 256
Kerch, Georgia, 863
Messina, Sicily, Italy, 639
Piraeus, Greece, 261
Tarabulus, Libya, 780
Thessaloniki, Greece, 388
Venezia, Italy, 1,008

RIBADEO, SPAIN
(43°33'25"N., 7°01'50"W.) to:

Junction Points*

Bishop Rock, England, 372
Cape of Good Hope, South Africa, 6,031
Fastnet Rock, Ireland, 479
Grand Banks South, 1,865
Ile d'Ouessant, France, 313
Inishtrahull, Ireland, 764
Montreal, Canada (via Strait of Belle Isle), 3,060
Panama, Panama, 4,338
Pentland Firth, Scotland, 1,096

* JUNCTION POINT.—See Preface for use of junction points

Punta Arenas, Chile, 6,788
Strait of Gibraltar, 725

Ports

Baltimore, Maryland, U.S.A., 3,215
Belem, Brazil, 3,519
Cape Town, South Africa, 5,457
Casablanca, Morocco, 700
Charleston, South Carolina, U.S.A., 3,388
Cristobal, Panama, 4,275
Dakar, Senegal, 1,879
Freetown, Sierra Leone, 2,354
Lisboa, Portugal, 377
New York, New York, U.S.A., 5,125
Recife, Brazil, 3,486
Vigo, Spain, 178

RICHARDS BAY, SOUTH AFRICA

(28°51'07"S., 32°07'45"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 959
Cape Leeuwin, Australia, 4,129
Selat Lombok, Indonesia, 4,811
Port Said, Egypt, 5,917
Singapore, 4,837
Sundra Strait, Indonesia, 4,370
Torres Strait, Australia, 6,259

Ports

Albany, Australia, 5,031
Bombay, India, 3,725
East London, South Africa, 336
Fremantle, Australia, 4,210
Karachi, Pakistan, 3,824
Mombasa, Kenya, 1,644
Port Adelaide, Australia, 5,259
Port Darwin, Australia, 5,505
Sabang, Indonesia, 4,208
Zanzibar, Tanzania, 1,535

RICHMOND, CALIFORNIA, U.S.A.

(37°54'12"N., 122°21'48"W.)
Add 9 miles to San Francisco distances.

RIGA, LATVIA

(56°57'30"N., 24°05'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 555
Skagens Odde, Denmark (via Store Baelt), 747
Skagens Odde, Denmark (via The Sound), 617

Ports

Gavle, Sweden, 355
Hamina, Finland, 384
Kobenhavn, Denmark, 696
Kotka, Finland, 296
Musko Island, Sweden, 250
Norrkoping, Sweden, 300
Ornskoldsvik, Sweden, 461
Oslo, Norway (via Store Baelt), 871
Oslo, Norway (via The Sound), 739
Porkkala, Finland, 284
Ruche's, Russia, 403

RIJEKA, CROATIA

(45°19'37"N., 14°25'51"E.) to:

Junction Points*

Port Said, Egypt, 1,276
Strait of Gibraltar, 1,648

Ports

Alexandria, Egypt, 1,166
Algiers, Algeria, 1,220
Alicante, Spain, 1,375
Ancona, Italy, 112
Annaba, Algeria, 1,000
Banghazi, Libya, 868
Banzart, Tunisia, 910
Barcelona, Spain, 1,279
Bari, Italy, 288
Beirut, Lebanon, 1,345
Brindisi, Italy, 342
Cartagena, Spain, 1,405
Ceuta, Morocco, 1,628
Chioggia, Italy, 126
Dubrovnik, Croatia, 276
Genova, Italy, 1,085
Gibraltar, 1,630
Haifa, Israel (south of Greece), 1,342
Haifa, Israel (via Corinth Canal), 1,315
Iraklion, Kriti, 831
Istanbul, Turkey (south of Greece), 1,128
Istanbul, Turkey (via Corinth Canal), 1,029
Izmir, Turkey (south of Greece), 974
Izmir, Turkey (via Corinth Canal), 875
La Spezia, Italy, 1,049
Livorno, Italy, 1,013
Malaga, Spain, 1,578
Marseille, France, 1,176
Messina, Sicily, 603
Napoli, Italy, 774
Odessa, Ukraine (south of Greece), 1,476
Odessa, Ukraine (via Corinth Canal), 1,377
Oran, Algeria, 1,417
Palermo, Sicily, 719
Palma, Balearic Islands, 1,235
Piraeus, Greece (south of Greece), 814
Piraeus, Greece (via Corinth Canal), 675
Ploce, Croatia, 230
Savona, Italy, 1,095
Sibenik, Croatia, 158
Siracusa, Sicily, 624
Split, Croatia, 176
Tarabulus, Libya, 887
Taranto, Italy, 482
Thessaloniki, Greece (south of Greece), 1,023
Thessaloniki, Greece (via Corinth Canal), 924
Toulon, France, 1,145
Trieste, Italy, 120
Tunis, Tunisia, 897
Valencia, Spain, 1,363
Valletta, Malta, 701
Venezia, Italy, 132
Volos, Greece (via south of Greece), 964
Volos, Greece (via Corinth Canal), 865

RIO DE JANEIRO, BRAZIL

(22°53'30"S., 43°11'00"W.) to:

Junction Points*

Bishop Rock, England, 4,846
Cape of Good Hope, South Africa, 3,267
Fastnet Rock, Ireland, 4,873
Ile d'Ouessant, France, 4,815
Inishtrahull, Ireland, 5,143
Montreal, Canada (via Cabot Strait), 5,215
Pentland Firth, Scotland, 5,391
Punta Arenas, Chile, 2,238
Strait of Gibraltar, 4,180
Straits of Florida (via Mona Passage), 4,612
Yucatan Channel, 4,622

Ports

Baltimore, Maryland, U.S.A., 4,844
Belem, Brazil, 2,174
Bordeaux, France, 4,908
Boston, Massachusetts, U.S.A., 4,738
Brest, France, 4,841
Bridgetown, Barbados, 3,157
Brunswick, Georgia, U.S.A., 4,744
Buenos Aires, Argentina, 1,151
Cadiz, Spain, 4,192
Cape Town, South Africa, 3,273
Charleston, South Carolina, U.S.A., 4,696
Charlotte Amalie, Virgin Islands, 3,542
Charlottetown, Canada, 4,730
Cienfuegos, Cuba, 4,426
Colon, Panama, 4,284
Dakar, Senegal, 2,763
Freetown, Sierra Leone, 2,613
Funchal, Madeira Island, 3,722
Georgetown, Ascension Island, 1,900
Georgetown, Guyana, 2,853
Guantanamo, Cuba, 4,106
Guiria, Venezuela, 3,284
Halifax, Canada, 4,630
Hamilton, Bermuda, 4,110
Horta, Azores, 3,897
Jacksonville, Florida, U.S.A., 4,707
Key West, Florida, U.S.A., 4,560
Kingston, Jamaica, 4,124
La Habana, Cuba, 4,570
Lisboa, Portugal, 4,219
Maccio, Brazil, 972
Montevideo, Uruguay, 1,037
Natal, Brazil, 1,228
New York, New York, U.S.A., 4,762
Norfolk, Virginia, U.S.A., 4,723
Paramaribo, Suriname, 2,713
Philadelphia, Pennsylvania, U.S.A., 4,817
Ponce, Puerto Rico, 3,659
Ponta Delgada, Azores, 3,875
Port au Prince, Haiti, 4,157
Port Castries, St. Lucia, 3,274
Port of Spain, Trinidad, 3,178
Portland, Maine, U.S.A., 4,772
Porto Grande, Cape Verde Islands, 2,687
Puerto Cortes, Honduras, 4,813
Rio Grande, Brazil, 750
Salvador, Brazil, 748
San Juan, Puerto Rico, 3,613
Santa Cruz de Tenerife, Canary Islands, 3,518
Santo Domingo, Dominican Republic, 3,780
Savannah, Georgia, U.S.A., 4,726
St. Helena Island, 2,161

St. John, Canada, 4,752
St. John's, Canada, 4,563
Sydney, Canada, 4,648
Vigo, Spain, 4,418
Wilmington, North Carolina, U.S.A., 4,704

RIO GALLEGOS, ARGENTINA

(51°36'40"S., 69°12'10"W.) to:

Junction Points*

Panama, Panama, 6,455
Punta Arenas, Chile, 202

Ports

Buenos Aires, Argentina, 1,231

RIO GRANDE, BRAZIL

(32°03'00"S., 52°04'30"W.) to:

Ports

Buenos Aires, Argentina, 440
Guiria, Venezuela, 3,984
Montevideo, Uruguay, 313
Pointe Noire, Congo, 3,938
Rio de Janeiro, Brazil, 750
Santos, Brazil, 602

RIO HAINA, DOMINICAN REPUBLIC

(18°25'20"N., 70°00'20"W.) to:

Junction Points*

Panama, Panama, 845

Ports

Barranquilla, Colombia, 536
Kingston, Jamaica, 417
San Juan, Puerto Rico, 249
Willemstad, Curacao, 394

RISOR, NORWAY

(58°43'12"N., 9°14'40"E.) to:

Junction Points*

Pentland Firth, Scotland, 429
Skagens Odde, Denmark, 73

Ports

Bergen, Norway, 279
London, England, 572
Oslo, Norway, 106

ROAD HARBOR, TORTOLA, BRITISH VIRGIN ISLANDS

(18°25'00"N., 64°37'00"W.) See Port Purcell.

ROCHFERT, FRANCE

(45°56'12"N., 0°57'15"W.) Add 17 miles to La Pallice distances.

ROCHESTER, ENGLAND

(51°23'30"N., 0°30'12"E.)
Subtract 19 miles from London distances.

ROCKHAMPTON, AUSTRALIA

(23°23'00"S., 150°32'00"E.) to:

Junction Points*

Torres Strait, Australia, 1,034

* JUNCTION POINT.—See Preface for use of junction points

94 ROMANA, DOMINICAN REPUBLIC

Wilson Promontory, Australia, 1,213	Ports	Ile d'Ouessant, France, 444 Nord-Ostsee-Kanal (East Entrance), Germany, 323 Pentland Firth, Scotland, 495 Skagens Odde, Denmark, 447	Junction Points*
Ports	Klaipeda, Lithuania, 347 Kobenhavn, Denmark, 231 Stockholm, Sweden, 456	Ports	Cape of Good Hope, South Africa, 4,980 Cape Leeuwin, Australia, 2,711 Selat Lombok, Indonesia, 1,575 Port Said, Egypt, 4,422 Singapore, 601 Selat Sunda, Indonesia, 1,103 Torres Strait, Australia, 3,072
Brisbane, Australia, 391 Noumea, New Caledonia, 902 Wellington, New Zealand, 1,685	ROSTOV-NA-DONU, RUSSIA (47°11'30"N., 39°40'10"E.) to:	Ports	Ports
ROMANA, DOMINICAN REPUBLIC (18°25'00"N., 68°57'10"W.) to:	Junction Points*	Aberdeen, Scotland, 391 Amsterdam, Netherlands, 67 Antwerp, Belgium (via Westkapelle), 117 Bergen, Norway, 533 Bremerhaven, Germany, 256 Brest, France, 457 Cherbourg, France, 282 Den Helder, Netherlands, 97 Dover, England, 138 Dundee, Scotland, 383 Egersund, Norway, 412 Emden, Germany, 199 Esbjerg, Denmark, 287 Fecamp, France, 228 Hamburg, Germany, 307 Hartlepool, England, 269 Hull, England, 211 Inverness, Scotland, 496 Kristiansand, Norway, 413 Le Havre, France, 250 Leith, Scotland, 381 London, England, 184 Narvik, Norway, 1,139 Newcastle, England, 285 Oostende, Belgium, 86 Oslo, Norway, 554 Plymouth, England, 367 Portland, England, 293 Portsmouth, England, 243 Rosyth, Scotland, 393 Seaham Harbor, England, 278 Southampton, England, 261 Stavanger, Norway, 455 Sunderland, England, 286 Vardo, Norway, 1,513 Wilhelmshaven, Germany, 243 Zeebrugge, Belgium, 73	Aden, Yemen, 3,033 Al Basrah, Iraq, 3,287 Al Manamah, Bahrain, 3,050 Beira, Mozambique, 3,921 Belawan, Indonesia, 268 Berbera, Somalia, 3,047 Bombay, India, 1,843 Bushehr, Iran, 3,106 Calcutta, India (via Duncan Passage), 1,131 Calicut, India, 1,343 Dar es Salaam, Tanzania, 3,443 Diego Garcia, Chagos Archipelago, 1,594 Durban, South Africa, 4,273 Fort Dauphin, Madagascar, 3,376 Fremantle, Australia, 2,601 Kakinada, India, 1,019 Karachi, Pakistan, 2,284 Madras, India, 994 Majunga, Madagascar, 3,246 Malacca, Malaysia, 486 Maputo, Mozambique, 3,481 Mocambique, Mozambique, 3,481 Mombasa, Kenya, 3,388 Mosselbaai, South Africa, 4,785 Penang, Malaysia, 313 Port Elizabeth, South Africa, 4,610 Port Louis, Mauritius, 2,731 Rangoon, Burma, 664 Tamatave, Madagascar, 3,076 Victoria, Seychelles, 2,468 Zanzibar, Tanzania, 3,461
RONNE, BORNHOLM, DENMARK (55°06'00"N., 14°41'40"E.) to:	Ports	ROSYTH, SCOTLAND (56°01'15"N., 3°27'00"W.) to:	SAFI, MOROCCO (32°18'35"N., 9°15'15"W.) to:
Junction Points*	Constanta, Romania, 572 Derince, Turkey, 685 Iskenderun, Turkey, 1,483 Istanbul, Turkey, 640 Kerch, Georgia, 208 Larnaca, Cyprus, 1,402 Mersin, Turkey, 1,426 Pula, Croatia (south of Greece), 1,745 Pula, Croatia (via Corinth Canal), 1,646 Sfax, Tunisia, 1,684	Junction Points*	Junction Points*
Nord-Ostsee-Kanal (East Entrance), Germany, 175 Skagens Odde, Denmark (via Store Baelt), 367 Skagens Odde, Denmark (via The Sound), 244	Ports	Pentland Firth, Scotland, 263 Skagens Odde, Denmark, 478	Cape of Good Hope, South Africa, 4,870 Ile d'Ouessant, France, 1,023
Ports	Oslo, Norway (via Store Baelt), 491 Oslo, Norway (via The Sound), 366	Ports	Ports
ROOSEVELT ROADS, PUERTO RICO (18°10'00"N., 65°34'00"W.) to:	Ports	Hull, England, 248 Oslo, Norway, 550 Rotterdam, Netherlands, 393	Casablanca, Morocco, 134 Dakar, Senegal, 1,228
Junction Points*	Panama, Panama, 1,054 Straits of Florida, 1,063	ROTA, SPAIN (36°37'15"N., 6°20'00"W.) to:	SAIDA, LEBANON (33°32'02"N., 35°19'49"E.) See Sayda.
Ports	New York, New York, U.S.A., 1,429 Port of Spain, Trinidad, 525 Willemstad, Curacao, 440	Junction Points*	SAIPAN, MARIANA ISLANDS (15°13'40"N., 145°44'00"E.) to:
ROSARIO, ARGENTINA (32°56'30"S., 60°38'00"W.) Add 191 miles to Buenos Aires distances.	Ports	Ile d'Ouessant, France, 885 Strait of Gibraltar, 70	Ports
ROSEAU, DOMINICA (15°17'15"N., 61°24'00"W.) to:	Basse-Terre, Guadeloupe, 48 Fort de France, Martinique, 50 Frederiksted, St. Croix, 252 Hamilton, Bermuda, 1,061 Pointe a Pitre, Guadeloupe, 60	Ports	Honolulu, Hawaii, U.S.A., 3,230 Jaluit, Marshall Islands, 1,545 Koniya, Ryukyu Islands, 730 Sydney, Australia, 3,077 Truk, Caroline Islands, 610
ROSTOCK, GERMANY (54°05'52"N., 12°09'00"E.) to:	Ports	Panama, Panama, 4,256	SAKAIDE, JAPAN (34°19'45"N., 133°51'30"E.) to:
Junction Points*	Apia, Samoa, 1,520 Apra, Guam, 9,513 Honolulu, Hawaii, U.S.A., 2,358 Levuka, Fiji Islands, 2,060 Noumea, New Caledonia, 2,737 Papeete, French Polynesia, 244 Rabaul, Papua New Guinea, 3,743 San Francisco, California, U.S.A., 3,503	Ports	Ports
Nord-Ostsee-Kanal (East Entrance), Germany, 92 Skagens Odde, Denmark, 254	ROTTERDAM, NETHERLANDS (51°54'00"N., 4°28'00"E.) to:	Ports	Hirohata, Japan, 89
	Junction Points*	Gdynia, Poland, 530 Riga, Latvia, 403 Stockholm, Sweden, 344	
	Bishop Rock, England, 454	RUMOI, JAPAN (43°57'30"N., 141°38'00"E.) to:	
		Ports	
		Busan, South Korea, 793 Hakodate, Japan, 248 Otaru, Japan, 57 Shimonoseki, Japan, 812 Vladivostok, Russia, 452	
		SABANG, INDONESIA (5°53'30"N., 95°19'15"E.) to:	

* JUNCTION POINT.—See Preface for use of junction points

SAN DIEGO, CALIFORNIA, U.S.A. 95

Kobe, Japan, 107
Kure, Japan, 107
Shimonoseki, Japan, 169
Yokohama, Japan (via Kii Suido), 449

SAKATA, JAPAN
(38°55'30"N., 139°48'00"E.) to:

Ports

Busan, South Korea, 577
Hakodate, Japan, 189
Maizuru, Japan, 314
Shimonoseki, Japan, 554
Vladivostok, Russia, 442

SALAMIS, GREECE
(37°57'30"N., 23°29'12"E.) to:

Junction Points*

Port Said, Egypt, 614
Strait of Gibraltar, 1,520

Ports

Durres, Albania, 343
Iraklion, Kriti, 190
Izmir, Turkey, 225

SALAVERRY, PERU
(8°14'30"S., 78°58'00"W.) to:

Junction Points*

Panama, Panama, 1,109

Ports

Callao, Peru, 266
Guayaquil, Ecuador, 440
Pimentel, Peru, 104
San Francisco, California, U.S.A., 3,750

SALAWATI, INDONESIA
(1°21'00"S., 130°59'00"E.) to:

Junction Points*

Honshu, Japan, 2,308
Selat Lombok, Indonesia, 1,099
Panama, Panama, 9,134
Singapore (via Karimata Strait), 2,047
Torres Strait, Australia, 925
Selat Wetar, Indonesia, 495

Ports

Davao, Philippines, 623
Ho Chi Minh, Vietnam, 1,770
Manila, Philippines, 1,298
San Francisco, California, U.S.A., 6,582
Yokohama, Japan, 2,332

SALDANHA BAY, SOUTH AFRICA
(33°05'25"S., 17°52'20"E.) to:

Junction Points*

Bishop Rock, England, 5,752
Fastnet Rock, Ireland, 5,792
Grand Banks South, 5,880
Ile d'Ouessant, France, 5,709
Inishtrahull, Ireland, 6,065
Panama, Panama, 6,449
Punta Arenas, Chile, 4,255
Strait of Gibraltar, 5,031

Straits of Florida, 6,738
Yucatan Channel, 6,783

Ports

Accra, Ghana, 4,090
Baltimore, Maryland, U.S.A., 6,846
Cape Town, South Africa, 57
Cristobal, Panama, 6,392
Galway, Ireland, 5,894
Natal, Brazil, 3,374
New York, New York, U.S.A., 6,729
Port of Spain, Trinidad, 5,265
Victoria, Cameroon, 2,302

SALEEF, YEMEN
(15°18'00"N., 42°40'00"E.) See As Salif.

SALERNO, ITALY
(40°40'15"N., 14°45'00"E.) to:

Junction Points*

Port Said, Egypt, 1,095
Strait of Gibraltar, 1,018

Ports

Civitavecchia, Italy, 204
Messina, Sicily, 158
Palermo, Sicily, 167

SALINA CRUZ, MEXICO
(16°10'00"N., 95°12'00"W.) to:

Junction Points*

Panama, Panama, 1,170
Punta Arenas, Chile, 4,478

Ports

Acapulco, Mexico, 314
Antofagasta, Chile, 2,799
Apia, Samoa, 4,886
Arica, Chile, 2,579
Callao, Peru, 2,005
Coquimbo, Chile, 3,091
Corinto, Nicaragua, 525
Esmeraldas, Ecuador, 1,290
Guayaquil, Ecuador, 1,495
Guaymas, Mexico, 1,260
Honolulu, Hawaii, U.S.A., 3,580
Iquique, Chile, 2,645
La Libertad, El Salvador, 391
Los Angeles, California, U.S.A., 1,803
Lota, Chile, 3,430
Monterey, California, U.S.A., 2,055
Pago Pago, American Samoa, 4,839
Pisco, Peru, 2,117
San Diego, California, U.S.A., 1,733
San Francisco, California, U.S.A., 2,132
San Juan del Sur, Nicaragua, 619
Santa Barbara, California, U.S.A., 1,820
Talcahuano, Chile, 3,414
Valparaiso, Chile, 3,247

SALINAS, ECUADOR
(2°12'00"S., 80°59'00"W.) Use La Libertad distances.

SALVADOR, BRAZIL
(12°58'00"S., 38°31'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 4,134
Montreal, Canada (via Cabot Strait), 4,673
Panama, Panama, 3,741
Punta Arenas, Chile, 2,920
Strait of Gibraltar, 3,516
Straits of Florida, 3,931

Ports

Angra dos Reis, Brazil, 902
Baltimore, Maryland, U.S.A., 4,163
Boston, Massachusetts, U.S.A., 4,060
Bridgetown, Barbados, 2,476
Brunswick, Georgia, U.S.A., 4,063
Buenos Aires, Argentina, 1,849
Cabedelo, Brazil, 468
Charleston, South Carolina, U.S.A., 4,040
Charlotte Amalie, Virgin Islands, 2,907
Charlottetown, Canada, 4,049
Colon, Panama, 3,608
Georgetown, Guyana, 2,172
Halifax, Canada, 3,949
Maceio, Brazil, 285
Montevideo, Uruguay, 1,735
New York, New York, U.S.A., 4,089
Norfolk, Virginia, U.S.A., 4,042
Philadelphia, Pennsylvania, U.S.A., 4,136
Port Castries, St. Lucia, 2,593
Portland, Maine, U.S.A., 4,091
Recife, Brazil, 399
Rio de Janeiro, Brazil, 748
Savannah, Georgia, U.S.A., 4,072
Sydney, Canada, 3,967
Vitoria, Brazil, 477
Wilmington, North Carolina, 4,023

SAMBU, INDONESIA
(1°10'00"N., 103°54'00"E.) Use Singapore distances.

SAMSON POINT, AUSTRALIA
(20°31'58"S., 117°14'00"E.) See Port Walcott.

SAMSUN, TURKEY
(41°19'36"N., 36°22'00"E.) Add 370 miles to Istanbul distances for ports outside the Black Sea.

SAN ANTONIO, CHILE
(33°35'00"S., 71°39'00"W.) to:

Junction Points*

Panama, Panama, 2,644
Punta Arenas, Chile, 1,410

Ports

Antofagasta, Chile, 600
Callao, Peru, 1,328
Tocopilla, Chile, 692

SAN CIPRIAN, SPAIN
(43°42'20"N., 07°25'32"W.) to:

Junction Points*

Bishop Rock, England, 365
Cape of Good Hope, South Africa, 6,011
Fastnet Rock, Ireland, 466

Grand Banks South, 1,846
Ile d'Ouessant, France, 308
Inishtrahull, Ireland, 749
Panama, Panama, 4,288
Pentland Firth, Scotland, 1,082
Punta Arenas, Chile, 6,769
Strait of Gibraltar, 706
Straits of Florida, 3,855

Ports

Bilbao, Spain, 197
Bordeaux, France, 303
Boston, Massachusetts, U.S.A., 4,746
Cape Town, South Africa, 5,438
Casablanca, Morocco, 683
Dakar, Senegal, 1,863
Huelva, Spain, 573
La Pallice, France, 303
Lorient, France, 297
Marin, Spain, 154
Norfolk, Virginia, U.S.A., 5,230
Setubal, Portugal, 397
Villagarcia, Spain, 143

SAN DIEGO, CALIFORNIA, U.S.A.
(32°43'00"N., 117°10'30"W.) to:

Junction Points*

Panama, Panama, 2,843
Punta Arenas, Chile, 5,801
Singapore, 7,736
Wilson Promontory, Australia (south of Fiji Islands), 6,873

Ports

Acapulco, Mexico, 1,431
Aleksandrovsk-Sakhalinskiy, Russia, 4,779
Amapala, Honduras, 2,181
Antofagasta, Chile, 4,360
Apia, Samoa, 4,195
Apra, Guam, 5,379
Arica, Chile, 4,149
Auckland, New Zealand, 5,655
Baie du Controleur, Marquesa Islands, 2,828
Brisbane, Australia, 6,306
Brito, Nicaragua, 2,307
Caldera, Chile, 4,492
Callao, Peru, 3,585
Canton, Phoenix Islands, 3,755
Chimbote, Peru, 3,402
Coquimbo, Chile, 4,605
Corinto, Nicaragua, 2,211
Dutch Harbor, Alaska, U.S.A., 2,465
Esmeraldas, Ecuador, 2,940
Guayaquil, Ecuador, 3,112
Guaymas, Mexico, 1,088
Hilo, Hawaii, U.S.A., 2,175
Ho Chi Minh, Vietnam, 7,267
Hong Kong, China (via Tsugaru-Kaikyo), 6,439
Honolulu, Hawaii, U.S.A., 2,278
Iquique, Chile, 4,218
Jakarta, Indonesia, 7,985
Kobe, Japan, 5,204
Kodiak, Alaska, 2,121
Lota, Chile, 4,881
Manila, Philippines (via Balintang Channel), 6,604
Manzanillo, Mexico, 1,136
Mazatlan, Mexico, 939
Midway Island, 3,097
Naknek, Alaska, U.S.A., 2,788
Noumea, New Caledonia, 5,491
Pago Pago, American Samoa, 4,176

* **JUNCTION POINT.**—See Preface for use of junction points

96 SAN FELIX, VENEZUELA

Papeete, French Polynesia, 3,554
 Pearl Harbor, Hawaii, U.S.A., 2,285
 Petropavlovsk-Kamchatskiy, Russia, 3,707
 Pisco, Peru, 3,695
 Port Darwin, Australia (north of New Guinea), 7,297
 Puntarenas, Costa Rica, 2,429
 Qingdao, China, 5,805
 Salina Cruz, Mexico, 1,733
 San Jose, Guatemala, 1,993
 Shanghai, China (via Tsugaru-Kaikyo), 5,793
 Sitka, Alaska, 1,725
 Surabaya, Indonesia, 7,691
 Suva, Fiji Islands, 4,804
 Sydney, Australia (north of Fiji Islands), 6,530
 Talcahuano, Chile, 4,869
 Truk, Caroline Islands, 5,216
 Unalakleet, Alaska, U.S.A., 2,791
 Valdivostok, Russia, 5,062
 Valparaiso, Chile, 4,738
 Wake Island, 4,112
 Yokohama, Japan, 4,923

SAN FELIX, VENEZUELA
(8°22'30"N., 62°40'00"W.) to:**Junction Points***

Panama, Panama, 1,535
 Yucatan Channel, 1,861

Ports

Belem, Brazil, 1,222
 La Guaira, Venezuela, 673

SAN FERNANDO, PHILIPPINES
(16°38'00"N., 120°18'00"E.) to:**Junction Points***

Singapore, 1,379

Ports

Ho Chi Minh, Vietnam, 927
 Hong Kong, China, 489
 Kao-hsiung Kang, Taiwan, 356
 Manila, Philippines, 207

SAN FRANCISCO, CALIFORNIA, U.S.A.
(37°48'30"N., 122°24'00"W.) to:**Junction Points***

Panama, Panama, 3,245
 Punta Arenas, Chile, 6,188
 Singapore (via Balintang Channel), 7,353
 Singapore (via Tawitawi Island), 7,735
 Torres Strait, Australia, 6,249
 Wilson Promontory, Australia, 6,817

Ports

Acajutla, El Salvador, 2,446
 Acapulco, Mexico, 1,833
 Aleksandrovsk-Sakhalinskiy, Russia, 4,372
 Amapala, Honduras, 2,586
 Anchorage, Alaska, U.S.A., 1,872
 Antofagasta, Chile, 4,762
 Apia, Samoa, 4,161
 Apra, Guam, 5,053

Arica, Chile, 4,551
 Attu Island, Alaska, U.S.A. (via Amukta Pass), 2,765
 Auckland, New Zealand, 5,680
 Avarua, Cook Islands, 4,124
 Baie du Controleur, Marquesa Islands, 2,986
 Bai Taio-Hae, Marquesa Islands, 2,987
 Barbers Point, Hawaii, U.S.A., 2,100
 Brisbane, Australia (west of D'Entrecasteaux Reefs and south of Bellona Reefs), 6,193
 Buenaventura, Colombia, 3,383
 Busan, South Korea, 4,914
 Caldera, Chile, 4,894
 Callao, Peru, 3,989
 Canton, Phoenix Islands, 3,663
 Chimbote, Peru, 3,804
 Christmas Island, Line Islands, 2,895
 Coquimbo, Chile, 5,007
 Corinto, Nicaragua, 2,613
 Dagou, China (via Osumi Kaikyo), 5,856
 Dagou, China (via Tsugaru-Kaikyo), 5,615
 Dalian, China (via Tsugaru Strait), 5,456
 Dutch Harbor, Alaska, U.S.A., 2,051
 Eniwetak, Marshall Islands, 4,282
 Esmeraldas, Ecuador, 3,342
 Funafuti, Tuvalu, 4,295
 Guaymas, Mexico, 1,490
 Hakodate, Japan, 4,246
 Ho Chi Minh, Vietnam, 6,878
 Hong Kong, China, 6,044
 Honolulu, Hawaii, U.S.A., 2,091
 Iloilo, Philippines, 6,168
 Iquique, Chile, 4,620
 Jakarta, Indonesia (via Balintang Channel), 7,642
 Jaluit, Marshall Islands, 4,150
 Johnston Island, 2,779
 Juneau, Alaska, U.S.A., 1,371
 Kiska, Alaska, U.S.A., 2,629
 Kobe, Japan, 4,819
 Kodiak, Alaska, U.S.A., 1,693
 La Union, El Salvador, 2,586
 Levuka, Fiji Islands, 4,705
 Lota, Chile, 5,282
 Manila, Philippines (via Balintang Channel), 6,221
 Manila, Philippines (via San Bernardino Strait), 6,299
 Manzanillo, Mexico, 1,538
 Mazatlan, Mexico, 1,337
 Melbourne, Australia (via South Channel), 6,970
 Midway Island, 2,792
 Mogpo, South Korea, 5,125
 Nagasaki, Japan, 5,029
 Newcastle, Australia, 6,467
 Nikolayevsk-Na-Amure, Russia (via Unimak Pass), 4,099
 Nome, Alaska, U.S.A., 2,636
 Noumea, New Caledonia, 5,410
 Ocean Island, 4,406
 Pago Pago, American Samoa, 4,150
 Papeete, French Polynesia, 3,663
 Petropavlovsk-Kamchatskiy, Russia (via Unimak Pass), 3,292
 Pisco, Peru, 4,097
 Ponape, Caroline Islands, 4,641
 Port Darwin, Australia, 6,984
 Prince Rupert, Canada, 1,090
 Puerto Armuelles, Panama, 2,973
 Puntarenas, Costa Rica, 2,831
 Qingdao, China, 5,403

Rabaul, Papua New Guinea, 5,396
 Rotoava, Iles Tuamotu, 3,503
 Salaverry, Peru, 3,750
 Salina Cruz, Mexico, 2,135
 San Jose, Guatemala, 2,395
 Sasebo, Japan (via Osumi Kaikyo), 5,185
 Seward, Alaska, U.S.A., 1,701
 Shanghai, China (via Tsugaru Strait), 5,398
 Shantou, China (via Osumi Kaikyo), 5,900
 Shimonoseki, Japan (via Tsugaru-Kaikyo), 4,910
 Sitka, Alaska, U.S.A., 1,302
 Surabaya, Indonesia, 7,343
 Suva, Fiji Islands, 4,749
 Sydney, Australia, 6,448
 Talar, Peru, 3,494
 Talcahuano, Chile, 5,270
 Taltal, Chile, 4,838
 Tocopilla, Chile, 4,699
 Truk, Caroline Islands, 4,931
 Valparaiso, Chile, 5,140
 Vancouver, Canada (via Active Pass), 812
 Vancouver, Canada (via Haro Strait), 823
 Victoria, Canada, 745
 Vladivostok, Russia (via La Perouse Strait and Proliv Kruzenshterna), 4,563
 Vladivostok, Russia (via La Perouse Strait, Chetverty Kuril'skiy Proliv, and Unimak Pass), 4,570
 Wake Island, 3,821
 Weihai, China (via Tsugaru-Kaikyo), 5,402
 Wellington, New Zealand, 5,900
 Weonsan, North Korea, 4,866
 Xiamen, China (via Osumi Kaikyo), 5,797
 Xiamen, China (via Tsugaru-Kaikyo), 5,788
 Yokohama, Japan, 4,536

SAN JOSE, GUATEMALA
(13°55'00"N., 90°49'45"W.) to:**Junction Points***

Panama, Panama, 886
 Punta Arenas, Chile, 4,296

Ports

Acapulco, Mexico, 574
 Amapala, Honduras, 204
 Antofagasta, Chile, 2,557
 Arica, Chile, 2,338
 Callao, Peru, 1,763
 Coquimbo, Chile, 2,864
 Corinto, Nicaragua, 238
 Esmeraldas, Ecuador, 1,016
 Guayaquil, Ecuador, 1,242
 Guaymas, Mexico, 1,520
 Hilo, Hawaii, U.S.A., 3,690
 Iquique, Chile, 2,404
 Los Angeles, California, U.S.A., 2,054
 Lota, Chile, 3,220
 Manzanillo, Mexico, 840
 Mazatlan, Mexico, 1,149
 Monterey, California, U.S.A., 2,315
 Pisco, Peru, 1,875
 Puntarenas, Costa Rica, 465
 San Diego, California, U.S.A., 1,993
 San Francisco, California, U.S.A., 2,395

Santa Barbara, California, U.S.A., 2,130
 Talcahuano, Chile, 3,202
 Valparaiso, Chile, 3,024

SAN JUAN, PERU
(15°20'36"S., 75°09'36"W.) to:**Junction Points***

Panama, Panama, 1,590
 Punta Arenas, Chile, 1,660

Ports

Antofagasta, Chile, 575
 Callao, Peru, 248

SAN JUAN, PUERTO RICO
(18°27'50"N., 66°06'40"W.) to:**Junction Points***

Bishop Rock, England, 3,390
 Fastnet Rock, Ireland (via Mona Passage), 3,299
 Inishtrahull, Ireland, 3,436
 Panama, Panama, 1,036
 Pentland Firth, Scotland, 3,638
 Strait of Gibraltar, 3,336
 Straits of Florida, 1,017
 Yucatan Channel, 1,111

Ports

Abraham Bay, Bahamas, 476
 Argentina, Canada, 1,840
 Arkhangel'sk, Russia, 5,001
 Moa, Cuba, 533
 Bahia de las Calderas, Dominican Republic, 273
 Bahia de Samana, Dominican Republic, 185
 Baltimore, Maryland, U.S.A., 1,374
 Barahona, Dominican Republic, 294
 Barranquilla, Colombia, 705
 Basse-Terre, Guadeloupe, 314
 Basseterre, Saint Kitts and Nevis, 214
 Belem, Brazil, 1,692
 Boca de Tanamo, Cuba, 549
 Boston, Massachusetts, U.S.A., 1,486
 Bridgetown, Barbados (west of St. Croix and via Virgin Passage), 517
 Brunswick, Georgia, U.S.A., 1,132
 Buenos Aires, Argentina, 4,753
 Cadiz, Spain, 3,312
 Cap-Haitien, Haiti, 372
 Cape Town, South Africa, 5,772
 Cardenas, Cuba, 917
 Cartagena, Colombia, 782
 Catia la Mar, Venezuela, 556
 Charleston, South Carolina, U.S.A., 1,138
 Christiansted, St. Croix, 104
 Cienfuegos, Cuba (north of Hispaniola), 903
 Cienfuegos, Cuba (south of Hispaniola), 930
 Colon, Panama, 993
 Corunna, Spain, 3,255
 Dakar, Senegal, 2,812
 Elizabeth Harbor, Bahamas, 642
 Fernandina, Florida, U.S.A., 1,115
 Fort de France, Martinique, 385
 Fort Liberté, Haiti, 373
 Freetown, Sierra Leone, 3,141
 Funchal, Madeira Island, 2,773

* JUNCTION POINT.—See Preface for use of junction points

SAINT ANTIOCO PONTI, SARDINIA 97

Georgetown, Guyana, 876
 Guantanamo, Cuba (via north of Hispaniola), 537
 Halifax, Canada, 1,580
 Hamilton, Bermuda, 856
 Hopetown, Bahamas, 802
 Horta, Azores, 2,294
 Ivittuut, Greenland, 2,720
 Jacksonville, Florida, U.S.A., 1,121
 Key West, Florida, U.S.A., 966
 Kingston, Jamaica (north of Hispaniola), 685
 Kingston, Jamaica (south of Hispaniola), 643
 La Guaira, Venezuela, 506
 La Habana, Cuba, 978
 La Romana, Dominican Republic, 191
 Limon, Costa Rica, 1,119
 Lisboa, Portugal, 3,185
 Liverpool, Canada, 1,540
 Manzanillo, Cuba, 738
 Mariel, Cuba, 999
 Matanzas, Cuba, 931
 Miami, Florida, U.S.A., 960
 Miller Anchorage, Bahamas, 714
 Miragoane, Haiti, 526
 Nassau, Bahamas, 799
 New York, New York, U.S.A., 1,399
 Nicaro Lengua de Pajaro, Cuba, 561
 Norfolk, Virginia, U.S.A., 1,252
 Nuevitas, Cuba, 663
 Oranjestad, St. Eustatius, 195
 Philadelphia, Pennsylvania, U.S.A., 1,395
 Pina, Panama, 1,219
 Pointe a Pitre, Guadeloupe, 333
 Ponce, Puerto Rico, 157
 Ponta Delgada, Azores, 2,412
 Port au Prince, Haiti, 552
 Port Castries, St. Lucia (via Virgin Passage and west of St. Croix), 418
 Port of Spain, Trinidad, 574
 Portland, Maine, U.S.A., 1,531
 Portsmouth, New Hampshire, U.S.A., 1,507
 Puerto Cortes, Honduras, 1,284
 Puerto Manati, Cuba, 639
 Puerto Padre, Cuba, 625
 Puerto Vita, Cuba, 592
 Recife, Brazil (via outside all islands), 2,609
 Rio de Janeiro, Brazil, 3,652
 Rio Haina, Dominican Republic, 249
 San Pedro de Macoris, Dominican Republic, 199
 Santa Barbara de Samana, Dominican Republic, 190
 Santa Cruz de Tenerife, Canary Islands, 2,820
 Santa Lucia, Cuba, 1,079
 Santiago de Cuba, Cuba (north of Hispaniola and via Windward Passage), 584
 Santiago de Cuba, Cuba (south of Hispaniola), 637
 Santo Domingo, Dominican Republic, 232
 Savannah, Georgia, U.S.A., 1,153
 St. John, Canada, 1,614
 St. John's, Antigua, 265
 St. Pierre, Martinique, 374
 Sydney, Canada, 1,728
 Tela, Honduras, 1,258
 Veracruz, Mexico, 1,780
 Vigo, Spain, 3,228
 Willemstad, Curacao, 485
 Wilmington, North Carolina,

U.S.A., 1,153
 Yarmouth, Canada, 1,525

SAN JUAN DEL SUR, NICARAGUA
 (11°15'15"N., 85°53'10"W.) to:

Junction Points*

Panama, Panama, 590

Ports

La Libertad, El Salvador, 239
 Puntarenas, Costa Rica, 171
 Salina Cruz, Mexico, 619

SAN LORENZO, ARGENTINA
 (32°44'00"S., 60°43'32"W.) Add
 238 miles to Buenos Aires
 distances or add 202 miles via the
 Miter Channel.

SAN LORENZO, HONDURAS
 (13°25'00"N., 87°25'00"W.) to:

Junction Points*

Panama, Panama, 762

Ports

Acapulco, Mexico, 791
 Callao, Peru, 1,701

SAN LORENZO, VENEZUELA
 (9°47'00"N., 71°05'30"W.) Add
 95 miles to Maracaibo distances.

SAN NICOLAS, ARGENTINA
 (33°19'30"S., 60°13'00"W.) Add
 188 miles to Buenos Aires
 distances.

SAN NICOLAS, PERU
 (15°14'42"S., 75°14'26"W.) to:

Junction Points*

Panama, Panama, 1,573
 Punta Arenas, Chile, 2,469
 Torres Strait, Australia, 8,209
 Wilson Promontory, Australia (via 30°S.), 8,119
 Wilson Promontory, Australia (via 40°S.), 7,099

Ports

Antofagasta, Chile, 571
 Arica, Chile, 350
 Callao, Peru, 230
 Corinto, Nicaragua, 1,837
 Pisco, Peru, 135
 Salina Cruz, Mexico, 902
 Supe Bay, Peru, 314
 Talcahuano, Chile, 1,300
 Valparaiso, Chile, 1,089

SAN PEDRO, ARGENTINA
 (33°42'00"S., 59°39'00"W.) Add
 151 miles to Buenos Aires
 distances.

SAN PEDRO, IVORY COAST
 (4°44'00"N., 6°36'24"W.) to:

Junction Points*

Bishop Rock, England, 3,397

Cape of Good Hope, South Africa, 2,735
 Fastnet Rock, Ireland, 3,413
 Grand Banks South, 3,552
 Ile d'Ouessant, France, 3,344
 Inishtrahull, Ireland, 3,677
 Panama, Panama, 4,555
 Pentland Firth, Scotland, 4,236
 Punta Arenas, Chile, 4,811
 Strait of Gibraltar, 3,091
 Straits of Florida, 4,727
 Yucatan Channel, 4,876

Ports

Abidjan, Ivory Coast, 157
 Accra, Ghana, 398
 Bordeaux, France, 3,160
 Cape Town, South Africa, 2,718
 Dakar, Senegal, 994
 Freetown, Sierra Leone, 532
 Galway, Ireland, 3,356
 Lagos, Nigeria, 616
 Monrovia, Liberia, 312
 Natal, Brazil, 1,826
 New York, New York, U.S.A., 4,284
 Nouadhibou, Mauritania, 1,368
 Port of Spain, Trinidad, 3,302
 Tangier, Morocco, 2,304

SAN PEDRO DE MACORIS, DOMINICAN REPUBLIC
 (18°26'45"N., 69°18'20"W.) to:

Ports

Kingston, Jamaica, 461
 Port au Prince, Haiti, 473
 Romana, Dominican Republic, 21
 San Juan, Puerto Rico, 199

SAN SEBASTIAN, SPAIN
 (43°19'00"N., 1°59'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 353
 Strait of Gibraltar, 892

Ports

Bordeaux, France, 210
 El Ferrol del Caudillo, Spain, 302
 Horta, Azores, 957

SAN VICENTE, CHILE
 (36°43'55"S., 73°10'00"W.) to:

Junction Points*

Panama, Panama, 2,800
 Punta Arenas, Chile, 1,210
 Wilson Promontory, Australia (via Cook Strait), 6,485

Ports

Antofagasta, Chile, 791
 Arica, Chile, 1,104
 Corinto, Nicaragua, 3,063
 Kodiak, Alaska, 6,943
 Pisco, Peru, 1,428
 Wellington, New Zealand, 4,878
 Yokohama, Japan, 9,248

SAN-MEN WEN, CHINA
 (29°03'00"N., 121°45'00"E.) See
 Sanmen Wen, China.

SAN-YA CHIANG, CHINA
 (18°14'00"N., 109°26'00"E.) See

Sanya Gang, China.

SANDAKAN, SABAH
 (5°50'00"N., 118°07'00"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Makassar Strait), 1,010
 Panama, Panama (via Surigao Strait), 9,618
 Singapore (via Balabac Strait), 1,130
 Selat Sunda, Indonesia (via Balabac Strait), 1,368
 Torres Strait, Australia, 1,853

Ports

Honolulu, Hawaii, U.S.A., 5,044
 Jolo, Philippines, 180
 Victoria, Sabah, 412
 Zamboanga Philippines, 251

SANDEFJORDEN, NORWAY
 (59°07'25"N., 10°13'50"E.) to:

Junction Points*

Pentland Firth, Scotland, 518

Ports

Bergen, Norway, 317
 Bremerhaven, Germany, 373
 London, England, 610

SANKT-PETERBURG, RUSSIA
 (59°55'00"N., 30°15'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 779
 Skagens Odde, Denmark (via Store Baelt), 971
 Skagens Odde, Denmark (via The Sound), 841

Ports

Hango, Finland, 233
 Helsinki, Finland, 172
 Karlskrona, Sweden, 563
 Kobenhavn, Denmark, 917
 Oslo, Norway (via Store Baelt), 1,095
 Oslo, Norway (via The Sound), 963
 Pitea, Sweden, 687
 Stockholm, Sweden, 386
 Sundsvall, Sweden, 507
 Tallinn, Estonia, 189
 Umea, Sweden, 574
 Ventspils, Latvia, 374

SANMEN WEN, CHINA
 (29°03'00"N., 121°45'00"E.) to:

Ports

Chi-lung, Taiwan, 248
 Hong Kong, China, 650
 Incheon, South Korea, 628
 Nagoya, Japan, 143
 Qingdao, China, 528
 Shanghai, China, 270

SAINT ANTIOCO PONTI, SARDINIA
 (39°03'12"N., 8°28'12"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

98 SANTA BARBARA, CALIFORNIA, U.S.A.

<p>Junction Points*</p> <p>Port Said, Egypt, 1,282 Strait of Gibraltar, 715</p> <p>Ports</p> <p>Banzart, Tunisia, 132 Nice, France, 310 Palma, Balearic Islands, 298</p> <p>SANTA BARBARA, CALIFORNIA, U.S.A. (34°24'00"N., 119°41'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 2,980 Punta Arenas, Chile, 5,938</p> <p>Ports</p> <p>Acapulco, Mexico, 1,568 Antofagasta, Chile, 4,497 Arica, Chile, 4,286 Callao, Peru, 3,722 Coquimbo, Chile, 4,742 Corinto, Nicaragua, 2,348 Esmeraldas, Ecuador, 3,077 Guayaquil, Ecuador, 3,249 Guaymas, Mexico, 1,225 Iquique, Chile, 4,355 Lota, Chile, 5,018 Pisco, Peru, 3,832 Puntarenas, Costa Rica, 2,566 Salina Cruz, Mexico, 1,870 San Jose, Guatemala, 2,130. Talcahuano, Chile, 5,006 Valparaiso, Chile, 4,875</p> <p>SANTA CRUZ DE TENERIFE, CANARY ISLANDS (28°38'00"N., 16°14'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,356 Cape of Good Hope, South Africa, 4,453 Ile d'Ouessant, France, 1,320 Inishtrahull, Ireland, 1,704 Montreal, Canada, 3,009 Pentland Firth, Scotland, 1,952 Punta Arenas, Chile, 5,690 Strait of Gibraltar, 697 Straits of Florida, 3,614</p> <p>Ports</p> <p>Belem, Brazil, 2,599 Bordeaux, France, 1,406 Boston, Massachusetts, U.S.A., 2,777 Buenos Aires, Argentina, 4,619 Cadiz, Spain, 702 Cape Town, South Africa, 4,435 Casablanca, Morocco, 548 Charleston, South Carolina, U.S.A., 3,275 Charlotte Amalie, Virgin Islands, 2,764 Colon, Panama, 3,776 Dakar, Senegal, 846 Freetown, Sierra Leone, 1,342 Funchal, Madeira Island, 258 Guantanamo, Cuba, 3,265 Halifax, Canada, 2,478 Horta, Azores, 881 Huelva, Spain, 715 Lisboa, Portugal, 714 Miami, Florida, U.S.A., 3,427 New York, New York, U.S.A., 2,936</p>	<p>Norfolk, Virginia, U.S.A., 3,057 Oporto, Portugal, 849 Philadelphia, Pennsylvania, U.S.A., 3,062 Port of Spain, Trinidad, 2,804 Porto Grande, Sao Vicente, Cape Verde Islands, 849 Rio de Janeiro, Brazil, 3,518 San Juan, Puerto Rico, 2,820 St. John's, Canada, 2,053 Takoradi, Ghana, 2,119 Vigo, Spain, 909</p> <p>SANTA CRUZ DEL SUR, CUBA (20°40'00"N., 77°59'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 731 Yucatan Channel, 416</p> <p>Ports</p> <p>Guantanamo, Cuba, 222 La Habana, Cuba, 542 Montego Bay, Jamaica, 134</p> <p>SANTA FE, ARGENTINA (31°39'00"S., 60°42'00"W.) Add 258 miles to Buenos Aires distances.</p> <p>SANTA LUCIA, CUBA (22°42'00"N., 83°58'30"W.) to:</p> <p>Junction Points*</p> <p>Straits of Florida, 120 Yucatan Channel, 99</p> <p>Ports</p> <p>Kingston, Jamaica, 651 Nuevitas, Cuba, 447 San Juan, Puerto Rico, 1,079</p> <p>SANTA MARIA, CUBA (21°17'00"N., 78°34'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 814 Yucatan Channel, 381</p> <p>Ports</p> <p>Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage), 1,755 Santo Domingo, Dominican Republic, 504 Savannah, Georgia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,372 Veracruz, Mexico, 1,537</p> <p>SANTA MARTA, COLOMBIA (11°15'00"N., 74°13'00"W.) to:</p> <p>Junction Points*</p> <p>Yucatan Channel, 892</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A. (via Windward Passage and Crooked Island Passage), 1,710 Boston, Massachusetts, U.S.A. (via Windward Passage and Crooked Island Passage), 1,966</p>	<p>Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,373 Colon, Panama, 365 Galveston, Texas, U.S.A., 1,588 New York, New York, U.S.A. (via Windward Passage and Crooked Island Passage), 1,783 Norfolk, Virginia, U.S.A. (via Windward Passage and, Crooked Island Passage), 1,588</p> <p>SANTA ROSALIA, MEXICO (27°20'00"N., 112°16'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 2,390</p> <p>Ports</p> <p>Acapulco, Mexico, 976 Los Angeles, California, U.S.A., 1,192</p> <p>SANTAN TERMINAL, INDONESIA (0°06'00"S., 117°32'00"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 2,543 Selat Lombok, Indonesia, 586 Singapore (via Makassar and Karimata Straits), 1,387 Selat Sunda, Indonesia, 1,008 Selat Wetar, Indonesia, 914</p> <p>Ports</p> <p>Davao, Philippines, 741 Hong Kong, China, 1,502 Honolulu, Hawaii, U.S.A., 5,112 Makassar, Celebes, 422 Manila, Philippines, 952 Sorong, New Guinea, 953</p> <p>SANTANA, BRAZIL (0°04'09"S., 51°06'44"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,782 Cape of Good Hope, South Africa, 4,546 Fastnet Rock, Ireland, 3,754 Grand Banks South, 2,595 Ile d'Ouessant, France, 3,776 Inishtrahull, Ireland, 3,980 Montreal, Canada, 3,648 Panama, Panama, 2,253 Pentland Firth, Scotland, 4,228 Punta Arenas, Chile, 4,545 Strait of Gibraltar, 3,226 Straits of Florida, 2,710 Yucatan Channel, 2,722</p> <p>Ports</p> <p>Bordeaux, France, 3,874 Buenos Aires, Argentina, 3,534 Dakar, Senegal, 2,039 Halifax, Canada, 2,831 Kingston, Jamaica, 2,091 Lisboa, Portugal, 2,527 Natal, Brazil, 1,220 New York, New York, U.S.A., 2,924</p> <p>SANTANDER, SPAIN (43°27'30"N., 3°48'00"W.) to:</p>	<p>Junction Points*</p> <p>Ile d'Ouessant, France, 323</p> <p>Ports</p> <p>Barranquilla, Colombia, 753 Cienfuegos, Cuba, 149 Santiago de Cuba, Cuba, 300</p> <p>SANTIAGO DE CUBA, CUBA (20°01'00"N., 75°50'15"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 726 Straits of Florida (via Windward Passage), 676 Yucatan Channel, 548</p> <p>Ports</p> <p>Amuay, Venezuela, 600 Baltimore, Maryland, U.S.A., 1,289 Barcelona, Venezuela, 936 Barranquilla, Colombia, 549 Boston, Massachusetts, U.S.A. (via Nantucket Light Buoy), 1,545 Brunswick, Georgia, U.S.A., 926 Casilda, Cuba, 288 Charleston, South Carolina, U.S.A. (via Crooked Island Passage), 952 Cienfuegos, Cuba, 334 Colon, Panama, 683 Fort de France, Martinique, 951 Guanica, Puerto Rico (via north of Hispaniola), 572 Guanica, Puerto Rico (via south of Hispaniola), 584 Halifax, Canada, 1,683 Hamilton, Bermuda, 1,031 Jacksonville, Florida, U.S.A. (via Windward Passage), 904 Key West, Florida, U.S.A. (via Windward Passage), 637 Kingston, Jamaica, 176 La Habana, Cuba, 650 Manzanillo, Cuba, 168 Miami, Florida, U.S.A., 630 Montego Bay, Jamaica, 154 Nassau, Bahamas, 566 New York, New York, U.S.A., 1,362 Norfolk, Virginia, U.S.A., 1,167 Philadelphia, Pennsylvania, U.S.A. (via Crooked Island Passage), 1,334 Ponce, Puerto Rico, 587 Puerto Barrios, Guatemala, 792 San Juan, Puerto Rico, 584 Santa Maria, Cuba, 300 Santo Domingo, Dominican Republic, 429 Savannah, Georgia, U.S.A. (via Crooked Island Passage), 951 Willemstad, Curacao, 627 Wilmington, North Carolina, U.S.A., 1,003</p> <p>SANTO DOMINGO, DOMINICAN REPUBLIC (18°28'00"N., 69°52'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,585 Fastnet Rock, Ireland, 3,491 Inishtrahull, Ireland (via Mona Passage), 3,641 Montreal, Canada (via Mona</p>
---	---	--	--

* JUNCTION POINT.—See Preface for use of junction points

Passage), 2,579
Panama, Panama, 846
Pentland Firth, Scotland, 3,820
Strait of Gibraltar, 3,549
Straits of Florida (via Mona Passage), 1,036
Straits of Florida (via Windward Passage), 986
Yucatan Channel, 929

Ports

Baltimore, Maryland, U.S.A., 1,451
Barranquilla, Colombia, 538
Belem, Brazil, 1,866
Belize, Belize, 1,088
Boston, Massachusetts, U.S.A., 1,599
Brunswick, Georgia, U.S.A., 1,179
Buenos Aires, Argentina, 4,929
Campeche, Mexico, 1,364
Cap-Haitien, Haiti, 392
Cape Town, South Africa, 5,948
Cardenas, Cuba, 887
Carmen, Mexico, 1,437
Cartagena, Colombia, 610
Charleston, South Carolina, U.S.A., 1,190
Charlotte Amalie, Virgin Islands, 300
Cienfuegos, Cuba, 716
Colon, Panama, 802
Dakar, Senegal, 3,036
Guantanamo, Cuba, 397
Halifax, Canada, 1,709
Hamilton, Bermuda, 992
Jacksonville, Florida, U.S.A., 1,166
Key West, Florida, U.S.A. (via Old Bahama Channel and Windward Passage), 936
Kingston, Jamaica, 430
La Guaira, Venezuela, 502
La Habana, Cuba (via Windward Passage), 946
Manzanillo, Cuba, 558
Maracaibo, Venezuela, 496
Matanzas, Cuba, 901
Miami, Florida, 930
Miragoane, Haiti, 407
Nassau, Bahamas, 851
New York, New York, U.S.A., 1,489
Norfolk, Virginia, U.S.A., 1,329
Nuevitas, Cuba, 632
Philadelphia, Pennsylvania, U.S.A. (via Mona Passage), 1,480
Pointe a Pitre, Guadeloupe, 520
Ponce, Puerto Rico, 196
Ponta Delgada, Azores, 2,620
Port au Prince, Haiti, 453
Port Castries, St. Lucia, 578
Port of Spain, Trinidad, 681
Puerto Cabello, Venezuela, 492
Rio de Janeiro, Brazil, 3,829
Romana, Dominican Republic, 61
San Juan del Norte, Nicaragua, 924
San Juan, Puerto Rico, 232
Santa Marta, Colombia, 504
Santiago de Cuba, Cuba, 429
Savannah, Georgia, U.S.A., 1,204
St. John, Canada, 1,733
Sydney, Canada, 1,867
Tuxpan, Mexico, 1,624
Veracruz, Mexico, 1,596
Willemstad, Curacao, 397
Wilmington, North Carolina, U.S.A., 1,210

SANTO TOMAS DE CASTILLA, GUATEMALA
(15°42'30"N., 88°37'00"W.) Add
2 miles to Puerto Barrios.

SANTOS, BRAZIL
(23°56'00"S., 46°19'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 5,002
Montreal, Canada, 5,544
Panama, Panama, 4,609
Strait of Gibraltar, 4,378
Straits of Florida, 4,799

Ports

Bahia Blanca, Argentina, 1,292
Baltimore, Maryland, U.S.A., 5,031
Boston, Massachusetts, U.S.A., 4,928
Buenos Aires, Argentina, 1,006
Cape Town, South Africa, 3,409
Charleston, South Carolina, U.S.A., 4,908
Colon, Panama, 4,476
Fernando de Noronha, 1,560
Guiria, Venezuela, 3,467
Mar del Plata, Argentina, 1,363
Montevideo, Uruguay, 893
New York, New York, U.S.A., 4,957
Norfolk, Virginia, U.S.A., 4,910
Paranagua, Brazil, 163
Philadelphia, Pennsylvania, U.S.A., 5,004
Portland, Maine, U.S.A., 4,959
Porto Alegre, Brazil, 758
Quequen, Argentina, 1,437
Rio Grande, Brazil, 586
Savannah, Georgia, U.S.A., 4,940

SANYA GANG, CHINA
(18°14'00"N., 109°26'00"E.) to:

Ports

Haiphong, Vietnam, 253
Ho Chi Minh, Vietnam, 624
Hong Kong, China, 391
Kao-hsiung Kang, Taiwan, 682
Manila, Philippines, 714

SAO FRANCISCO DO SUL, BRAZIL
(26°13'32"S., 48°38'22"W.) to:

Junction Points*

Bishop Rock, England, 5,210
Cape of Good Hope, South Africa, 3,445
Fastnet Rock, Ireland, 5,236
Grand Banks South, 4,613
Ile d'Ouessant, France, 5,177
Inishtrahull, Ireland, 5,514
Panama, Panama, 4,681
Pentland Firth, Scotland, 5,799
Punta Arenas, Chile, 1,984
Strait of Gibraltar, 4,559
Straits of Florida, 5,066
Yucatan Channel, 5,073

Ports

Buenos Aires, Argentina, 950
Cape Town, South Africa, 6,671
Charleston, South Carolina, U.S.A., 5,103
Colon, Panama, 4,671
Maldonado, Uruguay, 709

Monrovia, Liberia, 3,096
New York, New York, U.S.A., 5,205
Rio Grande, Brazil, 483

SAO SEBASTIAO, BRAZIL
(23°48'18"S., 45°22'11"W.) to:

Junction Points*

Bishop Rock, England, 5,027
Cape of Good Hope, South Africa, 3,349
Fastnet Rock, Ireland, 5,051
Grand Banks South, 4,441
Ile d'Ouessant, France, 4,994
Inishtrahull, Ireland, 5,326
Panama, Panama, 4,582
Pentland Firth, Scotland, 5,597
Punta Arenas, Chile, 2,112
Strait of Gibraltar, 4,371
Straits of Florida, 4,836
Yucatan Channel, 4,869

Ports

Abidjan, Ivory Coast, 3,015
Bahia Blanca, Argentina, 1,371
Cape Town, South Africa, 3,355
Colon, Panama, 4,590
Dakar, Senegal, 7,380
Maldonado, Uruguay, 5,269
New York, New York, U.S.A., 5,044
Recife, Brazil, 1,250
San Julian, Argentina, 1,861

SAO TOME, SAO TOME, GULF OF GUINEA
(0°21'00"N., 6°45'00"E.) to:

Ports

Boma, Congo, 563
Douala, Cameroon, 285
Lagos, Nigeria, 422
Pointe Noire, Congo, 436
Porto Grande, Cape Verde Islands, 2,208

SARANDE, ALBANIA
(39°52'00"N., 20°00'30"E.) to:

Junction Points*

Port Said, Egypt, 863
Strait of Gibraltar, 1,311

Ports

Piraeus, Greece (via Corinth Canal), 253
Split, Croatia, 293
Taranto, Italy, 154

SASEBO, JAPAN
(33°09'00"N., 129°43'00"E.) to:

Ports

Acapulco, Mexico (via Osumi Kaikyo), 6,918
Dutch Harbor, Alaska, U.S.A. (via Osumi Kaikyo), 3,207
Gunsan, South Korea, 343
Honolulu, Hawaii, U.S.A. (via Osumi Kaikyo), 4,009
Itozakicho, Japan, 271
Manila, Philippines, 1,349
Nome, Alaska, U.S.A. (via Osumi Kaikyo), 3,373
San Francisco, California, U.S.A.

(via Osumi Kaikyo), 5,185
Valparaiso, Chile (via Osumi Kaikyo), 9,836
Wakamatsu, Japan, 136

SAVANNAH, GEORGIA, U.S.A.
(32°05'00"N., 81°06'00"W.) to:

Junction Points*

Montreal, Canada, 2,078
Panama, Panama, 1,606
Pentland Firth, Scotland, 3,613
Punta Arenas, Chile, 6,930
Straits of Florida, 603

Ports

Banes, Cuba (via Crooked Island Passage), 801
Bocas del Toro, Panama (via Crooked Island Passage), 1,637
Bridgetown, Barbados, 1,646
Buenos Aires, Argentina (via north of English Bank), 5,854
Cape Town, South Africa, 6,864
Cartagena, Colombia (via Crooked Island Passage), 1,442
Charlotte Amalie, Virgin Islands, 1,210
Charlottetown, Canada, 1,386
Colon, Panama, 1,563
Halifax, Canada, 1,164
Kingston, Jamaica (via Crooked Island Passage), 1,063
La Guaira, Venezuela (via Mona Passage), 1,575
La Habana, Cuba, 606
Las Palmas, Canary Islands, 3,409
Limon, Costa Rica (via Crooked Island Passage), 1,636
Maracaibo, Venezuela, 1,466
Montevideo, Uruguay, 5,740
Nassau, Bahamas, 503
Ponce, Puerto Rico, 1,180
Port Antonio, Jamaica (via Crooked Island Passage), 1,012
Port Castries, St. Lucia, 1,548
Port of Spain, Trinidad, 1,714
Porto Grande, Cape Verde Islands, 3,169
Puerto Barrios, Guatemala (via Straits of Florida), 1,224
Puerto Cortes, Honduras (via Straits of Florida), 1,189
Recife, Brazil, 3,681
Rio de Janeiro, Brazil, 4,753
Salvador, Brazil, 4,072
San Juan, Puerto Rico, 1,153
Santa Marta, Colombia (via Crooked Island Passage), 1,372
Santiago de Cuba (via Crooked Island Passage), 951
Santo Domingo, Dominican Republic, 1,204
Santos, Brazil, 4,940
St. John, Canada (via Nantucket Light Buoy), 1,113
Tampico, Mexico, 1,432
Willemstad, Curacao, 1,444

SAVONA, ITALY
(44°18'44"N., 8°29'29"E.) to:

Junction Points*

Port Said, Egypt, 1,437
Strait of Gibraltar, 852

Ports

Alexandria, Egypt, 1,326

* **JUNCTION POINT.**—See Preface for use of junction points

100 SAYDA, LEBANON

Algiers, Algeria, 518
 Alicante, Spain, 549
 Ancona, Italy, 1,028
 Annaba, Algeria, 451
 Banghazi, Libya, 922
 Banzart, Tunisia, 440
 Barcelona, Spain, 341
 Bari, Italy, 820
 Beirut, Lebanon, 1,519
 Brindisi, Italy, 762
 Cagliari, Sardinia, 362
 Cartagena, Spain, 601
 Ceuta, Morocco, 834
 Gibraltar, 835
 Haifa, Israel, 1,515
 Iraklion, Kriti, 1,002
 Istanbul, Turkey (south of Greece), 1,301
 Istanbul, Turkey (via Corinth Canal), 1,260
 Izmir, Turkey (south of Greece), 1,147
 Izmir, Turkey (via Corinth Canal), 1,106
 Malaga, Spain, 783
 Marseille, France, 189
 Messina, Sicily, 496
 Napoli, Italy, 350
 Odessa, Ukraine (south of Greece), 1,650
 Odessa, Ukraine (via Corinth Canal), 1,608
 Oran, Algeria, 672
 Palermo, Sicily, 434
 Palma, Balearic Islands, 433
 Piraievs, Greece (south of Greece), 988
 Piraievs, Greece (via Corinth Canal), 906
 Rijeka, Croatia, 1,095
 Sibenik, Croatia, 969
 Siracusa, Sicily, 567
 Split, Croatia, 954
 Tarabulus, Libya, 722
 Taranto, Italy, 715
 Thessaloniki, Greece (south of Greece), 1,196
 Thessaloniki, Greece (via Corinth Canal), 1,154
 Toulon, France, 156
 Trieste, Italy, 1,128
 Tunis, Tunisia, 475
 Valencia, Spain, 497
 Valletta, Malta, 588
 Venezia, Italy, 1,138
 Volos, Greece (south of Greece), 1,137
 Volos, Greece (via Corinth Canal), 1,096

SAYDA, LEBANON
 (33°32'02"N., 35°19'49"E.) to:

Junction Points*

Port Said, Egypt, 205
 Strait of Gibraltar, 2,035

Ports

Haifa, Israel, 49
 Marseille, France, 1,596
 Sete, France, 1,655
 Venezia, Italy (south of Greece), 1,382
 Venezia, Italy (via Corinth Canal), 1,354

SCAPA FLOW, ORKNEY ISLANDS, UNITED KINGDOM
 (58°53'00"N., 3°05'00"W.) to:

Junction Points*

Bishop Rock, England, 640
 Ile d'Ouessant, France, 632
 Nord-Ostsee-Kanal (East Entrance), Germany, 569
 Pentland Firth, Scotland, 16
 Skagens Odde, Denmark, 454

Ports

Amsterdam, Netherlands, 485
 Antwerp, Belgium, 573
 Bergen, Norway, 286
 Calais, France, 526
 Emden, Germany, 490
 Oslo, Norway, 532

SEAHAM HARBOR, ENGLAND
 (54°50'14"N., 1°19'10"W.) to:

Junction Points*

Bishop Rock, England, 625
 Pentland Firth, Scotland, 259

Ports

Leith, Scotland, 117
 London, England, 308
 Rotterdam, Netherlands, 278

SEARSPORT, MAINE, U.S.A.
 (44°25'39"N., 68°53'58"W.) to:

Junction Points*

Grand Banks South, 865
 Montreal, Canada, 1,360
 Panama, Panama, 2,260
 Punta Arenas, Chile, 7,111
 Straits of Florida, 1,475

Ports

Cape Town, South Africa, 6,708
 Colon, Panama, 2,245
 Halifax, Canada, 306
 Maracaibo, Venezuela, 2,073
 Rio de Janeiro, Brazil, 4,973
 San Juan, Puerto Rico, 1,564
 Yarmouth, Canada, 2,704

SEATTLE, WASHINGTON, U.S.A.
 (47°3'00"N., 122°22'00"W.) to:

Junction Points*

Panama, Panama, 4,020
 Punta Arenas, Chile, 6,964
 Singapore, 7,062
 Wilson Promontory, Australia, 7,181

Ports

Aleksandrovsk-Sakhalinskiy, Russia (via La Perouse Strait and Proliv Kruzenshтерна), 4,108
 Amapala, Honduras, 3,361
 Anchorage, Alaska, U.S.A., 1,427
 Apia, Samoa, 4,626
 Apra, Guam, 4,948
 Attu Island, Alaska, U.S.A. (via Unimak Pass), 2,422
 Auckland, New Zealand, 6,170
 Avarua, Cook Islands, 4,700
 Brisbane, Australia, 6,471
 Callao, Peru, 4,764

Canton, Phoenix Islands, 4,049
 Cordova, Alaska, U.S.A., 1,216
 Dagu, China (via La Perouse Strait and north of Aleutian Islands), 5,285
 Dalian, China (via La Perouse Strait and north of Aleutian Islands), 5,127
 Dutch Harbor, Alaska, U.S.A., 1,707
 Enderbury Island, Phoenix Islands, 4,047
 Funafuti, Tuvalu, 4,640
 Guayaquil, Ecuador, 4,326
 Hakodate, Japan, 3,941
 Jaluit, Marshall Islands, 4,296
 Johnston Island, 3,018
 Juneau, Alaska, U.S.A., 873
 Kahului, Hawaii, U.S.A., 2,364
 Kaneohe Bay, Hawaii, U.S.A., 2,388

Kaunakakai, Hawaii, U.S.A., 2,398
 Ketchikan, Alaska, U.S.A., 634
 Kobe, Japan (south of Aleutian Islands), 4,534
 Kodiak, Alaska, U.S.A., 1,257
 Levuka, Fiji Islands, 5,120
 Manila, Philippines (via Balintang Channel), 5,630
 Melbourne, Australia, 7,332
 Midway Island, 2,817
 Nagasaki, Japan (via Tsugaru-Kaikyo and north of Aleutian Islands), 4,705
 Nagasaki, Japan (via Tsugaru-Kaikyo and south of Aleutian Islands), 4,735
 Naknek, Alaska, U.S.A., 2,020
 Nanaimo, Canada, 132
 New Westminster, Canada, 126
 Nikolayevsk-Na-Amure, Russia (south of Aleutian Islands), 3,823
 Nikolayevsk-Na-Amure, Russia (via Unimak Pass), 3,748
 Nome, Alaska, U.S.A., 2,288
 Noumea, New Caledonia, 5,760
 Ocean Island, 4,611
 Pago Pago, American Samoa, 4,611
 Papeete, French Polynesia, 4,296
 Petersburg, Alaska, U.S.A., 771
 Petropavlovsk-Kamchatskiy, Russia (via Unimak Pass), 2,939
 Ponape, Caroline Islands, 4,696
 Port Darwin, Australia, 6,892
 Prince Rupert, Canada, 577
 Rabaul, Papua New Guinea, 5,509
 Seward, Alaska, U.S.A. (via Strait of Juan de Fuca), 1,232
 Shanghai, China (via Tsugaru Strait), 5,094
 Shimonoseki, Japan (via Tsugaru Strait), 4,604
 Sitka, Alaska, U.S.A., 806
 Skagway, Alaska, U.S.A., 934
 Surabaya, Indonesia, 7,162
 Suva, Fiji Islands, 5,162
 Sydney, Australia, 6,810
 Truk, Caroline Islands, 4,929
 Unalakleet, Alaska, U.S.A., 2,023
 Valdez, Alaska, U.S.A., 1,229
 Valparaiso, Chile, 5,916
 Vancouver, Canada (via Active Pass), 126
 Vancouver, Canada (via Boundary Pass), 132
 Victoria, Canada, 70
 Vladivostok, Russia (north of Aleutian Islands), 4,210
 Vladivostok, Russia (via Tsugaru

Kaikyo and composite sailing), 4,366
 Wake Island, 3,820
 Weihai, China (via La Perouse Strait, north of Aleutian Islands and via Unimak Pass), 5,054
 Weihai, China (via Tsugaru-Kaikyo and north of Aleutian Islands), 5,059
 Weihai, China (via Tsugaru-Kaikyo and south of Aleutian Islands), 5,089
 Wellington, New Zealand, 6,433
 Whittier, Alaska, U.S.A., 1,241
 Wrangell, Alaska, U.S.A., 713
 Xiamen, China (via La Perouse Strait and north of Aleutian Islands), 5,463
 Xiamen, China (via Osumi Kaikyo and south of Aleutian Islands), 5,515
 Xiamen, China (via Tsugaru-Kaikyo and north of Aleutian Islands), 5,464
 Xiamen, China (via Tsugaru-Kaikyo and south of Aleutian Islands), 5,494
 Yakutat, Alaska, U.S.A., 1,003
 Yokohama, Japan (north of Aleutian Islands), 4,245

SELAT LOMBOK, INDONESIA*
 (8°50'00"S., 115°43'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,461
 Cape Leeuwin, Australia, 1,571
 Honshu, Japan, 3,059
 Port Said, Egypt, 5,892
 Singapore, 963
 Selat Sunda, Indonesia (north of Java), 677
 Selat Wetar, Indonesia, 727

Ports

Ambon, Indonesia, 819
 Balikpapan, Kalimantan, Indonesia, 472
 Bandjermasin, Kalimantan, Indonesia, 357
 Belawan, Indonesia, 1,342
 Bunbury, Australia, 1,510
 Calcutta, India, 2,614
 Calicut, India, 2,916
 Cebu, Philippines, 1,278
 Flying Fish Cove, Christmas Island, 603
 Fremantle, Australia, 1,440
 Geraldton, Australia, 1,242
 Ho Chi Minh, Vietnam, 1,408
 Hong Kong, China (via Linapacan Strait), 2,029
 Iloilo, Philippines, 1,247
 Incheon, South Korea, 2,885
 Jakarta, Indonesia, 615
 Kakinada, India, 2,567
 Kuching, Sarawak, 974
 Madras, India, 2,559
 Makassar, Sulawesi, 339
 Malacca, Malaysia, 1,091
 Manila, Philippines (via Mindoro Strait, Cuyo West Pass, Sibutu Passage, and Makassar Strait), 1,514
 Mogpo, South Korea, 2,725
 Nampo, North Korea, 2,946
 Port Darwin, Australia (south of Pulau Roti), 926

* **JUNCTION POINT.**—See Preface for use of junction points

Port Kembla, Australia, 3,388
Port Refuge, Cocos Islands, 1,132
Sabang, Indonesia, 1,575
Semarang, Indonesia, 416
Shanghai, China (via Pai-chieh Hsia, Steep Island Passage, east of Taiwan, Mindoro Strait, and Sibutu Passage), 2,577
Surabaya, Indonesia (north of Madura), 275
Tarakan, Kalimantan, Indonesia, 830
Tjilatjap, Indonesia, 413
Tjirebon, Indonesia, 503
Whyalla, Australia, 2,782
Zamboanga, Philippines, 1,047

SELAT SUNDA, INDONESIA*
(6°04'00"S., 105°50'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,164
Cape Leeuwin, Australia, 1,815
Honshu, Japan, 3,171
Selat Lombok, Indonesia (north of Java), 677
Port Said, Egypt (via Eight Degree Channel), 5,224
Port Said, Egypt (via One and Half Degree Channel), 5,335
Singapore (via Selat Bangka and Selat Berhala), 532
Selat Wetar, Indonesia, 1,330

Ports

Aden, Yemen (via One and Half Degree Channel), 3,935
Aleksandrovsk-Sakhalinskiy, Russia, 3,961
Balikpapan, Kalimantan, Indonesia, 837
Bandjermasin, Kalimantan, Indonesia, 775
Bangkok, Thailand, 1,292
Belawan, Indonesia, 870
Bombay, India, 2,664
Busan, South Korea, 2,855
Calcutta, India, 2,140
Chang-kan, China, 1,588
Colombo, Sri Lanka, 1,781
Flying Fish Cove, Christmas Island, Line Islands, 281
Fremantle, Australia, 1,691
Geraldton, Australia, 1,494
Hong Kong, China, 1,807
Incheon, South Korea, 2,913
Jakarta, Indonesia, 77
Kompong Som, Camb (via Los Angeles, California, U.S.A.), 1,096, (via Makassar Strait), 7,976
Makassar, Sulawesi, 861
Malacca, Malaysia, 619
Manila, Philippines, 1,578
Mogpo, South Korea, 2,760
Nampo, North Korea, 2,974
Palembang, Indonesia, 362
Petropavlovsk-Kamchatskiy, Russia, 4,574
Port Adelaide, Australia, 2,980
Port Darwin, Australia (south of Java), 1,623
Port Refuge, Cocos Islands, 647
Qui Nhon, Vietnam, 1,241
Rapid Bay, Australia, 2,946
Sabang, Indonesia, 1,103
Seletar, Malaysia, 533
Semarang, Indonesia, 297
Shanghai, China (via Pai-chieh

Hsia, Steep Island Pass, west of Macclesfield Bank, east of South Natuna Island and through Selat Gaspar), 2,535
Simons Bay, South Africa, 5,058
Surabaya, Indonesia, 450
Tandjung Uban, Indonesia, 502
Tarakan, Indonesia, 1,191
Telukbayur, Indonesia, 488
Tjilatjap, Indonesia, 345
Tjirebon, Indonesia, 211
Victoria, Sabah, 948
Vladivostok, Russia, 3,357
Weonsan, North Korea, 3,161
Zhenjiang, China, 1,710

SELAT WETAR, INDONESIA*
(8°19'00"S., 127°27'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,768
Cape Leeuwin, Australia, 1,954
Honshu, Japan, 2,838
Selat Lombok, Indonesia, 727
Singapore (via Selat Riouw and Selat Karimata), 1,587
Sundra Strait, Indonesia, 1,330
Torres Strait, Australia, 881

Ports

Balikpapan, Kalimantan, Indonesia, 870
Busan, South Korea (via Selat Manipa and Molucca Passage), 2,632
Incheon, South Korea (via Selat Manipa and Molucca Passage), 2,767
Jakarta, Indonesia, 1,266
Lingkas, Indonesia, 1,161
Makassar, Sulawesi, 614
Mogpo, South Korea (via Molucca Passage), 2,632
Nampo, North Korea (via Selat Manipa and Molucca Passage), 2,861
Petropavlovsk-Kamchatskiy, Russia (via Selat Manipa and Dampier Strait), 4,106
Port Darwin, Australia (west of Bathurst Island), 326
Semarang, Indonesia, 1,067
Shanghai, China (via Basilan Strait, Mindoro Strait, east of Taiwan, and Pai-chieh Hsia), 2,553
Surabaya, Indonesia (north of Madura), 928
Surabaya, Indonesia (south of Madura), 880
Vinh Cam Ranh, Vietnam, 2,106
Vladivostok, Russia (via Selat Manipa), 3,133
Weonsan, North Korea (via Selat Manipa and Molucca Passage), 3,100
Wyndham, Australia, 431
Zamboanga, Philippines (via Selat Manipa and Selat Bangka), 995

SEKONDI, GHANA
(4°56'20"N., 1°42'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 3,424

Ports

Horta, Azores, 2,838
Lagos, Nigeria, 317
Monrovia, Liberia, 599
Pointe Noire, Congo, 997

SEMARANG, INDONESIA
(6°56'00"S., 110°25'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 416
Selat Sunda, Indonesia, 267
Selat Wetar, Indonesia, 1,067

Ports

Apra, Guam, 2,464
Jakarta, Indonesia, 236
Makassar, Sulawesi, 596
Surabaya, Indonesia, 196

SENIPAH OIL TERMINAL, INDONESIA
(1°03'25"S., 117°13'00"E.) to:

Junction Points*

Honshu, Japan, 2,615
Selat Lombok, Indonesia, 476
Panama, Panama (via north of Sulawesi), 10,464
Singapore (via Makassar and Karimata Straits), 815
Sundra Strait, Indonesia, 834
Tsugaru-Kaikyo, Japan, 2,963
Selat Wetar, Indonesia, 858

Ports

Ambon, Indonesia, 917
Dairen, China, 2,639
Hong Kong, China, 1,524
Manila, Philippines, 1,007
Midway Island (via San Bernardino Strait), 4,273
Weonsan, Korea, 2,759
Zamboanga, Philippines, 562

SEPT ILES, CANADA
(50°11'07"N., 66°22'18"W.) to:

Junction Points*

Bishop Rock, England (via Strait of Belle Isle), 2,273
Cape of Good Hope, South Africa, 6,785
Grand Banks South, 818
Ile d'Ouessant, France (via Strait of Belle Isle), 2,338
Inishtrahull, Ireland (via Strait of Belle Isle), 2,135
Montreal, Canada, 409
Panama, Panama, 3,045
Pentland Firth, Scotland (via Strait of Belle Isle), 2,230
Punta Arenas, Chile, 7,188
Straits of Florida, 2,250

Ports

Boston, Massachusetts, U.S.A., 1,035
La Guaira, Venezuela, 2,630
New York, New York, U.S.A., 1,191
Portland, Maine, U.S.A., 1,002
San Juan, Puerto Rico, 2,132
St. John's, Canada, 699
Yarmouth, Canada, 842

SETE, FRANCE
(43°24'05"N., 3°42'07"E.) to:

Junction Points*

Port Said, Egypt, 1,577
Strait of Gibraltar, 684

Ports

Augusta, Sicily, 703
Cagliari, Sardinia, 402
Cannes, France, 171
Genova, Italy, 266
Istanbul, Turkey (south of Greece), 1,442
Iskenderun, Turkey, 1,675
Istanbul, Turkey (via Corinth Canal), 1,401
Kerch, Ukraine (south of Greece), 1,877
Kerch, Ukraine (via Corinth Canal), 1,836
Larnaca, Cyprus, 1,579
Livorno, Italy, 298
Messina, Sicily, 636
Napoli, Italy, 515
Pula, Croatia, 1,216
Sayda, Lebanon, 1,655
Skikda, Algeria, 422
Tarabulus, Lebanon, 1,672
Valletta, Malta, 694

SETUBAL, PORTUGAL
(38°31'00"N., 8°59'00"E.) to:

Junction Points*

Ile d'Ouessant, France, 672
Strait of Gibraltar, 287

Ports

Bilbao, Spain, 612
Casablanca, Morocco, 313
Horta, Azores, 939

SEVERODVINSK, RUSSIA
(64°35'00"N., 39°50'00"E.) Add 2 1/4 miles to Arkhangel'sk distances.

SEVILLA, SPAIN
(37°23'30"N., 6°00'00"W.) to:

Junction Points*

Bishop Rock, England, 973
Cape of Good Hope, South Africa, 6,917
Fastnet Rock, Ireland, 1,049
Grand Banks South, 2,070
Ile d'Ouessant, France, 931
Inishtrahull, Ireland, 1,299
Panama, Panama, 5,244
Pentland Firth, Scotland, 1,467
Punta Arenas, Chile, 6,950
Strait of Gibraltar, 154
Straits of Florida, 4,018
Yucatan Channel, 4,088

Ports

Banjul, Gambia, 1,624
Belem, Brazil, 4,838
Buenos Aires, Argentina, 5,315
Cape Town, South Africa, 4,647
Casablanca, Morocco, 240
Cristobal, Panama, 4,298
Dakar, Senegal, 1,527
Funchal, Madeira Island, 611
Horta, Azores, 1,073
Lisboa, Portugal, 253

* **JUNCTION POINT.**—See Preface for use of junction points

102 SEWARD, ALASKA, U.S.A.

Norfolk, Virginia, U.S.A., 3,303
Porto Grande, Cape Verde Islands,
1,589
Vigo, Spain, 474

SEWARD, ALASKA, U.S.A.
(60°06'00"N., 149°26'00"W.) to:

Junction Points*

Panama, Panama, 4,916
Punta Arenas, Chile, 7,859

Ports

Apra, Guam, 4,079
Auckland, New Zealand, 6,093
Callao, Peru, 5,660
Hakodate, Japan (south of Aleutian Islands), 3,010
Hong Kong, China (south of Aleutian Islands), 4,809
Honolulu, Hawaii, U.S.A., 2,373
Los Angeles, California, U.S.A., 2,045
Manila, Philippines (south of Aleutian Islands), 4,996
Pago Pago, American Samoa, 4,589
Papeete, French Polynesia, 4,661
Petropavlovsk-Kamchatskiy, Russia (via Unimak Pass), 2,065
Prince Rupert, Canada, 734
San Francisco, California, U.S.A., 1,701
Seattle, Washington, U.S.A. (via inside route), 1,428
Seattle, Washington, U.S.A. (via Strait of Juan de Fuca), 1,232
Suva, Fiji Islands, 5,003
Sydney, Australia, 6,373
Valdez, Alaska, U.S.A., 145
Valparaiso, Chile, 6,812
Vancouver, Canada, 1,249
Yakutat, Alaska, U.S.A., 312
Yokohama, Japan (south of Aleutian Islands), 3,313

SEYDHISFJORDHUR, ICELAND
(65°15'06"N., 14°00'12"W.) to:

Junction Points*

Pentland Firth, Scotland, 500
Strait of Gibraltar, 1,899

Ports

Bergen, Norway, 634
Murmansk, Russia, 1,173
St. John's, Canada, 1,690

SFAX, TUNISIA
(34°43'39"N., 10°46'30"E.) to:

Junction Points*

Port Said, Egypt, 1,131
Strait of Gibraltar, 1,043

Ports

Almeria, Spain, 881
Civitavecchia, Italy, 520
Derince, Turkey, 1,081
Gibraltar, 1,026
Iskenderun, Turkey, 1,282
Larnaca, Cyprus, 1,163
Rostov-na-Donu, Russia, 1,684

SHANGHAI, CHINA
(31°14'00"N., 121°29'30"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Pai-chieh Hsia, Steep Island Pass, east of Taiwan, Mindoro Strait and Sibutu Passage), 2,577
Panama, Panama (via Osumi Kaikyo), 8,648
Panama, Panama (via Tsugaru-Kaikyo), 8,566
Punta Arenas, Chile, 9,827
Singapore, 2,207
Selat Sunda, Indonesia (via Pai-chieh Hsia, Steep Island Pass, west of Macclesfield Bank, east of South Natuna Island, and through Selat Gaspar), 2,535
Selat Wetar, Indonesia, 2,553

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,597
Apia, Samoa, 4,715
Apra, Guam, 1,687
Auckland, New Zealand (via west of New Ireland), 5,148
Avarua, Cook Islands, 5,533
Brisbane, Australia, 4,243
Busan, South Korea (north of Cheju Do and via South Channel), 491
Cebu, Philippines (via South Channel, Pai-chieh Hsia, Steep Island Pass, east of Taiwan, and San Bernardino Strait), 1,322
Chi-lung, Taiwan, 447
Chimu Wan, Ryukyu Islands, 527
Dagu, China (via outside islands), 720
Dalian, China, 560
Dutch Harbor, Alaska, U.S.A. (via La Perouse Strait), 3,375
Dutch Harbor, Alaska, U.S.A. (via Tsugaru-Kaikyo), 3,377
Guayaquil, Ecuador, 8,872
Gunsan, South Korea, 457
Haiphong, Vietnam (via Pai-chieh Hsia, Steep Island Pass and Hainan Strait), 1,285
Hakodate, Japan, 1,166
Hankou, China, 592
Higashi-Iwase, Japan, 966
Ho Chi Minh, Vietnam (via Bonham Strait), 1,679
Hong Kong, China (via Pai-chieh Hsia, Steep Island Pass, and Formosa Strait), 831
Honolulu, Hawaii, U.S.A., 4,336
Hua-lien Kang, Taiwan, 533
Iloilo, Philippines (via South Channel, Pai-chieh Hsia, and Steep Island Pass, east of Taiwan, and San Bernardino Strait), 1,343
Incheon, South Korea (via South Channel), 503
Jakarta, Indonesia, 2,522
Jaluit, Marshall Islands, 3,138
Kobe, Japan (via Inland Sea), 789
Kobe, Japan (via Osumi Kaikyo), 826
Kodiak, Alaska, U.S.A., 3,967
Levuka, Fiji Islands, 4,528
Lianyungang, China, 414
Lo hsing-ta Mao-ti, China (via South Channel, Pai-chieh Hsia, and Steep Island Pass), 440
Los Angeles, California, U.S.A. (via Osumi Kaikyo), 5,810

Los Angeles, California, U.S.A. (via Tsugaru-Kaikyo), 5,699
Maizuru, Japan, 800
Manila, Philippines (east of Taiwan), 1,156
Manila, Philippines (via Formosa Strait), 1,166
Midway Island, 3,184
Misumi, Japan, 490
Mogpo, South Korea, 369
Nagasaki, Japan, 463
Naha, Ryukyu Islands, 479
Nakagusuku, Ryukyu Islands, 515
Nakhodka, Russia, 991
Nampo, North Korea, 561
Nikolayevsk-Na-Amure, Russia, 1,742
Noumea, New Caledonia (via Passé de Dunbea), 4,185
Otaru, Japan, 1,233
Pago Pago, American Samoa, 4,794
Papeete, French Polynesia, 5,907
Peng-hu Kang, Taiwan, 605
Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 2,200
Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 2,224
Ponape, Caroline Islands, 2,545
Port Darwin, Australia, 2,804
Qingdao, China (via outside islands), 401
Qinhuangdao, China (via outside islands), 668
Rabaul, Papua New Guinea, 2,812
San Diego, California, U.S.A. (via Tsugaru-Kaikyo), 5,396
San Francisco, California, U.S.A. (via Tsugaru-Kaikyo), 5,396
San Francisco, California, U.S.A. (via Osumi Kaikyo), 5,502
Sanmen Wen, China, 270
Seattle, Washington, U.S.A. (via La Perouse Strait and north of Aleutian Islands), 5,067
Seattle, Washington, U.S.A. (via Osumi Kaikyo and south of Aleutian Islands), 5,242
Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and north of Aleutian Islands), 5,071
Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and south of Aleutian Islands), 5,131
Shantou, China, 708
Shimonoseki, Japan, 548
Sitka, Alaska, U.S.A., 4,446
Su-ao Kang, Taiwan, 498
Surabaya, Indonesia, 2,626
Suva, Fiji Islands, 4,467
Sydney, Australia (via west of New Ireland), 4,642
Sydney, Australia (via Vitiaz Strait), 4,636
Tai-tung Kang, Taiwan, 612
Tianjin, China (via Chang-shan Shuitao), 740
Truk, Caroline Islands, 2,261
Tsuruga, Japan, 823
Valparaiso, Chile (via Tokara Kaikyo), 10,148
Vinh Cam Ranh, Vietnam, 1,520
Vladivostok, Russia (via north of Cheju Do), 998
Vladivostok, Russia (via south of Cheju Do), 997
Wakamatsu, Japan, 541
Wake Island, 2,550
Weihai, China (via South Channel), 483

Wenzhou, China, 365
Weonsan, North Korea (via north of Cheju Do and South Channel), 797
Xiamen, China (via outside islands), 603
Yantai, China (via outside islands), 523
Yokohama, Japan (via Naikai), 1,117

SHARJAH, UNITED ARAB EMIRATES

(25°23'00"N., 55°20'48"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,701
Cape Leeuwin, Australia, 5,037
Selat Lombok, Indonesia, 4,288
Port Said, Egypt, 2,883
Singapore, 3,422
Selat Sunda, Indonesia, 3,629
Torres Strait, Australia (via south of Java), 5,831

Ports

Aden, Yemen, 1,494
Al Basrah, Iraq, 518
Belawan, Indonesia, 3,091
Calcutta, India, 3,099
Fremantle, Australia, 4,968
Penang, Malaysia, 3,131

SHARPNESS, ENGLAND
(51°43'00"N., 2°29'00"W.) Add 17 miles to Avonmouth distances.

SHEERNESS, ENGLAND
(51°26'30"N., 0°44'00"E.) Subtract 31 miles from London distances.

SHELBURNE, CANADA
(43°45'00"N., 65°19'00"W.) to:

Junction Points*

Montreal, Canada, 1,050

Ports

Churchill, Canada, 2,467
Reykjavik, Iceland, 2,047
St. John's, Canada, 621

SHENGJIN, ALBANIA
(41°47'30"N., 19°35'00"E.) to:

Junction Points*

Port Said, Egypt, 988
Strait of Gibraltar, 1,382

Ports

Ancona, Italy, 297
Brindisi, Italy, 103
Split, Croatia, 207

SHIMIZU, HONSHU, JAPAN
(35°01'00"N., 138°31'00"E.) to:

Ports

Apra, Guam, 1,351
Kobe, Japan, 279
Nagoya, Japan, 143
Shimonoseki, Japan, 469
Yokohama, Japan, 116

*** JUNCTION POINT.—See Preface for use of junction points**

SHIMONOSEKI, JAPAN
(33°57'00"N., 130°56'35"E.) to:

Junction Points*

Panama, Panama (east of Honshu), 8,153
Panama, Panama (west of Honshu), 8,081
Punta Arenas, Chile, 9,545
Singapore (via Formosa Strait), 2,527

Ports

Akita, Japan, 586
Apra, Guam, 1,451
Auckland, New Zealand, 4,944
Bohang, South Korea, 164
Cebu, Philippines, 1,547
Changjon, North Korea, 337
Chongjin, North Korea, 480
Dagu, China, 790
Dutch Harbor, Alaska, U.S.A. (via Tsugaru-Kaikyo), 2,892
Hakodate, Japan, 683
Higashi-Iwase, Japan, 466
Hong Kong, China, 1,179
Honolulu, Hawaii, U.S.A., 3,804
Hulu Dao, China, 781
Iloilo, Philippines, 1,569
Imabari, Japan, 123
Incheon, South Korea, 489
Itozakicho, Japan, 133
Iwakuni, Japan, 93
Jakarta, Indonesia, 2,838
Kagoshima, Japan (via Bungo Suido), 295
Kagoshima, Japan (west of Kyushu), 306
Kimchaek, North Korea, 421
Kobe, Japan, 241
Kure, Japan, 116
Lo hsing-ta Mao-ti, China, 799
Maizuru, Japan, 302
Manila, Philippines, 1,424
Masan, South Korea, 146
Miike, Japan, 222
Nagasaki, Japan, 159
Nagoya, Japan, 434
Naha, Ryukyu Islands, 530
Nakhodka, Russia, 552
Nanao, Japan, 453
Niigata, Japan, 492
Pago Pago, American Samoa, 4,440
Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 1,732
Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 1,739
Port Darwin, Australia (via Selat Sele), 2,883
Rumoi, Japan, 812
Sakaide, Japan, 169
Sakata, Japan, 554
San Francisco, California, U.S.A. (South of Honshu), 5,007
San Francisco, California, U.S.A. (via Tsugaru Strait), 4,915
Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and north of Aleutian Islands), 4,586
Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo, and south of Aleutian Islands), 4,646
Shanghai, China, 548
Shantou, China, 1,029
Shimizu, Honshu, Japan, 469
Shimotsui, Japan, 152
Shiogama, Japan, 756
Sydney, Australia, 4,453

Tokuyama, Japan, 50
Tsuruga, Japan, 325
Unggi, North Korea, 511
Uno, Japan, 177
Valparaiso, Chile, 9,709
Vladivostok, Russia, 565
Weihai, China, 562
Xiamen, China, 920
Yantai, China, 596
Yeosu, South Korea, 182
Yokohama, Japan (via Bungo Suido), 545

SHIMOTSUI, JAPAN
(34°26'00"N., 133°49'00"E.) to:

Ports

Hirohata, Japan, 88
Osaka, Japan, 116
Shimonoseki, Japan, 152
Yokohama, Japan, 449

SHIOGAMA, JAPAN
(38°19'00"N., 141°03'00"E.) to:

Ports

Aomori, Japan, 311
Hakodate, Japan, 281
Itozakicho, Japan, 662
Shimonoseki, Japan, 756
Yokohama, Japan, 284

SHOREHAM BY SEA, ENGLAND
(50°49'48"N., 0°16'00"W.) to:

Junction Points*

Bishop Rock, England, 249
Ile d'Ouessant, France, 245
Pentland Firth, Scotland, 633

Ports

Le Havre, France, 90
London, England, 161
Plymouth, England, 162

SIBENIK, CROATIA
(43°44'03"N., 15°53'17"E.) to:

Junction Points*

Port Said, Egypt, 1,148
Strait of Gibraltar, 1,522

Ports

Alexandria, Egypt, 1,039
Algiers, Algeria, 1,094
Alicante, Spain, 1,249
Ancona, Italy, 115
Annaba, Algeria, 874
Banghazi, Libya, 741
Banzart, Tunisia, 783
Barcelona, Spain, 1,153
Bari, Italy, 167
Beirut, Lebanon (south of Greece), 1,218
Beirut, Lebanon (via Corinth Canal), 1,184
Brindisi, Italy, 217
Cartagena, Spain, 1,279
Ceuta, Morocco, 1,502
Dubrovnik, Croatia, 144
Genova, Italy, 958
Gibraltar, 1,504
Haifa, Israel (south of Greece), 1,214

Haifa, Israel (via Corinth Canal), 1,187
Iraklion, Kriti, 704
Istanbul, Turkey (south of Greece), 1,001
Istanbul, Turkey (via Corinth Canal), 902
Izmir, Turkey (south of Greece), 846
Izmir, Turkey (via Corinth Canal), 747
La Spezia, Italy, 923
Livorno, Italy, 887
Malaga, Spain, 1,452
Marseille, France, 1,050
Messina, Sicily, 477
Napoli, Italy, 648
Odessa, Ukraine (south of Greece), 1,349
Odessa, Ukraine (via Corinth Canal), 1,250
Oran, Algeria, 1,290
Palermo, Sicily, 593
Palma, Balearic Islands, 1,112
Piraeus, Greece (south of Greece), 687
Piraeus, Greece (via Corinth Canal), 548
Rijeka, Croatia, 158
Savona, Italy, 969
Siracusa, Sicily, 498
Tarabulus, Libya, 761
Taranto, Italy, 326
Thessaloniki, Greece (south of Greece), 895
Thessaloniki, Greece (via Corinth Canal), 796
Toulon, France, 1,018
Trieste, Italy, 192
Tunis, Tunisia, 771
Valencia, Spain, 1,237
Valletta, Malta, 575
Venezia, Italy, 204
Volos, Greece (south of Greece), 836
Volos, Greece (via Corinth Canal), 737

SIBU, MALAYSIA
(2°24'00"N., 111°56'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 1,063
Singapore, 532

Ports

Cebu, Philippines (via Balabac Strait), 1,049
Ho Chi Minh, Vietnam, 659
Kota Kinabalu, Malaysia, 479
Masbate, Philippines (via Balabac Strait), 1,151
Sandakan, Sabah (via Balabac Strait), 728

SIDI IFNI, MOROCCO
(29°26'00"N., 10°09'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 1,197
Strait of Gibraltar, 472

Ports

Porto Grande, Cape Verde Islands, 1,117
Rabat, Morocco, 357

SIMONS BAY, SOUTH AFRICA
(34°11'22"S., 18°26'29"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 23
Cape Leeuwin, Australia, 4,572
Port Said, Egypt, 5,315
Selat Sunda, Indonesia, 5,085

Ports

Port Elizabeth, South Africa, 391

SINES, PORTUGAL
(38°56'07"N., 8°52'15"W.) to:

Junction Points*

Bishop Rock, England, 689
Cape of Good Hope, South Africa, 8,342
Fastnet Rock, Ireland, 766
Grand Banks South, 1,864
Ile d'Ouessant, France, 625
Inishtrahull, Ireland, 1,400
Panama, Panama, 4,168
Pentland Firth, Scotland, 1,371
Punta Arenas, Chile, 6,453
Strait of Gibraltar, 2,708
Straits of Florida, 3,825

Ports

Cadiz, Spain, 266
Dakar, Senegal, 1,540
Freetown, Sierra Leone, 2,017
Funchal, Madeira Island, 544
Lisboa, Portugal, 20
Ponta Delgada, Azores, 794
Santa Cruz de Tenerife, Canary Islands, 727
Vigo, Spain, 251

SINGAPORE *
(1°16'00"N., 103°50'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,579
Honshu, Japan, 2,879
Selat Lombok, Indonesia, 963
Panama, Panama (via San Bernardino Strait), 10,505
Port Said, Egypt, 5,035
Selat Sunda, Indonesia (via Selat Bangka and Selat Berhala), 532
Tsugaru-Kaikyo, Japan, 3,343
Selat Wetar, Indonesia (via Selat Riouw and Selat Karimata), 1,587

Ports

Ad Damman, Saudi Arabia, 3,681
Aden, Yemen, 3,627
Akyab, Burma, 1,365
Al Basrah, Iraq, 3,916
Al Gurdagah, Egypt, 4,754
Al Manamah, Bahrain, 3,652
Albany, Australia, 2,525
Aleksandrovsk-Sakhalinskiy, Russia, 3,608
Apra, Guam (via Sulu Sea), 2,585
Assab, Ethiopia, 3,769
Balikpapan, Kalimantan, Indonesia, (via Selat Riouw), 1,053
Bandar Abbas, Iran, 3,381
Bandar Khomeini, Iran, 3,872

* **JUNCTION POINT.—**See Preface for use of junction points

104 SINT NICOLAASHAVEN, ARUBA

Bandjermasin, Kalimantan, Indonesia, 830
 Bangkok, Thailand, 842
 Barbers Point, Hawaii, U.S.A. (via Sulu Sea), 5,866
 Bassein, Burma, 1,137
 Beihai, China, 1,332
 Beira, Mozambique, 4,520
 Belawan, Indonesia, 368
 Berbera, Somalia, 3,646
 Bikini, Marshall Islands, 3,591
 Bombay, India, 2,441
 Bur Safaga, Egypt, 4,729
 Busan, South Korea, 2,502
 Bushehr, Iran, 3,737
 Calcutta, India, 1,649
 Calicut, India, 1,942
 Cebu, Philippines, 1,355
 Chalna, Bangladesh, 1,578
 Chimu Wan, Ryukyu Islands, 2,046
 Chittagong, Bangladesh, 1,517
 Cochin, India, 1,853
 Colombo, Sri Lanka, 1,581
 Dagu, China, 2,770
 Dalian, China, 2,612
 Dar es Salaam, Tanzania, 4,042
 Davao, Philippines, 1,532
 Diego Garcia, Chagos Archipelago (via Strait of Malacca), 2,227
 Djibouti, Djibouti, 3,769
 Dumai, Indonesia, 200
 Durban, South Africa, 4,872
 Dutch Harbor, Alaska, U.S.A., 5,364
 East London, South Africa, 5,082
 Eilat, Israel, 4,868
 Fort Dauphin, Madagascar, 3,975
 Galle, Sri Lanka, 1,502
 Guayaquil, Ecuador (via Surigao Strait), 10,726
 Hakodate, Japan (via Sea of Japan), 3,160
 Ho Chi Minh, Vietnam, 649
 Hong Kong, China, 1,454
 Honolulu, Hawaii, U.S.A. (via Sulu Sea), 5,881
 Iloilo, Philippines (via Lumbacan Channel), 1,268
 Incheon, South Korea, 2,560
 Jakarta, Indonesia (via Selat Durian and Selat Bangka), 525
 Jakarta, Indonesia (via Selat Riouw and Selat Bangka), 526
 Kakinada, India, 1,593
 Karachi, Pakistan, 2,882
 Kobe, Japan, 2,689
 Kodiak, Alaska, U.S.A., 6,020
 Kompong Som, Cambodia, 638
 Kota Kinabalu, Sabah, 832
 Kuching, Sarawak, 443
 Lo hsing-ta Mao-ti, China, 1,817
 Los Angeles, California, U.S.A. (via San Bernardino Strait), 7,867
 Madras, India, 1,583
 Majunga, Madagascar, 3,845
 Makassar, Sulawesi, 1,070
 Malacca, Malaysia, 117
 Malakal, Palau Islands (via Basilan Strait), 2,006
 Manila, Philippines (north of North Danger Reef), 1,330
 Maputo, Mozambique, 4,769
 Massawa, Ethiopia, 4,019
 Midway Island, 4,828
 Mina al Ahmadi, Kuwait, 3,825
 Mina Abd Allah, Kuwait, 3,822
 Mina Az Zawr, Kuwait, 3,803
 Mocambique, Mozambique, 4,080
 Mogadishu, Somalia, 3,611
 Mombasa, Kenya, 3,987

Marmagao, India, 2,217
 Mosselbaai, South Africa, 5,384
 Mtwara, Tanzania, 4,042
 Nagasaki, Japan (east of Taiwan), 2,413
 Nagasaki, Japan (via Formosa Strait), 2,427
 Nampo, North Korea, 2,621
 Negapattinam, India, 1,568
 Nha Trang Bay, Vietnam, 769
 Olongapo, Philippines, 1,335
 Palembang, Indonesia, 304
 Penang, Malaysia, 367
 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait and Pervyy Kuril'skiy Proлив), 4,194
 Phuket, Thailand, 538
 Port des Galets, Reunion Island, 3,450
 Port Augusta, Australia, 3,580
 Port Blair, Andaman Islands, 929
 Port Elizabeth, South Africa, 5,209
 Port Louis, Mauritius, 3,333
 Port Pirie, Australia, 3,564
 Port Swettenham, Malaysia, 210
 Portland, Oregon, U.S.A., 7,142
 Prince Rupert, Canada, 6,683
 Pulpandan, Philippines, 1,504
 Qingdao, China, 2,466
 Qui Nhon, Vietnam, 856
 Rangoon, Burma, 1,109
 Ras al Khafji, Saudi Arabia, 3,799
 Ras as Sidr, Egypt, 4,902
 Ras Gharib, Egypt, 4,827
 Ras Tannurah, Saudi Arabia, 3,701
 Rongelap, Marshall Islands, 3,669
 Sabang, Indonesia, 601
 San Diego, California, U.S.A., 7,736
 San Fernando, Philippines, 1,379
 San Francisco, California, U.S.A. (via Balintang Channel), 7,353
 San Francisco, California, U.S.A. (via Tawitawi Island), 7,735
 Sandakan, Sabah (via Banggi South Channel), 1,071
 Seattle, Washington, U.S.A., 7,062
 Shanghai, China, 2,207
 Shimonoseki, Japan, 2,527
 Sitka, Alaska, U.S.A., 6,433
 Sorido, Indonesia, 2,202
 Sorong, New Guinea, 1,894
 Suakin, Sudan, 4,251
 Surabaya, Indonesia, 763
 Tamatave, Madagascar, 3,675
 Tandjung Uban, Indonesia, 27
 Tanga, Tanzania, 4,037
 Tarakan, Indonesia, 1,286
 Telukbayur, Indonesia, 1,011
 Tjirebon, Indonesia, 624
 Truk, Caroline Islands, 3,052
 Umm Said, Qatar, 3,630
 Vancouver, Canada, 7,078
 Victoria, Sabah, 762
 Victoria, Seychelles, 3,067
 Vinh Cam Ranh, Vietnam, 786
 Vladivostok, Russia, 3,004
 Weihai, China, 2,548
 Wake Island (via Surigao Strait), 3,885
 Wallaroo, Australia, 3,500
 Whyalla, Australia, 3,546
 Weonsan, South Korea, 2,808
 Wotho, Marshall Islands, 3,614
 Xiamen, China, 1,649
 Yantai, China, 2,582
 Yokohama, Japan, 2,889
 Zamboanga, Philippines (via Balabac Strait), 1,197
 Zanzibar, Tanzania, 4,060
 Zhenjiang, China, 1,333

SINT NICOLAASHAVEN, ARUBA (12°25'45"N., 69°54'30"W.) to:

Junction Points*

Yucatan Channel, 1,036

Ports

Boston, Massachusetts, U.S.A., 1,853
 Colon, Panama, 633
 Georgetown, Guyana, 856
 Guantanamo, Cuba, 544
 Hamilton, Bermuda, 1,263
 Kingston, Jamaica, 528
 La Guaira, Venezuela, 207
 New York, New York, U.S.A. (via Mona Passage), 1,761
 New York, New York, U.S.A. (via Windward Passage), 1,805
 Norfolk, Virginia, U.S.A. (via Mona Passage), 1,600
 Norfolk, Virginia, U.S.A. (via Windward Passage), 1,611
 Philadelphia, Pennsylvania, U.S.A., 1,732
 Pointe a Pitre, Guadeloupe, 550
 Port Castries, St. Lucia, 532
 Port of Spain, Trinidad, 515
 St. John's, Antigua, 549

SIRACUSA, SICILY, ITALY (37°03'29"N., 15°17'21"E.) to:

Junction Points*

Port Said, Egypt, 924
 Strait of Gibraltar, 1,054

Ports

Alexandria, Egypt, 809
 Algiers, Algeria, 626
 Alicante, Spain, 792
 Ancona, Italy, 557
 Annaba, Algeria, 401
 Benghazi, Libya, 381
 Banzart, Tunisia, 296
 Barcelona, Spain, 752
 Bari, Italy, 350
 Beirut, Lebanon, 1,013
 Brindisi, Italy, 292
 Cartagena, Spain, 817
 Ceuta, Morocco, 1,035
 Civitavecchia, Italy, 373
 Genova, Italy, 557
 Gibraltar, 1,037
 Haifa, Israel, 1,013
 Iraklion, Kriti, 495
 Istanbul, Turkey (south of Greece), 798
 Istanbul, Turkey (via Corinth Canal), 772
 Izmir, Turkey (south of Greece), 644
 Izmir, Turkey (via Corinth Canal), 618
 Kavala, Greece (south of Greece), 682
 Kavala, Greece (via Corinth Canal), 656
 La Spezia, Italy, 521
 Livorno, Italy, 486
 Malaga, Spain, 985
 Marseille, France, 649
 Messina, Sicily, 75
 Napoli, Italy, 247
 Odessa, Ukraine (south of Greece), 1,146
 Odessa, Ukraine (via Corinth Canal), 1,120

Oran, Algeria, 823
 Palermo, Sicily, 192
 Palma, Balearic Islands, 668
 Piraeus, Greece (south of Greece), 484
 Piraeus, Greece (via Corinth Canal), 418
 Rijeka, Croatia, 624
 Savona, Italy, 567
 Sibenik, Croatia, 498
 Split, Croatia, 483
 Tarabulus, Libya, 276
 Taranto, Italy, 245
 Tarragona, Spain, 746
 Thessaloniki, Greece (south of Greece), 692
 Thessaloniki, Greece (via Corinth Canal), 667
 Toulon, France, 617
 Trieste, Italy, 658
 Tunis, Tunisia, 283
 Valencia, Spain, 790
 Valletta, Malta, 88
 Venezia, Italy, 668
 Volos, Greece (south of Greece), 634
 Volos, Greece (via Corinth Canal), 608

SIRRI ISLAND, IRAN (25°54'25"N., 54°33'44"E.) See Jazireh-Ye Sirri.

SISIMIUT, GREENLAND (66°56'42"N., 53°41'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,802
 Strait of Gibraltar, 2,649

Ports

Churchill, Canada, 1,384
 Reykjavik, Iceland, 1,248
 St. John's, Canada, 1,172

SITKA, ALASKA, U.S.A. (57°03'00"N., 135°20'30"W.) to:

Junction Points*

Panama, Panama, 4,524
 Punta Arenas, Chile, 7,455
 Singapore, 6,433

Ports

Apra, Guam, 4,407
 Auckland, New Zealand, 6,176
 Callao, Peru, 5,255
 Guayaquil, Ecuador, 4,817
 Hakodate, Japan (south of Aleutian Islands), 3,338
 Ho Chi Minh, Vietnam, 5,963
 Hong Kong, China (alternate route north of Aleutian Islands), 5,095
 Hong Kong, China (south of Aleutian Islands), 5,136
 Honolulu, Hawaii, U.S.A., 2,386
 Ketchikan, Alaska, U.S.A., 224
 Los Angeles, California, U.S.A., 1,640
 Manila, Philippines (alternate route north of Aleutian Islands), 5,302
 Manila, Philippines (south of Aleutian Islands), 5,323
 Midway Island, 2,473
 Noumea, New Caledonia, 5,613
 Pago Pago, American Samoa, 4,635
 Papeete, French Polynesia, 4,537

* JUNCTION POINT.—See Preface for use of junction points

Petropavlovsk-Kamchatskiy, Russia, 2,314
 Port Darwin, Australia, 6,338
 Prince Rupert, Canada, 285
 Qingdao, China, 4,454
 San Diego, California, U.S.A., 1,725
 San Francisco, California, U.S.A., 1,302
 Seattle, Washington, U.S.A., 806
 Shanghai, China, 4,446
 Skagway, Alaska, U.S.A., 181
 Surabaya, Indonesia, 6,564
 Suva, Fiji Islands, 5,112
 Sydney, Australia, 6,595
 Truk, Caroline Islands, 4,473
 Valdez, Alaska, U.S.A., 478
 Valparaiso, Chile, 6,407
 Vancouver, Canada, 823
 Vladivostok, Russia, 3,585
 Wake Island, 3,405
 Wrangell, Alaska, U.S.A., 170
 Yakutat, Alaska, U.S.A., 231
 Yokohama, Japan (alternate route north of Aleutian Islands), 3,620
 Yokohama, Japan (south of Aleutian Islands), 3,640

SITRAH ANCHORAGE, BAHRAIN
 (26°10'00"N., 50°41'00"E.) Use Al Manamah distances.

SITTWE HARBOR, BURMA
 (20°08'30"N., 92°54'30"E.) to:

Junction Points*

Port Said, Egypt, 4,672
 Singapore, 1,365

Ports

Calcutta, India, 402
 Colombo, Sri Lanka, 1,225
 Penang, Malaysia, 1,215

SKAGENS ODDE, DENMARK*
 (57°48'00"N., 10°44'00"E.) to:

Junction Points*

Bishop Rock, England, 851
 Ile d'Ouessant, France, 833
 Nord-Ostsee-Kanal (East Entrance), Germany, 224
 Pentland Firth, Scotland, 450

Ports

Aalborg, Denmark, 87
 Aarhus, Denmark, 127
 Abenra, Denmark, 229
 Aberdeen, Scotland, 416
 Alesund, Norway, 450
 Amsterdam, Netherlands, 422
 Antwerp, Belgium, 528
 Assens, Denmark, 187
 Bergen, Norway, 305
 Bremerhaven, Germany, 320
 Cherbourg, France, 671
 Dover, England, 527
 Dundee, Scotland, 455
 Dunkerque, France, 511
 Egersund, Norway, 165
 Emden, Germany, 344
 Esbjerg, Denmark, 234
 Faborg, Denmark, 234
 Farsund, Norway, 132
 Flekkefjorden, Norway, 155
 Flensburg, Germany, 260
 Fredericia, Denmark, 169

Frederikshavn, Denmark, 24
 Gavle, Sweden, 676
 Gdansk, Poland (via Store Baelt), 556
 Gdansk, Poland (via The Sound), 418
 Gdynia, Poland (via Store Baelt), 552
 Goteborg, Sweden, 42
 Grena, Denmark, 115
 Haderslev, Denmark, 216
 Hakonsvern, Norway, 296
 Halmstad, Sweden, 101
 Hamburg, Germany, 360
 Hamina, Finland, 797
 Hango, Finland, 625
 Harstad, Norway, 911
 Hartlepool, England, 438
 Harwich, England, 487
 Helsingborg, Sweden, 128
 Helsingor, Denmark, 127
 Helsinki, Finland (via Store Baelt), 841
 Helsinki, Finland (via The Sound), 687
 Hirtshals, Denmark, 30
 Horsens, Denmark, 170
 Hull, England, 462
 Inverness, England, 481
 Kalmar, Sweden (via Store Baelt), 496
 Kalmar, Sweden (via The Sound), 342
 Kalundborg, Denmark, 141
 Karlskrona, Sweden, 295
 Klaipeda, Lithuania (via Store Baelt), 612
 Klaipeda, Lithuania (via The Sound and north of Bornholm), 462
 Kobenhavn, Denmark, 150
 Koge, Denmark, 161
 Kolding, Denmark, 289
 Korsor, Denmark, 162
 Kotka, Finland, 755
 Kristiansand, Norway, 92
 Kyndbyvaerkets, Denmark, 136
 Landskrona, Sweden, 137
 Le Havre, France, 639
 Leith, Scotland, 472
 Lillesand, Norway, 80
 Limhamn, Sweden, 159
 London, England, 556
 Lubeck, Germany, 263
 Lulea, Sweden (via Store Baelt), 1,101
 Lulea, Sweden (via The Sound), 941
 Malmo, Sweden, 155
 Mandal, Norway, 110
 Masnedsund, Denmark, 122
 Middlefart, Denmark, 186
 Molde, Norway, 492
 Mosjoen, Norway, 732
 Musko Island, Sweden, 524
 Naestved, Denmark, 212
 Nakskov, Denmark, 213
 Namsos, Norway, 696
 Newcastle, England, 445
 Norrkoping, Sweden, 520
 Odense, Denmark, 126
 Oostende, Belgium, 489
 Ornskoldsvik, Sweden, 798
 Oslo, Norway, 131
 Oulu, Finland, 979
 Oxelosund, Sweden, 481
 Pechenga, Russia, 1,325
 Penemunde, Germany, 272
 Pitea, Sweden, 925
 Plymouth, England, 756
 Porkkala, Finland, 697
 Portland, England, 682
 Portsmouth, England, 632

Randers, Denmark, 96
 Reposaari, Finland, 715
 Riga, Latvia (via Store Baelt), 771
 Riga, Latvia (via The Sound), 617
 Risor, Norway, 73
 Ronne, Denmark (via Store Baelt), 389
 Ronne, Denmark (via The Sound), 244
 Rostock, Germany, 254
 Rosyth, Scotland, 478
 Rotterdam, Netherlands, 448
 Ruch'i, Russia, 816
 Sankt-Peterburg, Russia (via Store Baelt), 992
 Sankt-Peterburg, Russia (via The Sound), 841
 Sassnitz, Germany, 239
 Sonderborg, Denmark, 251
 Southampton, England, 650
 Stavanger, Norway, 221
 Stockholm, Sweden (via Sandhamnsleden and Store Baelt), 719
 Stockholm, Sweden (via The Sound), 567
 Stralsund, Germany, 226
 Sundsvall, Sweden, 745
 Swinoujscie, Poland (via Store Baelt), 462
 Swinoujscie, Poland (via The Sound), 275
 Szczecin, Poland, 410
 Tallinn, Estonia, 661
 Tornio, Finland (via Store Baelt), 1,137
 Tornio, Finland (via The Sound), 973
 Torshavn, Faroe Islands, 624
 Travemunde, Germany (via Store Baelt), 304
 Trelleborg, Sweden (via Store Baelt), 357
 Trelleborg, Sweden (via The Sound), 192
 Turku, Finland (via Store Baelt), 795
 Turku, Finland (via The Sound), 642
 Tvedestrand, Norway, 76
 Umea, Sweden, 812
 Uusikaupunki, Finland (via Store Baelt), 847
 Vaasa, Finland, 805
 Vardo, Norway, 1,287
 Vejle, Denmark, 189
 Ventspils, Latvia, 502
 Vysotsk, Russia (via Store Baelt), 923
 Vysotsk, Russia (via The Sound), 803
 Wilhelmshaven, Germany, 314
 Wismar, Germany, 281
 Zeebrugge, Belgium, 479

SKAGWAY, ALASKA, U.S.A.
 (59°27'00"N., 13°20'00"W.) to:

Junction Points*

Panama, Panama, 4,739

Ports

Seattle, Washington, U.S.A., 934
 Sitka, Alaska, U.S.A., 187
 Vancouver, Canada, 1,021
 Wrangell, Alaska, U.S.A., 231

SKARAMANGAS, GREECE
 (37°59'25"N., 23°34'00"E.) Add 4 miles to Piraeus distances.

SKELLEFTEHAMN, SWEDEN
 (64°41'16"N., 21°12'10"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 847
 Skagens Odde, Denmark (via The Sound), 908

Ports

Helsinki, Finland, 507
 Horsens, Denmark (via The Sound), 180
 Odense, Denmark, 883
 Porvoo, Finland, 534
 Sankt-Peterburg, Russia, 650
 Slagen, Norway (via The Sound), 974
 Umea, Sweden, 116
 Vaasa, Finland, 128

SKIEN, NORWAY
 (59°12'15"N., 9°36'50"E.) to:

Junction Points*

Pentland Firth, Scotland, 466

Ports

Bergen, Norway, 317
 Bremerhaven, Germany, 372
 London, England, 609

SKIKID, ALGERIA
 (36°53'24"N., 6°54'25"E.) to:

Junction Points*

Port Said, Egypt, 1,332
 Strait of Gibraltar, 629

Ports

Algiers, Algeria, 200
 Barcelona, Spain, 354
 Cartagena, Spain, 395
 Marseille, France, 398
 Oran, Algeria, 398
 Sete, France, 422
 Toulon, France, 381

SKREDSEVIK, SWEDEN
 (58°25'00"N., 11°30'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 275
 Nord-Ostsee-Kanal (East Entrance), Germany (via The Sound), 347
 Skagens Odde, Denmark, 45

Ports

Aarhus, Denmark, 194
 Abenra, Denmark, 266
 Kobenhavn, Denmark, 185
 Porvoo, Finland (via The Sound), 762
 Stenungsund, Sweden, 52
 Varberg, Sweden, 94

SLAGEN, NORWAY
 (59°20'00"N., 10°31'02"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

106 SLITE, SWEDEN

<p>Junction Points*</p> <p>Bishop Rock, England (via Dover Strait), 915 Ile d'Ouessant, France (via Dover Strait), 901 Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 330 Nord-Ostsee-Kanal (East Entrance), Germany (via The Sound), 402 Pentland Firth, Scotland, 485 Skagens Odde, Denmark, 93</p> <p>Ports</p> <p>Aarhus, Denmark, 222 Antwerp, Belgium, 619 Bergen, Norway, 340 Bremerhaven, Germany, 390 Calais, France, 596 Drammen Harbor, Norway, 28 Kobenhavn, Denmark, 234 Leith, Scotland, 505 London, England, 628 Reykjavik, Iceland, 1,141 Zeebrugge, Belgium, 565</p> <p>SLITE, SWEDEN (57°40'00"N., 18°53'44"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 400 Skagens Odde, Denmark (via The Sound), 462</p> <p>Ports</p> <p>Helsinki, Finland, 254 Karlskrona, Sweden, 187 Lubeck, Germany, 384 Rostock, Germany, 343 Sankt-Peterburg, Russia, 400 Skelleftehamn, Sweden, 471 Varberg, Sweden (via The Sound), 401</p> <p>SMALKALDEN, SURINAME (5°37'10"N., 55°05'27"W.) Add 20 miles to Paramaribo distances.</p> <p>SOCHI, RUSSIA (43°35'00"N., 39°42'45"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,313 Strait of Gibraltar (via Corinth Canal), 4,181 Strait of Gibraltar (south of Greece), 4,241</p> <p>Ports</p> <p>Alexandria, Egypt, 1,251 Beirut, Lebanon, 1,438 Constanta, Romania, 479 Haifa, Israel, 1,364 Iraklion, Kriti, 963 Istanbul, Turkey, 506 Napoli, Italy (via Corinth Canal), 1,444 Napoli, Italy (south of Greece), 1,507 Valencia, Spain (via Corinth Canal), 2,039 Valencia, Spain (south of Greece), 2,099</p>	<p>SONDERBORG, DENMARK (54°54'36"N., 9°47'15"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 46 Skagens Odde, Denmark, 251</p> <p>Ports</p> <p>Gdynia, Poland, 360 Goteborg, Sweden, 239 Swinoujscie, Poland, 215</p> <p>SORIDO, INDONESIA (1°10'00"S., 136°02'00"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 2,202 Torres Strait, Australia, 1,329</p> <p>Ports</p> <p>Jakarta, Indonesia, 1,879 Makassar, Sulawesi, 1,180</p> <p>SORONG, INDONESIA (0°53'00"S., 131°14'00"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 1,894 Torres Strait, Australia, 1,021</p> <p>Ports</p> <p>Apra, Guam, 1,171 Davao, Philippines, 601 Makassar, Sulawesi, 872 Rabaul, Papua New Guinea, 1,304</p> <p>SORVAGUR, FAROE ISLANDS (62°04'20"N., 7°18'17"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 826 Cape of Good Hope, South Africa, 6,520 Fastnet Rock, Ireland, 678 Grand Banks South, 1,931 Ile d'Ouessant, France, 904 Inishtrahull, Ireland, 401 Panama, Panama, 4,488 Pentland Firth, Scotland, 234 Punta Arenas, Chile, 7,767 Strait of Gibraltar, 1,543</p> <p>Ports</p> <p>Aberdeen, Scotland, 364 Alesund, Norway, 376 Amsterdam, Netherlands, 433 Bodo, Norway, 637 Bremerhaven, Germany, 719 Dover, England, 752 Fredrikstad, Norway, 653 Goteborg, Sweden, 656 Hirtshals, Denmark, 593 Leith, Scotland, 442 London, England, 787 Murmansk, Russia, 1,172 Oslo, Norway, 635 Portsmouth, England, 831 Reykjavik, Iceland, 486 Tromso, Norway, 765 Zeebrugge, Belgium, 724</p>	<p>SOUDHA, KRITI (35°29'30"N., 24°04'45"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 507 Strait of Gibraltar, 1,479</p> <p>Ports</p> <p>Alexandria, Egypt, 425 Izmir, Turkey, 281 Messina, Sicily, 473 Piraeus, Greece, 159</p> <p>SOUSSE, TUNISIA (35°49'30"N., 10°39'30"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,133 Strait of Gibraltar, 909</p> <p>Ports</p> <p>Annaba, Algeria, 255 Tarabulus, Libya, 231 Valletta, Malta, 197</p> <p>SOUTH RIDING POINT, GRAND BAHAMA ISLANDS (26°36'45"N., 78°13'10"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama (via Windward Passage), 1,298 Straits of Florida, 305 Yucatan Channel, 483</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 875 Jacksonville, Florida, U.S.A., 338 La Habana, Cuba, 316 Philadelphia, Pennsylvania, U.S.A., 924 San Juan, Puerto Rico, 858 Wilmington, North Carolina, U.S.A., 521</p> <p>SOUTHAMPTON, ENGLAND (50°53'00"N., 1°23'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England (via Needles Channel), 232 Ile d'Ouessant, France, 223 Nord-Ostsee-Kanal (East Entrance), Germany, 533 Skagens Odde, Denmark, 650</p> <p>Ports</p> <p>Aberdeen, Scotland, 532 Amsterdam, Netherlands, 284 Antwerp, Belgium, 260 Barrow in Furness, England, 485 Bergen, Norway, 713 Boulogne, France, 120 Caen, France, 119 Cardiff, Wales, 346 Dartmouth, England, 100 Dover, England, 123 Dundee, Scotland, 515 Dunkerque, France, 168 Egersund, Norway, 600 Emden, Germany, 407 Esbjerg, Denmark, 493 Fishguard, Wales, 343 Fleetwood, England, 485 Hamburg, Germany, 522</p>	<p>Hartlepool, England, 396 Holyhead, Wales, 414 Hull, England, 336 Kristiansand, Norway, 611 Leith, Scotland, 513 Liverpool, England, 479 London, England, 215 Newcastle, England, 421 Oostende, Belgium, 192 Oslo, Norway, 763 Plymouth, England, 134 Portland, England, 57 Rotterdam, Netherlands, 261 Stavanger, Norway, 640 Sunderland, England, 400 Wilhelmshaven, Germany, 451 Zeebrugge, Belgium, 197</p> <p>SOVETSKAYA GAVAN, RUSSIA (48°59'00"N., 140°16'00"E.) to:</p> <p>Ports</p> <p>Korsakov, Sakhalin, Russia, 264 Nikolayevsk-Na-Amure, Russia (via South Channel), 276 Vladivostok, Russia, 593</p> <p>SPLIT, CROATIA (43°30'16"N., 16°26'10"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,133 Strait of Gibraltar, 1,507</p> <p>Ports</p> <p>Alexandria, Egypt, 1,024 Algiers, Algeria, 1,079 Alicante, Spain, 1,234 Ancona, Italy, 132 Annaba, Algeria, 859 Banghazi, Libya, 726 Banzart, Tunisia, 768 Barcelona, Spain, 1,138 Bari, Italy, 155 Beirut, Lebanon (south of Greece), 1,203 Beirut, Lebanon (via Corinth Canal), 1,169 Brindisi, Italy, 202 Cartagena, Spain, 1,264 Ceuta, Morocco, 1,487 Dures, Albania, 216 Genova, Italy, 943 Gibraltar, 1,489 Haifa, Israel (south of Greece), 1,199 Haifa, Israel (via Corinth Canal), 1,172 Iraklion, Kriti, 689 Istanbul, Turkey (south of Greece), 986 Istanbul, Turkey (via Corinth Canal), 887 Izmir, Turkey (south of Greece), 831 Izmir, Turkey (via Corinth Canal), 732 La Spezia, Italy, 908 Livorno, Italy, 872 Malaga, Spain, 1,436 Marseille, France, 1,035 Messina, Sicily, 462 Monopoli, Italy, 173 Napoli, Italy, 633 Odessa, Ukraine (south of Greece), 1,334 Odessa, Ukraine (via Corinth Canal), 1,235</p>
---	---	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

Oran, Algeria, 1,275
 Palermo, Sicily, 578
 Palma, Balearic Islands, 1,096
 Piraeus, Greece (south of Greece), 672
 Piraeus, Greece (via Corinth Canal), 533
 Rijeka, Croatia, 176
 Sarande, Albania, 293
 Savona, Italy, 954
 Shengjin, Albania, 207
 Siracusa, Sicily, 483
 Tarabulus, Libya, 746
 Taranto, Italy, 341
 Thessaloniki, Greece (south of Greece), 880
 Thessaloniki, Greece (via Corinth Canal), 781
 Toulon, France, 1,003
 Trieste, Italy, 210
 Tunis, Tunisia, 756
 Valencia, Spain, 1,222
 Valletta, Malta, 560
 Venezia, Italy, 221
 Vlora, Albania, 252
 Volos, Greece (south of Greece), 821
 Volos, Greece (via Corinth Canal), 722

SRIRACHA, THAILAND
 (13°06'54"N., 100°51'33"E.) to:

Junction Points*

Honshu, Japan, 3,010
 Selat Lombok, Indonesia, 1,612
 Panama, Panama, 11,255
 Singapore, 759
 Selat Sunda, Indonesia, 1,269
 Tsugaru-Kaikyo, Japan, 3,293
 Selat Wetar, Indonesia, 2,247

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 3,749
 Busan, South Korea, 2,610
 Hong Kong, China, 1,546
 Incheon, South Korea, 2,671
 Manila, Philippines, 1,430
 Mogpo, South Korea, 2,519
 Vladivostok, Russia, 4,659
 Weonsan, Korea, 4,488

ST. ANDREWS, CANADA
 (45°03'30"N., 67°01'40"W.)
 Subtract 76 miles from Parrsboro distances.

ST. GEORGES, GRENADA
 (12°03'00"N., 61°45'00"W.) to:

Junction Points*

Panama, Panama, 1,161
 Straits of Florida, 1,453

Ports

Baltimore, Maryland, U.S.A., 1,843
 Boston, Massachusetts, U.S.A., 1,932
 Bridgetown, Barbados (north of island), 144
 Colon, Panama, 1,118
 Hamilton, Bermuda, 1,256
 La Guaira, Venezuela, 322
 New York, New York, U.S.A., 1,842
 Paramaribo, Suriname, 560

Philadelphia, Pennsylvania, U.S.A., 1,848
 Port of Spain, Trinidad, 102

ST. HELENA ISLAND, SOUTH ATLANTIC
 (15°55'00"S., 5°43'25"W.) to:

Ports

Belem, Brazil, 4,329
 Boma, Congo, 1,232
 Buenos Aires, Argentina, 3,052
 Cape Town, South Africa, 1,697
 Freetown, Sierra Leone, 1,564
 Georgetown, Ascension Island, 707
 Malabo, Equatorial Guinea, 1,472
 Montevideo, Uruguay, 2,936
 Philadelphia, Pennsylvania, U.S.A., 5,169
 Rio de Janeiro, Brazil, 2,161

ST. JOHN, CANADA
 (45°16'00"N., 66°04'00"W.) to:

Junction Points*

Montreal, Canada (via Cabot Strait), 1,209
 Panama, Panama, 2,361
 Straits of Florida, 1,568

Ports

Baltimore, Maryland, U.S.A. (via Nantucket Light Buoy), 860
 Bath, Maine, U.S.A., 206
 Belem, Brazil, 2,998
 Boston, Massachusetts, U.S.A., 286
 Buenos Aires, Argentina, 5,853
 Cape Town, South Africa, 6,667
 Colon, Panama, 2,294
 Halifax, Canada, 278
 Kingston, Jamaica, 1,794
 La Guaira, Venezuela, 2,086
 La Habana, Cuba, 1,574
 Liverpool, Canada, 212
 New York, New York, U.S.A. (via Nantucket Light Buoy), 545
 New York, New York, U.S.A. (via Vineyard Sound and Long Island Sound), 486
 Norfolk, Virginia, U.S.A., 731
 Parrsboro, Canada, 80
 Philadelphia, Pennsylvania, U.S.A. (via Nantucket Light Buoy), 698
 Philadelphia, Pennsylvania, U.S.A. (via Vineyard Sound), 673
 Port of Spain, Trinidad, 2,113
 Portland, Maine, U.S.A., 215
 Portsmouth, New Hampshire, U.S.A., 1,248
 Rio de Janeiro, Brazil, 4,752
 San Juan, Puerto Rico, 1,614
 Santo Domingo, Dominican Republic, 1,733
 Savannah, Georgia, U.S.A. (via Nantucket Light Buoy), 1,113
 Sydney, Canada, 492

ST. JOHN'S, CANADA
 (47°34'00"N., 52°42'00"W.) to:

Junction Points*

Bishop Rock, England, 1,804
 Inishtrahull, Ireland, 1,720
 Montreal, Canada (via Cabot Strait), 1,043
 Montreal, Canada (via Strait of Belle Isle), 1,146

Panama, Panama, 2,742
 Pentland Firth, Scotland, 1,855
 Punta Arenas, Chile, 6,735
 Strait of Gibraltar, 2,182
 Straits of Florida, 2,094

Ports

Aasiaat (Egedesminde), Greenland, 1,294
 Akureyri, Iceland, 1,616
 Baltimore, Maryland, U.S.A., 1,400
 Belem, Brazil, 2,968
 Boston, Massachusetts, U.S.A., 885
 Buenos Aires, Argentina, 5,663
 Camp Lloyd, Greenland, 1,198
 Cape Town, South Africa, 6,205
 Colon, Panama, 2,695
 Dakar, Senegal, 2,646
 El Ferrol del Caudillo, Spain, 1,861
 Frederiksdal, Greenland, 800
 Galway, Ireland, 1,678
 Goose Bay, Canada, 588
 Halifax, Canada, 531
 Hvalfjörður, Iceland, 1,437
 Ilulissat (Jakobshavn), Greenland, 1,341
 Ivittuut, Greenland, 849
 Kangerluarsorseq, Greenland, 969
 Keflavik, Iceland, 1,404
 Liverpool, Canada, 585
 Maniitsoq, Greenland, 1,075
 Nanortalik, Greenland, 821
 Narsarsuaq, Greenland, 916
 Natal, Brazil, 3,341
 New York, New York, U.S.A., 1,093
 Norfolk, Virginia, U.S.A., 1,277
 Nuuk (Godthab), Greenland, 1,005
 Paramaribo, Suriname, 2,518
 Philadelphia, Pennsylvania, U.S.A., 1,254
 Ponta Delgada, Azores, 1,326
 Port of Spain, Trinidad, 2,288
 Qaanaaq (Thule), Greenland, 1,800
 Qaqortoq (Julianehaab), Greenland, 827
 Qasigiannuit, Greenland, 1,333
 Qutdligssat, Greenland, 1,476
 Recife, Brazil, 3,491
 Reykjavik, Iceland, 1,416
 Rio de Janeiro, Brazil, 4,563
 Santa Cruz de Tenerife, Canary Islands, 2,053
 Seydhisfjörður, Iceland, 1,690
 Shelburne, Canada, 621
 Sisimiut, Greenland, 1,172
 Upernavik, Greenland, 1,532

ST. JOHN'S, ANTIGUA
 (17°08'00"N., 61°52'00"W.) to:

Ports

Belem, Brazil, 1,433
 Colon, Panama, 1,158
 Elizabeth Harbor, Bahamas, 900
 Georgetown, Guyana, 689
 Guantamo, Cuba, 837
 Kingston, Jamaica, 870
 Miami, Florida, U.S.A., 1,180
 New York, New York, U.S.A., 1,572
 Pointe à Pitre, Guadeloupe (east of Guadeloupe), 107
 Pointe à Pitre, Guadeloupe (west of Guadeloupe), 110
 Port Castries, St. Lucia, 204

Port of Spain, Trinidad, 411
 Puerto Cortes, Honduras, 1,511
 San Juan, Puerto Rico, 265
 Sint Nicolaashaven, Aruba, 549

ST. LOUIS DU RHONE, FRANCE
 (43°23'00"N., 4°48'27"E.) to:

Junction Points*

Port Said, Egypt, 1,536
 Strait of Gibraltar, 701

Ports

Ajaccio, Corsica, 197
 Alexandria, Egypt, 413
 Alicante, Spain, 395
 Ayios Nikolaos, Greece, 1,131
 Bari, Italy, 906
 Ceuta, Morocco, 685
 Es Sider, Libya, 994
 Haifa, Israel, 1,601
 Kerch, Ukraine, 1,831
 Mersin, Turkey, 1,557
 Oran, Algeria, 537
 Sevastopol', Ukraine, 686
 Trieste, Italy, 1,216
 Zelinika, Montenegro, 943

ST. MALO, FRANCE
 (48°38'40"N., 2°01'38"W.) to:

Junction Points*

Bishop Rock, England, 90
 Ile d'Ouessant, France, 141

Ports

Brest, France, 152
 Dover, England, 228
 Le Havre, France, 156

ST. MARC, HAITI
 (19°07'00"N., 72°42'10"W.) to:

Junction Points*

Panama, Panama, 796
 Straits of Florida, 673

Ports

Kingston, Jamaica, 254
 Nuevitas, Cuba, 306

ST. NAZAIRE, FRANCE
 (47°16'00"N., 2°12'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 184

Ports

Aviles, Spain, 274
 Bordeaux, France, 184
 Gijon, Spain, 274
 La Pallice, France, 108

ST. NICHOLAS, GREECE
 (35°11'38"N., 25°43'20"E.) See Ayios Nikolaos.

ST. PETERSBURG, FLORIDA, U.S.A.
 (27°46'00"N., 82°37'00"W.)
 Subtract 15 miles from Tampa distances.

* **JUNCTION POINT.**—See Preface for use of junction points

108 ST. PIERRE, MARTINIQUE**ST. PIERRE, MARTINIQUE**
(14°44'30"N., 61°11'15"W.) to:**Ports**La Habana, Cuba, 1,339
New York, New York, U.S.A. (via
Anegada Channel), 1,705
Port Castries, St. Lucia, 46
San Juan, Puerto Rico, 374**ST. RAPHAEL, FRANCE**
(43°25'21"N., 6°45'45"E.) to:**Junction Points***Port Said, Egypt, 1,475
Strait of Gibraltar, 763**Ports**Barcelona, Spain, 251
Genova, Italy, 118
Palma, Balearic Islands, 347**STADERSAND, GERMANY**
(53°37'47"N., 9°32'00"E.) to:**Junction Points***Bishop Rock, England, 739
Ile d'Ouessant, France, 725
Nord-Ostsee-Kanal (East
Entrance), Germany, 77
Pentland Firth, Scotland, 543
Skagens Odde, Denmark, 358**Ports**Aberdeen, Scotland, 464
Amsterdam, Netherlands, 253
Antwerp, Belgium, 388
Bergen, Norway, 470
Emden, Germany, 166
Inverness, Scotland, 547
London, England, 411
Rotterdam, Netherlands, 288
Stavanger, Norway, 391
Zeebrugge, Belgium, 330**STENUNGSUND, SWEDEN**
(58°04'43"N., 11°48'14"E.) to:**Junction Points***Nord-Ostsee-Kanal (East
Entrance), Germany (via Store
Baelt), 258
Nord-Ostsee-Kanal (East
Entrance), Germany (via The
Sound), 330
Skagens Odde, Denmark, 42**Ports**Aarhus, Denmark, 163
Abenra, Denmark, 245
Kobenhavn, Denmark, 162
Kokkola, Finland (via The Sound),
898
Limhamn, Sweden (via The
Sound), 169
Vassa, Finland (via The Sound),
810**STEPHENVILLE, CANADA**
(48°29'39"N., 58°32'59"W.) to:**Junction Points***Bishop Rock, England, 2,282
Cape of Good Hope, SouthAfrica, 6,471
Grand Banks South, 608
Ile d'Ouessant, France, 2,339
Inishtrahull, Ireland, 2,198
Montreal, Canada, 790
Panama, Panama, 2,681
Pentland Firth, Scotland, 2,327
Punta Arenas, Chile, 7,101
Straits of Florida, 1,991**Ports**Boston, Massachusetts, U.S.A.,
811
Buenos Aires, Argentina, 6,112
Cape Town, South Africa, 6,560
Colon, Panama, 2,667
Kingston, Jamaica, 2,168
Liverpool, Canada, 493
New York, New York, U.S.A., 958
Philadelphia, Pennsylvania,
U.S.A., 1,111
Recife, Brazil, 3,712
St. John, Canada, 995
Yarmouth, Canada, 623**STOCKHOLM, SWEDEN**
(59°19'30"N., 18°05'00"E.) to:**Junction Points***Nord-Ostsee-Kanal (East
Entrance), Germany, 503
Skagens Odde, Denmark (via
Sandhamnsleden and Store
Baelt), 695
Skagens Odde, Denmark (via The
Sound), 567**Ports**Gavle, Sweden, 153
Halmstad, Sweden, 481
Hamina, Finland, 325
Hango, Finland, 178
Helsingborg, Sweden, 436
Helsingor, Denmark (via Store
Baelt), 629
Helsingor, Denmark (via The
Sound), 445
Helsinki, Finland, 239
Hobro, Denmark, 610
Horsens, Denmark, 567
Kalundborg, Denmark, 531
Karlskrona, Sweden, 290
Kobenhavn, Denmark (via Store
Baelt and Dalaro Kanal), 603
Kobenhavn, Denmark (via Store
Baelt and Sandofjarden), 646
Korsor, Denmark, 524
Kotka, Finland, 311
Kyndbyvaerkets, Denmark, 493
Landskrona, Sweden, 424
Limhamn, Sweden, 427
London, England, 1,251
Lubeck, Germany, 491
Malmo, Sweden (via Drogden),
435
Malmo, Sweden (via Flintrannan),
422
Masnedsund, Denmark, 531
Narvik, Norway, 1,612
Norrkoping, Sweden, 143
Odense, Denmark, 609
Ornskoldsvik, Sweden, 274
Oslo, Norway (via Store Baelt),
819
Oslo, Norway (via The Sound),
683
Oulu, Finland, 456
Peenemunde, Germany, 422
Pitea, Sweden, 402Porkkala, Finland, 216
Randers, Denmark, 604
Rauma, Finland, 230
Reposaari, Finland, 192
Rostock, Germany, 456
Ruch'i, Russia, 344
Sankt-Peterburg, Russia, 386
Sassnitz, Germany, 390
Stralsund, Germany, 423
Sundsvall, Sweden, 222
Tallinn, Estonia (via
Sandofjarden), 220
Umea, Sweden, 289
Uusikaupunki, Finland, 164
Vaasa, Finland, 282
Ventspils, Latvia, 174
Wismar, Germany, 101**STORNOWAY, SCOTLAND**
(58°12'00"N., 6°23'00"W.) to:**Junction Points***

Pentland Firth, Scotland, 54

PortsBelfast, Northern Ireland, 234
Glasgow, Scotland, 283
Reykjavik, Iceland, 647**STRAIT OF GIBRALTAR***
(35°57'00"N., 5°45'00"W.) to:**Junction Points***Bishop Rock, England, 969
Cape of Good Hope, South
Africa, 5,082
Fastnet Rock, Ireland, 1,068
Grand Banks South, 2,070
Ile d'Ouessant, France, 918
Inishtrahull, Ireland, 1,350
Panama, Panama (via Anegada
Passage), 4,351
Pentland Firth, Scotland, 1,598
Port Said, Egypt, 1,943
Punta Arenas, Chile, 6,352,
Straits of Florida, 4,009**Ports**Aasiaat (Egedesminde),
Greenland, 2,772
Abidjan, Ivory Coast, 2,656
Ajaccio, Corsica, 778
Akureyri, Iceland, 2,102
Alexandria, Egypt, 1,822
Alexandroupolis, Greece, 1,716
Algeciras, Spain, 25
Algiers, Algeria, 437
Alicante, Spain, 317
Almeria, Spain, 171
Ancona, Italy, 1,580
Annaba, Algeria, 675
Antalya, Turkey, 1,822
Argentina, Canada, 2,302
Arkhangel'sk, Russia, 3,225
Arzew, Algeria, 275
As Sukhayrah, Tunisia, 1,072
Ashdod, Israel, 2,031
Augusta, Sicily, 1,065
Aviles, Spain, 722
Baltimore, Maryland, U.S.A.,
3,458
Banghazi, Libya, 1,356
Baniyas, Syria, 2,045
Banjul, Gambia, 1,575
Banzart, Tunisia, 769
Barcelona, Spain, 534
Bari, Italy, 1,374
Barletta, Italy, 1,398
Bastia, Corsica, 868
Bat'umi, Georgia (south of
Greece), 2,408
Bat'umi, Georgia (via Corinth
Canal), 2,392
Bayonne, France, 912
Beaulieu, France, 792
Beirut, Lebanon, 2,034
Bejaia, Algeria, 545
Belem, Brazil, 3,285
Bilbao, Spain, 854
Bordeaux, France, 1,010
Boston, Massachusetts, U.S.A.,
2,998
Brindisi, Italy, 1,315
Buenos Aires, Argentina, 5,280
Cadiz, Spain, 50
Cagliari, Sardinia, 750
Calabar, Nigeria, 3,420
Camp Lloyd, Greenland, 2,676
Cannes, France, 773
Cape Town, South Africa, 5,024
Cartagena, Spain, 259
Cartagena, Colombia, 4,087
Casablanca, Morocco, 166
Catania, Sicily, 1,081
Ceuta, Morocco, 23
Charleston, South Carolina,
U.S.A., 3,593
Charlotte Amalie, Virgin Islands,
3,323
Chioggia, Italy, 1,682
Cienfuegos, Cuba, 4,102
Civitavecchia, Italy, 907
Colon, Panama (via Mona
Passage), 4,308
Constanta, Romania, 2,018
Crotone, Italy, 1,412
Dakar, Senegal, 1,487
Derince, Turkey, 1,855
Dubrovnik, Croatia, 1,420
Dures, Albania, 1,349
Elizabeth Harbor, Bahamas, 3,651
Ermoupolis, Greece, 1,524
Famagusta, Cyprus, 1,991
Fethiye, Turkey, 1,712
Frederiksdal, Greenland, 2,115
Freetown, Sierra Leone, 1,966
Funchal, Madeira Island, 589
Gaeta, Italy, 986
Galway, Ireland, 1,184
Genova, Italy, 868
Georgetown, Guyana, 3,358
Ghazaouet, Algeria, 199
Gibraltar, 24
Golfe-Juan, France, 780
Goose Bay, Canada, 2,538
Guantanamo, Cuba, 3,737
Guiria, Venezuela, 3,430
Haifa, Israel, 2,031
Halifax, Canada, 2,686
Hamilton, Bermuda, 2,903
Horta, Azores, 1,102
Huelva, Spain, 102
Hvalfjardhur, Iceland, 1,944
Hyeres, France, 725
Ilulissat (Jakobshavn), Greenland,
2,819
Iraklion, Kriti, 1,516
Iskenderun, Turkey, 2,054
Istanbul, Turkey, 1,821
Ivittuut, Greenland (direct), 2,283
Ivittuut, Greenland (via 75 miles
off Kap Farvel), 2,304
Izmir, Turkey, 1,667
Jacksonville, Florida, U.S.A.,
3,740
Kalamai, Greece, 1,370
Kangerluarsorseq, Greenland,
2,444
Kavala, Greece, 1,706
Keflavik, Iceland, 1,947* **JUNCTION POINT.**—See Preface for use of junction points

Kerch, Ukraine, 2,256	Pozzuoli, Italy, 997	U.S.A., 3,524	Jacksonville, Florida, U.S.A., 523
Kerkira, Greece, 1,324	Praia Da Vitoria, Terceira, Azores, 1,034	Yumurtalik, Turkey, 1,672	Key West, Florida, U.S.A., 73
Key West, Florida, U.S.A., 3,949	Preveza, Greece, 1,319		Kingston, Jamaica (via Windward Passage), 802
Khalkis, Greece (south of Greece), 1,562	Providence, Rhode Island, U.S.A., 3,081	STRAITS OF FLORIDA* (24°25'00"N., 83°00'00"W.) to:	La Guaira, Venezuela (via Windward Passage), 1,331
Khalkis, Greece (via Corinth Canal), 1,545	Puerto de Pasajes, Spain, 894	Junction Points*	La Habana, Cuba, 87
Kingston, Jamaica, 3,891	Pula, Croatia, 1,628	Cape of Good Hope, South Africa, 6,784	Lagos, Nigeria, 5,225
Kyrenia, Cyprus, 1,910	Qabis, Tunisia, 1,073	Grand Banks South, 1,990	Lake Charles, Louisiana, U.S.A., 677
La Guaira, Venezuela, 3,634	Qaanaaq (Thule), Greenland, 3,299	Montreal, Canada (via Cabot Strait), 2,563	Las Palmas, Canary Islands, 3,713
La Habana, Cuba, 4,013	Qasigianniguit, Greenland, 2,679	Montreal, Canada (via Strait of Canso), 2,467	Les Cayes, Haiti, 738
La Pallice, France, 950	Qutdligssat, Greenland, 2,953	Punta Arenas, Chile (east of South America), 6,829	Lisboa, Portugal, 3,831
La Spezia, Italy, 891	Recife, Brazil, 3,116	Straight of Gibraltar, 4,009	Maracaibo, Venezuela (via Windward Passage), 1,205
Lagos, Nigeria, 3,100	Reggio Di Calabria, Sicily, 1,052	Yucatan Channel, 192	Maricel, Cuba, 86
Larnaca, Cyprus, 1,953	Rethimnon, Kriti, 1,485		Marshall, Liberia (via Providence Channel), 4,349
Las Palmas, Canary Islands, 681	Reykjavik, Iceland, 1,905		Matagorda Bay, Texas, U.S.A., 754
Latakia, Syria, 2,029	Rhodes, Greece, 1,668		Matanzas, Cuba, 119
Licata, Sicily, 958	Rijeka, Croatia, 1,648		Miami, Florida, U.S.A., 217
Limassol, Cyprus, 1,914	Rio de Janeiro, Brazil, 4,180		Miller Anchorage, Bahamas, 495
Lisboa, Portugal, 286	Rostov-na-Donu, Russia, 2,458		Mobile, Alabama, U.S.A., 471
Livorno, Italy, 887	Rota, Spain, 70		Montecristi, Dominican Republic, 711
Mahon, Balearic Islands, 552	Salamis, Greece, 1,520	Ports	Montego Bay, Jamaica, 642
Malaga, Spain, 78	Salerno, Italy, 1,018	Abraham Bay, Bahamas, 593	Montevideo, Uruguay, 5,644
Manfredonia, Italy, 1,419	Salvador, Brazil, 3,516	Accra, Ghana (via Northwest Providence Channel), 5,016	Nassau, Bahamas, 393
Manititsoq, Greenland, 2,547	San Juan, Puerto Rico, 3,336	Antilla, Cuba, 491	New Orleans, Louisiana, U.S.A. (via South Pass), 524
Marin, Spain, 517	San Sebastian, Spain, 892	Argentina, Canada, 2,050	New York, New York, U.S.A., 1,197
Marsaxlokk, Malta, 1,017	Sant Antioco Ponti, Sardinia, 715	Arkhangelsk, Russia, 5,208	Nicaragua, Cuba, 488
Marseille, France, 711	Santa Cruz de Tenerife, Canary Islands, 697	Moa, Cuba, 510	Norfolk, Virginia, U.S.A., 997
Marshall, Liberia, 2,197	Santo Domingo, Dominican Republic, 3,549	Bahia de Samana, Dominican Republic, 864	Nuevas, Cuba, 386
Matruh, Egypt, 1,695	Santos, Brazil, 4,378	Baltimore, Maryland, U.S.A., 1,115	Oranjestad, St. Eustatius, 1,207
Melilla, Morocco, 154	Sarande, Albania, 1,311	Banes, Cuba, 483	Paramaribo, Suriname (via Mona Passage), 2,014
Menton, France, 791	Savona, Italy, 852	Baracoa, Cuba, 540	Pensacola, Florida, U.S.A., 431
Mers el Kebir, Algeria, 252	Sayda, Lebanon, 2,035	Basse-Terre, Guadeloupe, 1,317	Philadelphia, Pennsylvania, U.S.A., 1,168
Mersin, Turkey, 1,996	Sete, France, 684	Belem, Brazil, 2,694	Pointe a Pitre, Guadeloupe (via Mona Passage), 1,348
Messina, Sicily, 1,049	Setubal, Portugal, 287	Boca de Tanamo, Cuba, 489	Pointe a Pitre, Guadeloupe (via Virgin Passage), 1,347
Milazzo, Sicily, 1,025	Sevastopol', Ukraine, 2,122	Bordeaux, France, 4,234	Ponce, Puerto Rico, 1,020
Monaco, Monaco, 762	Seydhisfjordhur, Iceland, 1,899	Boston, Massachusetts, U.S.A., 1,440	Ponta Delgada, Azores, 3,052
Monopoli, Italy, 1,346	Sfax, Tunisia, 1,043	Brest, France, 3,933	Porlamar, Venezuela, 1,450
Montevideo, Uruguay, 5,178	Shengjin, Albania, 1,382	Bridgetown, Barbados, 1,511	Port au Prince, Haiti, 701
Mostaganem, Algeria, 283	Sidi Ifni, Morocco, 472	Brunswick, Georgia, U.S.A., 548	Port Antonio, Jamaica, 751
Nanortalik, Greenland, 2,138	Siracusa, Sicily, 1,054	Buenos Aires, Argentina, 5,763	Port Arthur, Texas, U.S.A., 677
Narsarsuaq, Greenland, 2,257	Sisimiut, Greenland, 2,649	Cadiz, Spain, 3,992	Port Castries, St. Lucia, 1,409
Natal, Brazil, 3,003	Skikda, Algeria, 629	Caibarien, Cuba, 252	Port of Spain, Trinidad (via Mona Passage), 1,533
Navplion, Greece, 1,484	Soudha, Ormos Soudhas, Kriti, 1,479	Cap-Haitien, Haiti, 604	Portland, Maine, U.S.A., 1,485
New Haven, Connecticut, U.S.A., 3,161	Sousse, Tunisia, 909	Cape Town, South Africa, 6,778	Porto Grande, Cape Verde Islands, 3,314
New London, Connecticut, U.S.A., 3,087	Split, Croatia, 1,507	Cardenas, Cuba, 140	Portsmouth, New Hampshire, U.S.A., 1,421
New York, New York, U.S.A., 3,176	St. John's, Canada, 2,182	Charleston, South Carolina, U.S.A., 644	Praia Da Vitoria, Terceira, Azores, 3,017
Nice, France, 788	St. Raphael, France, 763	Charlotte Amalie, Virgin Islands, 1,087	Puerto de Hierro, Venezuela, 2,086
Norfolk, Virginia, U.S.A., 3,335	Tarabulus, Lebanon, 2,047	Coatzacoalcas, Mexico, 757	Puerto Cabello, Venezuela, 1,299
Novorossiysk, Russia, 2,277	Tarabulus, Libya, 1,093	Corpus Christi, Texas, U.S.A., 803	Puerto Manati, Cuba, 397
Nuuk (Godthab), Greenland, 2,477	Taranto, Italy, 1,268	Dakar, Senegal (via Northwest Providence Channel), 3,768	Puerto Padre, Cuba, 409
Odessa, Ukraine, 2,169	Tarragona, Spain, 501	Douala, Cameroon, 5,526	Puerto Vita, Cuba, 444
Olbia, Sardinia, 828	Thessaloniki, Greece, 1,716	Elizabeth Harbor, Bahamas, 544	Recife, Brazil, 3,590
Oporto, Portugal, 432	Toulon, France, 722	Fort de France, Martinique, 1,389	Reykjavik, Iceland, 3,530
Oran, Algeria, 252	Trapani, Sicily, 896	Fort Liberté, Haiti, 692	Rio de Janeiro, Brazil, 4,662
Palermo, Sicily, 940	Trieste, Italy, 1,682	Freotown, Sierra Leone, 4,137	Roosevelt Roads, Puerto Rico, 1,063
Palma, Balearic Islands, 471	Tubruq, Libya, 1,534	Funchal, Madeira Island, 3,532	Salvador, Brazil, 3,981
Paphos, Cyprus, 1,872	Tunis, Tunisia, 820	Galveston, Texas, U.S.A., 698	San Juan, Puerto Rico, 1,017
Paramaribo, Suriname, 3,275	Upemavik, Greenland, 3,011	Georgetown, Guyana (via Mona Passage), 1,869	Santa Barbara de Samana, Dominican Republic, 867
Patrai, Greece, 1,350	Valencia, Spain, 403	Gibara, Cuba, 447	Santa Cruz de Tenerife, Canary Islands, 3,614
Pescara, Italy, 1,515	Valletta, Malta, 1,005	Grand Turk, Grand Turk Island, 721	Santa Lucia, Cuba, 120
Philadelphia, Pennsylvania, U.S.A., 3,319	Venezia, Italy, 1,691	Guantanamo, Cuba (via Windward Passage), 638	Santiago de Cuba, Cuba (via Windward Passage), 676
Piraeus, Greece (south of Greece), 1,508	Viana do Castelo, Portugal, 472	Guirra, Venezuela, 2,099	Santo Domingo, Dominican
Piraeus, Greece (via Corinth Canal), 1,451	Viareggio, Italy, 898	Gulfport, Mississippi, U.S.A., 494	
Ploce, Croatia, 1,487	Vigo, Spain, 504	Halifax, Canada, 1,642	
Ponta Delgada, Azores, 964	Vila Real de Santo Antonio, Portugal, 113	Hamilton, Bermuda, 1,166	
Port au Prince, Haiti, 3,757	Villa do Porto, Azores, 963	Hopetown, Bahamas, 415	
Port Castries, St. Lucia, 3,236	Villa Cisneros, Western Sahara, 923	Horta, Azores, 2,913	
Port of Spain, Trinidad, 3,403	Villa San Giovanni, Italy, 1,045	Isabel de Sagua, Cuba, 195	
Port St. Louis du Rhone, France, 703	Villa Sanjurjo, Morocco, 106	Isabel Segunda, Isla de Vieques, 1,064	
Port Vendres, France, 633	Villagarcia, Spain, 526	Itivut, Greenland, 2,969	
Porto Empedocle, Sicily, 937	Villefranche, France, 789		
Porto Grande, Cape Verde Islands, 1,539	Vlores, Albania, 1,311		
Porto Vecchio di Piombino, Italy, 897	Volos, Greece, 1,657		
	Washington, D.C., U.S.A., 3,471		
	Willemstad, Curacao, 3,685		
	Wilmington, North Carolina, 1,034		

* **JUNCTION POINT.**—See Preface for use of junction points

110 STRALSUND, GERMANY

<p>Republic (via Mona Passage), 1,036</p> <p>Santo Domingo, Dominican Republic (via Windward Passage), 986</p> <p>Santos, Brazil, 4,849</p> <p>Savannah, Georgia, U.S.A., 603</p> <p>St. Georges, Grenada, 1,453</p> <p>St. John, Canada, 1,611</p> <p>St. John's, Canada, 2,128</p> <p>St. Marc, Haiti, 673</p> <p>Tampa, Florida, U.S.A., 232</p> <p>Tampico, Mexico, 832</p> <p>Tuxpan, Mexico, 792</p> <p>Vigo, Spain, 3,809</p> <p>Willemstad, Curacao, 1,184</p> <p>Wilmington, North Carolina, U.S.A., 735</p> <p>STRALSUND, GERMANY (54°18'30"N., 13°05'45"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 104</p> <p>Skagens Odde, Denmark, 226</p> <p>Ports</p> <p>Gdynia, Poland, 245</p> <p>Kobenhavn, Denmark, 81</p> <p>Stockholm, Sweden, 423</p> <p>SU-AO KANG, TAIWAN (24°36'00"N., 121°52'00"E.) to:</p> <p>Ports</p> <p>Hong Kong, China, 554</p> <p>Incheon, South Korea, 823</p> <p>Manila, Philippines, 684</p> <p>Qingdao, China, 756</p> <p>Shanghai, China, 498</p> <p>SUAKIN, SUDAN (19°06'47"N., 37°20'21"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,538</p> <p>Port Said, Egypt, 813</p> <p>Singapore, 4,251</p> <p>Ports</p> <p>Aden, Yemen, 631</p> <p>SUBIC BAY, PHILIPPINES (14°43'11"N., 120°11'46"E.) Subtract 8 1/2 miles from Olongapo distances.</p> <p>SUKKERTOPPEN, GREENLAND (65°24'36"N., 52°54'12"W.) See Maniitsoq, Greenland.</p> <p>SUNDERLAND, ENGLAND (54°54'45"N., 1°22'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 605</p> <p>Pentland Firth, Scotland, 304</p> <p>Ports</p> <p>London, England, 312</p> <p>Rotterdam, Netherlands, 286</p> <p>Southampton, England, 400</p>	<p>SUNDSVALL, SWEDEN (62°23'12"N., 17°21'30"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 684</p> <p>Skagens Odde, Denmark, 745</p> <p>Ports</p> <p>Gdynia, Poland, 507</p> <p>Sankt-Peterburg, Russia, 507</p> <p>Stockholm, Sweden, 222</p> <p>SUNNDALSORA, NORWAY (62°41'14"N., 8°33'00"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,154</p> <p>Grand Banks South, 2,342</p> <p>Ile d'Ouessant, France, 1,140</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 744</p> <p>Pentland Firth, Scotland, 367</p> <p>Skagens Odde, Denmark, 549</p> <p>Ports</p> <p>Aberdeen, Scotland, 484</p> <p>Bergen, Norway, 238</p> <p>Bremerhaven, Germany, 651</p> <p>Oslo, Norway, 611</p> <p>Stavanger, Norway, 334</p> <p>Tromsø, Norway, 539</p> <p>Troxidheim, Norway, 116</p> <p>SUPE BAY, PERU (10°49'20"S., 77°44'15"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,265</p> <p>Punta Arenas, Chile, 2,736</p> <p>Torres Strait, Australia, 8,217</p> <p>Wilson Promontory, Australia (via 30°S.), 7,291</p> <p>Wilson Promontory, Australia (via 40°S.), 7,203</p> <p>Ports</p> <p>Antofagasta, Chile, 883</p> <p>Callao, Peru, 85</p> <p>Corinto, Nicaragua, 1,529</p> <p>Pisco, Peru, 201</p> <p>Salina Cruz, Mexico, 1,921</p> <p>San Nicolas, Peru, 314</p> <p>Talcahuano, Chile, 1,588</p> <p>Valparaiso, Chile, 1,373</p> <p>SURABAYA, INDONESIA (7°12'00"S., 112°44'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia (north of Madura), 275</p> <p>Selat Lombok, Indonesia (south of Madura), 232</p> <p>Singapore, 763</p> <p>Selat Sunda, Indonesia, 450</p> <p>Torres Strait, Australia (north of Madura and via Selat Wetar), 1,814</p> <p>Selat Wetar, Indonesia (south of Madura), 880</p> <p>Selat Wetar, Indonesia (north of Madura), 928</p>	<p>Ports</p> <p>Ambon, Indonesia, 980</p> <p>Apra, Guam, 2,334</p> <p>Belawan, Indonesia, 1,132</p> <p>Dagu, China, 3,174</p> <p>Dutch Harbor, Alaska, U.S.A., 5,555</p> <p>Fremantle, Australia (north of Madura and via Bali Strait), 1,674</p> <p>Fremantle, Australia (south of Madura and via Bali Strait), 1,627</p> <p>Ho Chi Minh, Vietnam, 1,206</p> <p>Hong Kong, China, 1,925</p> <p>Honolulu, Hawaii, U.S.A., 5,598</p> <p>Kodiak, Alaska, U.S.A., 6,086</p> <p>Los Angeles, California, U.S.A., 7,622</p> <p>Malacca, Malaysia, 881</p> <p>Malakal, Palau Islands, 1,656</p> <p>Manila, Philippines, 1,540</p> <p>Midway Island, 4,632</p> <p>Palembang, Indonesia, 638</p> <p>Qingdao, China, 2,864</p> <p>San Diego, California, U.S.A., 7,691</p> <p>San Francisco, California, U.S.A., 7,343</p> <p>Seattle, Washington, U.S.A., 7,162</p> <p>Samarang, Indonesia, 196</p> <p>Shanghai, China, 2,626</p> <p>Sitka, Alaska, U.S.A., 6,564</p> <p>Truk, Caroline Islands, 2,623</p> <p>Vinh Cam Ranh, Vietnam, 1,251</p> <p>Vladivostok, Russia, 3,357</p> <p>Wake Island, 3,641</p> <p>Xiamen, China, 2,121</p> <p>Yokohama, Japan, 3,092</p> <p>SURGIDERO DE BATABANO, CUBA (22°40'00"N., 82°17'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 970</p> <p>Yucatan Channel, 229</p> <p>Ports</p> <p>Barranquilla, Colombia, 944</p> <p>Kingston, Jamaica, 595</p> <p>Santiago de Cuba, Cuba, 580</p> <p>SUVA, FIJI ISLANDS (18°08'00"S., 178°25'00"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,325</p> <p>Punta Arenas, Chile, 5,444</p> <p>Torres Strait, Australia, 2,262</p> <p>Wilson Promontory, Australia, 2,088</p> <p>Ports</p> <p>Apia, Samoa, 647</p> <p>Apra, Guam, 2,784</p> <p>Auckland, New Zealand, 1,149</p> <p>Avarua, Cook Islands, 1,256</p> <p>Baker Island, 1,202</p> <p>Brisbane, Australia, 1,548</p> <p>Callao, Peru, 5,995</p> <p>Dagu, China, 4,898</p> <p>Dutch Harbor, Alaska, U.S.A., 4,493</p> <p>Guayaquil, Ecuador, 6,067</p> <p>Ho Chi Minh, Vietnam, 4,679</p> <p>Hobart, Tasmania, 2,198</p>	<p>Hong Kong, China, 4,541</p> <p>Honolulu, Hawaii, U.S.A., 2,776</p> <p>Kodiak, Alaska, U.S.A., 4,853</p> <p>Los Angeles, California, U.S.A., 4,788</p> <p>Malakal, Palau Islands, 3,041</p> <p>Manila, Philippines, 4,048</p> <p>Midway Island, Pacific, 2,872</p> <p>Noumea, New Caledonia, 734</p> <p>Nukualofa, Tonga Islands, 416</p> <p>Ocean Island, 1,207</p> <p>Pago Pago, American Samoa, 688</p> <p>Papeete, French Polynesia, 1,838</p> <p>Petropavlovsk-Kamchatskiy, Russia, 4,460</p> <p>Qingdao, China, 4,662</p> <p>Raoul Island, Kermadec Islands, 701</p> <p>San Diego, California, U.S.A., 4,804</p> <p>San Francisco, California, U.S.A., 4,749</p> <p>Seattle, Washington, U.S.A., 5,162</p> <p>Seward, Alaska, U.S.A., 5,003</p> <p>Shanghai, China, 4,467</p> <p>Sitka, Alaska, U.S.A., 5,112</p> <p>Sidney, Australia, 1,738</p> <p>Truk, Caroline Islands, 2,231</p> <p>Valparaiso, Chile, 5,759</p> <p>Vladivostok, Russia, 4,626</p> <p>Wake Island, 2,501</p> <p>Wellington, New Zealand, 1,476</p> <p>Wotje Island, Marshall Islands, 1,880</p> <p>Xiamen, China, 4,389</p> <p>Yap, Caroline Islands, 2,933</p> <p>Yokohama, Japan, 3,967</p> <p>SVENDBORG, DENMARK (55°03'45"N., 10°37'30"E.) Add 12 miles to Faborg distances.</p> <p>SWAN ISLAND, HONDURAS (17°24'30"N., 83°57'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 605</p> <p>Yucatan Channel, 273</p> <p>Ports</p> <p>Maríel, Cuba, 437</p> <p>Puerto Cortes, Honduras, 254</p> <p>SWANSEA, WALES (51°37'00"N., 30°55'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 155</p> <p>Fastnet Rock, Ireland, 217</p> <p>Pentland Firth, Scotland, 578</p> <p>Ports</p> <p>Barrow in Furness, England, 242</p> <p>Cardiff, Wales, 46</p> <p>Fishguard, Wales, 100</p> <p>Holyhead, Wales, 171</p> <p>Liverpool, England, 236</p> <p>SWEPPER COVE, ALASKA, U.S.A. (51°51'30"N., 176°38'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 5,586</p>
--	--	--	--

* JUNCTION POINT.—See Preface for use of junction points

<p>Ports</p> <p>Dutch Harbor, Alaska, U.S.A., 407 Honolulu, Hawaii, U.S.A., 1,945 Port Hueneme, California, U.S.A., 2,686 Victoria, Canada, 2,044</p> <p>SWINOUJSCIE, POLAND (53°55'00"N., 14°17'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 186 Skagens Odde, Denmark (via Store Baelt), 379 Skagens Odde, Denmark (via The Sound), 275</p> <p>Ports</p> <p>Horsens, Denmark, 268 Kalundborg, Denmark, 175 Koge, Denmark, 156 Kolding, Denmark, 253 Korsor, Denmark, 239 Kyndbyvaerkets, Denmark, 195 Limhamn, Sweden, 128 Masnedund, Denmark, 193 Nakskov, Denmark, 190 Odense, Denmark, 293 Oslo, Norway (via Store Baelt), 503 Oslo, Norway (via The Sound), 397 Randers, Denmark, 266 Sonderborg, Denmark, 215</p> <p>SYDNEY, AUSTRALIA (33°51'30"S., 151°13'00"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 7,674 Punta Arenas, Chile (via 49°S.), 5,848 Punta Arenas, Chile (via 60°S.), 5,398 Torres Strait, Australia, 1,670 Wilson Promontory, Australia, 440</p> <p>Ports</p> <p>Apia, Samoa, 2,355 Apra, Guam, 3,006 Auckland, New Zealand, 1,280 Avarua, Cook Islands, 2,690 Baker Island, 2,752 Brisbane, Australia, 529 Burnie Harbor, Australia, 525 Dagu, China, 5,135 Dalian, China (via Vitiaz Strait), 4,976 Dalian, China (west of New Ireland), 5,015 Dutch Harbor, Alaska, U.S.A., 5,761 Guayaquil, Ecuador, 7,268 Hakodate, Japan, 4,688 Ho Chi Minh, Vietnam, 4,679 Hobart, Tasmania, 638 Honolulu, Hawaii, U.S.A., 4,420 Jaluit, Marshall Islands, 2,623 Kobe, Japan, 4,384 Kodiak, Alaska, U.S.A., 6,222 Launceston, Tasmania, 514 Lautoka Harbor, Fiji Islands, 1,732 Levuka, Fiji Islands, 1,779 Los Angeles, California, U.S.A., 6,511 Lyttelton, New Zealand, 1,419</p>	<p>Midway Island, 4,138 Nagasaki, Japan, 4,439 Nelson, New Zealand, 1,166 Nome, Alaska, U.S.A., 6,280 Noumea, New Caledonia, 1,069 Ocean Island, 2,233 Pago Pago, American Samoa, 2,377 Papeete, French Polynesia, 3,308 Ponape, Caroline Islands, 2,514 Port Augusta, Australia, 1,164 Portland, Oregon, U.S.A., 6,737 Prince Rupert, Canada, 6,671 Qingdao, China, 4,871 Rabaul, Papua New Guinea, 1,844 Raoul Island, Kermadec Islands, 1,600 Saipan, Mariana Islands, 3,077 San Diego, California, U.S.A., 6,530 San Francisco, California, U.S.A., 6,448 Seattle, Washington, U.S.A., 6,810 Seward, Alaska, U.S.A., 6,373 Shanghai, China (via Vitiaz Strait), 4,636 Shanghai, China (west of New Ireland), 4,642 Shimonoseki, Japan, 4,453 Sitka, Alaska, U.S.A., 6,595 Suva, Fiji Islands, 1,738 Talomako, Vanuatu, 1,471 Tinian, Mariana Islands, 3,064 Truk, Caroline Islands, 2,543 Valparaiso, Chile (via 49°S.), 6,294 Vladivostok, Russia, 5,105 Wake Island, 3,346 Wallaroo, Australia, 1,084 Wellington, New Zealand, 1,234 Xiamen, China (via Vitiaz Strait), 4,437 Yokohama, Japan, 4,330</p> <p>SYDNEY, CANADA (46°08'30"N., 60°12'00"W.) to:</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 597 Buenos Aires, Argentina, 5,749 Cape Town, South Africa, 6,425 Colon, Panama, 2,482 Kingston, Jamaica, 1,982 La Guaira, Venezuela, 2,215 Liverpool, Canada, 293 New York, New York, U.S.A., 808 Norfolk, Virginia, U.S.A., 996 Parrsboro, Canada, 545 Philadelphia, Pennsylvania, U.S.A., 958 Port Castries, St. Lucia, 1,967 Port of Spain, Trinidad, 2,189 Portland, Maine, U.S.A., 556 Porto Grande, Cape Verde Islands, 2,503 Portsmouth, New Hampshire, U.S.A., 576 Recife, Brazil, 3,553 Rio de Janeiro, Brazil, 4,648 Salvador, Brazil, 3,967 San Juan, Puerto Rico, 1,728 Santo Domingo, Dominican Republic, 1,867 St. John, Canada, 492 Yarmouth, Canada, 416</p> <p>SZCZECIN, POLAND (53°26'00"N., 14°34'30"E.) to:</p>	<p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 222 Skagens Odde, Denmark (via Store Baelt), 410</p> <p>Ports</p> <p>Aarhus, Denmark, 268 Gdansk, Poland, 240 Halmstad, Sweden, 227 Landskrona, Sweden, 170 Oslo, Norway (via The Sound), 431</p> <p>TACLOBAN, PHILIPPINES (11°15'30"N., 125°00'00"E.) to:</p> <p>Ports</p> <p>Batangas, Philippines, 293 Jolo, Philippines, 442 Yap, Caroline Islands, 790 Zamboanga, Philippines, 385</p> <p>TACOMA, WASHINGTON, U.S.A. (47°16'00"N., 122°26'00"W.) Add 21 miles to Seattle distances.</p> <p>TA-KU, CHINA (38°59'15"N., 117°40'45"E.) See Dagu, China.</p> <p>TAKORADI, GHANA (4°53'00"N., 1°44'30"W.) to:</p> <p>Ports</p> <p>Buchanan, Liberia, 197 Freetown, Sierra Leone, 859 Greenville, Liberia, 461 Kribi, Cameroon, 704 Lome, Togo, 200 Monrovia, Liberia, 597 Norfolk, Virginia, U.S.A., 4,620 Pointe Noire, Congo, 1,001 Port of Spain, Trinidad, 3,632 Porto Grande, Cape Verde Islands, 1,673 Santa Cruz de Tenerife, Canary Islands, 2,119 Tema, Ghana, 117 Willemstad, Curacao, 4,040</p> <p>TAKU BAR, CHINA (38°56'15"N., 117°68'45"E.) See Dagu Bar, China.</p> <p>TALARA, PERU (4°34'30"S., 81°17'15"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 828</p> <p>Ports</p> <p>Acapulco, Mexico, 1,696 Arica, Chile, 1,103 Callao, Peru, 534 Guayaquil, Ecuador, 180 Honolulu, Hawaii, U.S.A., 4,806 Pimentel, Peru, 182 San Francisco, California, U.S.A., 3,494</p> <p>TALCAHUANO, CHILE (36°42'00"S., 73°06'00"W.) to:</p>	<p>Junction Points*</p> <p>Panama, Panama, 2,805 Punta Arenas, Chile, 1,225</p> <p>Ports</p> <p>Acapulco, Mexico, 3,558 Antofagasta, Chile, 802 Arica, Chile, 1,108 Caldera, Chile, 602 Callao, Peru, 1,508 Coquimbo, Chile, 428 Corinto, Nicaragua, 3,062 Esmeraldas, Ecuador, 2,368 Guayaquil, Ecuador, 2,135 Guaymas, Mexico, 4,428 Iquique, Chile, 1,008 Lota, Chile, 50 Monterey, California, U.S.A., 5,190 Pisco, Peru, 1,411 Puntarenas, Costa Rica, 2,879 Salina Cruz, Mexico, 3,414 San Diego, California, U.S.A., 4,869 San Francisco, California, U.S.A., 5,270 San Jose, Guatemala, 3,202 Santa Barbara, California, U.S.A., 5,006 Valparaiso, Chile, 241</p> <p>TALLINN, ESTONIA (59°27'00"N., 24°46'30"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 603 Skagens Odde, Denmark, 661</p> <p>Ports</p> <p>Gdynia, Poland, 392 Sankt-Peterburg, Russia, 189 Stockholm, Sweden, 220</p> <p>TALTAL, CHILE (25°24'00"S., 70°29'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 2,225</p> <p>Ports</p> <p>San Francisco, California, U.S.A., 4,838</p> <p>TAMATAVE, MADAGASCAR (18°09'00"S., 49°25'30"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,055 Port Said, Egypt, 3,598 Singapore, 3,675</p> <p>Ports</p> <p>Beira, Mozambique, 1,239 Belawan, Indonesia, 3,342 Bombay, India, 2,621 Colombo, Sri Lanka, 2,351 Fremantle, Australia, 3,650 Karachi, Pakistan, 2,788 Malacca, Malaysia, 3,560 Maputo, Mozambique, 1,242 Penang, Malaysia, 3,387 Port Darwin, Australia, 4,702</p>
---	--	--	---

* JUNCTION POINT.—See Preface for use of junction points

112 TAMPA, FLORIDA, U.S.A.

Port Louis, Mauritius, 474
 Sabang, Indonesia, 3,076
 Zanzibar, Tanzania, 1,116

TAMPA, FLORIDA, U.S.A.
 (27°56'30"N., 82°26'40"W.) to:

Junction Points*

Straits of Florida, 232
 Yucatan Channel, 404

Ports

Cartagena, Colombia, 1,295
 Colon, Panama, 1,216
 La Habana, Cuba, 307
 Matanzas, Cuba (via Northwest Channel), 325
 Tampico, Mexico, 921
 Veracruz, Mexico, 925

TAMPICO, MEXICO
 (22°12'30"N., 97°3'30"W.) to:

Junction Points*

Panama, Panama, 1,528
 Straits of Florida, 832
 Yucatan Channel, 716

Ports

Belize, Belize, 927
 Brunswick, Georgia, U.S.A., 1,387
 Campeche, Mexico, 430
 Carmen, Mexico, 401
 Cartagena, Colombia, 1,575
 Cienfuegos, Cuba, 1,009
 Coatzacoalcas, Mexico, 320
 Colon, Panama, 1,485
 Corpus Christi, Texas, U.S.A., 366
 Galveston, Texas, U.S.A., 473
 Guantanamo, Cuba, 1,293
 Gulfport, Mississippi, U.S.A., 725
 Jacksonville, Florida, U.S.A., 1,361
 Key West, Florida, U.S.A., 907
 Kingston, Jamaica, 1,252
 La Habana, Cuba, 864
 Matagorda Bay, Texas, U.S.A., 380
 Matanzas, Cuba, 914
 Mobile, Alabama, U.S.A., 750
 New Orleans, Louisiana, U.S.A. (via Southwest Pass), 711
 Pensacola, Florida, U.S.A., 759
 Port Arthur, Texas, U.S.A., 522
 Progreso, Mexico, 469
 Puerto Cortes, Honduras, 993
 San Juan del Norte, Nicaragua, 1,336
 Savannah, Georgia, U.S.A., 1,432
 Tampa, Florida, U.S.A., 921
 Tela, Honduras, 974
 Veracruz, Mexico, 218

TANDJUNG UBAN, INDONESIA
 (1°04'00"N., 104°13'00"E.) to:

Junction Points*

Singapore, 27
 Selat Sunda, Indonesia, 502

Ports

Ho Chi Minh, Vietnam, 633
 Makassar, Sulawesi, 1,075
 Manila, Philippines, 1,328

TANDJUNG PRIOK, INDONESIA
 (6°06'00"S., 106°53'00"E.) See Jakarta.

TANGA, TANZANIA
 (5°04'00"S., 39°07'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,425
 Port Said, Egypt, 3,068
 Singapore, 4,037

Ports

Aden, Yemen, 1,681
 Belawan, Indonesia, 3,704
 Fremantle, Australia, 4,283
 Mombasa, Kenya, 69
 Penang, Malaysia, 3,749
 Port Darwin, Australia, 5,466
 Zanzibar, Tanzania, 75

TANGIER, MOROCCO
 (35°47'00"N., 5°48'00"W.) to:

Ports

Casablanca, Morocco, 166
 Ceuta, Morocco, 29
 Dakar, Senegal, 1,483
 El Jadida, Morocco, 207
 Fedala, Morocco, 158
 Funchal, Madeira Island, 588
 Kenitra, Morocco, 115
 Larache, Morocco, 48
 Porto Grande, Cape Verde Islands, 1,536
 Vigo, Spain, 516

TANJONG PERAK, INDONESIA
 (7°11'28"S., 112°44'32"E.) See Surabaya.

TARABULUS, LEBANON
 (34°29'37"N., 35°51'55"E.) to:

Junction Points*

Port Said, Egypt, 268
 Strait of Gibraltar, 2,047

Ports

Haifa, Israel, 118
 Marseille, France, 1,613
 Sete, France, 1,672
 Venezia, Italy (south of Greece), 1,399
 Venezia, Italy (via Corinth Canal), 1,369

TARABULUS, LIBYA
 (32°54'10"N., 13°11'36"E.) to:

Junction Points*

Port Said, Egypt, 998
 Strait of Gibraltar, 1,093

Ports

Alexandria, Egypt, 876
 Algiers, Algeria, 665
 Alicante, Spain, 832
 Ancona, Italy, 820
 Annaba, Algeria, 440
 Benghazi, Libya, 354
 Banzart, Libya, 335

Barcelona, Spain, 762
 Bari, Italy, 613
 Bat'umi, Georgia, 1,540
 Beirut, Lebanon, 1,129
 Brindisi, Italy, 555
 Cartagena, Spain, 856
 Ceuta, Morocco, 1,074
 Genova, Italy, 719
 Gibraltar, 1,076
 Haifa, Israel, 1,109
 Iraklion, Kriti, 630
 Iskenderun, Turkey, 1,167
 Istanbul, Turkey, 953
 Izmir, Turkey, 799
 La Spezia, Italy, 790
 Larnaca, Cyprus, 1,050
 Livorno, Italy, 754
 Malaga, Spain, 1,024
 Marsaxlokk, Malta, 191
 Marseille, France, 745
 Mersin, Turkey, 1,109
 Messina, Sicily, 344
 Napoli, Italy, 516
 Odessa, Ukraine, 1,301
 Oran, Algeria, 862
 Palermo, Sicily, 460
 Palma, Balearic Islands, 708
 Piraeus, Greece, 640
 Porto Empedocle, Sicily, 263
 Qabis, Tunisia, 174
 Rhodes, Greece, 780
 Rijeka, Croatia, 887
 Savona, Italy, 722
 Sibenik, Croatia, 761
 Siracusa, Sicily, 276
 Sousse, Tunisia, 231
 Split, Croatia, 746
 Taranto, Italy, 509
 Thessaloniki, Greece, 848
 Toulon, France, 722
 Trieste, Italy, 921
 Tubruq, Libya, 574
 Tunis, Tunisia, 322
 Valencia, Spain, 831
 Valletta, Malta, 201
 Venezia, Italy, 931
 Volos, Greece, 789

TARANTO, ITALY
 (40°28'46"N., 17°14'53"E.) to:

Junction Points*

Port Said, Egypt, 954
 Strait of Gibraltar, 1,268

Ports

Alexandria, Egypt, 844
 Algiers, Algeria, 841
 Alicante, Spain, 995
 Ancona, Italy, 415
 Annaba, Algeria, 620
 Augusta, Sicily, 243
 Banghazi, Libya, 523
 Banzart, Tunisia, 530
 Bari, Italy, 208
 Barletta, Italy, 232
 Beirut, Lebanon, 1,023
 Brindisi, Italy, 150
 Cartagena, Spain, 1,025
 Ceuta, Morocco, 1,249
 Crotone, Italy, 87
 Durres, Albania, 183
 Genova, Italy, 705
 Gibraltar, 1,250
 Haifa, Israel, 1,020
 Iraklion, Kriti, 509
 Istanbul, Turkey (south of Greece), 806
 Istanbul, Turkey (via Corinth Canal), 717

Izmir, Turkey (south of Greece), 652
 Izmir, Turkey (via Corinth Canal), 563
 Kalamai, Greece, 351
 Kerkira, Greece, 167
 La Spezia, Italy, 669
 Livorno, Italy, 634
 Malaga, Spain, 1,198
 Marseille, France, 797
 Messina, Sicily, 223
 Milazzo, Sicily, 316
 Napoli, Italy, 395
 Odessa, Ukraine (south of Greece), 1,154
 Odessa, Ukraine (via Corinth Canal), 1,065
 Oran, Algeria, 1,037
 Palermo, Sicily, 339
 Palma, Balearic Islands, 858
 Piraeus, Greece (south of Greece), 493
 Piraeus, Greece (via Corinth Canal), 363
 Rijeka, Croatia, 482
 Sarande, Albania, 154
 Savona, Italy, 715
 Sibenik, Croatia, 356
 Siracusa, Sicily, 245
 Split, Croatia, 341
 Taormina, Sicily, 211
 Tarabulus, Libya, 509
 Thessaloniki, Greece (south of Greece), 701
 Thessaloniki, Greece (via Corinth Canal), 612
 Toulon, France, 765
 Trieste, Italy, 516
 Tunis, Tunisia, 518
 Valencia, Spain, 983
 Valletta, Malta, 322
 Venezia, Italy, 526
 Villa San Giovanni, Italy, 287
 Vlores, Albania, 146
 Volos, Greece (south of Greece), 642
 Volos, Greece (via Corinth Canal), 553

TARAWA ATOLL, KIRIBATI
 (1°24'00"N., 172°54'00"E.) to:

Junction Points*

Honshu, Japan, 2,712
 Panama, Panama (via Central Route), 6,537
 Punta Arenas, Chile, 6,479
 Singapore, 4,520
 Torres Strait, Australia, 2,191
 Tsugaru-Kaikyo, Japan, 2,984
 Wilson Promontory, Australia, 2,919

Ports

Auckland, New Zealand, 2,365
 Brisbane, Australia, 2,078
 Honolulu, Hawaii, U.S.A., 2,085
 Manila, Philippines, 3,695
 San Francisco, California, U.S.A., 4,161
 Sydney, Australia, 2,475

TARBERT ISLAND, IRELAND
 (52°35'15"N., 9°21'46"W.) to:

Junction Points*

Fastnet Rock, Ireland, 125
 Inishtrahull, Ireland, 250
 Pentland Firth, Scotland, 509

* **JUNCTION POINT.**—See Preface for use of junction points

<p>Ports</p> <p>Belfast, Northern Ireland (via north of Ireland), 338 Cobh, Ireland, 193 Larne, Northern Ireland (via west of Ireland), 336 Limerick, Ireland, 30</p> <p>TARRAGONA, SPAIN (41°06'25"N., 1°14'30"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,634 Strait of Gibraltar, 501</p> <p>Ports</p> <p>Beirut, Lebanon, 1,738 Malaga, Spain, 431 Oran, Algeria, 336 Palma, Balearic Islands, 134 Siracusa, Sicily, 746 Toulon, France, 251 Valencia, Spain, 124</p> <p>TATIBANA KO, JAPAN (33°52'10"N., 134°40'00"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 343 Selat Lombok, Indonesia (via south of Mindanao), 2,884 Panama, Panama, 7,915 Punta Arenas, Chile, 9,380 Singapore, 2,640 Selat Sunda, Indonesia, 2,999 Torres Strait, Australia, 3,118</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,363 Auckland, New Zealand, 4,896 Hakodate, Japan, 897 Honolulu, Hawaii, U.S.A., 3,224 Los Angeles, California, U.S.A., 5,129 Yokohama, Japan, 285</p> <p>TAURANGA, NEW ZEALAND (37°36'14"S., 176°12'10"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,534 Punta Arenas, Chile, 4,613 Torres Strait, Australia, 2,647 Wilson Promontory, Australia (via north of New Zealand), 1,609 Wilson Promontory, Australia (via Cook Strait), 1,795</p> <p>Ports</p> <p>Auckland, New Zealand, 131 Brisbane, Australia, 1,436 Dunedin, New Zealand, 760 New Plymouth, New Zealand, 587 Picton, New Zealand, 509 Suva, Fiji Islands, 1,811 Sydney, Australia, 1,353 Wellington, New Zealand, 430</p> <p>TAWAU, MALAYSIA (4°13'32"N., 117°53'33"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 856</p>	<p>Panama, Panama (via north of Sulawesi), 9,779 Singapore (via Balabac Strait), 1,342 Selat Sunda, Indonesia (via Makassar Strait), 1,336 Torres Strait, Australia, 1,798</p> <p>Ports</p> <p>Batangas, Philippines, 720 Cebu, Philippines, 557 Honolulu, Hawaii (via south of Mindanao), 4,975 Makassar, Sulawesi, 591 Manila, Philippines, 742 Sandakan, Sabah, 241 Zamboanga, Philippines, 340</p> <p>TEES RIVER, ENGLAND (54°40'57"N., 1°06'20"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 584 Ile d'Ouessant, France, 578 Nord-Ostsee-Kanal (East Entrance), Germany, 421 Pentland Firth, Scotland, 266 Skagens Odde, Denmark, 435</p> <p>Ports</p> <p>Amsterdam, Netherlands, 256 Antwerp, Belgium, 327 Bergen, Norway, 406 Dover, England, 270 Emden, Germany, 303 Hamburg, Germany, 404 London, England, 286 Oslo, Norway, 525</p> <p>TELA, HONDURAS (15°46'30"N., 87°27'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 749</p> <p>Ports</p> <p>Colon, Panama, 706 New Orleans, Louisiana, U.S.A., 915 San Juan, Puerto Rico, 1,258 Tampico, Mexico, 974</p> <p>TELUKBAYUR, INDONESIA (1°00'00"S., 100°22'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,979 Singapore, 1,011 Selat Sunda, Indonesia, 488</p> <p>Ports</p> <p>Durban, South Africa, 4,307 Penang, Malaysia, 931 Tjilatjap, Indonesia, 738</p> <p>TEMA, GHANA (5°37'33"N., 0°00'45"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 2,619 Ile d'Ouessant, France, 3,597</p>	<p>Ports</p> <p>Lagos, Nigeria, 216 Takoradi, Ghana, 117</p> <p>TERNEUZEN, NETHERLANDS (51°20'00"N., 3°49'00"E.) Subtract 36 miles from Antwerp distances.</p> <p>TETNEY TERMINAL, ENGLAND (53°32'22"N., 0°06'53"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 511 Ile d'Ouessant, France, 503 Nord-Ostsee-Kanal (East Entrance), Germany, 381 Pentland Firth, Scotland, 311 Skagens Odde, Denmark, 442</p> <p>Ports</p> <p>Amsterdam, Netherlands, 216 Bremerhaven, Germany, 321 Le Havre, France, 337 Oslo, Norway, 533 Trondheim, Norway, 724 Wilhelmshaven, Germany, 326</p> <p>TEXAS CITY, TEXAS, U.S.A. (29°22'30"N., 94°53'15"W.) Add 5 miles to Galveston distances.</p> <p>THAMES HAVEN, ENGLAND (51°30'00"N., 0°30'30"E.) Subtract 23 miles from London distances.</p> <p>THESSALONIKI, GREECE (40°37'56"N., 22°55'48"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, Strait of Gibraltar, 1,716</p> <p>Ports</p> <p>Alexandria, Egypt, 678 Alexandroupolis, Greece, 191 Algiers, Algeria, 1,287 Alicante, Spain, 1,454 Ancona, Italy (south of Greece), 953 Ancona, Italy (via Corinth Canal), 857 Annaba, Algeria, 1,063 Banghazi, Libya, 611 Baniyas, Syria, 792 Banzart, Tunisia, 958 Barcelona, Spain (south of Greece), 1,380 Barcelona, Spain (via Corinth Canal), 1,339 Bari, Italy (south of Greece), 746 Bari, Italy (via Corinth Canal), 650 Bat'umi, Georgia, 926 Beirut, Lebanon, 783 Brindisi, Italy (south of Greece), 688 Brindisi, Italy (via Corinth Canal), 592 Cartagena, Spain, 1,479 Ceuta, Morocco, 1,696 Derince, Turkey, 372 Ermoupolis, Greece, 227 Genova, Italy (south of Greece), 1,186</p>	<p>Genova, Italy (via Corinth Canal), 1,144 Gibraltar, 1,698 Haifa, Israel, 786 Iraklion, Kriti, 351 Iskenderun, Turkey, 784 Istanbul, Turkey, 338 Izmir, Turkey, 259 Kavala, Greece, 160 La Spezia, Italy (south of Greece), 1,150 La Spezia, Italy (via Corinth Canal), 1,109 Larnaca, Cyprus, 703 Livorno, Italy (south of Greece), 1,114 Livorno, Italy (via Corinth Canal), 1,073 Malaga, Spain, 1,646 Marseille, France (south of Greece), 1,278 Marseille, France (via Corinth Canal), 1,236 Mersin, Turkey, 726 Messina, Sicily (south of Greece), 704 Messina, Sicily (via Corinth Canal), 663 Mitilini, Greece, 232 Napoli, Italy (south of Greece), 876 Napoli, Italy (via Corinth Canal), 834 Novorossiysk, Russia, 794 Odessa, Ukraine, 686 Oran, Algeria, 1,484 Palermo, Sicily (south of Greece), 820 Palermo, Sicily (via Corinth Canal), 779 Palma, Balearic Islands (south of Greece), 1,339 Palma, Balearic Islands (via Corinth Canal), 1,297 Piraeus, Greece, 259 Rhodes, Greece, 388 Rijeka, Croatia (south of Greece), 1,023 Rijeka, Croatia (via Corinth Canal), 924 Savona, Italy (south of Greece), 1,196 Savona, Italy (via Corinth Canal), 1,154 Sibenik, Croatia (south of Greece), 895 Sibenik, Croatia (via Corinth Canal), 796 Siracusa, Sicily (south of Greece), 692 Siracusa, Sicily (via Corinth Canal), 667 Split, Croatia (south of Greece), 880 Split, Croatia (via Corinth Canal), 781 Tarabulus, Libya, 848 Taranto, Italy (south of Greece), 701 Taranto, Italy (via Corinth Canal), 612 Toulon, France (south of Greece), 1,246 Toulon, France (via Corinth Canal), 1,204 Trieste, Italy (south of Greece), 1,056 Trieste, Italy (via Corinth Canal), 957 Tunis, Tunisia, 945 Valencia, Spain, 1,452 Valletta, Malta, 732</p>
---	--	--	--

* **JUNCTION POINT.**—See Preface for use of junction points

114 THORSHAVN, FAROE ISLANDS

Venezia, Italy (south of Greece), 1,064
Venezia, Italy (via Corinth Canal), 968
Volos, Greece, 132

THORSHAVN, FAROE ISLANDS
(62°00'20"N., 6°4'30"W.) See Thorshavn.

THULE, GREENLAND
(76°32'52"N., 68°52'30"W.) See Qaanaaq, Greenland.

TIANJIN, CHINA
(39°07'30"N., 117°11'45"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Makassar Strait), 3,189
Panama, Panama (via Osumi Strait), 9,024
Panama, Panama (via Tsugaru Strait), 8,891
Punta Arenas, Chile, 10,294
Singapore, 2,823

Ports

Dagu, China, 48
Moji, Japan, 840
Shanghai, China (via Chang-shan Shui-Tao), 740
Yokohama Japan (via Naikai), 1,465

TIENTSIN, CHINA
(39°07'30"N., 117°11'45"E.) See Tianjin, China.

TIKSI, RUSSIA
(71°39'30"N., 128°59'00"E.) to:

Ports

Mys Chelyuskin, Russia, 579
Pevek, Russia, 854
Provideniya, Russia, 1,500

TJILATJAP, INDONESIA
(7°44'00"S., 108°59'24"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,616
Selat Lombok, Indonesia, 413
Selat Sunda, Indonesia, 345

Ports

Fremantle, Australia, 1,519
Port Darwin, Australia, 1,321
Tarakan, Indonesia, 1,217

TJIREBON, INDONESIA
(6°42'00"S., 108°36'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 503
Singapore, 624
Selat Sunda, Indonesia, 211

Ports

Jakarta, Indonesia, 156
Makassar, Sulawesi, 681

TOCOPILLA, CHILE
(22°05'20"S., 70°14'00"W.) to:

Junction Points*

Panama, Panama, 2,068
Punta Arenas, Chile, 2,177

Ports

San Antonio, Chile, 692
San Francisco, California, U.S.A., 4,699
Valparaiso, Chile, 663

TOKUYAMA, JAPAN
(34°00'00"N., 131°46'00"E.) to:

Ports

Apra, Guam, 1,427
Kagoshima, Japan, 263
Kure, Japan, 76
Shimonoseki, Japan, 50
Yokohama, Japan, 510

TOKYO, JAPAN
(35°38'00"N., 139°46'00"E.) Add 10 miles to Yokohama distances.

TOMAKOMAI, JAPAN
(42°36'50"N., 141°37'22"E.) to:

Junction Points*

Honshu, Japan, 486
Panama, Panama, 7,383
Punta Arenas, Chile, 9,455
Tsugaru-Kaikyo, Japan, 90

Ports

Apra, Guam, 1,759
Auckland, New Zealand, 5,198
Honolulu, Hawaii, U.S.A., 3,353
Sydney, Australia, 4,801
Valparaiso, Chile, 9,910
Yokohama, Japan, 541

TOMARI, JAPAN
(43°42'00"N., 145°30'00"E.) to:

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 542
Aomori, Japan, 335
Attu Island, Alaska, U.S.A., 1,238
Dutch Harbor, Alaska, U.S.A., 1,978
Hakodate, Japan, 301
Kholmsk, Russia, 314
Kiska, Alaska, U.S.A., 1,406
Korsakov, Sakhalin, Russia, 239
Muran, Japan, 295
Nikolayevsk-Na-Amure, Russia, 694
Otaru, Japan, 387
Petropavlovsk-Kamchatskiy, Russia, 822
Vladivostok, Russia, 724
Wakkanai, Japan, 246

TOMPKINSVILLE, NEW YORK, U.S.A.
(40°38'00"N., 74°04'00"W.) For ocean distances, subtract 4 1/2 miles from New York distances.

TONGYEONG, SOUTH KOREA
(34°50'00"N., 128°27'00"E.) to:

Ports

Busan, South Korea, 63
Mogpo, South Korea, 189
Nampo, North Korea, 446
Rajin, North Korea, 501
Weonsan, North Korea, 358

TONSBERG, NORWAY
(59°15'42"N., 10°24'50"E.) to:

Junction Points*

Pentland Firth, Scotland, 532

Ports

Bergen, Norway, 329
London, England, 624

TORNIO, FINLAND
(65°45'30"N., 24°08'30"E.) to:

Junction Points*

Skagens Odde, Denmark (via Store Belt), 1,103
Skagens Odde, Denmark (via The Sound), 973

TORRES STRAIT, AUSTRALIA*
(10°33'00"S., 142°08'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 6,854
Cape Leeuwin, Australia, 2,717
Honshu, Japan, 3,265
Panama, Panama, 8,451
Port Said, Egypt (via Eight Degree Channel), 7,403
Port Said, Egypt (via One and One Half Degree Channel), 7,505
Punta Arenas, Chile (via Raine Island entrance and Lat. 49°S.), 7,217
Selat Wetar, Indonesia, 881
Wilson Promontory, Australia (via Cape Capricorn and inner route), 2,183

Ports

Aden, Yemen (via Eight Degree Channel), 6,016
Ambon, Indonesia, 964
Apia, Samoa (via Raine Island entrance), 2,763
Auckland, New Zealand (via Raine Island entrance), 2,485
Bandjermasin, Kalimantan, Indonesia, 1,785
Belawan, Indonesia, 2,839
Bluff Harbor, New Zealand (via Raine Island entrance), 2,797
Bombay, India (south of Java and Timor), 4,849
Bowen, Australia, 760
Brisbane, Australia (via Cape Capricorn and inner route), 1,348
Cairns Harbor, Australia, 505
Callao, Peru (via Raine Island entrance), 8,152
Colombo, Sri Lanka (south of Java and Timor), 3,978
Davao, Philippines, 1,628
Dunedin, New Zealand, 2,872
Fremantle, Australia, 2,531
Gladstone Harbor, Australia, 1,085

Guayaquil, Ecuador (via Raine Island entrance), 8,270
Ho Chi Minh, Vietnam, 2,629
Hobart, Tasmania, 2,271
Hong Kong, China, 2,725
Honolulu, Hawaii, U.S.A. (via Raine Island entrance, China Strait and Bougainville Strait), 4,191
Jakarta, Indonesia (via Selat Wetar and north of Madura), 2,175
Karachi, Pakistan (south of Java and Timor), 5,298
Kota Kinabalu, Sabah, 2,041
Launceston, Tasmania, 2,278
Lautoka Harbor, Fiji Islands, 2,204
Levuka, Fiji Islands (via Raine Island entrance), 2,268
Lucinda, Australia, 634
Lyttelton, New Zealand, 2,849
Mackay, Australia, 864
Malacca, Malaysia, 2,588
Manila, Philippines (via Basilan Strait and Mindoro Strait), 2,193
Massawa, Ethiopia (via Eight Degree Channel), 6,403
Nelson, New Zealand, 2,646
Noumea, New Caledonia (via Raine Island entrance), 1,622
Pago Pago, American Samoa (via Raine Island entrance), 2,848
Papeete, French Polynesia (via Raine Island entrance), 4,043
Port Darwin, Australia (via Clarence Strait and Dundas Strait), 735
Port Kembla, Australia, 1,817
Port Lincoln, Australia, 2,811
Port Louis, Mauritius, 4,933
Portland, Australia, 2,429
Pulupandan, Philippines, 1,962
Rockhampton, Australia, 1,034
Sabang, Indonesia, 3,072
San Francisco, California, U.S.A. (via Raine Island entrance), 6,249
Sorido, Indonesia, 1,329
Sorong, New Guinea, 1,021
Surabaya, Indonesia (via Wetar Passage and north of Madura), 1,814
Surabaya, Indonesia (via Wetar Passage and south of Madura), 1,784
Suva, Fiji Islands (via Raine Island entrance, north of Cape Cumberland and Maewo to Kandavu Passage), 2,212
Sydney, Australia, 1,754
Townsville, Australia, 662
Urangan, Australia, 1,198
Valparaiso, Chile (via 49°S.), 7,670
Victoria, Sabah, 2,192
Wellington, New Zealand (via Raine Island entrance), 2,652
Xiamen, China, 2,655

TORSHAVN, FAROE ISLANDS
(62°00'20"N., 6°45'30"W.) to:

Junction Points*

Pentland Firth, Scotland, 22
Skagens Odde, Denmark, 624

Ports

Aberdeen, Scotland, 365
Bergen, Norway, 372

* **JUNCTION POINT.**—See Preface for use of junction points

Reykjavik, Iceland, 516

TOULON, FRANCE
(43°06'45"N., 5°35'00"E.) to:

Junction Points*

Port Said, Egypt, 1,486
Strait of Gibraltar, 722

Ports

Ajaccio, Corsica, 155
Alexandria, Egypt, 1,376
Algiers, Algeria, 406
Alicante, Spain, 418
Ancona, Italy, 1,077
Annaba, Algeria, 390
Banghazi, Libya, 972
Banzart, Tunisia, 405
Barcelona, Spain, 205
Bari, Italy, 870
Beirut, Lebanon, 1,568
Brindisi, Italy, 812
Cagliari, Sardinia, 33,
Cartagena, Spain, 471
Castellammare di Stabia, Italy, 430
Ceuta, Morocco, 704
Genova, Italy, 171
Gibraltar, 705
Haifa, Israel, 1,565
Iraklion, Kriti, 1,051
Istanbul, Turkey, 1,351
Izmir, Turkey, 1,197
La Spezia, Italy, 199
Livorno, Italy, 204
Malaga, Spain, 652
Messina, Sicily, 546
Napoli, Italy, 424
Odessa, Ukraine, 1,699
Oran, Algeria, 545
Palermo, Sicily, 464
Palma, Balearic Islands, 308
Piraeus, Greece (south of
Greece), 1,038
Piraeus, Greece (via Corinth
Canal), 956
Rijeka, Croatia, 1,145
Savona, Italy, 156
Sibenik, Croatia, 1,018
Siracusa, Sicily, 617
Skikda, Algeria, 381
Split, Croatia, 1,003
Tarabulus, Libya, 722
Taranto, Italy, 765
Tarragona, Spain, 251
Thessaloniki, Greece, 1,246
Trieste, Italy, 1,178
Tunis, Tunisia, 453
Valencia, Spain, 363
Valletta, Malta, 605
Venezia, Italy, 1,188
Volos, Greece, 1,187

TOWNSVILLE, AUSTRALIA
(19°15'00"S., 146°50'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 3,023
Torres Strait, Australia, 662
Wilson Promontory, Australia,
1,499

Ports

Brisbane, Australia, 677
Noumea, New Caledonia, 1,155
Port Moresby, Papua New Guinea,
595

TRABZON, TURKEY
(41°01'00"N., 39°46'30"E.) Add
511 miles to Istanbul distances or
ports outside the Black Sea.

TRAMANDAI, BRAZIL
(30°00'40"S., 50°05'12"W.) to:

Junction Points*

Bishop Rock, England, 5,418
Cape of Good Hope, South Africa,
3,420
Fastnet Rock, Ireland, 5,445
Grand Banks South, 5,074
Ile d'Ouessant, France, 5,391
Inishtrahull, Ireland, 5,718
Montreal, Canada, 5,963
Panama, Panama, 4,889
Pentland Firth, Scotland, 5,998
Punta Arenas, Chile, 1,676
Strait of Gibraltar, 4,733
Straits of Florida, 5,242
Yucatan Channel, 5,267

Ports

Buenos Aires, Argentina, 609
Guiria, Venezuela, 3,831
Montevideo, Uruguay, 450
Pointe Noire, Congo, 3,804
Rio de Janeiro, Brazil, 565
Santos, Brazil, 421
Takoradi, Ghana, 3,483

**TRANGISVAAG, FAROE
ISLANDS**
(61°31'58"N., 6°44'30"W.) to:

Junction Points*

Bishop Rock, England, 798
Cape of Good Hope, South Africa,
6,492
Fastnet Rock, Ireland, 650
Grand Banks South, 1,938
Inishtrahull, Ireland, 370
Panama, Panama, 4,494
Pentland Firth, Scotland, 197
Punta Arenas, Chile, 7,644
Strait of Gibraltar, 1,747

Ports

Aberdeen, Scotland, 331
Alesund, Norway, 367
Amsterdam, Netherlands, 671
Bodo, Norway, 645
Bremerhaven, Germany, 686
Dover, England, 718
Fredrikstad, Norway, 629
Goteborg, Sweden, 632
Hirtshals, Denmark, 569
Leith, Scotland, 417
London, England, 753
Murmansk, Russia, 1,200
Portsmouth, England, 812
Reykjavik, Iceland, 492
Tromso, Norway, 792
Zeebrugge, Belgium, 705

TRAPANI, SICILY
(38°00'15"N., 12°30'00"E.) to:

Junction Points*

Port Said, Egypt, 1,100
Strait of Gibraltar, 896

Ports

Messina, Sicily, 177
Napoli, Italy, 198

Tunis, Tunisia, 138

TRAVEMUNDE, GERMANY
(53°57'35"N., 10°53'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 88
Skagens Odde, Denmark (via Store
Baelt), 282

Ports

Gdynia, Poland, 307
Kobenhavn, Denmark (via Store
Baelt), 234
Kobenhavn, Denmark (via The
Sound), 139
Oslo, Norway (via Store Baelt),
389
Oslo, Norway (via The Sound),
410

TRELLEBORG, SWEDEN
(55°22'00"N., 13°09'25"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 141
Skagens Odde, Denmark (via Store
Baelt), 333
Skagens Odde, Denmark (via The
Sound), 192

Ports

Kristiansand, Norway, 425
Oslo, Norway (via Store Baelt),
467
Oslo, Norway (via The Sound),
314

**TRENTON, NEW JERSEY,
U.S.A.**
(40°11'24"N., 74°45'24"W.) Add
28 miles to Philadelphia distances.

TRIESTE, ITALY
(45°39'13"N., 13°44'49"E.) to:

Junction Points*

Port Said, Egypt, 1,310
Strait of Gibraltar, 1,682

Ports

Al Latakia, Syria, 1,370
Alexandria, Egypt, 1,200
Algiers, Algeria, 1,254
Alicante, Spain, 1,409
Ancona, Italy, 130
Annaba, Algeria, 1,034
Banghazi, Libya, 901
Banzart, Tunisia, 943
Barcelona, Spain, 1,313
Bari, Italy, 321
Bat'umi, Georgia (south of
Greece), 1,749
Bat'umi, Georgia (via Corinth
Canal), 1,650
Beirut, Lebanon, 1,379
Brindisi, Italy, 376
Cartagena, Spain, 1,439
Ceuta, Morocco, 1,662
Genova, Italy, 1,118
Gibraltar, 1,664
Haifa, Israel, 1,375
Iraklion, Kriti, 865
Istanbul, Turkey (south of

Greece), 1,162
Istanbul, Turkey (via Corinth
Canal), 1,063
Izmir, Turkey (south of Greece),
1,007
Izmir, Turkey (via Corinth Canal),
908
La Spezia, Italy, 1,083
Livorno, Italy, 1,047
Malaga, Spain, 1,611
Marseille, France, 1,210
Messina, Sicily, 637
Napoli, Italy, 808
Odessa, Ukraine (south of
Greece), 1,510
Odessa, Ukraine (via Corinth
Canal), 1,411
Oran, Algeria, 1,450
Palermo, Sicily, 753
Palma, Balearic Islands, 1,271
Piraeus, Greece (south of
Greece), 848
Piraeus, Greece (via Corinth
Canal), 709
Rijeka, Croatia, 120
Savona, Italy, 1,128
Sibenik, Croatia, 192
Siracusa, Sicily, 658
Split, Croatia, 210
Tarabulus, Libya, 921
Taranto, Italy, 516
Thessaloniki, Greece (south of
Greece), 1,056
Thessaloniki, Greece (via Corinth
Canal), 957
Toulon, France, 1,178
Tunis, Tunisia, 930
Valencia, Spain, 1,396
Valletta, Malta, 735
Volos, Greece (south of Greece),
997
Volos, Greece (via Corinth Canal),
898
Zadar, Croatia, 142

TRINCOMALEE, SRI LANKA
(8°33'30"N., 81°12'45"E.) to:

Ports

Bombay, India, 1,218
Colombo, Sri Lanka, 347
Galle, Sri Lanka, 255
Karachi, Pakistan, 1,667
Pandang, Indonesia, 1,301

TROMSO, NORWAY
(69°39'00"N., 18°58'30"E.) to:

Junction Points*

Bishop Rock, England (via English
Channel), 1,597

Ports

Bergen, Norway, 705
Bjornoya, Svalbard, 306
Galway, Ireland, 1,352
Hammerfest, Norway, 124
Longyearbyen, Svalbard, 556
Oslo, Norway, 1,069
Stavanger, Norway, 810

TRONDHEIM, NORWAY
(63°26'00"N., 10°23'00"E.) to:

Junction Points*

Bishop Rock, England (via English
Channel), 1,202
Ile d'Ouessant, France (via Dover

* **JUNCTION POINT.**—See Preface for use of junction points

116 TRUK, CAROLINE ISLANDS

<p>Strait), 1,188 Nord-Ostsee-Kanal (East Entrance), Germany, 791 Pentland Firth, Scotland, 415 Skagens Odde, Denmark, 597</p> <p>Ports</p> <p>Bergen, Norway, 321 Hull, England, 752 Kristiansand, Norway, 436 Longyearbyen, Svalbard, 943 Oslo, Norway, 688 Reykjavik, Iceland, 969</p> <p>TRUK, CAROLINE ISLANDS (7°22'00"N., 151°54'00"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 7,685 Singapore, 3,052</p> <p>Ports</p> <p>Apra, Guam, 590 Auckland, New Zealand, 3,000 Dutch Harbor, Alaska, U.S.A., 3,493 Guayaquil, Ecuador, 7,752 Ho Chi Minh, Vietnam, 2,799 Hong Kong, China, 2,376 Honolulu, Hawaii, U.S.A., 3,028 Jaluit, Marshall Islands, 1,078 Kodiak, Alaska, U.S.A., 4,008 Manila, Philippines, 1,994 Midway Island, Pacific, 2,146 Noumea, New Caledonia, 2,068 Pago Pago, American Samoa, 2,603 Papeete, French Polynesia, 3,788 Ponape, Caroline Islands, 383 Port Darwin, Australia (via Selat Sele), 2,142 Qingdao, China, 2,459 Saipan, Mariana Islands, 610 San Diego, California, U.S.A., 5,216 San Francisco, California, U.S.A., 4,931 Seattle, Washington, U.S.A., 4,929 Shanghai, China, 2,261 Sitka, Alaska, U.S.A., 4,473 Surabaya, Indonesia, 2,623 Suva, Fiji Islands, 2,231 Sydney, Australia, 2,543 Tinian, Mariana Islands, 597 Valparaiso, Chile, 7,952 Vladivostok, Russia, 2,593 Wake Island, 1,117 Yap, Caroline Islands, 851 Yokohama, Japan, 1,832</p> <p>TSINGTAO, CHINA (36°05'30"N., 120°19'00"E.) See Qingdao, China.</p> <p>TSO-YING, TAIWAN (22°42'00"N., 120°15'00"E.) to:</p> <p>Ports</p> <p>Ho Chi Minh, Vietnam, 1,131 Hong Kong, China, 343 Incheon, South Korea, 975 Makassar, Sulawesi, 1,757 Manila, Philippines, 552</p> <p>TSUGARU-KAIKYO, JAPAN* (41°30'00"N., 140°40'00"E.) to:</p>	<p>Junction Points*</p> <p>Honshu, Japan, 484 Panama, Panama, 8,004 Punta Arenas, Chile, 9,449 Singapore, 3,343</p> <p>Ports</p> <p>Honolulu, Hawaii, U.S.A., 3,299 San Francisco, California, U.S.A., 4,242 Seattle, Washington, U.S.A., 3,910 Weonsan, North Korea, 620</p> <p>TSURUGA, JAPAN (35°39'30"N., 136°04'00"E.) to:</p> <p>Ports</p> <p>Hakodate, Japan, 447 Masan, South Korea, 385 Shanghai, China, 823 Shimonoseki, Japan, 325 Vladivostok, Russia, 490</p> <p>TUAPSE, RUSSIA (44°05'10"N., 39°04'08"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,294 Strait of Gibraltar (via Corinth Canal), 4,161 Strait of Gibraltar (south of Greece), 4,222</p> <p>Ports</p> <p>Alexandria, Egypt, 1,232 Beirut, Lebanon, 1,343 Constanta, Romania, 448 Haifa, Israel, 1,346 Iraklion, Kriti, 944 Istanbul, Turkey, 487 Napoli, Italy (via Corinth Canal), 1,426 Napoli, Italy (south of Greece), 1,488 Valencia, Spain (via Corinth Canal), 2,020 Valencia, Spain (south of Greece), 2,080</p> <p>TUBRUQ, LIBYA (32°04'39"N., 23°59'00"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 445 Strait of Gibraltar, 1,534</p> <p>Ports</p> <p>Alexandria, Egypt, 308 Banglazi, Libya, 248 Beirut, Lebanon, 595 Genova, Italy, 1,048 Iskenderun, Turkey, 667 Piraeus, Greece, 359 Tarabulus, Libya, 574 Venezia, Italy, 980</p> <p>TULEAR, MADAGASCAR (23°21'42"S., 43°39'42"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 1,509 Port Said, Egypt, 3,966</p>	<p>Ports</p> <p>Beira, Mozambique, 539 Majunga, Madagascar, 625 Mocambique, Mozambique, 532</p> <p>TUMACO, COLOMBIA (1°50'20"N., 78°50'55"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 437 Punta Arenas, Chile, 3,575 Singapore (via San Bernardino Strait), 10,685 Singapore (via Surigao Strait), 10,633 Torres Strait, Australia, 8,375 Wilson Promontory, Australia, 7,638</p> <p>Ports</p> <p>Callao, Peru, 981 Esmeraldas, Ecuador, 78 Golfito, Costa Rica, 495 Guayaquil, Ecuador, 470 La Libertad, Ecuador, 309 Salina Cruz, Mexico, 1,302 Talara, Peru, 449 Valparaiso, Chile, 2,240 Yokohama, Japan, 7,802</p> <p>TUNIS, TUNISIA (36°47'54"N., 10°11'51"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,172 Strait of Gibraltar, 820</p> <p>Ports</p> <p>Al Khums, Libya, 357 Al Latakia, Syria, 1,258 Alexandria, Egypt, 1,051 Algiers, Algeria, 392 Alicante, Spain, 558 Ancona, Italy, 830 Annaba, Algeria, 167 As Sukhayrah, Tunisia, 301 Banghazi, Libya, 585 Baniyas, Syria, 1,275 Barcelona, Spain, 492 Bari, Italy, 622 Beirut, Lebanon, 1,263 Brindisi, Italy, 564 Cagliari, Sardinia, 169 Cartagena, Spain, 583 Ceuta, Morocco, 801 Gaeta, Italy, 315 Genova, Italy, 472 Gibraltar, 803 Haifa, Israel, 1,260 Iraklion, Kriti, 745 Istanbul, Turkey, 1,050 Izmir, Turkey, 896 Kalamai, Greece, 599 La Spezia, Italy, 448 Licata, Sicily, 187 Livorno, Italy, 417 Marsala, Sicily, 124 Marsaxlokk, Malta, 246 Marseille, France, 476 Messina, Sicily, 302 Napoli, Italy, 313 Odessa, Ukraine, 1,399 Oran, Algeria, 589 Palermo, Sicily, 193 Palma, Balearic Islands, 435 Piraeus, Greece (south of Greece), 737</p>	<p>Piraeus, Greece (via Corinth Canal), 680 Porto Empedocle, Sicily, 167 Pozzuoli, Italy, 308 Qabis, Tunisia, 302 Rijeka, Croatia, 897 Savona, Italy, 475 Sibenik, Croatia, 771 Siracusa, Sicily, 283 Split, Croatia, 756 Tarabulus, Libya, 322 Taranto, Italy, 518 Thessaloniki, Greece, 945 Toulon, France, 453 Trapani, Sicily, 138 Trieste, Italy, 930 Valencia, Spain, 560 Valletta, Malta, 234 Venezia, Italy, 940 Viareggio, Italy, 778 Volos, Greece (south of Greece), 886 Volos, Greece (via Corinth Canal), 869</p> <p>TURIAMO, VENEZUELA (10°26'30"N., 67°50'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 858 Yucatan Channel, 1,221</p> <p>Ports</p> <p>Barranquilla, Colombia, 504 Port of Spain, Trinidad, 384 Willemstad, Curacao, 124</p> <p>TURKU, FINLAND (60°26'00"N., 22°13'00"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee-Kanal (East Entrance), Germany, 576 Skagens Odde, Denmark (via Store Bael), 768 Skagens Odde, Denmark (via The Sound), 642</p> <p>Ports</p> <p>Oslo, Norway (via Store Bael), 892 Oslo, Norway (via The Sound), 764 Rauma, Finland, 98</p> <p>TUTICORIN, INDIA (8°43'20"N., 78°13'55"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 6,593 Cape Leeuwin, Australia, 3,347 Port Said, Egypt, 3,400 Singapore, 1,715 Sundra Strait, Indonesia, 1,920 Torres Strait, Australia, 4,165</p> <p>Ports</p> <p>Al Basrah, Iraq, 2,274 Bombay, India, 831 Calcutta, India, 1,041 Colombo, Sri Lanka, 143 Honavar, India, 549 New Mangalore, India, 429 Rangoon, Burma, 1,179 Trincomalee, Sri Lanka, 245</p>
--	--	---	--

* JUNCTION POINT.—See Preface for use of junction points

Victoria, Seychelles, 1,583

TUXPAN, MEXICO
(20°58'00"N., 97°25'00"W.) to:

Junction Points*

Panama, Panama, 1,498
Straits of Florida, 817
Yucatan Channel, 689

Ports

Belize, Belize, 897
Campeche, Mexico, 375
Carmen, Mexico, 333
Cartagena, Colombia, 1,545
Charlotte Amalie, Virgin Islands
(via Old Bahama Channel),
1,890
Charlotte Amalie, Virgin Islands
(via Yucatan Channel and south
of Hispaniola), 1,884
Charlotte Amalie, Virgin Islands
(via Yucatan Channel and
Windward Passage), 1,867
Cienfuegos, Cuba, 979
Colon, Panama, 1,455
Galveston, Texas, U.S.A., 530
Gulfport, Mississippi, U.S.A., 751
Key West, Florida, U.S.A., 891
Kingston, Jamaica, 1,243
La Guaira, Venezuela, 1,923
La Habana, Cuba, 847
Matagorda Bay, Texas, U.S.A.,
445
Mobile, Alabama, U.S.A., 776
New Orleans, Louisiana, U.S.A.,
739
Pensacola, Florida, U.S.A., 785
Pointe à Pitre, Guadeloupe, 2,094
Port au Prince, Haiti, 1,428
Port Arthur, Texas, U.S.A., 572
Port Castries, St. Lucia, 2,136
Port of Spain, Trinidad, 2,201
Puerto Cabello, Venezuela, 1,883
Santo Domingo, Dominican
Republic, 1,624
Veracruz, Mexico, 134
Willemstad, Curacao, 1,786

TVEDESTRAND, NORWAY
(58°37'10"N., 8°56'20"E.) to:

Junction Points*

Pentland Firth, Scotland, 421
Skagens Odde, Denmark, 76

Ports

Bergen, Norway, 272
London, England, 565
Oslo, Norway, 121

TYNE RIVER, ENGLAND
(55°00'46"N., 1°24'00"W.) to:

Junction Points*

Bishop Rock, England, 632
Ile d'Ouessant, France, 618
Nord-Ostsee-Kanal (East
Entrance), Germany, 432
Pentland Firth, Scotland, 243
Skagens Odde, Denmark, 430

Ports

Aberdeen, Scotland, 134
Dundee, Scotland, 109
Hull, England, 135

Le Havre, France, 400
London, England, 311
Teess River, England, 31

UBE, JAPAN
(33°55'00"N., 131°13'30"E.) to:

Ports

Busan, South Korea, 143
Hakata, Japan, 84
Kagoshima, Japan, 280
Nagoya, Japan, 419
Yokohama, Japan, 536

ULSAN, SOUTH KOREA
(35°28'00"N., 129°24'00"E.) to:

Ports

Hakodate, Japan, 661
Incheon, South Korea, 435
Maizuru, Japan, 315
Rajin, North Korea, 418
Vladivostok, Russia, 486

UMEA, SWEDEN
(63°49'12"N., 20°16'20"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 751
Skagens Odde, Denmark, 812

Ports

Gdynia, Poland, 574
Sankt-Peterburg, Russia, 574
Stockholm, Sweden, 289

UMM SAID, QATAR
(24°53'30"N., 51°34'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa,
4,909
Cape Leeuwin, Australia, 5,245
Port Said, Egypt, 3,091
Singapore, 3,630

Ports

Al Basrah, Iraq, 444

**UNALAKLEET, ALASKA,
U.S.A.**
(63°52'15"N., 160°47'15"W.) to:

Junction Points*

Panama, Panama, 5,967

Ports

Dutch Harbor, Alaska, U.S.A., 752
Honolulu, Hawaii, U.S.A., 2,407
Kodiak, Alaska, U.S.A., 884
San Diego, California, U.S.A.,
2,791
Seattle, Washington, U.S.A., 2,023

UNGGL, NORTH KOREA
(42°19'00"N., 130°24'45"E.) to:

Ports

Busan, South Korea, 452
Hakodate, Japan, 486
Maizuru, Japan, 474
Otaru, Japan, 488

Shimonoseki, Japan, 511

UNO, JAPAN
(34°29'00"N., 133°57'30"E.) to:

Ports

Chi-lung, Taiwan, 903
Kobe, Japan, 71
Kure, Japan, 117
Shimonoseki, Japan, 177
Yokohama, Japan, 405

UPERNAVIK, GREENLAND
(72°46'30"N., 56°12'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 2,164
Strait of Gibraltar, 3,011

Ports

Churchill, Canada, 1,669
Reykjavik, Iceland, 1,610
St. John's, Canada, 1,532

URANGAN, AUSTRALIA
(25°17'00"S., 152°55'00"E.) to:

Junction Points*

Torres Strait, Australia, 1,198
Wilson Promontory, Australia,
1,100

Ports

Brisbane, Australia, 282
Wellington, New Zealand, 1,581

URDIALES, SPAIN
(43°22'40"N., 3°12'15"W.) See
Castro-Urdiales.

USHANT, FRANCE*
(48°40'00"N., 5°30'00"W.) See
Ile d'Ouessant.

USHUAIA, ARGENTINA
(54°59'00"S., 68°18'10"W.) to:

Ports

Buenos Aires, Argentina, 1,447

USKUDAR, TURKEY
(41°01'15"N., 29°00'00"E.) Use
Istanbul distances.

USIKAUPUNKI, FINLAND
(60°47'30"N., 21°22'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 624
Skagens Odde, Denmark (via Store
Bælt), 825

Ports

Helsinki, Finland, 293
Oslo, Norway (via Store Bælt),
939
Oslo, Norway (via The Sound),
808
Stockholm, Sweden, 164

VAASA, FINLAND
(63°05'15"N., 21°33'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East
Entrance), Germany, 744
Skagens Odde, Denmark, 805

Ports

Jakobstad, Finland, 99
Rauma, Finland, 160
Stockholm, Sweden, 282

VADSO, NORWAY
(70°04'30"N., 29°44'00"E.) to:

Ports

Bjornoya, Svalbard, 373

VALDEZ, ALASKA, U.S.A.
(61°06'00"N., 146°17'00"W.) to:

Junction Points*

Panama, Panama, 4,958
Punta Arenas, Chile, 7,866
Singapore (via 30°N., 180° and
Balintang Channel), 7,119
Singapore (via 30°N., 180° and San
Bernardino Strait), 7,106
Singapore (via 50°N., 160°W. and
San Bernardino Strait), 7,106
Torres Strait, Australia, 5,883
Wilson Promontory, Australia,
7,100

Ports

Auckland, New Zealand, 6,190
Brisbane, Australia, 6,141
Chimbote, Peru, 5,482
Frederiksted, St. Croix (via Cape
Horn), 13,670
Frederiksted, St. Croix (via
Magellan Strait), 13,503
Honolulu, Hawaii, U.S.A., 2,462
Kobe, Japan, 3,677
Suva, Fiji Islands, 5,110
Tokyo, Japan, 3,414
Yokohama, Japan, 3,460

VALENCIA, SPAIN
(39°27'14"N., 0°19'12"W.) to:

Junction Points*

Port Said, Egypt, 1,679
Strait of Gibraltar, 403

Ports

Al Latakia, Syria, 1,765
Alexandria, Egypt, 1,559
Algiers, Algeria, 230
Alicante, Spain, 98
Ancona, Italy, 1,295
Annaba, Algeria, 426
Augusta, Sicily, 801
Banghazi, Libya, 1,094
Banzart, Tunisia, 506
Barcelona, Spain, 165
Bari, Italy, 1,088
Beirut, Lebanon, 1,770
Brindisi, Italy, 1,048
Cagliari, Sardinia, 461
Cartagena, Spain, 152
Ceuta, Morocco, 385
Genova, Italy, 512
Gibraltar, 386
Haifa, Israel, 1,767
Iraklion, Kriti, 1,252
Istanbul, Turkey (south of

* **JUNCTION POINT.**—See Preface for use of junction points

118 VALLETTA, MALTA

Greece), 1,558
 Istanbul, Turkey (via Corinth Canal), 1,528
 Izmir, Turkey (south of Greece), 1,403
 Izmir, Turkey (via Corinth Canal), 1,374
 La Spezia, Italy, 538
 Livorno, Italy, 539
 Malaga, Spain, 334
 Marseille, France, 347
 Messina, Sicily, 764
 Napoli, Italy, 690
 Odessa, Ukraine (south of Greece), 1,906
 Odessa, Ukraine (via Corinth Canal), 1,876
 Oran, Algeria, 238
 Palermo, Sicily, 656
 Palma, Balearic Islands, 146
 Piraievs, Greece (south of Greece), 1,244
 Piraievs, Greece (via Corinth Canal), 1,174
 Rijeka, Croatia, 1,363
 Savona, Italy, 497
 Sibenik, Croatia, 1,237
 Siracusa, Sicily, 790
 Split, Croatia, 1,222
 Tarabulus, Libya, 831
 Taranto, Italy, 983
 Tarragona, Spain, 124
 Thessaloniki, Greece (south of Greece), 1,452
 Thessaloniki, Greece (via Corinth Canal), 1,422
 Toulon, France, 363
 Trieste, Italy, 1,396
 Tunis, Tunisia, 560
 Valletta, Malta, 743
 Venezia, Italy, 1,406
 Volos Greece (south of Greece), 1,393
 Volos Greece (via Corinth Canal), 1,364

VALLETTA, MALTA
 (35°53'30"N., 14°30'52"E.) to:

Junction Points*

Port Said, Egypt, 946
 Strait of Gibraltar, 1,005

Ports

Alexandria, Egypt, 823
 Algiers, Algeria, 576
 Alicante, Spain, 743
 Ancona, Italy, 634
 Annaba, Algeria, 352
 Augusta, Sicily, 98
 Banghazi, Libya, 359
 Banzart, Tunisia, 247
 Barcelona, Spain, 671
 Bari, Italy, 427
 Beirut, Lebanon, 1,049
 Brindisi, Italy, 369
 Cagliari, Sardinia, 331
 Cartagena, Spain, 768
 Ceuta, Morocco, 986
 Civitavecchia, Italy, 421
 Darnah, Libya, 450
 Genova, Italy, 584
 Gibraltar, 988
 Haifa, Israel, 1,038
 Iraklion, Kriti, 528
 Istanbul, Turkey, 837
 Izmir, Turkey, 683
 La Spezia, Italy, 554
 Licata, Sicily, 78
 Livorno, Italy, 519

Malaga, Spain, 928
 Marsala, Sicily, 157
 Marseille, France, 637
 Messina, Sicily, 156
 Napoli, Italy, 327
 Nice, France, 592
 Odessa, Ukraine, 1,185
 Oran, Algeria, 774
 Palermo, Sicily, 242
 Palma, Balearic Islands, 619
 Piraievs, Greece, 524
 Porto Empedocle, Sicily, 97
 Qabis, Tunisia, 232
 Rijeka, Croatia, 701
 Savona, Italy, 588
 Sete, France, 694
 Sibenik, Croatia, 575
 Siracusa, Sicily, 88
 Sousse, France, 197
 Split, Croatia, 560
 Tarabulus, Libya, 201
 Taranto, Italy, 322
 Thessaloniki, Greece, 732
 Toulon, France, 605
 Trieste, Italy, 735
 Tunis, Tunisia, 234
 Valencia, Spain, 743
 Venezia, Italy, 745
 Volos, Greece, 672

VALPARAISO, CHILE
 (33°02'00"S., 71°38'00"W.) to:

Junction Points*

Panama, Panama, 2,616
 Punta Arenas, Chile, 1,432
 Torres Strait, Australia, 8,123
 Wilson Promontory, Australia (via 30°S.), 7,130
 Wilson Promontory, Australia (via 40°S.), 6,636
 Wilson Promontory, Australia (via 60°S.), 6,031

Ports

Acapulco, Mexico, 3,406
 Antofagasta, Chile, 576
 Apia, Samoa, 5,453
 Apra, Guam, 8,510
 Arica, Chile, 882
 Auckland, New Zealand, 5,247
 Avarua, Cook Islands, 4,632
 Baie du Contreleur, Marquesa Islands, 4,029
 Caldera, Chile, 376
 Callao, Peru, 1,306
 Chanaral, Chile, 417
 Chimbote, Peru, 1,490
 Coquimbo, Chile, 203
 Corinto, Nicaragua, 2,875
 Dagou, China (via Shimonoseki Strait), 10,482
 Dalian, China (via Shimonoseki Strait), 10,324
 Dalian, China (via Tokara Kaikyo), 10,366
 Dutch Harbor, Alaska, U.S.A., 7,140
 Esmeraldas, Ecuador, 2,179
 Guayaquil, Ecuador, 1,980
 Guaymas, Mexico, 4,291
 Hakodate, Japan, 9,197
 Hong Kong, China (direct), 10,218
 Honolulu, Hawaii, U.S.A., 5,919
 Iquique, Chile, 782
 Islas Juan Fernandez, 364
 Jaluit, Marshall Islands, 7,034
 Kobe, Japan, 9,534
 Kodiak, Alaska, U.S.A., 6,803
 Levuka, Fiji Islands, 5,753

Los Angeles, California, U.S.A., 4,808
 Lota, Chile, 268
 Manila, Philippines (direct), 9,710
 Midway Island, Pacific, 7,042
 Monterey, California, U.S.A., 5,060
 Montevideo, Uruguay, 2,740
 Nagasaki, Japan, 9,806
 Nome, Alaska, U.S.A., 7,728
 Noumea, New Caledonia, 6,115
 Pago Pago, American Samoa, 5,378
 Papeete, French Polynesia, 4,254
 Pisco, Peru, 1,207
 Ponape, Caroline Islands, 7,631
 Portland, Oregon, U.S.A., 5,764
 Prince Rupert, Canada, 6,199
 Puerto Montt, Chile, 623
 Puntarenas, Costa Rica, 2,690
 Qingdao, China, 10,274
 Rabaul, Papua New Guinea, 7,461
 Salina Cruz, Mexico, 3,247
 San Diego, California, U.S.A., 4,738
 San Francisco, California, U.S.A., 5,140
 San Jose, Guatemala, 3,024
 Santa Barbara, California, U.S.A., 4,875
 Sasebo, Japan (via Osumi Kaikyo), 9,836
 Seattle, Washington, U.S.A., 5,916
 Seward, Alaska, U.S.A., 6,812
 Shanghai, China, 10,148
 Shimonoseki, Japan, 9,709
 Sitka, Alaska, U.S.A., 6,407
 Suva, Fiji Islands, 5,759
 Sydney, Australia (via 30°S.), 6,986
 Sydney, Australia (via 49°S.), 6,294
 Talcahuano, Chile, 241
 Tocopilla, Chile, 663
 Truk, Caroline Islands (direct), 7,952
 Vladivostok, Russia, 9,606
 Wake Island, Pacific, 7,601
 Wellington, New Zealand, 5,036
 Xiamen, China (via Cook Strait), 10,216
 Yokohama, Japan, 9,280

VANCOUVER, CANADA
 (49°18'00"N., 123°06'00"W.) to:

Junction Points*

Panama, Panama, 4,032
 Punta Arenas, Chile, 6,978
 Singapore, 7,078

Ports

Apia, Samoa, 4,675
 Auckland, New Zealand, 6,191
 Bellingham, Washington, U.S.A., 70
 Dutch Harbor, Alaska, 1,724
 Honolulu, Hawaii, U.S.A., 2,423
 Juneau, Alaska, U.S.A., 761
 Kobe, Japan, 4,541
 Nanaimo, Canada, 35
 Nome, Alaska, U.S.A., 2,304
 Pago Pago, American Samoa, 4,637
 Port Angeles, Washington, U.S.A., 93
 Port Hueneme, California, U.S.A., 1,102
 Portland, Oregon, U.S.A., 371
 Prince Rupert, Canada, 477

San Francisco, California, U.S.A., 812
 Seattle, Washington, U.S.A. (via Haro Strait and Active Pass), 126
 Seattle, Washington, U.S.A. (via Haro Strait and Boundary Pass), 132
 Seward, Alaska, U.S.A., 1,249
 Sitka, Alaska, U.S.A., 823
 Skagway, Alaska, U.S.A., 1,021
 Yokohama, Japan, 4,262

VANCOUVER, WASHINGTON, U.S.A.
 (45°37'35"N., 122°41'18"W.)
 Add 5 miles to Portland, Oregon distances.

VARBERG, SWEDEN
 (57°05'35"N., 12°13'25"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany (via Store Baelt), 193
 Nord-Ostsee-Kanal (East Entrance), Germany (via The Sound), 254
 Skagens Odde, Denmark, 66

Ports

Hango, Finland (via The Sound), 572
 Karlshamn, Sweden, 230
 Karlskrona, Sweden, 240
 Kobenhavn, Denmark, 92
 Odense, Denmark, 130
 Oulu, Finland (via The Sound), 919
 Porvoo, Finland (via The Sound), 666

VARDO, NORWAY
 (70°22'30"N., 31°07'00"E.) to:

Junction Points*

Pentland Firth, Scotland, 1,253
 Skagens Odde, Denmark, 1,287

Ports

Bjornoya, Svalbard, 328
 Longyearbyen, Svalbard, 586
 Rotterdam, Netherlands, 1,513

VARNA, BULGARIA
 (43°11'09"N., 28°00'00"E.) to:

Junction Points*

Port Said, Egypt, 952
 Strait of Gibraltar (south of Greece), 1,986

Ports

Ajaccio, Corsica, 1,360
 Alexandria, Egypt, 871
 Algiers, Algeria, 1,533
 Arbatas, Italy, 1,254
 Banzart, Tunisia, 1,202
 Barcelona, Spain, 1,618
 Kerch, Ukraine, 1,610
 Livorno, Italy, 1,361
 Nice, France, 1,462
 Sibenik, Croatia, 1,140
 Tangier, Morocco, 1,973
 Venezia, Italy, 1,318

* **JUNCTION POINT.**—See Preface for use of junction points

VEJLE, DENMARK
(55°42'15"N., 9°34'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 106
Skagens Odde, Denmark, 189

Ports

Goteborg, Sweden, 176
Kobenhavn, Denmark, 149
Lubeck, Germany, 173

VENICE, ITALY
(45°25'54"N., 12°18'27"E.) See Venezia.

VENEZIA, ITALY
(45°25'54"N., 12°18'27"E.) to:

Junction Points*

Port Said, Egypt, 1,317
Strait of Gibraltar, 1,691

Ports

Ajaccio, Corsica, 1,507
Alexandria, Egypt, 1,208
Algiers, Algeria, 1,264
Alicante, Spain, 1,418
Ancona, Italy, 1,24
Annaba, Algeria, 1,044
Banghazi, Libya, 911
Banzart, Tunisia, 953
Barcelona, Spain, 1,323
Bari, Italy, 329
Beirut, Lebanon, 1,387
Brindisi, Italy, 386
Cagliari, Sardinia, 970
Cartagena, Spain, 1,449
Ceuta, Morocco, 1,672
Dubrovnik, Croatia, 320
Genova, Italy, 1,128
Gibraltar, 1,674
Haifa, Israel, 1,383
Iraklion, Kriti, 872
Istanbul, Turkey (south of Greece), 1,169
Istanbul, Turkey (via Corinth Canal), 1,073
Izmir, Turkey (south of Greece), 1,015
Izmir, Turkey (via Corinth Canal), 919
La Spezia, Italy, 1,093
Livorno, Italy, 1,057
Malaga, Spain, 1,621
Marseille, France, 1,220
Messina, Sicily, 647
Napoli, Italy, 818
Odessa, Ukraine (south of Greece), 1,518
Odessa, Ukraine (via Corinth Canal), 1,421
Oran, Algeria, 1,460
Palermo, Sicily, 763
Palma, Balearic Islands, 1,281
Pescara, Italy, 201
Piraeus Greece (south of Greece), 856
Piraeus Greece (via Corinth Canal), 719
Rijeka, Croatia, 132
Savona, Italy, 1,138
Sayda, Lebanon, 1,382
Sibenik, Croatia, 204
Siracusa, Sicily, 668
Split, Croatia, 221
Tarabulus, Lebanon, 1,399
Tarabulus, Libya, 931

Taranto, Italy, 526
Thessaloniki, Greece (south of Greece), 1,064
Thessaloniki, Greece (via Corinth Canal), 968
Toulon, France, 1,188
Tubruq, Libya, 980
Tunis, Tunisia, 940
Valencia, Spain, 1,406
Valletta, Malta, 745
Volos, Greece (south of Greece), 1,005
Volos, Greece (via Corinth Canal), 909

VENTSPILS, LATVIA
(57°24'00"N., 21°34'00"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 434
Skagens Odde, Denmark, 502

Ports

Gdynia, Poland, 204
Sankt-Peterburg, Russia, 374
Stockholm, Sweden, 174

VERACRUZ, MEXICO
(19°12'00"N., 96°08'00"W.) to:

Junction Points*

Panama, Panama, 1,463
Straits of Florida, 792
Yucatan Channel, 654

Ports

Barranquilla, Colombia, 1,525
Belize, Belize, 862
Brunswick, Georgia, U.S.A., 1,351
Campeche, Mexico, 307
Carmen, Mexico, 242
Cartagena, Colombia, 1,510
Cienfuegos, Cuba, 944
Coatzacoalcos, Mexico, 127
Colon, Panama, 1,420
Galveston, Texas, U.S.A., 623
Guantanamo, Cuba, 1,228
Gulfport, Mississippi, U.S.A., 800
Key West, Florida, U.S.A., 869
Kingston, Jamaica, 1,210
La Guaira, Venezuela, 1,888
La Habana, Cuba, 814
Lake Charles, Louisiana, U.S.A., 688
Limon, Costa Rica, 1,338
Matagorda Bay, Texas, U.S.A. (entrance), 549
Mobile, Alabama, U.S.A., 825
New Orleans, Louisiana, U.S.A., 789
Pensacola, Florida, U.S.A., 831
Port Arthur, Texas, U.S.A., 659
Port of Spain, Trinidad, 2,182
Progreso, Mexico, 401
Puerto Barrios, Guatemala, 985
Puerto Cabello, Venezuela, 1,818
Puerto Cortes, Honduras, 948
San Juan del Norte, Nicaragua (via inside route), 1,271
San Juan, Puerto Rico, 1,780
Santa Marta, Colombia, 1,537
Santo Domingo, Dominican Republic, 1,596
Tampa, Florida, U.S.A., 925
Tampico, Mexico, 218
Tuxpan, Mexico, 134
Willemstad, Curacao, 1,756

VERAVAL, INDIA
(20°53'25"N., 70°21'52"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 4,654
Cape Leeuwin, Australia, 4,233
Selat Lombok, Indonesia, 3,489
Port Said, Egypt, 2,901
Singapore, 2,655
Selat Sunda, Indonesia, 2,879
Torres Strait, Australia, 5,102

Ports

Al Basrah, Iraq, 1,417
Belawan, Indonesia, 2,345
Calcutta, India, 2,002
Colombo, Sri Lanka, 1,115
Karachi, Pakistan, 337
Okha, India, 215
Trincomalee, Sri Lanka, 1,213
Victoria, Seychelles, 1,764

VIANA DO CASTELLO, PORTUGAL
(41°41'15"N., 8°49'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 467
Strait of Gibraltar, 472

Ports

El Ferrol del Caudillo, Spain, 155
Horta, Azores, 935
Lisboa, Portugal, 210

VIAREGGIO, ITALY
(43°51'45"N., 10°14'00"E.) to:

Junction Points*

Port Said, Egypt, 1,716
Strait of Gibraltar, 898

Ports

Civitavecchia, Italy, 480
Marseille, France, 238
Tunis, Tunisia, 778

VICTORIA, CAMEROON
(4°00'12"N., 9°11'33"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 2,399
Ile d'Ouessant, France, 4,126

Ports

Lagos, Nigeria, 410
Matadi, Congo, 770

VICTORIA, CANADA
(48°25'00"N., 123°23'30"W.) to:

Junction Points*

Panama, Panama, 3,962

Ports

Bellingham, Washington, U.S.A., 52
Honolulu, Hawaii, U.S.A., 2,349
Los Angeles, California, U.S.A., 1,091
Nanaimo, Canada, 86

Pago Pago, American Samoa, 4,563
Petersburg, Alaska, U.S.A., 719
Port Angeles, Washington, U.S.A., 20
Prince Rupert, Canada, 531
San Francisco, California, U.S.A., 745
Seattle, Washington, U.S.A., 70
Sweeper Cove, Alaska, U.S.A., 2,044
Wrangell, Alaska, U.S.A., 697
Yokohama, Japan, 4,194

VICTORIA, SABAH
(5°16'30"N., 115°14'30"E.) to:

Junction Points*

Singapore, 757
Selat Sunda, Indonesia, 948
Torres Strait, Australia, 2,192

Ports

Sandakan, Sabah, 412
Zamboanga, Philippines, 563

VICTORIA, SEYCHELLES
(4°36'40"S., 55°29'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa (east of Madagascar), 3,007
Singapore, 3,067

Ports

Aden, Yemen, 1,416
Belawan, Indonesia, 2,734
Bombay, India, 1,749
Colombo, Sri Lanka, 1,652
Diego Garcia, Chagos Archipelago, 1,032
Fremantle, Australia, 3,752
Malacca, Malaysia, 2,952
Mocambique, Mozambique, 1,085
Penang, Malaysia, 2,779
Port Darwin, Australia, 4,494
Port Louis, Mauritius, 943
Sabang, Indonesia, 2,468
Zanzibar, Tanzania, 1,011

VIGO, SPAIN
(42°14'30"N., 8°44'00"W.) to:

Junction Points*

Bishop Rock, England, 484
Ile d'Ouessant, France, 439
Montreal, Canada (via Cape Race), 2,873
Strait of Gibraltar, 504
Straits of Florida, 3,811

Ports

Banjul, Gambia, 1,832
Belem, Brazil, 3,398
Boston, Massachusetts, U.S.A., 2,746
Buenos Aires, Argentina, 5,518
Cadiz, Spain, 463
Cape Town, South Africa, 5,322
Casablanca, Morocco, 545
Colon, Panama, 4,194
Dakar, Senegal, 1,744
Freetown, Sierra Leone, 2,223
Funchal, Madeira Island, 702
Halifax, Canada (via Cape Race), 2,439

* **JUNCTION POINT.**—See Preface for use of junction points

120 VILA REAL DE SANTO ANTONIO, PORTUGAL

Horta, Azores, 938
 Huelva, Spain, 453
 Lisboa, Portugal, 247
 New York, New York, U.S.A., 2,914
 Norfolk, Virginia, U.S.A., 3,099
 Oporto, Portugal, 74
 Philadelphia, Pennsylvania, U.S.A., 3,092
 Ponta Delgada, Azores, 828
 Porto Grande, Cape Verde Islands, 1,737
 Recife, Brazil, 3,346
 Rio de Janeiro, Brazil, 4,418
 San Juan, Puerto Rico, 3,228
 Santa Cruz de Tenerife, Canary Islands, 909
 Tangier, Morocco, 516

VILA REAL DE SANTO ANTONIO, PORTUGAL (37°12'00"N., 7°24'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 836
 Strait of Gibraltar, 113

Ports

Casablanca, Morocco, 218
 Horta, Azores, 1,046

VILLA CISNEROS, WESTERN SAHARA (23°37'00"N., 16°00'00"W.) to:

Junction Points*

Strait of Gibraltar, 923

Ports

Casablanca, Morocco, 769
 Dakar, Senegal, 578
 Porto Grande, Cape Verde Islands, 650

VILLA CONSTITUCION, ARGENTINA (33°13'46"S., 60°19'26"W.) Add 197 miles to Buenos Aires distances.

VILLA DO PORTO, AZORES (36°56'00"N., 25°09'00"W.) to:

Junction Points*

Bishop Rock, England, 1,128
 Strait of Gibraltar, 963

Ports

Lisboa, Portugal, 771
 New York, New York, U.S.A., 2,279

VILLA SAN GIOVANNI, ITALY (38°13'00"N., 15°37'55"E.) to:

Junction Points*

Port Said, Egypt, 944
 Strait of Gibraltar, 1,047

Ports

Napoli, Italy, 173
 Palermo, Sicily, 118
 Taranto, Italy, 287

VILLAGARCIA, SPAIN (42°36'00"N., 8°47'45"W.) to:

Junction Points*

Ile d'Ouessant, France, 433
 Strait of Gibraltar, 526

Ports

Bilbao, Spain, 357
 Horta, Azores, 946
 Lisboa, Portugal, 264

VILLEFRANCHE, FRANCE (43°42'00"N., 7°18'45"E.) to:

Junction Points*

Port Said, Egypt, 1,455
 Strait of Gibraltar, 789

Ports

Ajaccio, Corsica, 138
 Barcelona, Spain, 277
 Genova, Italy, 88
 Livorno, Italy, 133
 Napoli, Italy, 369

VINH CAM RANH, VIETNAM (11°53'00"N., 109°09'00"E.) to:

Junction Points*

Singapore, 786
 Selat Wetar, Indonesia (via Selat Karimata and Selat Sapudi), 2,106

Ports

Apra, Guam, 2,112
 Bangkok, Thailand, 817
 Haiphong, Vietnam, 597
 Hong Kong, China, 707
 Jakarta, Indonesia, 1,103
 Kao-hsiung Kang, Taiwan, 915
 Kobe, Japan, 2,013
 Manila, Philippines, 710
 Port Darwin, Australia, 2,169
 Shanghai, China, 1,520
 Surabaya, Indonesia, 1,251

VISHAKHAPATNAM, INDIA (17°41'00"N., 83°17'00"E.) to:

Ports

Calcutta, India, 458
 Colombo, Sri Lanka, 880
 Madras, India, 332

VITA, CUBA (21°04'45"N., 75°57'08"W.) See Puerto Vita.

VITORIA, BRAZIL (20°19'20"S., 40°20'30"W.) to:

Ports

Baltimore, Maryland, U.S.A., 4,581
 New York, New York, U.S.A., 4,507
 Philadelphia, Pennsylvania, U.S.A., 4,554
 Salvador, Brazil, 477

VLAARDINGEN, NETHERLANDS (51°53'46"N., 4°20'29"E.) See Rotterdam.

VLADIVOSTOK, RUSSIA (43°06'30"N., 131°53'00"E.) to:

Junction Points*

Panama, Panama (via La Perouse Strait and north of Aleutian Islands), 7,757
 Panama, Panama (via La Perouse Strait and south of the Aleutian Islands), 7,741
 Panama, Panama (via Tsugaru-Kaikyo), 7,833
 Singapore, 3,004
 Selat Sunda, Indonesia, 3,357
 Selat Wetar, Indonesia (via Selat Manipa), 3,133

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 713
 Apra, Guam (via Shimonoseki Kaikyo), 2,019
 Apra, Guam (via Tsugaru-Kaikyo), 2,155
 Auckland, New Zealand, 5,516
 Bangkok, Thailand (outer bar), 3,035
 Bukhta Shelikhova, Kuril Islands, Russia, 1,121
 Busan, South Korea, 514
 Cebu, Philippines, 2,026
 Changjon, North Korea, 319
 Chongjin, North Korea, 135
 Dagu, China, 1,212
 Dalian, China, 1,057
 Dutch Harbor, Alaska, U.S.A., 2,518
 Guayaquil, Ecuador, 8,044
 Hakodate, Japan, 437
 Higashi-Iwase, Japan, 471
 Ho Chi Minh, Vietnam, 2,501
 Hong Kong, China, 1,646
 Honolulu, Hawaii, U.S.A. (via Tsugaru-Kaikyo), 3,725
 Iloilo, Philippines, 2,048
 Incheon, South Korea (via Maemut Sudo), 911
 Jakarta, Indonesia, 3,338
 Kimchaek, North Korea, 206
 Kobe, Japan, 805
 Kodiak, Alaska, U.S.A., 3,105
 Kushiro, Japan, 624
 Lo hsing-ta Mao-ti, China, 1,264
 Los Angeles, California, U.S.A., 4,981
 Maizuru, Japan, 485
 Manila, Philippines, 1,912
 Masan, South Korea, 542
 Matsuga-hana, Japan (via Tsugaru-Kaikyo), 730
 Midway Island, Pacific, 2,612
 Mogpo, South Korea, 726
 Nagasaki, Japan, 657
 Nampo, North Korea (via Changjuk Sudo), 997
 Nanao, Japan, 460
 Niigata, Japan, 453
 Noumea, New Caledonia, 4,590
 Osaka, Japan, 815
 Pago Pago, American Samoa, 4,739
 Papeete, French Polynesia, 5,663
 Petropavlovsk-Kamchatskiy, Russia, 1,348
 Port Darwin, Australia, 3,426
 Portland, Oregon, U.S.A. (via La

Perouse Strait and north of Aleutian Islands), 4,278
 Qingdao, China, 998
 Qinhuangdao, China (via Maenggol Sudo), 1,151
 Rumoi, Japan, 452
 Sakata, Japan, 442
 San Diego, California, U.S.A., 5,062
 San Francisco, California, U.S.A. (via La Perouse Strait and Proliv Kruzenshterna), 4,563
 San Francisco, California, U.S.A. (via La Perouse Strait and Unimak Pass), 4,570
 San Francisco, California, U.S.A. (via Tsugaru-Kaikyo), 4,664
 Seattle, Washington, U.S.A. (north of Aleutian Islands), 4,210
 Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and south of Aleutian Islands), 4,396
 Shanghai, China (north of Cheju Do), 998
 Shanghai, China (south of Cheju Do), 997
 Shimonoseki, Japan, 565
 Sitka, Alaska, U.S.A., 3,585
 Sovetskaya Gavan', Russia, 593
 Surabaya, Indonesia, 3,357
 Suva, Fiji Islands, 4,626
 Sydney, Australia, 5,105
 Tomari, Japan, 724
 Truk, Caroline Islands, 2,593
 Tsuruga, Japan, 490
 Ulsan, South Korea, 486
 Valparaiso, Chile, 9,606
 Wake Island, Pacific, 2,305
 Weihai, China (via Maenggol Sudo), 975
 Weonsan, North Korea, 324
 Wotje Island, Marshall Islands, 2,928
 Xiamen, China, 1,393
 Yantai, China (via Maenggol Sudo), 1,009
 Yokohama, Japan, 952

VLISINGEN, NETHERLANDS (51°26'30"N., 3°36'00"E.) Subtract 47 miles from Antwerp, Belgium distances.

VLORES, ALBANIA (40°26'30"N., 19°28'30"E.) to:

Junction Points*

Port Said, Egypt, 973
 Strait of Gibraltar, 1,311

Ports

Piraeus, Greece (via Corinth Canal), 295
 Split, Croatia, 252
 Taranto, Italy, 146

VOLOS, GREECE (39°21'25"N., 22°56'37"E.) to:

Junction Points*

Port Said, Egypt, 683
 Strait of Gibraltar, 1,657

Ports

Ajaccio, Corsica (south of Greece), 1,056
 Ajaccio, Corsica (via Corinth

* JUNCTION POINT.—See Preface for use of junction points

WARRENPOINT, NORTHERN IRELAND 121

Canal), 1,014
 Alexandria, Egypt, 620
 Alexandroupolis, Greece, 205
 Algiers, Algeria, 1,228
 Alicante, Spain, 1,395
 Ancona, Italy (south of Greece), 894
 Ancona, Italy (via Corinth Canal), 798
 Annaba, Algeria, 1,004
 Banghazi, Libya, 552
 Banzart, Tunisia, 899
 Barcelona, Spain (south of Greece), 1,322
 Barcelona, Spain (via Corinth Canal), 1,280
 Bari, Italy (south of Greece), 687
 Bari, Italy (via Corinth Canal), 591
 Beirut, Lebanon, 725
 Brindisi, Italy (south of Greece), 629
 Brindisi, Italy (via Corinth Canal), 533
 Cagliari, Sardinia (south of Greece), 969
 Cagliari, Sardinia (via Corinth Canal), 927
 Cartagena, Spain, 1,420
 Ceuta, Morocco, 1,637
 Genova, Italy (south of Greece), 1,127
 Genova, Italy (via Corinth Canal), 1,085
 Gibraltar, 1,640
 Haifa, Israel, 728
 Iraklion, Kriti, 292
 Istanbul, Turkey, 329
 Izmir, Turkey, 226
 Kavala, Greece, 162
 Khalkis, Greece, 88
 La Spezia, Italy (south of Greece), 1,091
 La Spezia, Italy (via Corinth Canal), 1,050
 Livorno, Italy (south of Greece), 1,056
 Livorno, Italy (via Corinth Canal), 1,014
 Malaga, Spain, 1,587
 Marseille, France (south of Greece), 1,219
 Marseille, France (via Corinth Canal), 1,177
 Messina, Sicily (south of Greece), 645
 Messina, Sicily (via Corinth Canal), 604
 Napoli, Italy (south of Greece), 817
 Napoli, Italy (via Corinth Canal), 775
 Odessa, Ukraine, 677
 Oran, Algeria, 1,426
 Palermo, Sicily (south of Greece), 761
 Palermo, Sicily (via Corinth Canal), 720
 Palma, Balearic Islands (south of Greece), 1,280
 Palma, Balearic Islands (via Corinth Canal), 1,238
 Piraeus, Greece, 200
 Rijeka, Croatia (south of Greece), 964
 Rijeka, Croatia (via Corinth Canal), 865
 Savona, Italy (south of Greece), 1,137
 Savona, Italy (via Corinth Canal), 1,096
 Sibenik, Croatia (south of Greece), 836
 Sibenik, Croatia (via Corinth

Canal), 737
 Siracusa, Sicily (south of Greece), 634
 Siracusa, Sicily (via Corinth Canal), 608
 Split, Croatia (south of Greece), 821
 Split, Croatia (via Corinth Canal), 722
 Tarabulus, Libya, 789
 Taranto, Italy (south of Greece), 642
 Taranto, Italy (via Corinth Canal), 553
 Thessaloniki, Greece, 132
 Toulon, France (south of Greece), 1,187
 Toulon, France (via Corinth Canal), 1,145
 Trieste, Italy, 997
 Tunis, Tunisia, 886
 Valencia, Spain (south of Greece), 1,393
 Valencia, Spain (via Corinth Canal), 1,364
 Valletta, Malta, 672
 Venezia, Italy (south of Greece), 1,005
 Venezia, Italy (via Corinth Canal), 909

VUNG TAU, VIETNAM
 (10°20'30"N., 107°04'00"E.)
 Subtract 45 1/2 miles from Ho Chi Minh distances.

VYBORG, RUSSIA
 (60°42'30"N., 28°44'00"E.) Add 6 3/4 miles to Vysotsk distances.

VYSOTSK, RUSSIA
 (60°38'00"N., 28°34'00"E.) to:

Junction Points*

Skagens Odde, Denmark (via Store Baelt), 923
 Skagens Odde, Denmark (via The Sound), 803

Ports

Kotka, Finland, 69
 Oslo, Norway (via Store Baelt), 1,047

WADI FEIRAN, EGYPT
 (28°44'30"N., 33°12'36"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,138
 Cape Leeuwin, Australia, 6,173
 Port Said, Egypt, 172
 Singapore, 4,851
 Selat Sunda, Indonesia, 5,045
 Torres Strait, Australia, 7,211

Ports

Aden, Yemen, 1,231
 Assab, Ethiopia, 1,095
 Bombay, India, 2,883
 Calcutta, India, 4,528
 Colombo, Sri Lanka, 3,318
 Massawa, Ethiopia, 897

WAKAMATSU, JAPAN
 (33°55'00"N., 130°49'00"E.) to:

Ports

Busan, South Korea, 120
 Kure, Japan, 125
 Maizuru, Japan, 299
 Sasebo, Japan, 136
 Shanghai, China, 541

WAKAYAMA, JAPAN
 (34°08'33"N., 135°09'52"E.) to:

Junction Points*

Selat Lombok, Indonesia (via south of Mindanao), 2,889
 Panama, Panama, 7,926
 Punta Arenas, Chile, 9,391
 Singapore, 2,660
 Selat Sunda, Indonesia, 3,004

Ports

Aomori, Japan, 813
 Hiroshima, Japan, 192
 Iwakuni, Japan, 182
 Kobe, Japan, 34
 Ube, Japan, 239
 Yokohama, Japan, 327

WAKE ISLAND, PACIFIC
 (19°18'00"N., 166°35'00"E.) to:

Junction Points*

Panama, Panama, 6,673
 Singapore, 3,885

Ports

Apra, Guam, 1,334
 Auckland, New Zealand, 3,409
 Canton, Phoenix Islands, 1,843
 Dutch Harbor, Alaska, U.S.A., 2,463
 Guayaquil, Ecuador, 6,843
 Ho Chi Minh, Vietnam (via San Bernardino Strait), 3,580
 Hong Kong, China, 2,940
 Honolulu, Hawaii, U.S.A., 2,004
 Howland Island, 1,485
 Jaluit, Marshall Islands, 831
 Kodiak, Alaska, U.S.A., 2,961
 Koniya, Ryukyu Islands, 2,107
 Manila, Philippines, 2,772
 Midway Island, 1,034
 Noumea, New Caledonia, 2,551
 Pago Pago, American Samoa, 2,436
 Papeete, French Polynesia, 3,401
 Port Darwin, Australia, 3,187
 Qingdao, China, 2,674
 San Diego, California, U.S.A., 4,112
 San Francisco, California, U.S.A., 3,821
 Seattle, Washington, U.S.A., 3,820
 Shanghai, China, 2,550
 Sitka, Alaska, U.S.A., 3,405
 Surabaya, Indonesia, 3,641
 Suva, Fiji Islands, 2,501
 Sydney, Australia, 3,346
 Truk, Caroline Islands, 1,117
 Valparaiso, Chile, 7,601
 Vladivostok, Russia, 2,305
 Yokohama, Japan, 1,740

WAKKANAI, JAPAN
 (45°25'00"N., 141°41'20"E.) to:

Ports

Bukhta Shelikhova, Kuril Islands, Russia, 643
 Kasatka, Japan, 310
 Matsuga-hana, Japan, 294
 Tomari, Japan, 246

WALLAROO, AUSTRALIA
 (33°55'00"S., 137°36'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,153
 Singapore, 3,500

Ports

Noumea, New Caledonia, 2,099
 Rabaul, Papua New Guinea, 2,911
 Sydney, Australia, 1,084

WALVISBAAI, NAMIBIA
 (22°57'00"S., 14°29'45"E.) to:

Ports

Baltimore, Maryland, U.S.A., 6,385
 Boston, Massachusetts, U.S.A., 6,131
 Luderitz Bay, Namibia, 240
 Mocamedes, Angola, 518
 New York, New York, U.S.A., 6,228
 Philadelphia, Pennsylvania, U.S.A., 6,318

WANGANUI, NEW ZEALAND
 (39°57'15"S., 174°58'35"E.) to:

Junction Points*

Panama, Panama (via Cook Strait), 6,628
 Punta Arenas, Chile (via Cook Strait), 4,610
 Torres Strait, Australia, 2,577
 Wilson Promontory, Australia, 1,326

Ports

Auckland, New Zealand, 602
 Bluff Harbor, New Zealand, 547
 Honolulu, Hawaii, U.S.A., 3,798
 Launceston, Tasmania (via Banks Strait), 1,304
 Port Kembla, Australia, 1,183
 Suva, Fiji Islands, 1,412
 Sydney, Australia, 1,189
 Yokohama, Japan, 4,965

WARNEMUNDE, GERMANY
 (54°11'00"N., 12°05'30"E.)
 Subtract 7 miles from Rostock distances.

WARRENPOINT, NORTHERN IRELAND
 (54°05'50"N., 6°15'10"W.) to:

Junction Points*

Bishop Rock, England, 273
 Fastnet Rock, Ireland, 262
 Inishtrahull, Ireland, 161

Ports

Ardrossan, Scotland, 146
 Avonmouth, England, 201

* **JUNCTION POINT.**—See Preface for use of junction points

122 WASHINGTON, DISTRICT OF COLUMBIA, U.S.A.

Cardiff, Wales, 287
Port Talbot, Wales, 265
Stornoway, Scotland, 353

WASHINGTON, DISTRICT OF COLUMBIA, U.S.A.
(38°52'30"N., 77°01'30"W.) to:**Junction Points***

Bishop Rock, England, 3,243
Fastnet Rock, Ireland, 3,137
Inishtrahull, Ireland, 3,235
Panama, Panama, 1,957
Pentland Firth, Scotland, 3,415
Strait of Gibraltar, 3,471

Ports

Bordeaux, France, 3,558
Cartagena, Colombia (via
Windward Passage and Crooked
Island Passage), 1,794
Hamilton, Bermuda, 806
Recife, Brazil, 3,787

WATERFORD, IRELAND
(52°15'50"N., 7°07'00"W.) to:**Junction Points***

Bishop Rock, England, 137
Fastnet Rock, Ireland, 110
Inishtrahull, Ireland, 276

Ports

Dublin, Ireland, 113
Liverpool, England, 189

WEI HAI WEI, CHINA
(37°30'00"N., 122°08'30"E.) See
Weihai, China.**WEIHAI, CHINA**
(37°30'00"N., 122°08'30"E.) to:**Junction Points***

Singapore, 2,548

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 1,579
Apra, Guam (via Tokara Kaikyo),
1,901
Busan, South Korea, 474
Cebu, Philippines, 1,679
Dagu, China, 237
Hakodate, Japan, 1,169
Hong Kong, China, 1,190
Honolulu, Hawaii, U.S.A. (via
Osumi Kaikyo), 4,449
Iloilo, Philippines, 1,701
Incheon, South Korea, 238
Jakarta, Indonesia, 2,860
Kobe, Japan, 806
Lo hsing-ta Mao-ti, China, 801
Manila, Philippines (east of
Taiwan), 1,498
Manila, Philippines (via Formosa
Strait), 1,508
Mogpo, South Korea (via south of
Kasa Do), 308
Nagasaki, Japan, 526
Nampo, North Korea, 172
Petrovsk-Kamchatskiy,
Russia, 2,192
Qingdao, China, 205
Qinhuangdao, China, 191
San Francisco, California, U.S.A.

(via Osumi Kaikyo), 5,625
San Francisco, California, U.S.A.
(via Tsugaru-Kaikyo), 5,402
Seattle, Washington, U.S.A. (via
La Perouse Strait, Chetverty
Kuril'skiy Proliv and Unimak
Pass), 5,054
Seattle, Washington, U.S.A. (via
Tsugaru-Kaikyo and composite
route), 5,119
Seattle, Washington, U.S.A. (via
Tsugaru-Kaikyo and Unimak
Pass), 5,059
Shanghai, China (via South
Channel), 483
Shimonoseki, Japan, 562
Vladivostok, Russia, 975
Weonsan, North Korea (via
Maenggol Sudo), 779
Xiamen, China, 931
Yokohama, Japan (via Bungo
Suido and Shimonoseki
Kaikyo), 1,106

WEIPA, AUSTRALIA
(12°42'00"S., 141°41'00"E.) Add
19 miles to Albatross Bay
distances.**WELLINGTON, NEW ZEALAND**
(41°17'00"S., 174°47'00"E.) to:**Junction Points***

Cape Leeuwin, Australia, 2,863
Panama, Panama, 6,505
Punta Arenas, Chile (via 49°S.),
4,639
Punta Arenas, Chile (via 50°S.),
4,634
Torres Strait, Australia, 2,683
Wilson Promontory, Australia,
1,338
Ports
Aden, Yemen (south of Chagos
Archipelago and Tasmania),
7,814
Albany, Australia (via south of
Tasmania), 2,729
Apia, Samoa, 1,872
Auckland, New Zealand, 563
Avarua, Cook Islands, 1,804
Bluff Harbor, New Zealand, 455
Brisbane, Australia, 1,453
Cairns Harbor, Australia, 2,122
Callao, Peru, 5,721
Chimbote, Peru, 5,781
Fanning Island, 3,114
Gladstone Harbor, Australia, 1,678
Hobart, Tasmania, 1,288
Honolulu, Hawaii, U.S.A., 4,113
Kiama Harbor, Australia, 1,213
Lac, Papua New Guinea, 2,635
Launceston, Tasmania, 1,326
Lautoka Harbor, Fiji Islands, 1,554
Los Angeles, California, U.S.A.,
5,857
Lucinda, Australia, 2,102
Lyttelton, New Zealand, 174
Pago Pago, American Samoa,
1,848
Papeete, French Polynesia, 2,348
Port Kembla, Australia, 1,229
Port Louis, Mauritius, 5,900
Portland, Oregon, U.S.A., 6,327
Rockhampton, Australia, 1,685
Salina Cruz, Mexico, 6,061
San Francisco, California U.S.A.,
5,905

Seattle, Washington, U.S.A., 6,433
Suva, Fiji Islands, 1,476
Sydney, Australia, 1,234
Urangan, Australia, 1,581
Valparaiso, Chile (via 49°S),
5,066
Yokohama, Japan, 5,041

WENZHO, CHINA
(28°01'45"N., 120°40'00"E.) to:**Ports**

Chi-lung, Taiwan, 204
Hong Kong, China, 595
Incheon, South Korea, 723
Qingdao, China, 623
Shanghai, China, 365

WEONSAN, NORTH KOREA
(39°10'00"N., 127°26'30"E.) to:**Junction Points***

Panama, Panama, 8,038
Singapore, 2,808
Selat Sunda, Indonesia, 3,161
Selat Wetar, Indonesia (via
Molucca Passage and Selat
Manipa), 3,100

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 972
Bangkok, Thailand (outer bar),
2,885
Busan, South Korea, 308
Dagu, China, 1,007
Dalian, China (via Maenggol
Sudo), 848
Hakodate, Japan, 638
Ho Chi Minh, Vietnam, 2,305
Hong Kong, China, 1,450
Honolulu, Hawaii, U.S.A. (via
Tsugaru-Kaikyo), 3,933
Incheon, South Korea (via
Maenggol Sudo), 707
Jakarta, Indonesia, 3,142
Lo hsing-ta Mao-ti, China, 1,068
Los Angeles, California, U.S.A.,
5,181
Manila, Philippines, 1,708
Mogpo, South Korea (via
Maenggol Sudo), 530
Nagasaki, Japan, 452
Nampo, North Korea (via
Maenggol Sudo), 801
Osaka, Japan, 627
Pago Pago, American Samoa (via
Bungo Suido), 4,816
Petrovsk-Kamchatskiy,
Russia, 1,609
Port Darwin, Australia (via
Molucca Passage), 3,242
Qingdao, China, 802
Qinhuangdao, China, 955
San Francisco, California, U.S.A.,
4,866
Seattle, Washington, U.S.A. (via
Tsugaru-Kaikyo and 50°N.),
4,601
Shanghai, China (north of Cheju
Do and via South Channel), 797
Tongyeong, South Korea, 358
Vladivostok, Russia, 324
Weihai, China (via Maenggol
Sudo), 779
Xiamen, China, 1,191
Yantai, China, 813
Yokohama, Japan (via Bungo
Suido), 921

WHANGAREI, NEW ZEALAND
(35°53'20"S., 174°33'00"E.) to:**Junction Points***

Panama, Panama, 6,579
Punta Arenas, Chile (via 50°S.),
4,713
Torres Strait, Australia, 2,511
Wilson Promontory, Australia,
1,457

Ports

Auckland, New Zealand, 83
Brisbane, Australia, 1,311
Hobart, Tasmania (via north of
New Zealand), 1,473
Sydney, Australia (via north of
New Zealand), 1,228
Yokohama, Japan, 4,903

WHAMPOA, CHINA
(23°05'42"N., 113°26'30"E.) See
Huangpu, China.**WHIDDY ISLAND OIL TERMINAL, IRELAND**
(51°41'14"N., 9°31'54"W.) See
Bantry Bay.**WHITEHAVEN, ENGLAND**
(54°33'02"N., 3°35'59"W.) to:**Junction Points***

Bishop Rock, England, 315
Fastnet Rock, Ireland, 309
Inishtrahull, Ireland, 158

Ports

Belfast, Northern Ireland, 85
Cardiff, Wales, 293
Cobh, Ireland, 254
Dublin, Ireland, 124
Fishguard, Wales, 165
Glasgow, Scotland, 143
Liverpool, England, 82
Waterford, Ireland, 202

WHITTIER, ALASKA, U.S.A.
(60°46'48"N., 148°39'36"W.) to:**Junction Points***

Panama, Panama, 4,958

Ports

Dutch Harbor, Alaska, U.S.A., 817
Honolulu, Hawaii, U.S.A., 2,474
Ketchikan, Alaska, U.S.A., 1,839
Seattle, Washington, U.S.A., 1,241
Wrangell, Alaska, U.S.A., 642
Yakutat, Alaska, U.S.A., 295

WHYALLA, AUSTRALIA
(33°01'15"S., 137°36'00"E.) to:**Junction Points***

Selat Lombok, Indonesia, 2,782
Singapore, 3,546

Ports

Melbourne, Australia, 665
Port Adelaide, Australia, 245
Rabaul, Papua New Guinea, 2,957

* **JUNCTION POINT.**—See Preface for use of junction points

WILHELMSHAVEN, GERMANY

(53°31'00"N., 8°08'30"E.) to:

Junction Points*

Bishop Rock, England, 651
 Ile d'Ouessant, France, 639
 Nord-Ostsee-Kanal (East Entrance), Germany, 126
 Pentland Firth, Scotland, 501
 Skagens Odde, Denmark, 314

Ports

Aberdeen, Scotland, 419
 Amsterdam, Netherlands, 210
 Antwerp, Belgium, 324
 Bergen, Norway, 441
 Cherbourg, France, 472
 Dover, England, 328
 Dundee, Scotland, 430
 Dunkerque, France, 308
 Egersund, Norway, 306
 Emden, Germany, 120
 Esbjerg, Denmark, 129
 Hamburg, Germany, 111
 Hartlepool, England, 348
 Harwich, England, 296
 Hull, England, 323
 Inverness, Scotland, 508
 Kristiansand, Norway, 286
 Le Havre, France, 440
 Leith, Scotland, 435
 London, England, 362
 Newcastle, England, 367
 Oostende, Belgium, 286
 Oslo, Norway, 421
 Plymouth, England, 55
 Portland, England, 483
 Portsmouth, England, 433
 Rotterdam, Netherlands, 243
 Southampton, England, 451
 Stavanger, Norway, 360
 Zeebrugge, Belgium, 274

WILLEMSTAD, CURACAO
(12°07'00"N., 68°56'00"W.) to:**Junction Points***

Bishop Rock, England, 3,797
 Fastnet Rock, Ireland, 3,708
 Ile d'Ouessant, France, 3,821
 Montreal, Canada (via Cabot Strait), 2,866
 Panama, Panama, 742
 Strait of Gibraltar, 3,685
 Straits of Florida (via Windward Passage), 1,184
 Yucatan Channel, 1,094

Ports

Bahia de las Calderas, Dominican Republic, 392
 Baltimore, Maryland, U.S.A., 1,733
 Barahona, Dominican Republic, 395
 Barranquilla, Colombia, 389
 Belize, Belize, 1,178
 Boston, Massachusetts, U.S.A. (via Mona Passage), 1,881
 Campeche, Mexico, 1,527
 Cap-Haitien, Haiti (via Mona Passage), 674
 Cap-Haitien, Haiti (via Windward Passage), 697
 Cape Town, South Africa, 5,811
 Carmen, Mexico, 1,599
 Cartagena, Colombia, 471
 Charleston, South Carolina, U.S.A.

(via Windward Passage), 1,446
 Charleston, South Carolina, U.S.A. (via Mona Passage), 1,472
 Charlotte Amalie, Virgin Islands, 457
 Cienfuegos, Cuba, 900
 Colon, Panama, 698
 Fort de France, Martinique, 495
 Guantanamo, Cuba, 595
 Horta, Azores, 2,683
 Isabel Segunda, Isla de Vieques, 446

Key West, Florida, U.S.A. (via Old Bahama Channel), 1,134
 La Guaira, Venezuela, 150
 La Habana, Cuba, 1,144
 La Romana, Dominican Republic, 391

Lagos, Nigeria, 4,359
 Manzanillo, Cuba, 746
 Maracaibo, Venezuela, 222
 New York, New York, U.S.A., 1,771

Norfolk, Virginia, U.S.A., 1,611
 Paramaribo, Suriname, 955
 Philadelphia, Pennsylvania, U.S.A. (via Mona Passage), 1,762
 Pointe a Pitre, Guadeloupe, 517
 Ponce, Puerto Rico, 399
 Port au Prince, Haiti, 647
 Port Castries, St. Lucia, 489
 Port of Spain, Trinidad, 456
 Portland, Maine, U.S.A., 1,921
 Puerto Cabello, Venezuela, 116
 Rio Haina, Dominican Republic, 394

Roosevelt Roads, Puerto Rico, 440
 San Juan del Norte, Nicaragua, 882

San Juan, Puerto Rico (west end of Curacao, and via Mona Passage), 486

Santiago de Cuba, Cuba, 627
 Santo Domingo, Dominican Republic, 397
 Savannah, Georgia, U.S.A., 1,444
 Takoradi, Ghana, 4,040
 Turiamo, Venezuela, 124
 Tuxpan, Mexico, 1,786
 Veracruz, Mexico, 1,756

WILMINGTON, DELAWARE, U.S.A.

(39°43'12"N., 75°31'30"W.)

Subtract 26 miles from Philadelphia distances.

WILMINGTON, NORTH CAROLINA, U.S.A.

(34°14'00"N., 77°57'00"W.) to:

Junction Points*

Bishop Rock, England, 3,304
 Fastnet Rock, Ireland, 2,942
 Inishtrahull, Ireland, 3,046
 Panama, Panama (via Crooked Island Passage), 1,656
 Pentland Firth, Scotland, 3,473
 Punta Arenas, Chile (via east of South America), 6,881
 Strait of Gibraltar, 3,538
 Straits of Florida, 761

Ports

Bordeaux, France, 3,616
 Buenos Aires, Argentina, 5,805
 Cape Town, South Africa, 6,804
 Cartagena, Colombia, 1,494
 Colon, Panama (via Crooked Island Passage), 1,613
 Georgetown, Guyana, 2,011

Halifax, Canada, 1,016
 Hamilton, Bermuda, 746
 Kingston, Jamaica (via Crooked Island Passage), 1,115
 La Habana, Cuba, 767
 Limon, Costa Rica, 1,688
 Montevideo, Uruguay, 5,691
 Nassau, Bahamas, 561
 Paramaribo, Suriname, 2,148
 Port of Spain, Trinidad, 1,703
 Porto Grande, Cape Verde Islands, 3,057
 Rio de Janeiro, Brazil, 4,704
 Salvador, Brazil, 4,023
 San Juan, Puerto Rico, 1,153
 Santiago de Cuba, Cuba, 1,003
 Santo Domingo, Dominican Republic, 1,210

WILSON PROMONTORY, AUSTRALIA*

(39°10'00"S., 146°26'00"E.) to:

Junction Points*

Cape of Good Hope, South Africa, 5,530
 Cape Leeuwin, Australia, 1,524
 Honshu, Japan, 4,881
 Panama, Panama (via Cook Strait), 7,818
 Panama, Panama (via Foveaux Strait), 7,770
 Punta Arenas, Chile (via Foveaux Strait and 49°S.), 5,820
 Punta Arenas, Chile (via 60°S. and south of Steward Island), 5,305
 Torres Strait, Australia (via Capricorn Channel and inner route), 2,193

Ports

Auckland, New Zealand, 1,503
 Bluff Harbor, New Zealand, 1,133
 Brisbane, Australia, 931
 Burnie Harbor, Australia, 116
 Cairns Harbor, Australia, 1,649
 Callao, Peru (via 49°S.), 6,939
 Honolulu, Hawaii, U.S.A., 4,792
 Kiama Harbor, Australia, 379
 Lautoka Harbor, Fiji Islands, 2,070
 Los Angeles, California, U.S.A., 6,879
 Lucinda, Australia, 1,621
 Melbourne, Australia, 154
 Pago Pago, American Samoa, 2,707
 Papeete, French Polynesia, 3,346
 Port Adelaide, Australia, 537
 Portland, Oregon, U.S.A., 7,121
 Rockhampton, Australia, 1,213
 San Diego, California, U.S.A., 6,873
 San Francisco, California, U.S.A., 6,820
 Seattle, Washington, U.S.A., 7,185
 Suva, Fiji Islands, 2,088
 Sydney, Australia, 440
 Townsville, Australia, 1,499
 Urangan, Australia, 1,100
 Valparaiso, Chile (via 60°S.), 6,031
 Wellington, New Zealand, 1,338

WISMAR, GERMANY

(53°54'30"N., 11°26'30"E.) to:

Junction Points*

Nord-Ostsee-Kanal (East Entrance), Germany, 84
 Skagens Odde, Denmark, 281

Ports

Kobenhavn, Denmark, 132
 Liepaja, Latvia, 379
 Stockholm, Sweden, 101

WOMENS BAY, ALASKA, U.S.A.

(57°42'30"N., 152°31'30"W.) Via north of Woody Island. Add 6 miles to Kodiak distances.

WONSAN, NORTH KOREA

(39°10'00"N., 127°26'00"E.) See Weonsan, North Korea.

WOTHO, MARSHALL ISLANDS

(10°09'00"N., 165°56'00"E.) to:

Junction Points*

Panama, Panama, 4,882
 Singapore, 3,614

Ports

Apra, Guam, 1,294
 Honolulu, Hawaii, U.S.A., 2,187

WOTJE ISLAND, MARSHALL ISLANDS

(9°27'00"N., 170°14'00"E.) to:

Ports

Apra, Guam, 1,547
 Honolulu, Hawaii, U.S.A., 1,992
 Manila, Philippines, 3,027
 Noumea, New Caledonia, 1,972
 Pago Pago, American Samoa, 1,856
 Suva, Fiji Islands, 1,880
 Vladivostok, Russia, 2,928
 Yokohama, Japan, 2,318

WRANGELL, ALASKA, U.S.A.

(56°28'00"N., 132°25'00"W.) to:

Ports

Seattle, Washington, U.S.A., 713
 Sitka, Alaska, U.S.A., 170
 Skagway, Alaska, U.S.A., 231
 Victoria, Canada, 697
 Whittier, Alaska, U.S.A., 642

WU-HU, CHINA

(31°20'00"N., 118°21'00"E.) See Wuhu, China.

WU-SUNG, CHINA

(31°23'30"N., 121°30'30"E.) See Wusong, China.

WUHU, CHINA

(31°20'00"N., 118°21'00"E.) Add 227 miles to Shanghai distances or ports outside the Chang Chiang (Yangtze River).

WUSONG, CHINA

(31°23'30"N., 121°30'30"E.) Subtract 14 miles from Shanghai distances.

WYNDHAM, AUSTRALIA

(15°27'30"S., 128°06'00"E.) to:

Junction Points*

Selat Wetar, Indonesia, 431

* JUNCTION POINT.—See Preface for use of junction points

124 XIAMEN, CHINA

<p>Ports</p> <p>Fremantle, Australia, 1,780 Port Darwin, Australia, 274</p> <p>XIAMEN, CHINA (24°27'00"N., 118°04'00"E.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 8,941 Punta Arenas, Chile (via Viti- Strait), 9,665 Singapore, 1,649 Torres Strait, Australia, 2,655</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia, 1,991 Apra, Guam, 1,669 Auckland, New Zealand, 4,990 Busan, South Korea, 885 Cebu, Philippines (via Balintang Channel), 965 Chi-lung, Taiwan, 227 Dagu, China, 1,169 Dalian, China, 1,008 Dutch Harbor, Alaska, U.S.A. (via La Perouse Strait), 3,771 Dutch Harbor, Alaska, U.S.A. (via Tsugaru Strait), 3,770 Hakodate, Japan, 1,559 Hong Kong, China, 290 Honolulu, Hawaii, U.S.A., 4,592 Iloilo, Philippines, 987 Incheon, South Korea, 943 Jakarta, Indonesia, 1,971 Kobe, Japan, 1,117 Lo hsing-ta, Mao-ti, China, 200 Manila, Philippines, 662 Mogpo, South Korea, 790 Nagasaki, Japan, 810 Nampo, North Korea, 1,004 Nikolayevsk-Na-Amure, Russia (via South Channel), 2,138 Noumea, New Caledonia, 4,031 Pago Pago, American Samoa, 4,819 Papeete, French Polynesia, 6,001 Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait), 2,596 Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 2,617 Port Darwin, Australia, 2,411 Qinhuangdao, China, 1,114 Rabaul, Papua New Guinea, 2,659 San Francisco, California, U.S.A. (via Osumi Kaikyo), 5,797 San Francisco, California, U.S.A. (via Tsugaru-Kaikyo), 5,788 Seattle, Washington, U.S.A. (via La Perouse Strait and north of Aleutian Islands), 5,463 Seattle, Washington, U.S.A. (via Osumi Kaikyo and south of Aleutian Islands), 5,537 Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and north of Aleutian Islands), 5,464 Seattle, Washington, U.S.A. (via Tsugaru-Kaikyo and south of Aleutian Islands), 5,524 Shanghai, China, 603 Shimonoseki, Japan, 920 Surabaya, Indonesia, 2,121 Suva, Fiji Islands, 4,389 Sydney, Australia (via Viti- Strait), 4,437 Valparaiso, Chile (via Cook</p>	<p>Strait), 10,216 Vladivostok, Russia, 1,393 Weihai, China, 931 Weonsan, North Korea, 1,191 Yantai, China, 978 Yokohama, Japan (via Osumi Kaikyo), 1,335</p> <p>YABUCOA, PUERTO RICO (18°02'36"N., 65°48'34"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,018 Straits of Florida, 1,068</p> <p>Ports</p> <p>Baltimore, Maryland, U.S.A., 1,475 Key West, Florida, U.S.A., 1,017 La Habana, Cuba, 1,029 Savannah, Georgia, U.S.A., 1,228 Willemstad, Curacao, 418</p> <p>YAKUTAT, ALASKA, U.S.A. (59°33'00"N., 139°45'00"W.) to:</p> <p>Ports</p> <p>Seattle, Washington, U.S.A., 998 Seward, Alaska, U.S.A., 312 Sitka, Alaska, U.S.A., 231 Valdez, Alaska, U.S.A., 287 Whittier, Alaska, U.S.A., 295</p> <p>YALTA, RUSSIA (44°28'55"N., 34°10'20"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Egypt, 1,340 Strait of Gibraltar (via Corinth Canal), 3,992 Strait of Gibraltar (south of Greece), 4,052</p> <p>Ports</p> <p>Alexandria, Egypt, 1,062 Beirut, Lebanon, 1,173 Constanta, Romania, 247 Haifa, Israel, 1,176 Iraklion, Kriti, 774 Istanbul, Turkey, 317 Napoli, Italy (via Corinth Canal), 1,255 Napoli, Italy (south of Greece), 1,318 Valencia, Spain (via Corinth Canal), 1,762 Valencia, Spain (south of Greece), 1,910</p> <p>YAMPI SOUND, AUSTRALIA (16°08'00"S., 123°38'00"E.) to:</p> <p>Junction Points*</p> <p>Cape Leeuwin, Australia, 1,588 Torres Strait, Australia, 1,283</p> <p>Ports</p> <p>Fremantle, Australia, 586 Port Darwin, Australia, 1,457</p> <p>YANBU AL BAHR, SAUDI ARABIA (24°03'44"N., 38°02'48"E.) to:</p>	<p>Junction Points*</p> <p>Cape of Good Hope, South Africa, 4,758 Cape Leeuwin, Australia, 5,793 Port Said, Egypt, 547 Singapore, 4,471 Selat Sunda, Indonesia, 4,665 Torres Strait, Australia, 6,870</p> <p>Ports</p> <p>Abadan, Iran, 2,783 Aden, Yemen, 851 Assab, Ethiopia, 718 Bandar Abbas, Iran, 2,299 Belawan, Indonesia, 4,140 Bombay, India, 2,503 Calcutta, India, 4,148</p> <p>YANDINA, SOLOMON ISLANDS (9°04'17"S., 159°13'50"E.) to:</p> <p>Junction Points*</p> <p>Honshu, Japan, 2,853 Panama, Panama (via Central Route), 7,483 Punta Arenas, Chile, 6,449 Torres Strait, Australia, 1,139 Tsugaru-Kaikyo, Japan, 3,263 Wilson Promontory, Australia, 2,032</p> <p>Ports</p> <p>Auckland, New Zealand, 1,917 Brisbane, Australia, 1,192 San Francisco, California, U.S.A., 8,614 Sydney, Australia, 1,613</p> <p>YANTAI, CHINA (37°33'15"N., 121°23'30"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 2,582</p> <p>Ports</p> <p>Aleksandrovsk-Sakhalinskiy, Russia (via Maenggol Sudo), 1,613 Apra, Guam (via Tokara Kaikyo), 1,935 Busan, South Korea (via Maenggol Sudo), 508 Cebu, Philippines, 1,713 Dagu, China, 205 Hakodate, Japan, 1,203 Hong Kong, China, 1,224 Honolulu, Hawaii, U.S.A. (via Osumi Kaikyo), 4,483 Iloilo, Philippines, 1,735 Incheon, South Korea, 273 Jakarta, Indonesia, 2,894 Kobe, Japan, 840 Lo hsing-ta Mao-ti, China (via Steep Island Pass), 835 Manila, Philippines (via Formosa Strait), 1,542 Manila, Philippines (east of Taiwan), 1,532 Mojito, Japan, 600 Mogpo, South Korea (via south of Kasa Do), 342 Nagasaki, Japan, 560 Nampo, North Korea, 205 Petropavlovsk-Kamchatskiy, Russia, 2,226</p>	<p>Qingdao, China, 239 Qinhuangdao, China, 168 Shanghai, China, 523 Shimonoseki, Japan, 596 Vladivostok, Russia (via Maenggol Sudo), 1,009 Weonsan, North Korea, 813 Xiamen, China, 978 Yokohama, Japan, 1,140</p> <p>YAP, CAROLINE ISLANDS (9°30'30"N., 138°08'00"E.) to:</p> <p>Ports</p> <p>Apra, Guam, 458 Honolulu, Hawaii, U.S.A., 3,757 Manila, Philippines, 1,154 Noumea, New Caledonia, 2,568 Papeete, French Polynesia, 4,585 Rabaul, Papua New Guinea, 1,196 Suva, Fiji Islands, 2,933 Tacloban, Philippines, 790 Truk, Caroline Islands, 851 Yokohama, Japan, 1,571</p> <p>YARMOUTH, CANADA (43°50'00"N., 66°07'30"W.) to:</p> <p>Ports</p> <p>Boston, Massachusetts, U.S.A., 237 Colon, Panama, 2,210 Kingston, Jamaica, 1,710 New York, New York, U.S.A. (Nantucket Light Buoy), 464 New York, New York, U.S.A. (via Pollock Rip Channel), 440 Norfolk, Virginia, U.S.A., 656 Philadelphia, Pennsylvania, U.S.A., 616 Portland, Maine, U.S.A., 185 San Juan, Puerto Rico, 1,527 Sydney, Canada, 416</p> <p>YARMOUTH, ENGLAND (50°42'30"N., 1°29'56"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 211 Ile d'Ouessant, France, 197 Nord-Ostsee-Kanal (East Entrance), Germany, 442 Pentland Firth, Scotland, 678 Skagens Odde, Denmark, 682</p> <p>Ports</p> <p>Aberdeen, Scotland, 311 Amsterdam, Netherlands, 120 Emden, Germany, 218 Esbjerg, Denmark, 297 Hull, England, 108 Leith, Scotland, 293 Wilhelmshaven, Germany, 263 Zeebrugge, Belgium, 101</p> <p>YEN-TAI, CHINA (37°33'15"N., 121°23'30"E.) See Yantai, China.</p> <p>YEOSU, SOUTH KOREA (34°45'00"N., 127°45'30"E.) to:</p> <p>Ports</p> <p>Busan, South Korea, 97 Gunsan, South Korea, 245 Kimchaek, North Korea, 439 Mogpo, South Korea, 151</p>
---	--	--	--

* JUNCTION POINT.—See Preface for use of junction points

Rajin, North Korea, 535
Shimonoseki, Japan, 182

YOKKAICHI, JAPAN
(34°57'00"N., 136°40'00"E.) to:

Ports

Apra, Guam, 1,364
Kagoshima, Japan, 476
Osaka, Japan, 236
Yokohama, Japan, 203

YOKOHAMA, JAPAN
(35°27'00"N., 139°39'00"E.) to:

Junction Points*

Panama, Panama, 7,682
Punta Arenas, Chile, 9,275
Singapore (via Balintang Channel), 2,889

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,143
Apia, Samoa, 4,057
Apra, Guam, 1,352
Auckland, New Zealand, 4,789
Avarua, Cook Islands, 4,849
Barbers Point, Hawaii, U.S.A., 3,382
Bellingham, Washington, U.S.A., 4,245
Brisbane, Australia, 3,925
Busan, South Korea, 665
Cebu, Philippines (via San Bernardino Strait), 1,762
Chim Wan, Ryukyu Islands, 830
Dagu, China (via Osumi Kaikyo), 1,394
Dalian, China (via Osumi Kaikyo), 1,235
Dutch Harbor, Alaska, U.S.A., 2,551
Guayaquil, Ecuador, 7,987
Hachinohe, Japan, 436
Hakata, Japan, 608
Hakodate, Japan, 533
Hirohata, Japan, 368
Hiroshima, Japan, 519
Ho Chi Minh, Vietnam, 2,419
Hong Kong, China, 1,585
Honolulu, Hawaii, U.S.A., 3,397
Iloilo, Philippines (via San Bernardino Strait), 1,784
Imabari, Japan, 454
Incheon, South Korea (via Bungo Suido and Maemul Sudo), 1,016
Incheon, South Korea (via Naikai), 1,070
Iquique, Chile, 9,026
Itozakicho, Japan, 446
Iwakuni, Japan, 497
Jakarta, Indonesia (east of Direction Island and via Selat Gaspar), 3,194
Jaluit, Marshall Islands, 2,442
Kagoshima, Japan, 594
Kahului, Hawaii, U.S.A., 3,496
Kamaishi, Japan, 348
Kaneohe Bay, Hawaii, U.S.A., 3,406
Kaunakakai, Hawaii, U.S.A., 3,454
Kiska, Alaska, U.S.A., 1,977
Kobe, Japan, 357
Kochi, Japan, 372
Kodiak, Alaska, U.S.A., 3,141
Komatsushima, Japan, 320
Kure, Japan, 515
Kushiro, Japan, 594

Levuka, Fiji Islands, 4,015
Lo-hsing-ta Mao-ti, China (via Osumi Kaikyo), 1,217
Los Angeles, California, U.S.A., 4,839
Malakal, Palau Islands, 1,731
Manila, Philippines (via Balintang Channel), 1,758
Mazatlan, Mexico, 5,782
Midway Island, Pacific, 2,250
Miike, Japan (via Bungo Suido), 766
Miike, Japan (via Osumi Kaikyo), 725
Mogpo, South Korea, 838
Moskal'vo, Russia, 1,453
Nagasaki, Japan (via Osumi Kaikyo), 691
Nagoya, Japan, 214
Nakagusuku, Ryukyu Islands, 839
Nampo, North Korea, 1,109
Nase, Japan, 686
Nome, Alaska, U.S.A., 2,696
Noumea, New Caledonia (via Bougainville Strait), 3,837
Ocean Island, 2,761
Osaka, Japan (via Kii Suido), 359
Pago Pago, American Samoa, 4,135
Papeete, French Polynesia, 5,140
Petropavlovsk-Kamchatskiy, Russia, 1,422
Ponape, Caroline Islands, 1,998
Port Darwin, Australia (via Selat Sele), 2,989
Portland, Oregon, U.S.A., 4,328
Prince Rupert, Canada (north of Aleutian Islands), 3,810
Prince Rupert, Canada (south of Aleutian Islands), 3,863
Qingdao, China, 1,160
Rabaul, Papua New Guinea, 2,526
Saipan, Mariana Islands, 1,262
Sakaide, Japan (via Kii Suido), 449
San Diego, California, U.S.A., 4,923
San Francisco, California, U.S.A., 4,536
Seattle, Washington, U.S.A. (north of Aleutian Islands), 4,245
Seattle, Washington, U.S.A. (South of Aleutian Islands), 4,276
Seward, Alaska, U.S.A. (South of Aleutian Islands), 3,363
Shanghai, China (via Naikai), 1,117
Shanghai, China (via Osumi Kaikyo), 1,040
Shimizu, Honshu, Japan, 116
Shimonoseki, Japan (via Bungo Suido), 545
Shimonoseki, Japan (via Naikai), 581
Shimotsui, Japan, 449
Shiogama, Japan, 284
Sitka, Alaska, U.S.A. (north of Aleutian Islands), 3,620
Sitka, Alaska, U.S.A. (south of Aleutian Islands), 3,687
Surabaya, Indonesia, 3,092
Suva, Fiji Islands, 3,967
Sydney, Australia, 4,330
Tianjin, China (via Naikai and south of Cheju Do), 1,465
Tokuyama, Japan, 510
Truk, Caroline Islands, 1,832
Ube, Japan, 536
Uno, Japan, 405
Valparaiso, Chile, 9,280
Vancouver, Canada (via composite sailing and Active Pass), 4,262
Victoria, Canada (via composite

sailing), 4,194
Vladivostok, Russia (via Tsugaru-Kaikyo), 952
Wake Island, Pacific, 1,740
Weihai, China (via Bungo Suido and Shimonoseki Kaikyo), 1,106
Weihai, China (via Naikai), 1,143
Wellington, New Zealand, 5,041
Weonsan, North Korea, 921
Wotje Island, Marshall Islands, 2,318
Xiamen, China (via Osumi Kaikyo), 1,335
Yantai, China (via Bungo Suido and Shimonoseki Kaikyo), 1,140
Yantai, China (via Naikai), 1,177
Yantai, China (via Osumi Kaikyo), 1,194
Yap, Caroline Islands, 1,571
Yokkaichi, Japan, 203

YOKOSUKA, JAPAN
(35°17'30"N., 139°39'30"E.)
Subtract 6 miles from Yokohama distances.

YORKTOWN, VIRGINIA, U.S.A.
(37°14'24"N., 76°30'30"W.)
Subtract 116 miles from Baltimore distances.

YOSU, SOUTH KOREA
(34°45'00"N., 127°45'30"E.) See Yeosu, South Korea.

YUCATAN CHANNEL*
(21°50'00"N., 85°03'00"W.) to:

Junction Points*

Bishop Rock, England, 4,103
Cape of Good Hope, South Africa, 6,770
Fastnet Rock, Ireland, 3,988
Inishterahull, Ireland, 4,086
Panama, Panama, 855
Pentland Firth, Scotland, 4,266
Punta Arenas, Chile (via east of South America), 6,874
Strait of Gibraltar, 4,199
Straits of Florida, 192

Ports

Almirante, Panama, 814
Amuay, Venezuela, 1,050
Barcelona, Venezuela, 1,378
Barranquilla, Colombia, 881
Belem, Brazil, 2,739
Belize, Belize, 337
Boston, Massachusetts, U.S.A. (via Nantucket Light Buoy), 1,615
Bridgetown, Barbados (south of Hispaniola), 1,549
Buenos Aires, Argentina, 5,910
Campeche, Mexico, 291
Cape Town, South Africa, 6,822
Cardenas, Cuba, 269
Cartagena, Colombia, 891
Casilda, Cuba, 307
Catia la Mar, Venezuela, 1,240
Charleston, South Carolina, U.S.A., 815
Charlotte Amalie, Virgin Islands, 1,200
Cienfuegos, Cuba, 285
Coatzacoalcos, Mexico, 625
Colon, Panama, 812
Corpus Christi, Texas, U.S.A., 764

Covenas, Colombia, 924
Freetown, Sierra Leone, 4,229
Galveston, Texas, U.S.A., 696
Georgetown, Grand Cayman, 257
Georgetown, Guyana, 1,846
Guantanamo, Cuba, 582
Gulfport, Mississippi, U.S.A., 534
Halifax, Canada, 1,817
Hamilton, Bermuda, 1,335
Isabel de Sagua, Cuba, 329
Key West, Florida, U.S.A., 251
Kingston, Jamaica, 550
La Guaira, Venezuela, 1,242
La Habana, Cuba, 186
Lake Charles, Louisiana, U.S.A., 689
Limon, Costa Rica, 732
Manzanillo, Cuba, 482
Maracaibo, Venezuela, 1,096
Mariel, Cuba, 164
Matagorda Bay, Texas, U.S.A., 729
Matanzas, Cuba, 241
Miami, Florida, U.S.A., 398
Mobile, Alabama, U.S.A., 558
Montego Bay, Jamaica, 450
Montevideo, Uruguay, 5,689
Nassau, Bahamas, 562
New Amsterdam, Guyana, 1,907
New Orleans, Louisiana, U.S.A., 577
New York, New York, U.S.A., 1,369
Norfolk, Virginia, U.S.A., 1,168
Nuevitas, Cuba, 528
Oranjestad, Aruba, 1,024
Pensacola, Florida, U.S.A., 531
Philadelphia, Pennsylvania, U.S.A., 1,339
Pointe a Pitre, Guadeloupe, 1,410
Porlamar, Venezuela, 1,407
Port au Prince, Haiti, 741
Port Antonio, Jamaica, 536
Port Arthur, Texas, U.S.A., 681
Port Castries, St. Lucia, 1,452
Port of Spain, Trinidad, 1,517
Portsmouth, New Hampshire, U.S.A. (via outside Nantucket Light Buoy), 1,632
Puerto la Cruz, Venezuela, 1,381
Puerto Barrios, Guatemala, 439
Puerto Cabello, Venezuela, 1,203
Puerto Cortes, Honduras, 399
Puerto Sucre, Venezuela, 1,399
Punta Cardon, Venezuela, 1,055
Rio de Janeiro, Brazil (south of Hispaniola), 4,702
Salvador, Brazil, 4,128
San Felix, Venezuela, 1,861
San Juan del Norte, Nicaragua, 681
San Juan, Puerto Rico, 1,111
Santa Cruz del Sur, Cuba, 416
Santa Lucia, Cuba, 99
Santa Maria, Cuba, 381
Santa Marta, Colombia, 892
Santiago de Cuba, Cuba, 548
Santo Domingo, Dominican Republic, 929
Sint Nicolaashaven, Aruba, 1,036
St. John's, Canada, 2,305
Swan Island, Honduras, 273
Tampa, Florida, U.S.A., 404
Tampico, Mexico, 716
Turiamo, Venezuela, 1,221
Tuxpan, Mexico, 689
Veracruz, Mexico, 654
Willemstad, Curacao, 1,094

YUMURTALIK, TURKEY
(36°45'00"N., 35°45'00"E.) to:

* **JUNCTION POINT.**—See Preface for use of junction points

126 ZADAR, CROATIA

Junction Points*

Port Said, Egypt, 372
Strait of Gibraltar, 1,672

Ports

Haifa, Israel, 240
Iraklion, Kriti, 540
Izmir, Turkey, 639

ZADAR, CROATIA

(44°07'00"N., 15°13'00"E.) to:

Junction Points*

Port Said, Egypt, 1,214
Strait of Gibraltar, 1,590

Ports

Ancona, Italy, 87
Brindisi, Italy, 280
Trieste, Italy, 142

ZAMBOANGA, PHILIPPINES
(6°54'00"N., 122°04'00"E.) to:**Junction Points***

Selat Lombok, Indonesia, 1,047
Panama, Panama (via south of
Mindanao), 9,431
Singapore, 1,197
Selat Wetar, Indonesia, 995

Ports

Apra, Guam (via south of
Mindanao), 1,467
Apra, Guam (via Surigao Strait),
1,484
Batangas, Philippines, 436
Belawan, Indonesia, 1,570
Cebu, Philippines, 252
Iloilo, Philippines, 241
Jolo, Philippines, 85
Kota Kinabalu, Sabah, 412
Kuching, Sarawak, 863
Manila, Philippines, 532
Port Darwin, Australia (via Basilan
Strait, Selat Bangka and Selat
Manipa), 1,303

Pulupandan, Philippines, 237
Sandakan, Sabah, 251
Tacloban, Philippines, 385

ZANZIBAR, TANZANIA
(6°10'00"S., 39°11'00"E.) to:**Junction Points***

Cape of Good Hope, South
Africa, 2,358
Singapore, 4,060

Ports

Aden, Yemen, 1,731
Belawan, Indonesia, 3,727
Bombay, India (northeast
monsoon), 2,538
Bombay, India (southwest
monsoon), 2,541
Calcutta, India (via One and Half
Degree Channel), 3,776
Durban, South Africa, 1,607
Fremantle, Australia, 4,536
Malacca, Malaysia, 3,945
Maputo, Mozambique, 1,388
Penang, Malaysia, 3,772
Port Darwin, Australia, 5,452
Port Louis, Mauritius, 1,388
Rangoon, Burma, 3,787
Sabang, Indonesia, 3,451
Tamatave, Madagascar, 1,116
Tanga, Tanzania, 75
Victoria, Sabah, 563
Victoria, Seychelles, 1,011

ZEEBRUGGE, BELGIUM
(51°21'00"N., 3°12'00"E.) to:**Junction Points***

Bishop Rock, England, 393
Ile d'Ouessant, France, 380
Nord-Ostsee-Kanal (East
Entrance), Germany, 354
Pentland Firth, Scotland, 505
Skagens Odde, Denmark, 479

Ports

Aberdeen, Scotland, 402
Amsterdam, Netherlands, 104

Antwerp, Belgium, 64
Bergen, Norway, 558
Bremerhaven, Germany, 287
Cherbourg, France, 218
Dundee, Scotland, 394
Egersund, Norway, 440
Emden, Germany, 230
Esbjerg, Denmark, 318
Hamburg, Germany, 342
Hartlepool, England, 263
Hull, England, 205
Inverness, Scotland, 506
Le Havre, France, 186
Leith, Scotland, 392
London, England, 131
Newcastle, England, 289
Oslo, Norway, 586
Plymouth, England, 303
Portland, England, 229
Portsmouth, England, 179
Rotterdam, Netherlands, 73
Southampton, England, 197
Stavanger, Norway, 481
Wilhelmshaven, Germany, 274

ZELINIKA, MONTENEGRO
(42°26'58"N., 18°34'05"E.) to:**Junction Points***

Port Said, Egypt, 1,023
Strait of Gibraltar (via Strait of
Messina), 1,398
Strait of Gibraltar (via Strait of
Sicily), 1,433

Ports

Ajaccio, Corsica, 764
Alicante, Spain, 1,232
Arzew, Algeria, 1,143
Bar, Montenegro, 34
Cartagena, Spain, 1,154
Constanta, Romania, 1,064
Haifa, Israel, 1,077
Istanbul, Turkey, 868
Marseille, France, 931
Moni Anchorage, Cyprus, 328
Piraeus, Greece, 555
Sevastopol', Ukraine, 1,167
Tangier, Morocco, 1,399
Thessaloniki, Greece, 765

ZHENJIANG, CHINA
(21°11'30"N., 110°24'00"E.) to:**Junction Points***

Singapore, 1,333
Selat Sunda, Indonesia, 1,710

Ports

Ho Chi Minh, Vietnam, 838
Hong Kong, China, 245

ZHENJIANG, CHINA
(32°13'00"N., 119°27'00"E.) Add
139 miles to Shang-hai distances
for ports outside the Chang Chiang
(Yangtze River).**ZONGULDAK, TURKEY**

(41°28'00"N., 31°49'00"E.) Add
136 1/4 miles to Istanbul distances
for ports outside the Black Sea.

ZUEITINA, LIBYA
(30°56'00"N., 20°00'00"E.) to:**Junction Points***

Port Said, Egypt, 750
Strait of Gibraltar, 1,401

Ports

Algiers, Algeria, 966
Arzew, Algeria, 1,142
Ayios Nikolaos, Greece, 475
Beirut, Lebanon, 871
Constanta, Romania, 980
Corinth Canal (west side,
Korinthos), Greece, 532
Iraklion, Kriti, 433
Kerch, Ukraine, 1,225
Marseille, France, 1,031
Novorossiysk, Russia, 1,240
Trieste, Italy, 968
Tripoli, Lebanon, 893
Yumurtalik, Turkey, 910

* JUNCTION POINT.—See Preface for use of junction points

CONVERSION TABLE FOR NAUTICAL AND STATUTE MILES

1 nautical mile = 6,076.11549 . . . feet

1 statute mile = 5,280 feet

Nautical miles to Statute miles				Statute miles to Nautical miles			
Nautical miles	Statute miles	Nautical miles	Statute miles	Statute miles	Nautical miles	Statute miles	Nautical miles
1	1.151	51	58.690	1	0.869	51	44.318
2	2.302	52	59.840	2	1.738	52	45.187
3	3.452	53	60.991	3	2.607	53	46.056
4	4.603	54	62.142	4	3.476	54	46.925
5	5.754	55	63.293	5	4.345	55	47.794
6	6.905	56	64.444	6	5.214	56	48.663
7	8.055	57	65.594	7	6.083	57	49.532
8	9.206	58	66.745	8	6.952	58	50.401
9	10.357	59	67.896	9	7.821	59	51.270
10	11.508	60	69.047	10	8.690	60	52.139
11	12.659	61	70.197	11	9.559	61	53.008
12	13.809	62	71.348	12	10.428	62	53.877
13	14.960	63	72.499	13	11.297	63	54.746
14	16.111	64	73.650	14	12.166	64	55.615
15	17.262	65	74.801	15	13.035	65	56.484
16	18.412	66	75.951	16	13.904	66	57.353
17	19.563	67	77.102	17	14.773	67	58.222
18	20.714	68	78.253	18	15.642	68	59.091
19	21.865	69	79.404	19	16.511	69	59.959
20	23.016	70	80.554	20	17.380	70	60.828
21	24.166	71	81.705	21	18.249	71	61.697
22	25.317	72	82.856	22	19.118	72	62.566
23	26.468	73	84.007	23	19.986	73	63.435
24	27.619	74	85.158	24	20.855	74	64.304
25	28.769	75	86.308	25	21.724	75	65.173
26	29.920	76	87.459	26	22.593	76	66.042
27	31.071	77	88.610	27	23.462	77	66.911
28	32.222	78	89.761	28	24.331	78	67.780
29	33.373	79	90.911	29	25.200	79	68.649
30	34.523	80	92.062	30	26.069	80	69.518
31	35.674	81	93.213	31	26.938	81	70.387
32	36.825	82	94.364	32	27.807	82	71.256
33	37.976	83	95.515	33	28.676	83	72.125
34	39.126	84	96.665	34	29.545	84	72.994
35	40.277	85	97.816	35	30.414	85	73.863
36	41.428	86	98.967	36	31.283	86	74.732
37	42.579	87	100.118	37	32.152	87	75.601
38	43.730	88	101.268	38	33.021	88	76.470
39	44.880	89	102.419	39	33.890	89	77.339
40	46.031	90	103.570	40	34.759	90	78.208
41	47.182	91	104.721	41	35.628	91	79.077
42	48.333	92	105.871	42	36.497	92	79.946
43	49.483	93	107.022	43	37.366	93	80.815
44	50.634	94	108.173	44	38.235	94	81.684
45	51.785	95	109.324	45	39.104	95	82.553
46	52.936	96	110.475	46	39.973	96	83.422
47	54.087	97	111.625	47	40.842	97	84.291
48	55.237	98	112.776	48	41.711	98	85.160
49	56.388	99	113.927	49	42.580	99	86.029
50	57.539	100	115.078	50	43.449	100	86.898

To convert Nautical miles to Statute miles, multiply Nautical miles by 1.15.

To convert Statute miles to Nautical miles, multiply Statute miles by 0.87.

Table for Estimating Time of Transit

Distance	Speed in knots																		
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	30
Nautical miles	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours	Days-hours
10	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	...	...	...	...	...
20	0-3	0-2	0-2	0-2	0-2	0-2	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	...	...	...	...	...
30	0-4	0-3	0-3	0-3	0-3	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1	0-1	0-1	0-1	0-1	0-1
40	0-5	0-4	0-4	0-4	0-3	0-3	0-3	0-3	0-3	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1
50	0-6	0-6	0-5	0-5	0-4	0-4	0-4	0-3	0-3	0-3	0-3	0-3	0-3	0-2	0-2	0-2	0-2	0-2	0-2
60	0-8	0-7	0-6	0-5	0-5	0-5	0-4	0-4	0-4	0-4	0-3	0-3	0-3	0-3	0-3	0-3	0-3	0-2	0-2
70	0-9	0-8	0-7	0-6	0-6	0-5	0-5	0-5	0-4	0-4	0-4	0-4	0-4	0-3	0-3	0-3	0-3	0-3	0-2
80	0-10	0-9	0-8	0-7	0-7	0-6	0-6	0-5	0-5	0-5	0-4	0-4	0-4	0-4	0-4	0-3	0-3	0-3	0-3
90	0-11	0-10	0-9	0-8	0-8	0-7	0-6	0-6	0-6	0-5	0-5	0-5	0-5	0-4	0-4	0-4	0-4	0-4	0-3
100	0-13	0-11	0-10	0-9	0-8	0-8	0-7	0-7	0-6	0-6	0-6	0-5	0-5	0-5	0-5	0-4	0-4	0-4	0-3
200	1-1	0-22	0-20	0-18	0-17	0-15	0-14	0-13	0-13	0-12	0-11	0-11	0-10	0-10	0-9	0-9	0-8	0-8	0-7
300	1-14	1-9	1-6	1-3	1-1	0-23	0-21	0-20	0-19	0-18	0-17	0-16	0-15	0-14	0-14	0-13	0-13	0-12	0-10
400	2-2	1-20	1-16	1-12	1-9	1-7	1-5	1-3	1-1	1-0	0-22	0-21	0-20	0-19	0-18	0-17	0-17	0-16	0-13
500	2-15	2-8	2-2	1-21	1-18	1-14	1-12	1-9	1-7	1-5	1-4	1-2	1-1	1-0	0-23	0-22	0-21	0-20	0-17
600	3-3	2-19	2-12	2-7	2-2	1-22	1-19	1-16	1-14	1-11	1-9	1-8	1-6	1-5	1-3	1-2	1-1	1-0	0-20
700	3-16	3-6	2-22	2-16	2-10	2-6	2-2	1-23	1-20	1-17	1-15	1-13	1-11	1-9	1-8	1-6	1-5	1-4	0-23
800	4-4	3-17	3-8	3-1	2-19	2-14	2-9	2-5	2-2	1-23	1-20	1-18	1-16	1-14	1-12	1-11	1-9	1-8	1-3
900	4-17	4-4	3-18	3-10	3-3	2-21	2-16	2-12	2-8	2-5	2-2	1-23	1-21	1-19	1-17	1-15	1-14	1-12	1-6
1,000	5-5	4-15	4-4	3-19	3-11	3-5	2-23	2-19	2-15	2-11	2-8	2-5	2-2	2-0	1-21	1-19	1-18	1-16	1-9
2,000	10-10	9-6	8-8	7-14	6-23	6-10	5-23	5-13	5-5	4-22	4-15	4-9	4-4	3-23	3-19	3-15	3-11	3-8	2-19
3,000	15-15	13-21	12-12	11-9	10-10	9-15	8-22	8-8	7-20	7-8	6-23	6-14	6-6	5-23	5-16	5-10	5-5	5-0	4-4
4,000	20-20	18-12	16-16	15-4	13-21	12-20	11-22	11-3	10-10	9-19	9-6	8-19	8-8	7-22	7-14	7-6	6-23	6-16	5-13
5,000	26-1	23-4	20-20	18-23	17-9	16-1	14-21	13-21	13-1	12-6	11-14	10-23	10-10	9-22	9-11	9-1	8-16	8-8	6-23
6,000	31-6	27-19	25-0	22-17	20-20	19-6	17-21	16-16	15-15	14-17	13-21	13-4	12-12	11-22	11-9	10-21	10-10	10-0	8-8