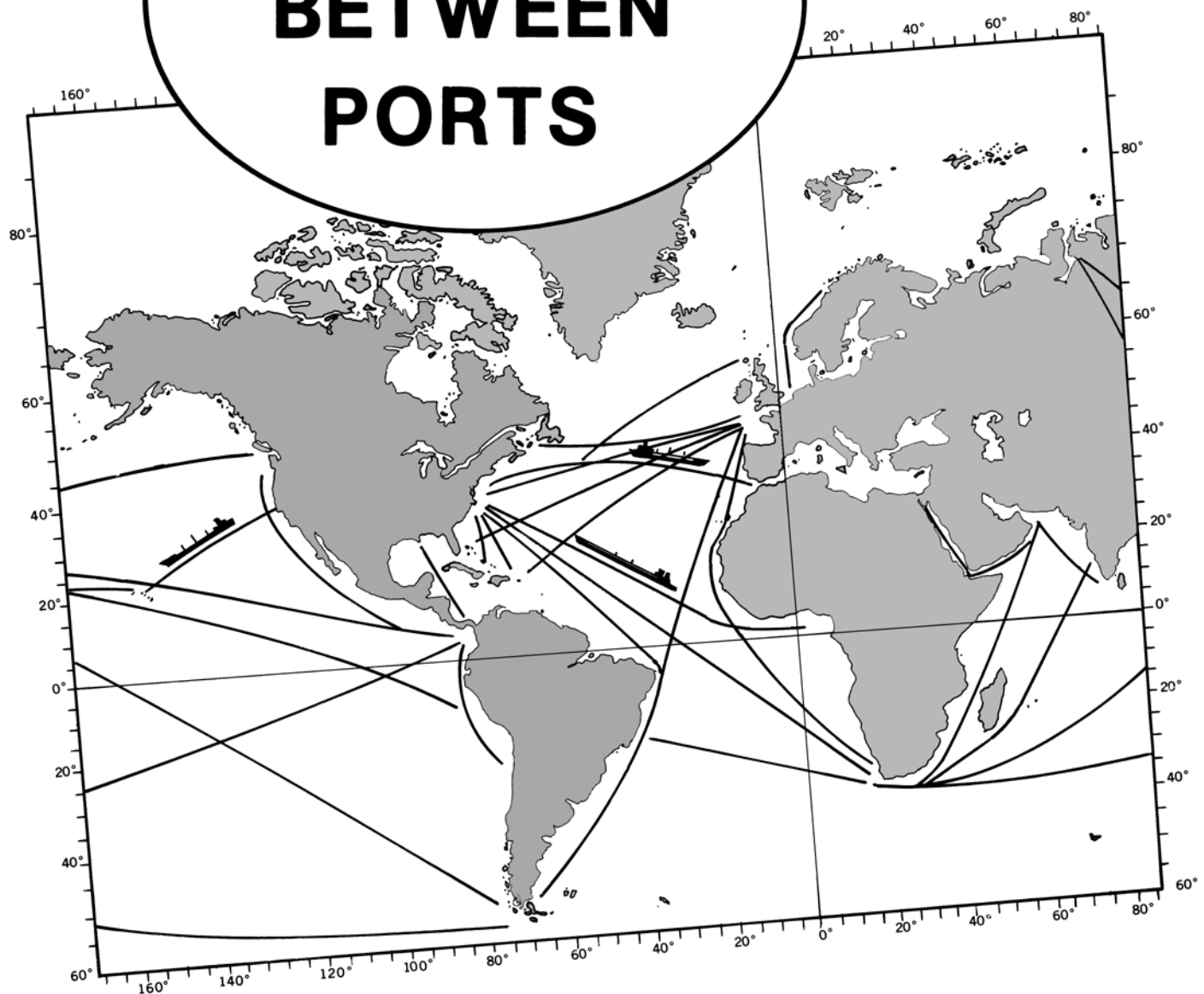


DISTANCES BETWEEN PORTS



PUB. 151

1999



NSN 7642014008470
NIMA REF. NO. NVPUB151



ED. NO. 010

PUB. 151

DISTANCES BETWEEN PORTS

Prepared and published by the
NATIONAL IMAGERY AND MAPPING AGENCY
Bethesda, Maryland

© COPYRIGHT 1999 BY THE UNITED STATES GOVERNMENT
NO COPYRIGHT CLAIMED UNDER TITLE 17 U.S.C.

TENTH EDITION
1999



For sale by authorized Sales Agents of the National Ocean Service

PREFACE

GENERAL INFORMATION.—The 1999 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 NIMA 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 71
Under Junction Points, locate —

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

Find Strait of Gibraltar in the Distance Table:
Page 111

Under Junction Points, locate —

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

Find Port Said in the Distance Table:
Page 87

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

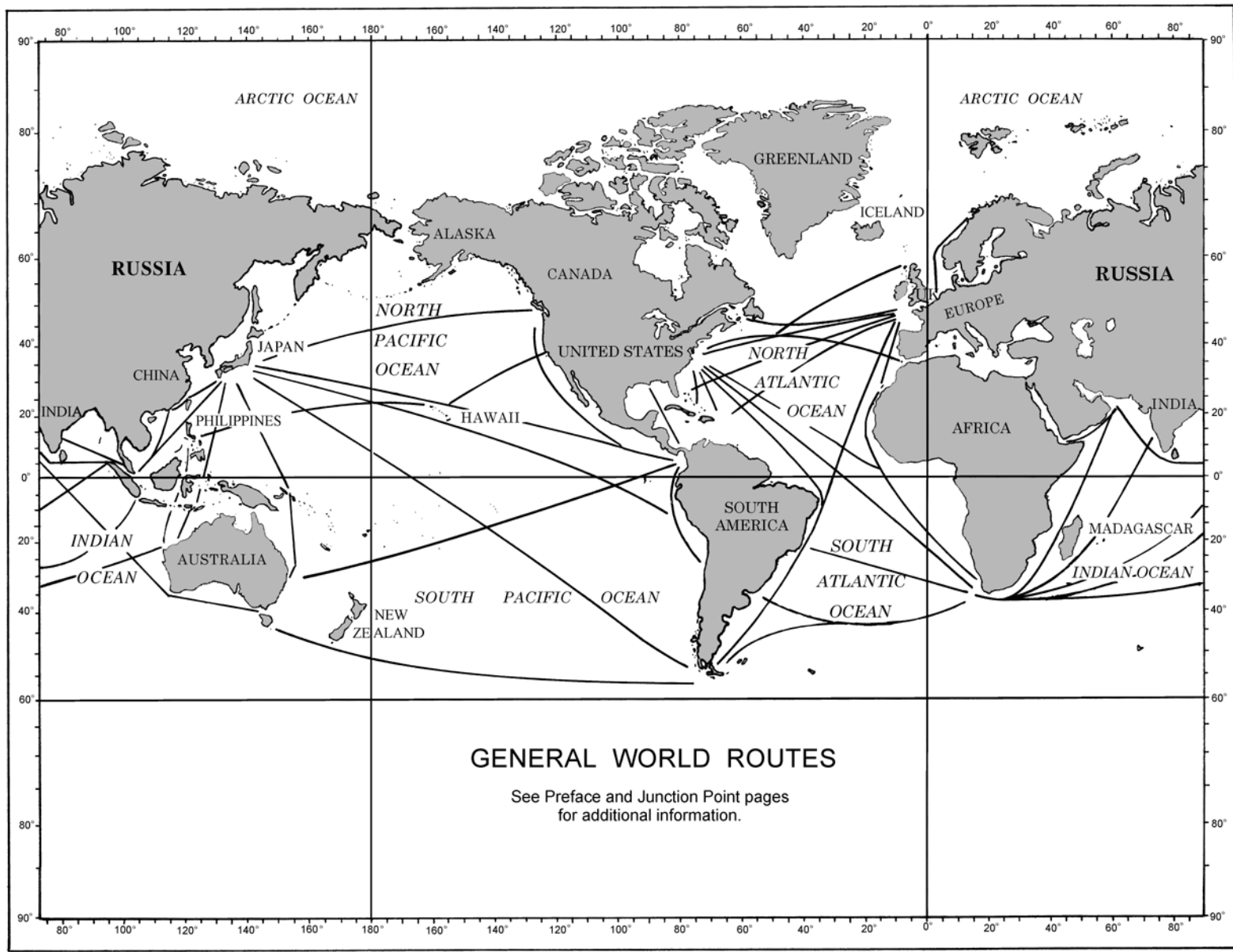
Total Nautical Miles..... 14,102

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

MARINE NAVIGATION DEPARTMENT
ST D 44
NATIONAL IMAGERY AND MAPPING AGENCY
4600 SANGAMORE ROAD
BETHESDA, MARYLAND 20816-5003

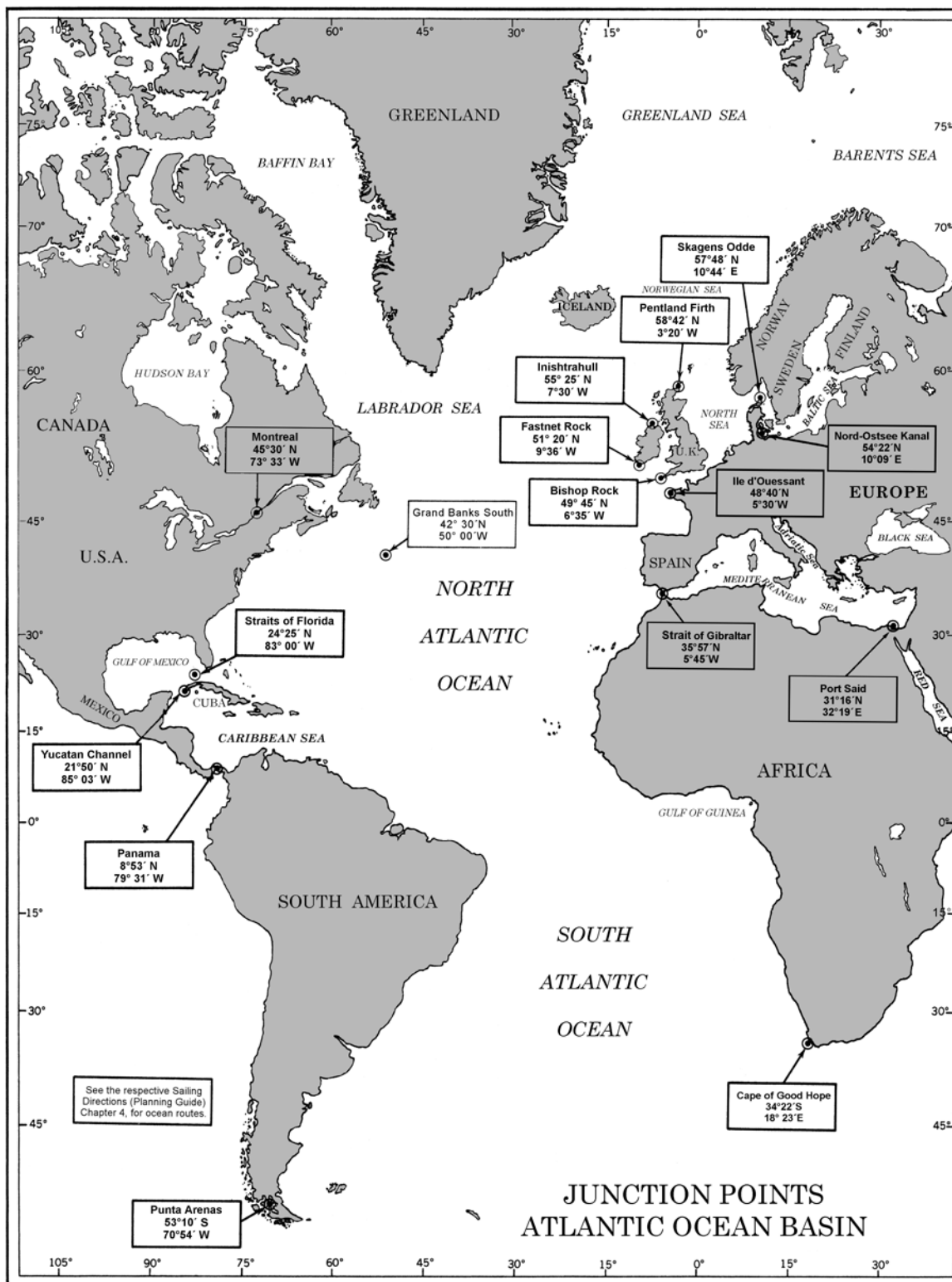
CONTENTS

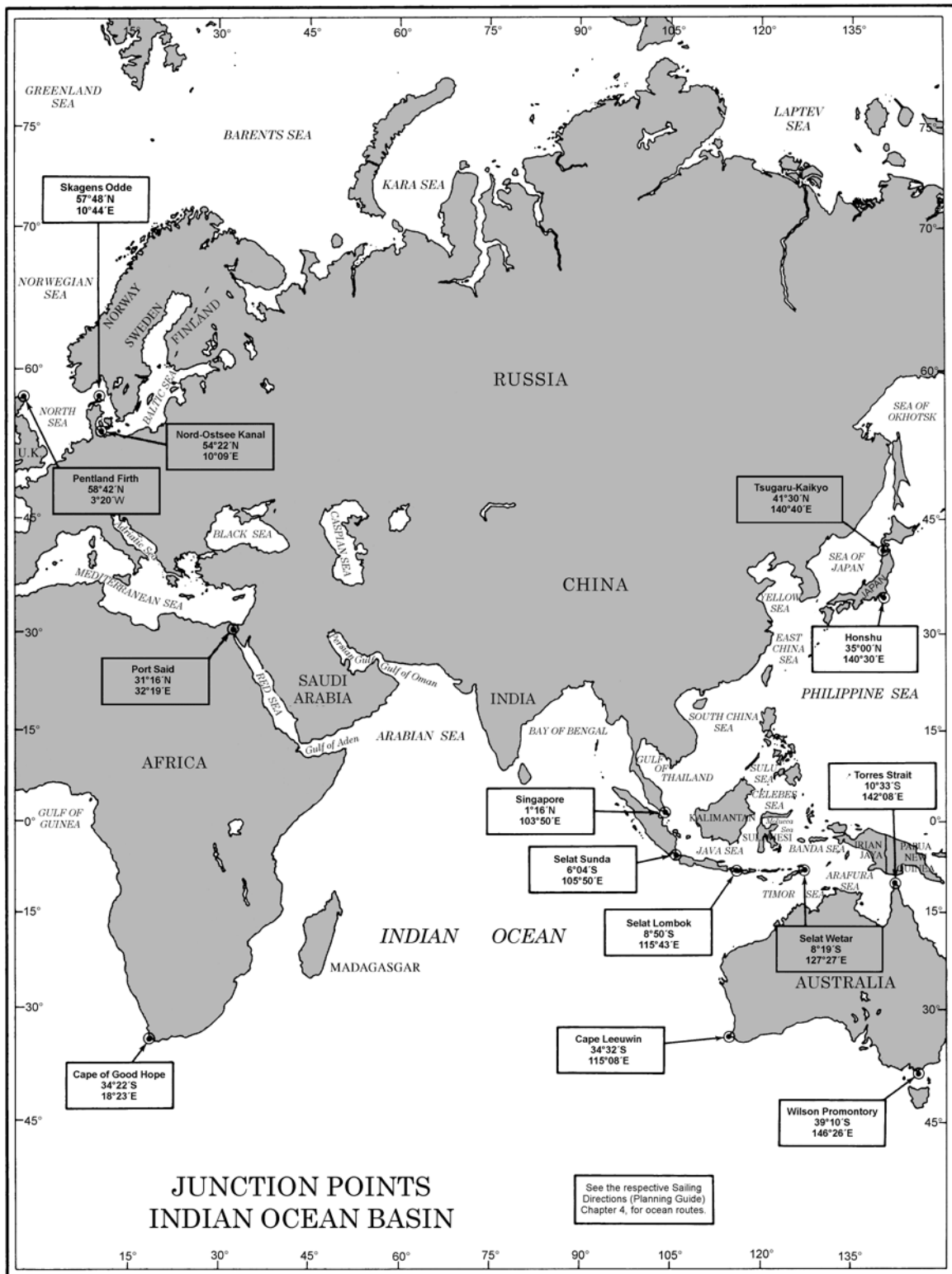
	Page
Preface	I
Chart Showing General World Routes	V
List of Junction Points	VI
Junction Points, Atlantic Ocean Basin	VII
Junction Points, Indian Ocean Basin	VIII
Junction Points, Pacific Ocean Basin	IX
Distance Between Ocean Ports of the World	1
Conversion Table for Nautical and Statute Miles	130
Table for Estimating Time of Transit	131

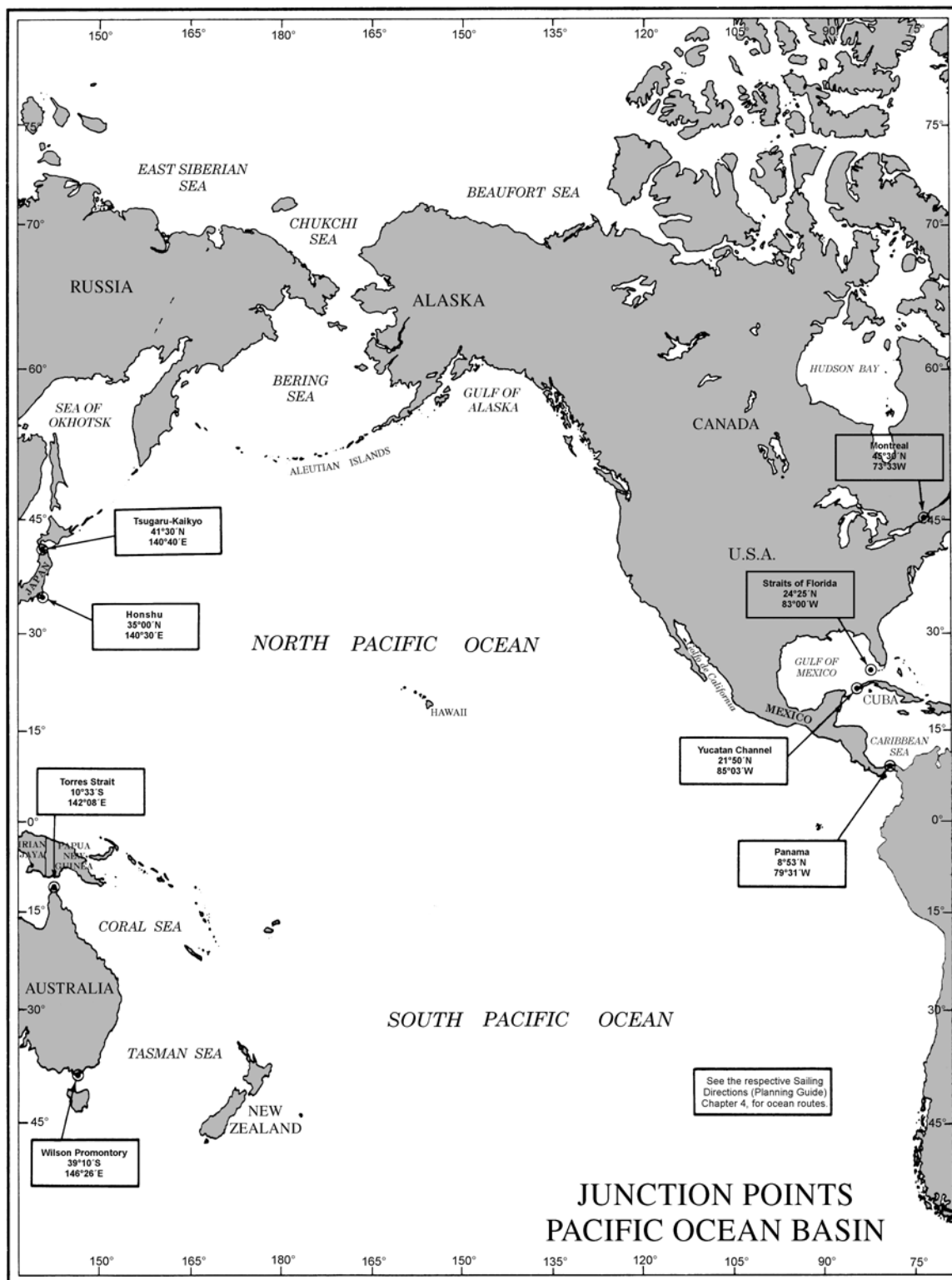


PUB. 151
JUNCTION POINTS

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, Republic of 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, Republic of Ireland,	55°25'00"N., 7°30'00"W.
Montreal, Canada,	45°30'00"N., 73°33'00"W.
Nord-Ostsee Kanal,	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, Arab Republic of 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, Republic of South Africa, 4,436
Fastnet Rock, Republic of Ireland, 1,465
Grand Banks South, 2,003
Ile d'Ouessant, France, 1,356
Inishtrahull, Republic of 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
Hormelvik, Norway, 586
Kristiansand, Norway, 340
Kristiansund, Norway, 498
Kristiansund, S. Norway, 340
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, Republic of South Africa, 2,712
Fastnet Rock, Republic of Ireland, 3,472
Grand Banks South, 3,539
Ile d'Ouessant, France, 3,375

Inishtrahull, Republic of 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, Republic of 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, Republic of 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, Republic of South Africa, 4,812
Cape Leeuwin, Australia, 5,115
Selat Lombok, Indonesia, 4,341
Port Said, Arab Republic of Egypt, 2,944
Singapore, Malaysia, 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, Republic of South Africa, 4,960
Port Said, Arab Republic of Egypt, 3,142
Singapore, 3,681

Ports

Al Basrah, Iraq, 304
Bombay, India, 1,373

ADEN, YEMEN

(12°47'40"N., 44°59'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 3,954
Cape Leeuwin, Australia (north of Chagos Archipelago), 4,958
Cape Leeuwin, Australia (south of Chagos Archipelago), 4,973
Port Said, Arab Republic of 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

Ports

Abadan, Iraq, 1,937
Al Aqabah, Jordan, 1,251
Al Basrah, Iraq, 1,967
Al Gurdagah, Arab Republic of 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, Arab Republic of Egypt, 1,109
Calcutta, India, 3,308
Colombo, Sri Lanka, 2,094
Dar es Salaam, Tanzania, 1,740
Diego Garcia, Chagos Archipelago, 2,090
Eilat, Israel, 1,247
Fremantle, Australia (north of Chagos Archipelago), 4,921
Hobart, Tasmania, 6,598
Jibuti, Republic of Jibuti, 133
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
Mogadiscio, Somali Republic, 1,106
Mombassa, 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, Arab Republic of Egypt, 1,282
Ras Gharib, Arab Republic of 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
Zanzibar, Tanzania, 1,722

AGADIR, MOROCCO

(30°25'30"N., 9°37'35"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,719
Ile d'Ouessant, France, 1,136

Ports

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

AJACCIO, CORSICA

(41°55'40"N., 8°45'07"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,355
Strait of Gibraltar, 778

Ports

Beirut, Lebanon, 1,437
Catania, Sicily, 464
Civitavecchia, Italy, 180
Genova, Italy, 170
Marseilles, 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

AKITA, JAPAN

(39°45'30"N., 140°02'00"E.) to:

Ports

Aomori, Japan, 158
Hakodate, Japan, 150
Maizuru, Japan, 352
Shimonoseki, Japan, 586

AKUREYRI, ICELAND

(65°41'00"N., 18°04'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 702
Strait of Gibraltar, 2,102

Ports

Bergen, Norway, 803
Murmansk, Russia, 1,256
St. John's, Canada, 1,616

AL AQABAH, JORDAN

(29°31'15"N., 34°59'55"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 380

Ports

Aden, Yemen, 1,251
Jiddah, Saudi Arabia, 573
Massawa, Ethiopia, 897

AL BASRAH, IRAQ

(30°31'30"N., 47°50'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,211
Port Said, Arab Republic of Egypt, 3,371
Singapore, 3,916

Ports

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

AL JUBAYL, SAUDI ARABIA

(27°01'00"N., 49°42'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,109
Cape Leeuwin, Australia, 5,276
Selat Lombok, 4,577
Port Said, Arab Republic of Egypt, 3,164
Singapore, 3,723
Selat Sunda, Indonesia, 3,949
Torres Strait, Australia, 6,107

Ports

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

AL LATAKIA, SYRIA

(35°31'40"N., 35°45'35"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 310
Strait of Gibraltar, 2,029

Ports

Alexandria, Arab Republic of 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
Tunis, Tunisia, 1,258
Valencia, Spain, 1,765

AL MANAMAH, AL BAHRAYN

(26°17'00"N., 50°32'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,957
Port Said, Arab Republic of Egypt, 3,132
Singapore, 3,652

Ports

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

ALBANY, AUSTRALIA

(35°02'40"S., 117°54'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,740
Cape Leeuwin, Australia, 168
Singapore, 2,525
Wilson Promontory, Australia, 1,378

Ports

Aden, Yemen, 5,127
Durban, Republic of 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

ALBANY, NEW YORK, U.S.A.

(42°37'54"N., 73°45'18"W.) Add

126 miles to New York distances.

ALBATROSS BAY, AUSTRALIA
(12°41'24"S., 141°32'57"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 6,793
Cape Leeuwin, Australia, 2,677
Selat Lombok, Indonesia, 1,583
Port Said, Arab Republic of Egypt, 7,406
Torres Strait, Australia, 156
Selat Wetar, Indonesia, 872

Ports

Ambon, Indonesia, 1,036
Darwin, Australia, 725
Ho Chi Minh, Vietnam, 2,730
Hong Kong, B.C.C., 2,727
Manila, Philippines, 2,166
Tjilatjap, Indonesia, 1,961
Zamboanga, Philippines, 1,681

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, Republic of 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, B.C.C., 2,250
Honolulu, Hawaii, U.S.A., 3,589
Incheon, Republic of 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
Matsugahama, Japan, 589
Mogpo, Republic of South Korea, 1,330
Moskal'vo, Russia, 230
Nagasaki, Japan, 1,253
Nampo, Democratic People's Republic of Korea, 1,601
Nikolayevsk-Na-Amure, Russia, 162
Osaka, Japan, 1,394
Pago Pago, American Samoa, 4,765
Petropavlovsk-Kamchatskiy, Russia (via Chetverty 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, Republic of 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, ARAB REPUBLIC OF EGYPT
(31°10'41"N., 29°51'28"E.) to:

Junction Points*

Port Said, Arab Republic of 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
Ashod, 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
Castellamare 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
Odesa, 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, Arab Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 1,514
Strait of Gibraltar, 437

Ports

Alexandria, Arab Republic of 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
Odesa, 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, Arab Republic of Egypt, 1,680
Strait of Gibraltar, 317

Ports

Alexandria, Arab Republic of 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

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

Napoli, Italy, 723
 Odesa, Ukraine (via Corinth Canal), 1,888
 Oran, Algeria, 159
 Palermo, Sicily, 667
 Palma, Balearic Islands, 173
 Piraievs, Greece (south of Greece), 1,246
 Piraievs, 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, Arab Republic of Egypt, 1,780
 Strait of Gibraltar, 171

Ports

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

ALMIRANTE, PANAMA
 (9°17'12"N., 82°23'32"W.) to:

Junction Points*

Panama, Panama, 198
 Yucatan Channel, 814

Ports

Barranquilla, Colombia, 477
 Cienfuegos, Cuba, 788
 Kingston, Jamaica, 657

ALTAGRACIA, VENEZUELA
 (10°42'30"N., 71°32'00"W.)
 Subtract 6 miles from Maracaibo distances.

AMAGASAKI, JAPAN
 (34°41'00"N., 135°23'00"E.) Add 4 miles to Osaka for ports outside the Inland Sea.

AMAPALA, HONDURAS
 (13°18'00"N., 87°39'30"W.) to:

Junction Points*

Panama, Panama, 745

Ports

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

AMBON, INDONESIA
 (3°41'30"S., 128°10'25"E.) to:

Junction Points*

Selat Lombok, Indonesia, 819
 Torres Strait, Australia, 964

Ports

Manila, Philippines, 1,260
 Port Darwin, Australia, 579
 Surabaya, Indonesia, 980

AMLWCH, WALES
 (53°26'55"N., 4°18'09"W.) to:

Junction Points*

Bishop Rock, England, 259
 Fastnet Rock, Republic of Ireland, 252
 Inishtrahull, Republic of Ireland, 183

Ports

Ardrossan, Scotland, 145
 Cobh, Republic of Ireland, 190
 Milford Haven, Wales, 112
 Port Talbot, Wales, 171
 Swansea, Wales, 165

AMSTERDAM, NETHERLANDS
 (52°23'00"N., 4°54'00"E.) to:

Junction Points*

Bishop Rock, England, 481
 Ile d'Ouessant, France, 465
 Nord-Ostsee Kanal (East Entrance) Germany, 291
 Pentland Firth, Scotland, 481
 Skagens Odde, Denmark, 422

Ports

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

AMUAY, VENEZUELA
 (11°44'39"N., 70°13'56"W.) to:

Junction Points*

Panama, Panama, 678
 Yucatan Channel, 1,050

Ports

Barranquilla, Colombia, 325
 La Guaira, Venezuela, 276
 Santiago de Cuba, Cuba, 600

ANACORTES, WASHINGTON, U.S.A.
 (48°30'48"N., 122°35'18"W.)
 Subtract 23 miles from Seattle, Washington distances.

ANAN, JAPAN
 (33°52'36"N., 134°44'20"E.) See Tatibanako, Japan

ANCONA, ITALY
 (43°37'22"N., 13°30'18"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt (south of Greece), 1,206
 Strait of Gibraltar, 1,580

Ports

Alexandria, Arab Republic of 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
 Odesa, Ukraine (south of Greece), 1,407
 Odesa, Ukraine (via Corinth Canal), 1,310
 Oran, Algeria, 1,349
 Palermo, Sicily, 652
 Palma, Balearic Islands, 1,170
 Piraievs, Greece (south of Greece), 745
 Piraievs, 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
 Volos, Greece (via Corinth Canal), 798
 Zadar, Croatia, 87

ANECHO, TOGO
 (6°13'15"N., 1°35'35"E.) to:

Junction Points*

Cape of Good Hope, Republic of SouthAfrica, 2,615
 Ile d'Ouessant, France, 3,704

Ports

Douala, Cameroon, 526
 Monrovia, Liberia, 850

ANGO ANGO, REPUBLIC OF ZAIRE
 (5°50'30"S., 13°26'00"E.) Add 27 miles to Boma distances.

ANGRA DOS REIS, BRAZIL
 (23°01'00"S., 44°18'42"W.) to:

Junction Points*

Panama, Panama, 4,527
 Punta Arenas, Chile, 2,212

Ports

Montevideo, Uruguay, 1,031
 Salvador, Brazil, 902

ANNABA, ALGERIA
 (36°54'00"N., 7°46'19"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,289

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

Strait of Gibraltar, 675

Ports

Alexandria, Arab Republic of 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, France, 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
 Odesa, Ukraine (south of Greece), 1,516
 Odesa, Ukraine (via Corinth Canal), 1,499
 Oran, Algeria, 444
 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, Arab Republic of Egypt, 346
 Strait of Gibraltar, 1,822

Ports

Alexandria, Arab Republic of 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
 Matsugahama, Japan, 350
 Pago Pago, American Samoa, 4,358
 Shiogama, 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, Republic of South Africa, 3,523

Fastnet Rock, Republic of Ireland, 3,870
 Grand Banks South, 3,969
 Ile d'Ouessant, France, 3,777
 Inishtrahull, Republic of 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, Republic of Zaire, 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, Republic of Zaire, 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, Fernando Poo, 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 POINT.**—See Preface for use of junction points

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, Marquesas, 1,886
 Brisbane, Australia, 2,177
 Callao, Peru, 5,492
 Christmas Island, Line Islands, 1,274
 Enderbury Island, Phoenix Islands, 641
 Funafuti Island, Tuvalu, 632
 Hakodate, Japan, 4,252
 Hobart, Tasmania, 2,776
 Hong Kong, B.C.C., 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
 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
 Talamaco, 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.):

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, Marquesas, 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 Island, Tuvalu, 2,455
 Guayaquil, Ecuador, 8,147
 Hakodate, Japan, 1,739
 Ho Chi Minh, Vietnam, 2,304
 Hobart, Tasmania, 3,683
 Hong Kong, B.C.C., 1,822
 Honolulu, Hawaii, U.S.A., 3,318
 Iloilo, Philippines, 1,366
 Incheon, Republic of 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
 Talamako, 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.):

Junction Points*

Bishop Rock, England, 4,021
 Cape of Good Hope, Republic of South Africa, 3,324
 Fastnet Rock, Republic of Ireland, 4,046
 Grand Banks South, 3,436
 Ile d'Ouessant, France, 3,988
 Inishtrahull, Republic of 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, Republic of 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
 Salvada, Brazil, 161
 Washington, D.C., U.S.A., 4,024

ARBATAX, ITALY
 (39°56'40"N., 9°42'45"E.):

Junction Points*

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

Ports

Alexandria, Arab Republic of 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
 Trarabulus, Lebanon, 1,332

ARDROSSAN, SCOTLAND
 (55°38'30"N., 4°49'30"W.):

Junction Points*

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

Ports

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

ARENDAL, NORWAY
 (58°27'30"N., 8°46'30"E.):

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.):

Junction Points*

Bishop Rock, England, 1,949
 Cape of Good Hope, Republic of South Africa, 6,294
 Fastnet Rock, Republic of Ireland, 1,819
 Inishtrahull, Republic of 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, Arab Republic of
Egypt, 754
Strait of Gibraltar (via Strait of
Messina), 1,292

Ports

Algiers, Algeria, 862
Alicante, Spain, 1,015
Arzew, Algeria, 1,038
Banghazi, 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
Naples, 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
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, Republic of 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, Republic of
South Africa, 4,530
Fastnet Rock, Republic of Ireland,
1,355
Grand Banks South, 1,934
Ile d'Ouessant, France, 1,248
Inishtrahull, Republic of 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, Arab Republic of
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, Republic of
South Africa, 4,181
Cape Leeuwin, Australia, 5,204
Selat Lombok, Indonesia, 4,684
Port Said, Arab Republic of
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, Arab Republic of
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, Republic of
South Africa, 5,258
Cape Leeuwin, Australia, 5,426
Selat Lombok, Indonesia, 4,688
Port Said, Arab Republic of
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, Arab Republic of
Egypt, 126
Strait of Gibraltar, 2,031

Ports

Alexandria, Arab Republic of
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, Republic of
South Africa, 4,056
Port Said, Arab Republic of
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, B.C.C., 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 Kaikyō and Koshiki Kaikyō), 4,930
 Nagasaki, Japan (via Tokara Kaikyō), 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
 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, Arab Republic of Egypt, 932
 Strait of Gibraltar, 1,065

Ports

Alexandria, Arab Republic of 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, B.C.C., 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, Republic of South Africa, 5,266
 Fastnet Rock, Republic of Ireland, 644
 Grand Banks South, 1,834
 Ile d'Ouessant, France, 536
 Inishtrahull, Republic of 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

Argentia, 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, Republic of 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, British Guiana, 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, Republic of Ireland, 202
 Pentland Firth, Scotland, 624

Ports

Barrow in Furness, England, 288
 Belfast, Northern Ireland, 308
 Dublin, Republic of 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, Arab Republic of Egypt, 431
 Straits of Gibraltar, 1,554

Ports

Alexandria, Arab Republic of Egypt, 343
 Antibes, France, 1,063

Arzew, Algeria, 1,295
 Bat'umi, Georgia, 1,035
 Cartagena, Spain, 1,313
 Castellamare 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, ARAB REPUBLIC OF EGYPT
 (29°33'47"N., 32°25'43"E.) to:

Junction Points*

Cape of Good Hope Republic of South Africa, 5,204
 Cape Leeuwin, Australia, 6,228
 Port Said, Arab Republic of 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 CAYO MOA, CUBA
 (20°40'00"N., 74°54'00"W.) to:

Junction Points*

Panama, Panama, 853
 Straits of Florida, 510

<p>Ports</p> <p>Kingston, Jamaica, 301 Nuevitas, Cuba, 154 San Juan, Puerto Rico, 533</p> <p>BAHIA DE LAS CALDERAS, DOMINICAN REPUBLIC (18°13'30"N., 70°31'30"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 810</p> <p>Ports</p> <p>Barranquilla, Colombia, 508 Kingston, Jamaica, 378 San Juan, Puerto Rico, 273 Willemstad, Curacao, 392</p> <p>BAHIA DE SAMANA, DOMINICAN REPUBLIC (19°10'00"N., 69°13'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,015 Straits of Florida, 864</p> <p>Ports</p> <p>New York, New York, U.S.A., 1,328 Nuevitas, Cuba, 510 San Juan, Puerto Rico, 185</p> <p>BAHIA HONDA, CUBA (22°57'20"N., 83°10'30"W.) to:</p> <p>Junction Points*</p> <p>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</p> <p>BAIE TAIO-HAE, MARQUESAS (8°56'00"S., 140°05'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 3,826</p> <p>Ports</p> <p>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</p> <p>BAJO GRANDE, VENEZUELA (10°30'30"N., 171°36'00"W.) Add 8 miles to Maracaibo distances.</p> <p>BAKER ISLAND, NORTH PACIFIC (0°13'30"N., 176°28'00"W.) to:</p> <p>Ports</p> <p>Howland Island, 37</p>	<p>Noumea, New Caledonia, 1,707 Suva, Fiji Islands, 1,202 Sydney, Australia, 2,752</p> <p>BALBOA, PANAMA (8°57'30"N., 79°34'15"W.) See Panama, Panama, to which add 5 miles for Pacific Ocean distances, and from which subtract 5 miles for Atlantic Ocean distances.</p> <p>BALIKPAPAN, KALIMANTAN, INDONESIA (1°16'00"S., 116°48'30"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 472 Singapore (via Selat Riouw), 1,053 Selat Sunda, Indonesia, 837 Selat Wetar, Indonesia, 870</p> <p>Ports</p> <p>Belawan, Indonesia, 1,422 Manila, Philippines, 1,057 Mogpo, Republic of South Korea, 2,308</p> <p>BALTIMORE, MARYLAND, U.S.A. (39°16'00"N., 76°34'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,224 Fastnet Rock, Republic of Ireland, 3,102 Inishtrahull, Republic of 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</p> <p>Ports</p> <p>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, Republic of 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</p>	<p>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, Columbia (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</p> <p>BANANA, REPUBLIC OF ZAIRE (6°02'31"S., 12°22'40"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 4,500 Cape of Good Hope, Republic of South Africa, 4,229 Fastnet Rock, Republic of Ireland, 4,553 Grand Banks South, 4,649 Ile d'Ouessant, France, 4,459 Inishtrahull, Republic of 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</p>	<p>Ports</p> <p>Abidjan, Ivory Coast, 1,194 Cape Town, Republic of 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</p> <p>BANDAR ABBAS, IRAN (27°08'00"N., 56°19'00"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 2,842 Singapore, 3,381</p> <p>Ports</p> <p>Aden, Yemen, 1,453 Al Basrah, Iraq, 572 Karachi, Pakistan, 643</p> <p>BANDAR AL MISHAB, SAUDI ARABIA (28°10'06"N., 48°42'37"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, Republic of South Africa, 5,221 Cape Leeuwin, Australia, 5,388 Selat Lombok, Indonesia, 4,879 Port Said, Arab Republic of Egypt, 3,023 Singapore, 3,835 Selat Sunda, Indonesia, 4,060 Torres Strait, Australia, 6,219</p> <p>Ports</p> <p>Aden, Yemen, 1,985 Al Aqabah, Jordan, 3,242 Colombo, Sri Lanka, 2,248 Massawa, Ethiopia, 2,418 Port Sudan, Sudan, 2,651</p> <p>BANDAR KHOMEINI, IRAN (30°26'30"N., 49°05'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, Republic of South Africa, 5,169 Port Said, Arab Republic of Egypt, 3,322 Singapore, 3,872</p> <p>Ports</p> <p>Al Basrah, Iraq, 154 Al Manamah, Al Bahrayn, 288 Bushehr, Iran, 158</p> <p>BANDAR-E MAH SHAHR, IRAN (30°27'40"N., 49°10'30"E.) Add 6 miles to Bandar Khomeini distances.</p> <p>BANDJERMASIN, KALIMANTAN, INDONESIA (3°20'00"S., 114°33'00"E.) to:</p> <p>Junction Points*</p> <p>Selat Lombok, Indonesia, 357 Singapore, 830 Selat Sunda, Indonesia, 775</p>
--	--	---	---

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

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, Arab Republic of Egypt, 673
 Strait of Gibraltar, 1,356

Ports

Alexandria, Arab Republic of 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, Arab Republic of Egypt, 267
 Messina, Sicily, 430
 Napoli, Italy, 602
 Odesa, 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
 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, Republic of South Korea, 2,533
 Incheon, Republic of South Korea, 2,591
 Kompong Som, Cambodia, 300
 Los Angeles, California, U.S.A. (via Balintang Channel), 7,775
 Manila, Philippines, 1,435
 Mogpo, Republic of South Korea, 2,438
 Nampo, Democratic People's Republic of Korea, 2,652
 Petropavlovsk-Kamchatskiy, Russia, 4,252
 Vinh Cam Ranh, Vietnam, 817
 Vladivostok, Russia, 3,035
 Weonsan, Democratic People's Republic of Korea, 2,885

BANIYAS, SYRIA

(35°11'00"N., 35°57'00"E.) to:

Junction Points*

Port Said, Arab Republic of 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, REPUBLIC OF GAMBIA

(13°31'43"N., 16°35'05"W.) to:

Junction Points*

Bishop Rock, England, 2,294
 Cape of Good Hope, Republic of South Africa, 3,492
 Fastnet Rock, Republic of Ireland, 2,354
 Grand Banks South, 2,467
 Ile d'Ouessant, France, 2,261
 Inishtrahull, Republic of 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, REPUBLIC OF IRELAND

(51°41'00"N., 9°27'00"W.) to:

Junction Points*

Bishop Rock, England, 159
 Cape of Good Hope, Republic of South Africa, 5,867
 Fastnet Rock, Republic of Ireland, 22
 Grand Banks South, 1,720
 Ile d'Ouessant, France, 236
 Inishtrahull, Republic of 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. Johns, Canada, 1,674
 Tromsø, Norway, 1,453

BANZART, TUNISIA

(37°14'13"N., 9°51'00"E.) to:

Junction Points*

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

Ports

Alexandria, Arab Republic of 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
 Odesa, 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, Arab Republic of 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
 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, Arab Republic of Egypt, 1,600
 Strait of Gibraltar, 534

Ports

Alcudia, Balearic Islands, 114
 Alexandria, Arab Republic of 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
 Mentone, France, 285
 Messina, Sicily, 681
 Monaco, Monaco, 280
 Napoli, Italy, 559
 Odesa, Ukraine (south of Greece), 1,834
 Odesa, 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
 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, Arab Republic of Egypt, 999
 Strait of Gibraltar, 1,374

Ports

Alexandria, Arab Republic of 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
 Odesa, Ukraine (south of Greece), 1,200
 Odesa, 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, Republic of Ireland, 302
 Inishtrahull, Republic of Ireland, 186
 Pentland Firth, Scotland, 427

Ports

Avonmouth, England, 288
 Belfast, Northern Ireland, 116
 Brest, France, 416
 Cardiff, Wales, 273
 Cherbourg, France, 448
 Cobh, Republic of Ireland, 252
 Dublin, Republic of 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, Republic of South Africa, 5,032
 Cape Leeuwin, Australia, 906
 Selat Lombok, Indonesia, 730
 Port Said, Arab Republic of Egypt, 6,028
 Selat Sunda, Indonesia, 1,129
 Torres Strait, Australia, 1,750

Ports

Aden, Yemen, 4,641
 Bombay, India, 3,551
 Busan, Republic of 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, Arab Republic of
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 à 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, Arab Republic of
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, B.C.C., 408
Kao-hsiung Kang, Taiwan, 811

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

Junction Points*

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

Ports

Douala, Cameroon, 141
Matadi, Republic of Zaire, 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

**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, Arab Republic of
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
Odesa, 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., 00°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, B.C.C., 391

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

Junction Points*

Cape of Good Hope, Republic of
South Africa, 1,454
Port Said, Arab Republic of
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, Arab Republic of
Egypt, 230
Strait of Gibraltar, 2,034

Ports

Ajaccio, Corsica, 1,437
Alexandria, Arab Republic of
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
Odesa, 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, Arab Republic of 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, Republic of South Africa, 5,246
 Selat Lombok, Indonesia, 1,342
 Port Said, Arab Republic of 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, Al Bahrayn, 3,316
 Balikpapan, Kalimantan, 1,422
 Beira, Mozambique, 4,187
 Berbera, Somali Republic, 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, Republic of 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, Republic of South Africa, 5,051
 Port Elizabeth, Republic of 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 Or Good Hope, Republic of South Africa, 4,368
 Fastnet Rock, Republic of Ireland, 3,741
 Ile d'Ouessant, France, 3,748
 Inishtrahull, Republic of 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
 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
 Guirra, 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. Johns, 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, Republic of Ireland, 311
 Inishtrahull, Republic of Ireland, 97
 Pentland Firth, Scotland, 341

Ports

Antwerp, Belgium, 722
 Avonmouth, England, 308
 Barrow in Furness, England, 116
 Cardiff, Wales, 293
 Cobh, Republic of Ireland, 264
 Fishguard, Wales, 182
 Le Harve, France, 542
 Limerick, Republic of 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, SOMALI REPUBLIC
 (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'KY, UKRAINE

(46°11'33"N., 30°21'55"E.) to:

Junction Points*

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

Ports

Alexandria, Arab Republic of Egypt, 1,106
 Beirut, Lebanon, 1,218
 Constanta, Romania, 153
 Haifa, Israel, 1,219
 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, Republic of South Africa, 5,790
 Fastnet Rock, Republic of Ireland, 149
 Grand Banks South, 1,830
 Ile d'Ouessant, France, 80
 Inishtrahull, Republic of 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 Haitian, Haiti, 3,565
 Cape Town, Republic of 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, Republic of 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, Republic of 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
 Tromso, 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, Republic of 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, Republic of
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
Tromso, 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

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

Ports

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

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

Junction Points*

Bishop Rock, England, 4,493
Cape of Good Hope, Republic of
South Africa, 4,223
Fastnet Rock, Republic of Ireland,
4,546
Grand Banks South, 4,642
Ile d'Ouessant, France, 4,452
Inishtrahull, Republic of 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, Republic of 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, Republic of
South Africa (via west of
Madagascar), 4,554
Cape Leeuwin, Australia, 4,059
Port Said, Arab Republic of
Egypt, 3,046
Singapore, 2,441
Selat Sunda, Indonesia, 2,664
Torres Strait, Australia (via 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, Republic of 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
Marmugao, 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, Arab Republic of
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
Saban, 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, Republic of
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, Republic of 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
Ja Pallice, France, 103
Lagos, Nigeria, 3,817
Lisboa, Portugal, 732
Luanda, Angola, 4,623
New London, Connecticut,
U.S.A., 3,153

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

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, Republic of South Africa, 6,722
 Fastnet Rock, Republic of Ireland, 2,647
 Inishtrahull, Republic of 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, Republic of 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 Points*

Port Said, Arab Republic of Egypt, 390
 Strait of Gibraltar, 2,049

Ports

Beirut, Lebanon, 178
 Istanbul, Turkey, 846
 Piraeus, Greece, 650

Tarabulus, Libya, 1,147

BOTWOOD, CANADA
 (49°09'00"N., 55°20'24"W.) to:

Junction Points*

Bishop Rock, England, 1,868
 Fastnet Rock, Republic of Ireland, 1,731
 Grand Banks South, 560
 Inishtrahull, Republic of 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

Ports

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

BOULOGNE, FRANCE
 (50°43'30"N., 1°36'00"E.) to:

Junction Points*

Bishop Rock, England, 322

Ports

Cardiff, Wales, 429
 Dublin, Republic of Ireland, 496
 Glasgow, Scotland, 672
 Hull, England, 225
 Le Havre, France, 98
 Manchester, England, 601
 Plymouth, England, 226
 Southampton, England, 120
 Yarmouth, England, 113

BOWEN, AUSTRALIA
 (20°01'30"S., 148°15'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,975
 Torres Strait, Australia, 760

Ports

Brisbane, Australia, 610
 Bunbury, Australia, 3,072
 Noumea, New Caledonia, 1,342

BOWLING, SCOTLAND
 (55°55'45"N., 4°29'07"W.) to:

Junction Points*

Bishop Rock, England, 377
 Fastnet Rock, Republic of Ireland, 377
 Inishtrahull, Republic of Ireland, 125

Ports

Ardrossan, Scotland, 33
 Avonmouth, England, 384
 Cardiff, Wales, 368
 Cobn, Republic of Ireland, 329
 Fishguard, Wales, 248
 Glasgow, Scotland, 10
 Stornoway, Scotland, 273

BRAKE, GERMANY
 (53°19'55"N., 8°29'30"E.) Add 14 1/2 miles to Bremerhaven distances.

BRASS RIVER (OFFSHORE TERMINAL), NIGERIA
 (4°04'00"N., 6°17'17"E.) to:

Junction Points*

Bishop Rock, England, 3,971
 Cape of Good Hope, Republic of South Africa, 3,534
 Fastnet Rock, Republic of Ireland, 4,024
 Grand Banks South, 4,123
 Ile d'Ouessant, France, 3,863
 Inishtrahull, Republic of 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

Ports

Abidjan, Ivory Coast, 632
 Boston, Massachusetts, U.S.A., 4,931
 Cape Town, Republic of 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

BREMEN, GERMANY
 (53°06'30"N., 8°45'00"E.) For ocean distances add 34 miles to Bremerhaven distances.

BREMERHAVEN, GERMANY
 (53°33'00"N., 8°33'30"E.) to:

Junction Points*

Bishop Rock, England, 657
 Ile d'Ouessant, France, 647
 Nord-Ostsee Kanal (East Entrance), Germany, 129
 Pentland Firth, Scotland, 507
 Skagens Odde, Denmark, 320

Ports

Aberdeen, Scotland, 425
 Amsterdam, Netherlands, 223
 Antwerp, Belgium, 333
 Bergen, Norway, 447
 Cherbourg, France, 485
 Dover, England, 341
 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

BREMERTON, WASHINGTON, U.S.A.
 (47°33'30"N., 122°38'00"W.) For distances outside Puget Sound add 9 miles to Seattle distances.

BREST, FRANCE
 (48°22'30"N., 4°33'00"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,757
 Ile d'Ouessant, France, 55
 Straits of Florida, 3,953

Ports

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
 Guantánamo, 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

BREVIK, NORWAY
 (59°03'00"N., 9°41'30"E.) to:

Junction Points*

Bishop Rock, England, 886
 Ile d'Ouessant, France, 871
 Nord-Ostee Kanal (East Entrance), Germany, 307
 Pentland Firth, Scotland, 451
 Skagens Odde, Denmark, 82

Ports

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

BRIDGEPORT, CONNECTICUT, U.S.A.
 (41°10'18"N., 73°10'48"W.) to:

Junction Points*

Panama, Panama, 2,118

Ports

Halifax, Canada, 552
 La Habana, Cuba, 1,292

BRIDGETOWN, BARBADOS
 (13°05'00"N., 59°37'00"W.) to:

Junction Points*

Panama, Panama, 1,280
 Straits of Florida, 1,511
 Yucatan Channel, 1,549

Ports

Baltimore, Maryland, U.S.A., 1,853
 Belem, Brazil, 1,154
 Boma, Republic of Zaire, 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

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, Republic of 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, Arab Republic of Egypt, 941
 Strait of Gibraltar, 1,315

Ports

Alexandria, Arab Republic of 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

Odesa, Ukraine (south of Greece), 1,142
 Odesa, Ukraine (via Corinth Canal), 1,045
 Oran, Algeria, 1,084
 Palermo, Sicily, 387
 Palma, Balearic Islands, 905
 Pescara, Italy, 209
 Piraievs, Greece (south of Greece), 480
 Piraievs, 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-Ostee Kanal (East
 Entrance), Germany, 679
 Pentland Firth, Scotland, 737
 Skagens Odde, Denmark, 757

Ports

Cherbourg, France, 81
 Cobh, Republic of 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, Republic of
 South Africa, 5,460
 Cape Leeuwin, Australia, 1,316
 Selat Lombok, Indonesia, 673
 Port Said, Arab Republic of
 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, Republic of 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, Republic of
 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:

Junction Points*

Panama, Panama, 352

Ports

Callao, Peru, 1,126
 Golfito, Costa Rica, 426
 Guayaquil, Ecuador, 578
 La Libertad, Ecuador, 445
 San Francisco, California, U.S.A.,
 3,383

**BUENOS AIRES,
 ARGENTINA**
 (34°35'00"S., 58°22'00"W.) to:

Junction Points*

Bishop Rock, England, 5,947
 Cape of Good Hope, Republic of
 South Africa, 3,704
 Ile d'Ouessant, France, 5,916
 Inishtirahull, Republic of 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

Ports

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, Republic of 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
 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

**BUKHTA NAGAYEVA,
 RUSSIA**
 (59°33'00"N., 150°45'00"E.) to:

Ports

Moskal'vo, Russia, 472
 Petropavlovsk-Kamchatskiy,
 Russia, 864
 Zaliv Urkt, Russia, 441

**BUKTA SHELIKHOVA,
 KURIL ISLANDS, RUSSIA**
 (50°23'00"N., 155°37'00"E.) to:

Ports

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
 Muroan, Japan, 858
 Nikolayevsk-Na-Amure, Russia
 (north of Sakhalin), 676
 Otaru, Japan, 788
 Petropavlovsk-Kamchatskiy,
 Russia, 224
 Vladivostok, Russia, 1,122
 Wakkanai, Japan, 643

BUNBURY, AUSTRALIA
 (33°17'50"S., 115°38'40"E.) to:

Junction Points*

Cape Leeuwin, Australia, 97
 Selat Lombok, Indonesia, 1,510
 Port Said, Arab Republic of
 Egypt, 6,343

Ports

Bowen, Australia, 3,072
 Port Adelaide, Australia, 1,260
 Port Darwin, Australia, 1,906

BUNDABERG, AUSTRALIA
(24°45'29"N., 152°27'33"E.) to:**Junction Points***

Panama, Panama (via Central Route), 8,249
 Punta Arenas, Chile (via Cook Strait), 6,062
 Torres Strait, Australia, 1,182
 Wilson Promontory, Australia, 1,089

Ports

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
 Valparaíso, Chile (via Cook Strait and Curtis Channel), 6,615

BUR IBRAHIM, ARAB REPUBLIC OF EGYPT
 (29°55'30"N., 32°32'30"E.) For distances via Red Sea subtract 88 miles from Port Said distances.

BUR SAFAGA, ARAB REPUBLIC OF EGYPT
 (26°44'00"N., 33°56'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,016
 Port Said, Arab Republic of Egypt, 310
 Singapore, 4,729

Ports

Aden, Yemen, 1,109
 Port Sudan, Sudan, 508

BUREA, SWEDEN
 (64°37'10"N., 21°14'25"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 844
 Skagens Odde, Denmark (via The Sound), 90

Ports

Helsinki, Finland, 404
 Kobenhavn, Denmark, 774
 Reposaari, Finland, 222
 Stockholm, Sweden, 389

BURGAS, BULGARIA
 (42°28'50"N., 27°27'13"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 930
 Strait of Gibraltar (via south of Greece), 1,965

Ports

Alexandria, Arab Republic of 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
 Naples, Italy, 1,100
 Novorossiysk, Russia, 476

BURNIE HARBOR, AUSTRALIA
 (41°03'00"S., 145°55'00"E.) to:

Junction Points*

Wilson Promontory, Australia, 116

Ports

Hobart, Tasmania, 332
 Melbourne, Australia, 223
 Sydney, Australia, 525

BURNSIDE, LOUISIANA, U.S.A.
 (30°08'00"N., 90°55'00"W.) Add 63 miles to New Orleans distances.

BURUTU, NIGERIA
 (5°25'45"N., 5°06'28"E.) to:

Junction Points*

Bishop Rock, England, 3,908
 Cape of Good Hope, Republic of South Africa, 3,499
 Fastnet Rock, Republic of Ireland, 3,961
 Grand Banks South, 4,060
 Ile d'Ouessant, France, 3,868
 Inishtrahull, Republic of 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

Ports

Abidjan, Ivory Coast, 565
 Cape Town, Republic of S. 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

BUSAN, REPUBLIC OF SOUTH KOREA
 (35°06'00"N., 129°03'00"E.) to:

Junction Points*

Singapore, 2,502
 Selat Sunda, Indonesia, 2,855
 Selat Wetar, Indonesia (via Molucca Passage and Selat Manipa), 2,632

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,118
 Bangkok, Thailand (outer bar), 2,533

Chongjin, Democratic People's Republic of Korea, 417
 Dagu, China (via-Maenggol Sudo), 702
 Dalian, China (via Maenggol Sudo), 543
 Gunsan, Republic of South Korea, 376
 Hakodate, Japan, 686
 Higashi-Iwase, Japan, 492
 Ho Chi Minh, Vietnam, 1,999
 Hong Kong, B.C.C., 1,144
 Honolulu, Hawaii, U.S.A., 3,973
 Hua-lien Kang, Taiwan, 782
 Incheon, Republic of South Korea (via Maenggol Sudo), 402
 Jakarta, Indonesia, 2,836
 Kimchaek, Democratic People's Republic of 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, Republic of South Korea, 225
 Nagasaki, Japan, 163
 Naha, Ryukyu Islands, 550
 Nakhodka, Russia, 508
 Nampo, Democratic People's Republic of 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, Republic of South Korea, 63
 Ube, Japan, 143
 Unggi, Democratic People's Republic of Korea, 452
 Vladivostok, Russia, 514
 Wakamatsu, Japan, 120
 Weihai, China, 474
 Weonsan, Democratic People's Republic of Korea, 308
 Xiamen, China, 885
 Yantai, China (via Maenggol Sudo), 508
 Yeosu, Republic of South Korea, 97
 Yokohama, Japan, 665

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

Junction Points*

Cape of Good Hope, Republic of 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

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

Junction Points*

Cape of Good Hope, Republic of 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, Republic of Zaire, 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, Republic of 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, Republic of 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, Arab Republic of Egypt, 1,255
 Strait of Gibraltar, 750

Ports

Alexandria, Arab Republic of Egypt, 1,136
 Algiers, Algeria, 332
 Alicante, Spain, 473
 Banzart, Tunisia, 126
 Barcelona, Spain, 379
 Bari, Italy, 652
 Cannes, France, 347
 Castellamare 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
 Piraievs, Greece (south of Greece), 820
 Piraievs, 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, Republic of Ireland, 338
 Inishtrahull, Republic of 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, Republic of South Africa, 2,458
 Ile d'Ouessant, France, 4,054
 Strait of Gibraltar, 3,420

Ports

Lagos, Nigeria, 391
 Matadi, Republic of Zaire, 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 Points*

Cape of Good Hope, Republic of 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, Arab Republic of 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, Al Bahrain, 3,355
 Assab, Ethiopia, 3,446
 Bandar Abbas, Iran, 3,058
 Bassein, Burma, 643
 Belawan, Indonesia, 1,326
 Bombay, India, 2,128
 Bushehr, Iran, 3,414
 Chalna, Munгла 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
 Mombassa, 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
 Mombassa, 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
Talachahuano, 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, Republic of Ireland, 342
Inishtrahull, Republic of Ireland, 82

Ports

Belfast, Northern Ireland, 53
Cardiff, Wales, 333
Cobh, Republic of Ireland, 289
Dublin, Republic of 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, Arab Republic of 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, Republic of 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

Ports

Argentina, 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 a Pitre, Guadeloupe (via Mona Passage), 703
Pointe a 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, Republic of 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

Argentina, 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, Republic of 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 POINT.—See Preface for use of junction points

Junction Points*

Cape of Good Hope, Republic of South Africa (via 30°S.), 5,068
 Selat Lombok, Indonesia, 1,571
 Port Said, Arab Republic of 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, Republic of 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, Republic of South Africa, 2,105
 Fastnet Rock, Republic of Ireland, 4,200
 Grand Banks South, 4,299
 Ile d'Ouessant, France, 4,107

Inishterahull, Republic of 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, Republic of 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,
 REPUBLIC OF 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, Republic of Ireland, 5,880
 Grand Banks South, 5,954
 Ile d'Ouessant, France, 5,746
 Inishterahull, Republic of 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, Arab Republic of 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, Arab Republic of 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, Republic of Zaire, 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, Arab Republic of Egypt, 5,016
 Bushehr, Iran, 5,053
 Cabedelo, Brazil, 3,374
 Calabar, Nigeria, 2,458
 Calcutta, India, 5,603
 Cape Town, Republic of South Africa, 45
 Chalna, Mungla Anchorage, Bangladesh, 5,458
 Charleston, South Carolina, U.S.A., 6,838
 Chittagong, Bangladesh, 5,492
 Cobh, Republic of 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
 Durban, Republic of South Africa, 764
 East London, Republic of 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
 Horta, Azores, 5,152
 Inhambane, Mozambique, 1,228
 Jacksonville, Florida, U.S.A., 6,862
 Jibuti, Republic of Jibuti, 4,089
 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
 Marmgao, 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
 Mogadiscio, Somali Republic, 2,855
 Mombasa, Kenya, 2,472
 Montevideo, Uruguay, 3,701
 Mosselbaai, Republic of 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 Island, 5,075
 Port Darwin, Australia, 6,100
 Port Elizabeth, Republic of South Africa, 390
 Port Etienne, Mauritania, 4,018
 Port Louis, Mauritius, 2,382
 Port Nolloth, Republic of 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, Arab Republic of Egypt, 5,189
 Ras Gharib, Arab Republic of 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, 4,453
 Simons Bay, Republic of South Africa, Suakin, Sudan, 4,538
 Sulima, Sierra Leone, 3,060
 Swakopmund, Republic of 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, REPUBLIC
 OF SOUTH AFRICA**
 (33°54'00"S., 18°26'00"E.) to:
Junction Points*

Bishop Rock, England, 5,772
 Cape of Good Hope, Republic of 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, Republic of Zaire, 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, Republic of 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, Republic of 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, Republic of Ireland, 246
Pentland Firth, Scotland, 609

Ports

Bantry Bay, Republic of Ireland, 280
Barrow in Furness, England, 273
Belfast, Northern Ireland, 293
Boulogne, France, 431
Brest, France, 277
Cherbourg, France, 309
Cobh, Republic of Ireland, 204
Cork, Republic of Ireland, 210
Dartmouth, England, 239
Douglas, Isle of Man, 246
Dublin, Republic of 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, Republic of 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
Porlamar, Margarita, Venezuela, 785
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, Arab Republic of Egypt, 1,705
Strait of Gibraltar, 259

Ports

Alexandria, Arab Republic of 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
Marseilles, France, 460
Messina, Sicily, 806
Napoli, Italy, 756
Odesa, Ukraine (south of Greece), 1,932
Odesa, 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 Rial 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., 00°01'39"W.) to:

Junction Points*

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

Ports

Ajaccio, Corsica, 419
Alexandria, Arab Republic of Egypt, 1,545
Antibes, France, 392
Arzew, Algeria, 249
Banghazi, Libya, 1,080
Bat'umi, Georgia, 2,127
Castellamare 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, Republic of South Africa, 5,693
Fastnet Rock, Republic of Ireland, 543
Grand Banks South, 2,029
Ile d'Ouessant, France, 331
Inishtrahull, Republic of 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, Arab Republic of Egypt, 942
Strait of Gibraltar, 1,081

Ports

Ajaccio, Corsica, 464
Alexandria, Arab Republic of 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, Republic of Ireland, 204
Cork, Republic of Ireland, 210
Dartmouth, England, 239
Belfast, Northern Ireland, 293
Boulogne, France, 431
Brest, France, 277
Cherbourg, France, 309
Cobh, Republic of Ireland, 204
Cork, Republic of 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, Republic of 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, Republic of 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, Malaysia, 1,355

Ports

Apra, Guam, 1,344
Bataan, Philippines, 390
Batangas, Philippines, 309
Beihai, China, 1,220
Da Nang, Vietnam, 1,049
Dagu, 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, B.C.C. (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 Lumbacan 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
Pulupandan, 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 Lih 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, Arab Republic of Egypt, 1,923
Strait of Gibraltar, 23

Ports

Alexandria, Arab Republic of Egypt, 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
Marseilles, France, 692
Melilla, Morocco, 131
Messina, Sicily, 1,029
Napoli, Italy, 982
Odesa, Ukraine (south of Greece), 2,150
Odesa, 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, Republic of South Africa, 4,862
 Cape Leeuwin, Australia, 4,746
 Selat Lombok, Indonesia, 3,972
 Port Said, Arab Republic of Egypt, 2,626
 Singapore, 3,144
 Sunds Strait, Indonesia, 3,351
 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, Republic of South Africa, 5,458
 Port Said, Arab Republic of 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

Valparaiso, 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, Republic of South Africa, 6,838
 Fastnet Rock, Republic of Ireland, 3,262
 Inishtrahull, Republic of 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
 Argentia, 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, Republic of 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
 Marcaibo, 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 a 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, Republic of Ireland, 3,279
 Inishtrahull, Republic of 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
 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 a 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

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

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, Republic of Ireland, 315
 Dieppe, France, 105
 Dover, England, 146
 Dunkerque, France, 179
 Egersund, Norway, 621
 Emden, Germany, 428
 Esbjerg, Denmark, 514
 Fecamp, France, 79
 Fishguard, Walf, 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, Republic of
 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
 Argentia, Canada, 847
 Belem, Brazil, 3,491
 Cape Town, Republic of 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, REPUBLIC OF SOUTH KOREA

(38°08'40"N., 128°28'3"E.) See
 Jinhae, Republic of South Korea.

CHINNAMPO, DEMOCRATIC PEOPLE'S REPUBLIC OF 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, Arab Republic of
 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, Republic of
 South Africa, 5,492
 Port Said, Arab Republic of
 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
 Marmgao, India, 1,940
 Penang, Malaysia, 1,167
 Port Kelang, Malaysia, 1,311
 Viskakhapatman, India, 578

CHONGJIN, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

(41°46'30"N., 129°49'30"E.) to:

Ports

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

CHRISTIANSAA, 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
 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, Republic of 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
 Kangerluarsoruseq, 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
 Qasigiannuit, 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, Republic of Ireland, 3,950
 Inishtrahull, Republic of Ireland, 4,054
 Panama, Panama, 815
 Pentland Firth, Scotland, 4,234
 Strait of Gibraltar, 4,102
 Yucatan Channel, 285

Ports

Almirante, Rarhama, 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, Republic of 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, Arab Republic of 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
 Mentone, France, 180
 Messina, Sicily, 308
 Napoli, Italy, 152
 Odesa, Ukraine (south of Greece), 1,456
 Odesa, 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, REPUBLIC OF IRELAND
(51°50'50"N., 8°18'00"W.) to:**Junction Points***

Bishop Rock, England, 143
 Cape of Good Hope, Republic of South Africa, 5,892
 Fastnet Rock, Republic of Ireland, 64

Pentland Firth, Scotland, 578

Ports

Barrow in Furness, England, 252
 Belfast, Northern Ireland, 264
 Cape Town, Republic of South Africa, 5,894
 Cardiff, Wales, 204
 Cherbourg, France, 315
 Dublin, Republic of Ireland, 176
 Falmouth, England, 182
 Felixstowe, England, 493
 Fishguard, Wales, 131
 Galway, Republic of Ireland, 222
 Glasgow, Scotland, 346
 Holyhead, Wales, 182
 Inverness, Scotland (via Pentland Firth), 659
 Leith, England (via Pentland Firth), 765
 Limerick, Republic of 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, Arab Republic of Egypt, 3,237
 Singapore, 1,853

Ports

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

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

Cape of Good Hope, Republic of South Africa (via east of Madagascar), 4,317
 Cape Leeuwin, Australia, 3,203
 Port Said, Arab Republic of 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, Republic of 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
 Marmgao, India, 671
 Massawa, Ethiopia, 2,486
 Mombasa, Kenya, 2,518
 Negappattinam, 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
 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, Republic of South Africa, 6,488
 Fastnet Rock, Republic of Ireland (via Caicos Passage), 4,244
 Inishtrahull, Republic of Ireland (via Mona Passage), 4,393
 Inishtrahull, Republic of 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
 Argentina, Canada, 2,640
 Arkhangelsk, 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, Republic of 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
 Ivittutut, 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. Johns, 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, REPUBLIC OF GUINEA
 (9°30'30"N., 13°43'35"W.) to:

Junction Points*

Bishop Rock, England, 2,626
 Cape of Good Hope, Republic of South Africa, 3,209
 Fastnet Rock, Republic of Ireland, 2,689
 Grand Banks South, 2,765
 Ile d'Ouessant, France, 2,584
 Inisheer, Republic of 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, Republic of 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, Arab Republic of 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
 Odesa, 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
 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, REPUBLIC OF 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, Republic of 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, Republic of 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), 5648

Busan, Republic of 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, B.C.C., 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, Republic of 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, Republic of South Korea (south of Kasa Do), 536
Nagasaki, Japan, 754
Nakagusuku, Ryukyu Islands, 1,026
Nampo, Democratic People's Republic of 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, Democratic People's Republic of 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, Republic of South Africa, 3,610
Ile d'Ouessant, France, 2,152
Inishtrahull, Republic of 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

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, Republic of 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, Republic of 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

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

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

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

Junction Points*

Grand Banks South, 770
 Fastnet Rock, Republic of Ireland (via Strait of Belle Isle), 2,183
 Inishtrahull, Republic of 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, Republic of 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, Republic of 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, Republic of 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, Republic of South Korea, 546
 Mogpo, Republic of South Korea (via south of Kasa Do), 377
 Moji, Japan, 633
 Nampo, Democratic People's Republic of 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, Democratic People's Republic of 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, B.C.C., 520
 Manila, Philippines, 758

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

Junction Points*

Cape of Good Hope, Republic of South Africa, 2,330
 Port Said, Arab Republic of 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, Republic of South Africa, 4,820
 Cape Leeuwin, Australia, 5,156
 Selat Lombok, Indonesia, 4,403
 Port Said, Arab Republic of 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, B.C.C., 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, Arab Republic of Egypt, 837
 Strait of Gibraltar (south of Greece), 1,855
 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, Arab Republic of 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 Udjung 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, REPUBLIC OF
JIBUTI**
See Jibuti

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, Republic of Zaire, 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, Republic of Ireland,
274
Inishtrahull, Republic of 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, REPUBLIC OF
IRELAND**
(53°20'45"N., 6°13'00"W.) to:

Junction Points*

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

Ports

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

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

Junction Points*

Port Said, Arab Republic of Egypt
(south of Greece), 1,038
Port Said, Arab Republic of 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, Arab Republic of
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,
REPUBLIC OF 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

Ports

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

DUNEDIN, NEW ZEALAND
(45°53'00"S., 170°31'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,622
Torres Strait, Australia, 2,872

Ports

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

DUNKERQUE, FRANCE
(51°03'00"N., 2°22'00"E.) to:

Junction Points*

Bishop Rock, England, 355
Ile d'Ouessant, France, 351
Nord-Ostsee Kanal (East
Entrance), Germany, 386
Pentland Firth, Scotland, 525

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

Skagens Odde, Denmark, 511

Ports

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

DURBAN, REPUBLIC OF SOUTH AFRICA
(29°52'00"S., 31°02'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 764
Port Said, Arab Republic of Egypt, 4,567
Singapore, 4,872

Ports

Albany, Australia, 4,275
Bombay, India, 3,829
Colombo, Sri Lanka, 3,704
East London, Republic of 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

DURRES, ALBANIA
(41°18'15"N., 19°27'15"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 951
Strait of Gibraltar, 1,349

Ports

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

DUTCH HARBOR, ALASKA, U.S.A.
(53°54'00"N., 166°30'00"W.) to:

Junction Points*

Panama, Panama, 5,246
Punta Arenas, Chile, 8,063
Singapore, 5,364

Ports

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, B.C.C., 4,026
Honolulu, Hawaii, U.S.A., 2,040
Juneau, Alaska, U.S.A., 1,136
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
Matsugahama, 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
Petropavlovsk-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

EAST LONDON, REPUBLIC OF SOUTH AFRICA
(33°01'30"S., 27°54'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 508
Port Said, Arab Republic of Egypt, 4,830
Singapore, 5,082

Ports

Belawan, Indonesia, 4,749
Durban, Republic of 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, Republic of South Africa, 131

EASTER ISLAND, SOUTH PACIFIC
(27°08'30"S., 109°26'30"W.) to:

Junction Points*

Panama, Panama, 2,785

Ports

Islas Juan Fernandez, 1,633

EGEDESMINDE, GREENLAND
(68°42'33"N., 52°53'12"W.) See Asiaiat

EGERSUND, NORWAY
(58°27'00"N., 6°00'00"E.) to:

Junction Points*

Bishop Rock, England (via English Channel), 797
Ile d'Ouessant, France, 781
Pentland Firth, Scotland, 298
Skagens Odde, Denmark, 165

Ports

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

EILAT, ISRAEL
(29°32'42"N., 34°57'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,155
Port Said, Arab Republic of Egypt, 381
Singapore, 4,868

Ports

Aden, Yemen, 1,247

EL AAIUN, WESTERN SAHARA
(27°05'37"N., 13°26'55"W.) See Aaiun.

EL FERROL DEL CAUDILLO, SPAIN
(43°28'30"N., 8°15'00"W.) to:

Junction Points*

Bishop Rock, England, 394
Ile d'Ouessant, France, 343

Ports

Aviles, Spain, 133
Bayonne, France, 322
Cape Town, Republic of 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, Republic of 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

<div>Wilson Promontory, Australia, 6,863</div> <div>Ports</div> <div>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</div> <div>EMDEN, GERMANY (53°21'00"N., 7°12'00"E.) to:</div> <div>Junction Points*</div> <div>Bishop Rock, England, 606 Ile d'Ouessant, France, 590 Nord-Ostsee Kanal (East Entrance), Germany, 197 Pentland Firth, Scotland, 484 Skagens Odde, Denmark, 344</div> <div>Ports</div> <div>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</div> <div>ENDENBURY ISLAND, PHOENIX ISLANDS (3°08'00"S., 171°06'00"W.) to:</div> <div>Junction Points*</div> <div>Panama, Panama, 5,599</div> <div>Ports</div> <div>Apia, Samoa, 641 Apra, Guam, 2,827 Christmas Island, Line Islands, 878 Seattle, Washington, U.S.A., 4,047</div> <div>ENIWETAK, MARSHALL ISLANDS (11°25'51"N., 162°21'30"E.) to:</div> <div>Junction Points*</div> <div>Panama, Panama, 7,086</div>	<div>Ports</div> <div>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</div> <div>ENSENADA, MEXICO (31°51'30"N., 116°38'00"W.) to:</div> <div>Junction Points*</div> <div>Panama, Panama, 2,791</div> <div>Ports</div> <div>Acapulco, Mexico, 1,369 Los Angeles, California, U.S.A., 151 Port Hueneme, California, U.S.A., 194</div> <div>ENSTED, DENMARK (55°05'00"N., 9°25'00"E.) See Abenra.</div> <div>ES SIDER, LIBYA (30°38'00"N., 18°22'00"E.) to:</div> <div>Junction Points*</div> <div>Port Said, Arab Republic of Egypt, 796 Strait of Gibraltar, 1,356</div> <div>Ports</div> <div>Alexandria, Arab Republic of 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</div> <div>ESBJERG, DENMARK (55°27'30"N., 8°26'30"E.) to:</div> <div>Junction Points*</div> <div>Bishop Rock, England, 688 Ile d'Ouessant, France, 676 Nord-Ostsee Kanal (East Entrance), Germany, 372 Pentland Firth, Scotland, 443 Skagens Odde, Denmark, 234</div> <div>Ports</div> <div>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</div>	<div>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</div> <div>ESCRAVOS, NIGERIA (05°32'24"N., 4°59'42"E.) to:</div> <div>Junction Points*</div> <div>Bishop Rock, England, 3,902 Cape of Good Hope, Republic of South Africa, 2,510 Fastnet Rock, Republic of Ireland, 3,955 Grand Banks South, 4,054 Ile d'Ouessant, France, 3,861 Inishtrahull, Republic of Ireland, 4246 Panama, Panama, 5150 Pentland Firth, Scotland, 4,960 Punta Arenas, Chile, 5,246 Strait of Gibraltar, 3,201 Straits of Florida, 5,306 Yucatan Channel, 5,431</div> <div>Ports</div> <div>Abidjan, Ivory Coast, 550 Accra, Ghana, 311 Boma, Republic of Zaire, 866 Boston, Massachusetts, U.S.A., 4,851 Colon, Panama, 5,238 Douala, Camaroon, 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</div> <div>ESMERALDAS, ECUADOR (1°01'27"N., 79°39'36"W.) to:</div> <div>Junction Points*</div> <div>Panama, Panama, 474 Punta Arenas, Chile, 3,486 Torres Strait, Australia, 8,449 Wilson Promontory, Australia, 7,570</div> <div>Ports</div> <div>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</div>	<div>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</div> <div>ESPERANCE, AUSTRALIA (33°52'00"S., 121°54'28"E.) to:</div> <div>Junction Points*</div> <div>Cape Leeuwin, Australia, 367 Wilson Promontory, Australia, 1,266</div> <div>Ports</div> <div>Adelaide, Australia, 889 Albany, Australia, 224 Murnie, Tasmania, 1,275 Melbourne, Australia, 1,239</div> <div>EUREKA, CALIFORNIA, U.S.A. (40°48'00"N., 124°10'00"W.) to:</div> <div>Junction Points*</div> <div>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</div> <div>Ports</div> <div>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</div> <div>EVERETT, WASHINGTON, U.S.A. (47°58'53"N., 122°14'06"W.) Subtract 9 miles from Seattle, Washington distances.</div> <div>FAABORG, DENMARK (55°05'40"N., 10°14'22"E.) See Faborg, Denmark.</div> <div>FABORG, DENMARK (55°05'40"N., 10°14'22"E.) to:</div> <div>Junction Points*</div> <div>Nord-Ostsee Kanal (East Entrance), Germany, 53 Skagens Odde, Denmark, 234</div> <div>Ports</div> <div>Gdansk, Poland, 368 Goteborg, Sweden, 222 Lubeck, Germany, 102</div>
--	---	--	---

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

FAERINGEHAVN, GREENLAND
(63°41'00"N., 51°34'00"W.) See
Kangerluarsoruseq, Greenland.

FALL RIVER, MASSACHUSETTS, U.S.A.
(41°42'21"N., 71°10'00"W.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 6,732
Grand Banks South, 975
Panama, Panama, 2,089
Punta Arenas, Chile, 7,063
Straits of Florida, 1,264

Ports

Argentia, Canada, 851
Belem, Brazil, 3,393
Buenos Aires, Argentina, 6,048
Cape Town, Republic of 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

FALMOUTH, ENGLAND
(50°09'20"N., 5°03'30"W.) to:

Junction Points*

Ile d'Ouessant, France, 100

Ports

Brest, France, 137
Cardiff, Wales, 181
Cobh, Republic of Ireland, 182
Dublin, Republic of Ireland, 248
Hull, England, 464
Liverpool, England, 313
London, England, 351
Plymouth, England, 37
Southampton, England, 160

FAMAGUSTA, CYPRUS
(35°07'20"N., 33°56'40"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 257
Strait of Gibraltar, 1,991

Ports

Alexandria, Arab Republic of
Egypt, 340
Ashdod, Israel, 203
Banghazi, Libya, 768
Marseille, France, 1,558
Piraeus, Greece, 604

FANNING ISLAND, NORTH PACIFIC
(3°51'30"N., 159°21'45"W.) to:

Junction Points*

Panama, Panama, 4,805

Ports

Auckland, New Zealand, 2,854
Honolulu, Hawaii, U.S.A., 1,056

Johnston Island, North Pacific,
1,032
Wellington, New Zealand, 3,114

FARGE, GERMANY
(53°12'00"N., 8°31'00"E.) Add
23 miles to Bremerhaven distances.

FARSUND, NORWAY
(58°05'40"N., 6°48'30"E.) to:

Junction Points*

Pentland Firth, Scotland, 332
Skagens Odde, Denmark, 132

Ports

Bergen, Norway, 182
London, England, 497
Oslo, Norway, 198

FASLANE BAY, SCOTLAND
(56°04'00"N., 4°49'00"W.)
Subtract 11 miles from Glasgow
distances.

FASTNET ROCK, REPUBLIC OF IRELAND*
(51°20'00"N., 9°36'00"W.) to:

Junction Points*

Bishop Rock, England, 149
Cape of Good Hope, Republic of
South Africa, 5,880
Grand Banks South, 1,714
Ile d'Ouessant, France, 225
Inishtrahull, Republic of 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
Straits of Florida, 3,761
Yucatan Channel, 4,058

Ports

Ardrrossan, Scotland, 348
Argentia, 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, Republic of Ireland, 64
Colon, Panama, 4,243
Douglas, Isle of Man, 274
Dublin, Republic of Ireland, 223
Fishguard, Wales, 180
Fleetwood, England, 315
Funchal, Madeira Island, 1,177
Galway, Republic of 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, Republic of 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, Republic of Ireland,
110
Willemstad, Curacao, 3,708
Wilmington, North Carolina,
U.S.A., 3,183

FATEH TERMINAL, UNITED ARAB EMIRATES
(25°36'00"N., 54°31'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 4,733
Cape Leeuwin, Australia, 5,069
Selat Lombok, Indonesia, 4,314
Port Said, Arab Republic of
Egypt, 2,915
Singapore, 3,454
Selat Sunda, Indonesia, 3,661
Torres Strait, Australia (via South
of Java), 5,863

Ports

Aden, Yemen, 1,526
Belawan, Indonesia, 3,123
Bombay, India, 1,146
Fremantle, Australia, 5,000
Penang, Malaysia, 3,163

FECAMP, FRANCE
(49°46'00"N., 0°21'45"E.) to:

Junction Points*

Ile d'Ouessant, France, 246
Nord-Ostee Kanal (East
Entrance), Germany, 482

Ports

Cherbourg, France, 79
Plymouth, England, 183
Rotterdam, Netherlands, 228

FELIXSTOWE, ENGLAND
(51°56'56"N., 1°19'00"E.) to:

Junction Points*

Bishop Rock, England, 377
Ile d'Ouessant, France, 303
Nord-Ostee Kanal (East
Entrance), Germany, 377
Pentland Firth, Scotland, 460
Skagens Odde, Denmark, 478

Ports

Amsterdam, Netherlands, 144
Antwerp, Belgium, 141
Bergen, Norway, 544
Emden, Germany, 251
Rotterdam, Netherlands, 121
Stavanger, Norway, 477
Wilhelmshaven, Germany, 300

FELTON, CUBA
(20°50'00"N., 75°44'00"W.) See
Antilla.

FERNANDINA, FLORIDA, U.S.A.
(30°41'00"N., 81°27'40"W.) to:

Ports

Nassau, Bahamas, 450
San Juan, Puerto Rico, 1,115

FERNANDO DE NORONHA, BRAZIL
(3°50'00"S., 32°25'00"W.) to:

Ports

Kingston, St. Vincent, 1,320
New York, New York, U.S.A.,
3,517
Recife, Brazil, 300
Santos, Brazil, 1,560

FETHIYE, TURKEY
(36°37'30"N., 29°07'20"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 375
Strait of Gibraltar, 1,712

Ports

Ashdod Yam, Israel, 416
Banghazi, Libya, 548
Piraeus, Greece, 305

FIGUEIRA DA FOZ, PORTUGAL
(40°08'23"N., 8°52'38"W.) to:

Junction Points*

Bishop Rock, England, 598
Cape of Good Hope, Republic of
South Africa, 5,236
Fastnet Rock, Republic of Ireland,
674
Grand Banks South, 1,840
Ile d'Ouessant, France, 565
Inishtrahull, Republic of 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

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

<p>Ports</p> <p>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</p> <p>FISHGUARD, WALES (52°00'30"N., 4°58'30"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 161 Fastnet Rock, Republic of Ireland, 180 Pentland Firth, Scotland, 497</p> <p>Ports</p> <p>Avonmouth, England, 145 Barrow in Furness, England, 157 Belfast, Northern Ireland, 182 Brest, France, 274 Cardiff, Wales, 130 Cherbourg, France, 306 Cobh, Republic of Ireland, 131 Douglas, Isle of Man, 131 Glasgow, Scotland, 247 London, England, 523 Southampton, England, 343 Swansea, Wales, 100</p> <p>FIUMICINO, ITALY (41°44'5"N., 12°09'37"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 1,217 Strait of Gibraltar, 918</p> <p>Ports</p> <p>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</p> <p>FLEETWOOD, ENGLAND (53°55'00"N., 3°00'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 307 Fastnet Rock, Republic of Ireland, 315 Inishtrahull, Republic of Ireland, 189 Pentland Firth, Scotland, 437</p>	<p>Ports</p> <p>Southampton, England, 485</p> <p>FLEKKEFJORDEN, NORWAY (58°17'35"N., 6°39'30"E.) to:</p> <p>Junction Points*</p> <p>Pentland Firth, Scotland, 325 Skagens Odde, Denmark, 155</p> <p>Ports</p> <p>Bergen, Norway, 170 London, England, 479 Oslo, Norway, 219</p> <p>FLENSBURG, GERMANY (54°47'50"N., 9°26'15"E.) to:</p> <p>Junction Points*</p> <p>Nord-Ostsee Kanal (East Entrance), Germany, 52 Skagens Odde, Denmark, 260</p> <p>Ports</p> <p>Gdynia, Poland, 358 Goteborg, Sweden, 272 Lubeck, Germany, 131</p> <p>FLORIDA STRAITS, U.S.A. (24°25'00"N., 83°00'00"W.) See Straits of Florida.</p> <p>FLOTTA TERMINAL, SCOTLAND (58°52'14"N., 3°06'42"W.) See Scapa Flow.</p> <p>FLUSHING, NETHERLANDS (51°26'30"N., 3°36'00"E.) See Vlissingen.</p> <p>FLYING FISH COVE, CHRISTMAS ISLAND (10°25'00"S., 105°43'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, Republic of South Africa, 4,923 Cape Leeuwin, Australia, 1,540 Selat Lombok, Indonesia, 603 Selat Sunda, Indonesia, 281</p> <p>Ports</p> <p>Colombo, Sri Lanka, 1,888</p> <p>FORCADOS OFFSHORE TERMINAL, NIGERIA (5°10'00"N., 5°08'45"E.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 3,908 Cape of Good Hope, Republic of South Africa, 2,495 Fastnet Rock, Republic of Ireland, 3,961 Grand Banks South, 4,060 Ile d'Ouessant, France, 3,868 Inishtrahull, Republic of 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</p>	<p>Yucatan Channel, 5,437</p> <p>Ports</p> <p>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</p> <p>FORT DAUPHIN, MADAGASCAR (25°01'00"S., 47°01'00"E.) to:</p> <p>Junction Points*</p> <p>Cape of Good Hope, Republic of South Africa, 1,614 Port Said, Arab Republic of Egypt, 4,035 Singapore, 3,975</p> <p>Ports</p> <p>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</p> <p>FORT DE FRANCE, MARTINIQUE (14°36'00"N., 61°04'15"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,202 Straits of Florida, 1,389</p> <p>Ports</p> <p>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</p> <p>FORT LAUDERDALE, FLORIDA, U.S.A. (26°05'36"N., 80°04'48"W.) to:</p>	<p>Junction Points*</p> <p>Cape of Good Hope, Republic of 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</p> <p>Ports</p> <p>Cape Town, Republic of South Africa, 6,688 Elizabeth Harbor, Bahamas, 283 Georgetown, British Guiana, 1,894 Hamilton, Bermuda, 883 Kingston, Jamaica, 769 La Habana, Cuba, 236 Lagos, Nigeria, 5,069 Matadi, Republic of Zaire, 5,758 Port of Spain, Trinidad, 1,504 Recife, Brazil, 3,459 San Juan, Puerto Rico, 900</p> <p>FORT-LIBERATE, HAITI (19°41'30"N., 71°50'20"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 881 Straits of Florida, 692</p> <p>Ports</p> <p>New York, New York, U.S.A., 1,283 Nuevitas, Cuba, 339 San Juan, Puerto Rico, 373</p> <p>FORTALEZA, BRAZIL (3°42'00"S., 38°31'00"W.) to:</p> <p>Junction Points*</p> <p>Punta Arenas, Chile, 3,654</p> <p>Ports</p> <p>Belem, Brazil, 685 New York, New York, U.S.A., 3,304 Recife, Brazil, 425</p> <p>FRAY BENTOS, URUGUAY (33°06'58"S., 58°19'57"W.) Add 213 miles to Montevideo distances or 145 miles to Buenos Aires distances.</p> <p>FREDERICIA, DENMARK (55°33'45"N., 9°45'35"E.) to:</p> <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 Pamait, Greenland.</p>
---	---	---	---

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

FREDERIKSHAVN, DENMARK

(57°26'00"N., 10°33'15"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 200
Skagens Odde, Denmark, 24

Ports

Arkhangel'sk, Russia, 1,805
Gdynia, Poland, 395
Kobenhavn, Denmark, 142
Lubeck, Germany, 170

FREDERIKSTED, ST. CROIX

(17°43'00"N., 64°53'20"W.) to:

Ports

Roseau, Dominica, 252

FREDRIKSTAD, NORWAY

(59°12'10"N., 10°57'00"E.) to:

Junction Points*

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

Ports

Bergen, Norway, 335
Oslo, Norway, 57

FREEPORT, BAHAMAS

(26°31'00"N., 78°46'45"W.) to:

Junction Points*

Panama, Panama (via Windward Passage), 1,280
Straits of Florida, 278
Yucatan Channel, 456

Ports

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

FREETOWN, SIERRALEONE

(08°30'00"N., 13°14'00"W.) to:

Junction Points*

Bishop Rock, England, 2,673
Cape of Good Hope, Republic of South Africa, 3,190
Ile d'Ouessant, France, 2,630
Inishrahull, Republic of 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

Ports

Accra, Ghana, 955
Banjul, Gambia, 450
Boston, Massachusetts, U.S.A., 3,656
Buenos Aires, Argentina, 3,712
Cadiz, Spain, 1,979
Cape Town, Republic of 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

FREMANTLE, AUSTRALIA

(32°03'00"S., 115°44'20"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,755
Cape Leeuwin, Australia, 181
Selat Lombok, Indonesia, 1,440
Port Said, Arab Republic of Egypt, 6,310
Selat Sunda, Indonesia, 1,691
Torres Strait, Australia, 2,531

Ports

Aden, Yemen (north of Chagos Archipelago), 4,921
Al Basrah, Iraq, 5,440
Al Manamah, Al Bahrain, 5,203
Albany, Australia, 349
Beira, Mozambique, 4,351
Berbera, Somali Republic, 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, Republic of South Africa, 4,244

East London, Republic of 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, Republic of 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

FU-CHOU, CHINA

(26°03'30"N., 119°19'00"E.) See Fuzhou, China.

FUJAYRAH, UNITED ARAB EMIRATES

(25°09'00"N., 56°26'45"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,645
Cape Leeuwin, Australia, 4,909
Selat Lombok, Indonesia, 4,127
Port Said, Arab Republic of Egypt, 2,447
Singapore, 3,356
Selat Sunda, Indonesia, 3,509
Torres Strait, Australia, 5,701

Ports

Aden, Yemen, 1,377
Belawan, Indonesia, 2,973
Calcutta, India, 2,961
Fremantle, Australia, 7,614
Penang, Malaysia, 3,007

FUNAFUTI, TUVALU

(8°30'45"S., 179°12'15"E.) to:

Junction Points*

Panama, Panama, 6,217

Ports

Apia, Samoa, 632
Apra, Guam, 2,455
Brisbane, Australia, 1,895
Hong Kong, B.C.C., 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

FUNCHAL, MADEIRA ISLAND

(32°38'00"N., 16°54'30"W.) to:

Junction Points*

Bishop Rock, England, 1,136
Cape of Good Hope, Republic of South Africa, 4,689
Fastnet Rock, Republic of Ireland, 1,177
Ile d'Ouessant, France, 1,089
Inishrahull, Republic of 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

Ports

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, Republic of 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

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.

GAETA, ITALY

(41°13'00"N., 13°35'00"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,150
Strait of Gibraltar, 986

Ports

Livorno, Italy, 228
Messina, Sicily, 209
Tunis, Tunisia, 315

GALEOTA POINT, TRINIDAD
(10°07'55"N., 61°00'55"W.) to:

Junction Points*

Bishop Rock, England, 3,603
Cape of Good Hope, Republic of 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

Ports

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

GALLE, SRI LANKA
(6°01'45"N., 80°13'20"E.) to:

Junction Points*

Singapore, 1,502

Ports

Bombay, India, 944
Calicut, India, 437
Karachi, Pakistan, 1,393
Trincomalee, Sri Lanka, 255

GALLIPOLI, ITALY
(40°02'00"N., 17°59'00"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 908
Strait of Gibraltar, 1,246

Ports

Durres, Albania, 137
Izmir, Turkey (south of Greece), 606
Messina, Sicily, 201

GALVESTON, TEXAS, U.S.A.
(29°19'00"N., 94°47'00"W.) to:

Junction Points*

Panama, Panama, 1,536
Straits of Florida, 698
Yucatan Channel, 696

Ports

Barranquilla, Colombia, 1,577
Belize, Belize, 935
Campeche, Mexico, 617

Carmen, Mexico, 661
Cartagena, Colombia, 1,583
Cienfuegos, Cuba, 989
Coatzacoalcos, 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

GALWAY, REPUBLIC OF IRELAND
(53°15'00"N., 9°03'00"W.) to:

Junction Points*

Fastnet Rock, Republic of Ireland, 166
Inishtrahull, Republic of Ireland, 231
Strait of Gibraltar, 1,184

Ports

Dakar, Senegal, 2,383
Natal, Brazil, 3,786
St. John's, Canada, 1,678
Tromsø, Norway, 1,352

GAMBA, GABON
(2°49'32"S., 9°56'46"E.) to:

Junction Points*

Bishop Rock, England, 4,255
Cape of Good Hope, Republic of South Africa, 1,967
Fastnet Rock, Republic of Ireland, 4,307
Grand Banks South, 4,407
Ile d'Ouessant, France, 3,835
Inishtrahull, Republic of 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

Ports

Accra, Ghana, 789
Cape Town, Republic of S. 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

GAVLE, SWEDEN
(60°41'28"N., 17°13'50"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 615
Skagens Odde, Denmark, 676

Ports

Gdynia, Poland, 438
Helsinki, Finland, 292
Riga, Latvia, 355
Stockholm, Sweden, 153

GDANSK, POLAND
(54°22'00"N., 18°40'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 344
Skagens Odde, Denmark (via Store Baelt), 533
Skagens Odde, Denmark (via The Sound), 418

Ports

Assens, Denmark, 370
Faborg, Denmark, 368
København, Denmark, 468
Oslo, Norway (via Store Baelt), 657
Oslo, Norway (via The Sound), 540
Szczecin, Poland, 240

GDYNIA, POLAND
(54°32'00"N., 18°33'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 339
Skagens Odde, Denmark, 528

Ports

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
København, Denmark, 464
Korsør, Denmark, 344
Kyndbyvaerkets, Denmark, 334
Lubeck, Germany, 328
Masnedssund, Denmark, 330
Middelfart, Denmark, 396
Muskö Island, Sweden, 288
Naestved, Denmark, 383
Nakskov, Denmark, 335
Odense, Denmark, 438
Oxelösund, Sweden, 266
Peenemünde, 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
Travemünde, Germany, 307
Umeå, Sweden, 574
Ventspils, Latvia, 204

GEBE ISLAND, INDONESIA
(0°03'50"S., 129°22'44"E.) to:

Junction Points*

Honshu, Japan, 2,187

Selat Lombok, Indonesia, 1,078
Panama, Panama, 9,116
Singapore (via Karimata Strait), 2,019
Torres Strait, Australia, 1,062
Selat Wetar, Indonesia, 680

Ports

Anchorage, Alaska, U.S.A., 5,529
Balikpapan, Kalimantan, 1,276
Hong Kong, British Crown Colony, 1,783
Jakarta, Indonesia, 1,686
Manila, Philippines, 2,531
San Francisco, California, U.S.A., 6,260

GEELONG, AUSTRALIA
(38°08'00"S., 144°22'00"E.) Add 6 miles to Melbourne distances.

GELA, ITALY
(37°03'35"N., 14°13'52"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 981
Strait of Gibraltar, 968

Ports

Ajaccio, Corsica, 417
Antalya, Turkey, 847
Bar, Montenegro, 443
Bat'umi, Georgia, 1,439
Canakkale, 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

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.

GEMPLICK, TURKEY
(40°25'46"N., 29°09'06"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 805
Strait of Gibraltar (via south of Greece), 1,841

Ports

Alexandria, Arab Republic of Egypt, 722
Barcelona, Spain, 1,469
Beirut, Lebanon, 810
Canakkale, Turkey, 133
Naples, 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

GENERAL SANTOS CITY, PHILIPPINES
(6°06'15"N., 125°10'07"E.) to:

Junction Points*

Honshu, Japan, 2,048
 Selat Lombok, Indonesia, 1,096
 Panama, Panama, 9,384
 Punta Arenas, Chile, 8,757
 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, Arab Republic of
 Egypt, 1,426
 Strait of Gibraltar, 868

Ports

Ajaccio, Corsica, 170
 Alexandria, Arab Republic of
 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
 Odesa, Ukraine (south of Greece),
 1,639
 Odesa, 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, Republic of
 South Africa, 2,409

Ports

Boma, Republic of Zaire, 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, Republic of
 South Africa, 5,026
 Inishtrahull, Republic of 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. Johns, 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, Arab Republic of
 Egypt, 1,784
 Strait of Gibraltar, 199

Ports

Algiers, Algeria, 278
 Alicante, Spain, 209
 Malaga, Spain, 158

GHENT, 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, Arab Republic of
 Egypt, 1,925
 Strait of Gibraltar, 24

Ports

Alexandria, Arab Republic of
 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
 Odesa, 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 Points*

Cape of Good Hope, Republic of South Africa, 4,344
Cape Leeuwin, Australia, 5,324
Selat Lombok, Indonesia, 4,764
Port Said, Arab Republic of Egypt, 1,130
Singapore, 4,008
Selat Sunda, Indonesia, 4,217
Torres Strait, Australia, 6,443

Ports

Aden, Yemen, 400
Al Aqabah, Jordan, 988
Massawa, Ethiopia, 222
Port Sudan, Sudan, 403

GLADSTONE HARBOR, AUSTRALIA
(23°50'00"S., 151°15'30"E.) to:

Junction Points*

Cape Leeuwin, Australia, 2,688
Torres Strait, Australia, 1,085

Ports

Brisbane, Australia, 314
Port Moresby, Papua New Guinea, 1,389
Wellington, New Zealand, 1,678

GLASGOW, SCOTLAND
(55°51'45"N., 4°18'00"W.) to:

Junction Points*

Bishop Rock, England, 402
Fastnet Rock, Republic of Ireland, 395
Inishtrahull, Republic of Ireland, 146
Pentland Firth, Scotland (via The Minch), 384

Ports

Ardrossan, Scotland, 43
Avonmouth, England, 390
Barrow in Furness, England, 172
Boulogne, France, 672
Cairn Ryan, Scotland, 82
Cardiff, Wales, 375
Cobh, Republic of Ireland, 346
Fishguard, Wales, 247
Londonderry, Northern Ireland, 143
Reykjavik, Iceland, 860
Stornoway, Scotland, 283

GLOUCESTER, ENGLAND
(51°52'00"N., 2°13'00"W.) Add
34 miles to Avonmouth distances.

GODHAVN, GREENLAND
(69°14'00"N., 53°32'00"W.) See
Qeqertarsauq, Greenland.

GODTHAB, GREENLAND
(64°10'45"N., 51°45'14"W.) See
Nuuk, Greenland.

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.

GOLFITO, COSTA RICA
(8°38'30"N., 83°10'30"W.) to:

Junction Points*

Panama, Panama, 334

Ports

Acapulco, Mexico, 1,123
Ampala, Honduras, 432
Buenaventura, Colombia, 426
La Union, El Salvador, 4326

GONAIVES, HAITI
(19°27'00"N., 72°42'00"W.) to:

Junction Points*

Panama, Panama, 805

Ports

Kingston, Jamaica, 263
New York, New York, U.S.A.,
1,328
Port au Prince, Haiti, 70

GOOD HOPE, LOUISIANA, U.S.A.
(29°59'35"N., 90°24'00"W.) Add
24 miles to New Orleans distances.

GOOLE, ENGLAND
(53°42'00"N., 0°51'00"W.) Add
27 miles to Hull distances.

GOOSE BAY, CANADA
(53°22'00"N., 60°18'00"W.) to:

Junction Points*

Inishtrahull, Republic of Ireland,
1,812
Strait of Gibraltar, 2,538

Ports

Churchill, Canada, 1,557
Reykjavik, Iceland, 1,332
St. John's, Canada, 588

GOTEBORG, SWEDEN
(57°42'00"N., 11°57'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East
Entrance), Germany, 230
Skagens Odde, Denmark, 42

Ports

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
Vejle, Denmark, 176

GOTHENBURG, SWEDEN
(57°42'00"N., 11°57'00"E.) See
Goteborg, Sweden.

GOVE HARBOR, AUSTRALIA
(12°10'33"S., 136°38'43"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 6,489
Cape Leeuwin, Australia, 2,457
Torres Strait, Australia, 346
Selat Wetar, Indonesia, 611

Ports

Ambon, Indonesia, 767
Colombo, Sri Lanka, 3,700
Ho Chi Minh, Vietnam, 2,484
Hong Kong, B.C.C., 2,583
Manila, Philippines, 2,034
Port Darwin, Australia, 460

GRAND BANKS SOUTH*
(42°30'00"N., 50°00'00"W.) to:

Junction Points*

Bishop Rock, England, 1,830
Cape of Good Hope, Republic of South Africa, 5,954
Fastnet Rock, Republic of Ireland, 1,714
Ile d'Ouessant, France, 1,877
Inishtrahull, Republic of 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

Ports

Belem, Brazil, 2,638
Boston, Massachusetts, U.S.A.,
932
Dakar, Senegal, 2,336
Galway, Republic of Ireland, 1,741
Lisboa, Portugal, 1,858
St. Johns, Canada, 325

GRANGEMOUTH, SCOTLAND
(56°02'00"N., 3°41'20"W.) For
distances outside the Firth of Forth
add 15 miles to Leith distances.

GRANTON, SCOTLAND
(55°59'16"N., 3°13'13"W.) See
Leith.

GRANVILLE, FRANCE
(48°50'00"N., 1°36'15"W.) to:

Junction Points*

Bishop Rock, England, 267

Ile d'Ouessant, France, 158

Ports

Dover, England, 181
Le Havre, France, 173
Plymouth, England, 149

GRAVESEND, ENGLAND
(51°26'45"N., 0°22'30"E.)
Subtract 16 miles from London
distances.

GREENOCK, SCOTLAND
(55°57'00"N., 4°45'00"W.)
Subtract 17 miles from Glasgow
distances.

GREENVILLE, LIBERIA
(4°59'30"N., 9°02'55"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 2,826
Ile d'Ouessant, France, 2,981

Ports

Dakar, Senegal, 831
Takoradi, Ghana, 461

GRENA, DENMARK
(56°24'45"N., 10°56'20"E.) to:

Junction Points*

Nord-Ostsee Kanal (East
Entrance), Germany, 140
Skagens Odde, Denmark, 115

Ports

Gdynia, Poland, 361
Goteborg, Sweden, 102
Lubeck, Germany, 169

GRIMSBY, ENGLAND
(53°36'00"N., 0°01'00"W.)
Subtract 14 miles from Hull
distances.

GRIMSTAD, NORWAY
(58°20'20"N., 8°36'05"E.) to:

Junction Points*

Pentland Firth, Scotland, 399

Ports

Bergen, Norway, 250
London, England, 542
Oslo, Norway, 135

GROTON, CONNECTICUT, U.S.A.
(41°21'30"N., 72°05'15"W.) Use
New London distances.

GUANICA, PUERTO RICO
(17°58'00"N., 66°55'30"W.) to:

Ports

Santiago de Cuba, Cuba (north of
Hispaniola and via Windward
Passage), 572
Santiago de Cuba, Cuba (south of
Hispaniola), 584

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

GUANTA, VENEZUELA
(10°14'43"N., 64°35'30"W.) Add
1 mile to Puerto la Cruz distances.

GUANTANAMO, CUBA
(19°54'00"N., 75°11'00"W.) to:

Junction Points*

Bishop Rock, England (via
Windward Passage), 3,714
Fastnet Rock, Republic of 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

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, Republic of 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. Johns, 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
Amapala, 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, B.C.C., 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
(10°34'45"N., 62°16'15"W.) to:

Junction Points*

Bishop Rock, England, 3,598
Cape of Good Hope, Republic of
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, REPUBLIC OF SOUTH KOREA
(35°59'18"N., 126°43'00"E.) to:

Ports

Busan, Republic of South Korea,
376
Dalien, China, 294
Sasebo, Japan, 343
Shanghai, China, 457
Yeosu, Republic of 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
Muran, 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, Arab Republic of
Egypt, 171
Strait of Gibraltar, 2,031

Ports

Alexandria, Arab Republic of
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
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, Arab Republic of Egypt,
410
Messina, Sicily, 1,023
Napoli, Italy, 1,194
Odesa, Ukraine, 1,197
Oran, Algeria, 1,800
Palermo, Sicily, 1,139
Palma, Balearic Islands, 1,645
Piraeus, 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, B.C.C., 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, Republic of South Korea,
665
Bukhta Shelikohova, Kuril Islands,
Russia, 865
Busan, Republic of South Korea,
686
Cebu, Philippines (via outside
route), 2,208
Cebu, Philippines (via Sea of
Japan), 2,177
Chongjin, Democratic People's
Republic of 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, B.C.C., 1,810
Honolulu, Hawaii, U.S.A., 3,314
Iloilo, Philippines (via Sea of
Japan), 2,199
Incheon, Republic of 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, Democratic People's
Republic of 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
Matsugahama, Japan, 316
Midway Island, 2,198
Miike, Japan, 864
Mogpo, Republic of 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, Republic of South Korea,
661
Unggi, Democratic People's
Republic of Korea, 486
Valparaiso, Chile, 9,197
Vladivostok, Russia, 437
Weihai, China, 1,169
Weonsan, Democratic People's
Republic of 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, Republic of
South Africa, 5,438
Cape Leeuwin, Australia, 3,740
Selat Lombok, Indonesia, 2,815
Port Said, Arab Republic of Egypt
(May-September, south of
Socotra), 4,760
Port Said, Arab Republic of Egypt
(North of Socotra), 4,656
Port Said, Arab Republic of 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, Republic of

South Africa, 6,502
Fastnet Rock, Republic of Ireland, 2,364
Inishtrahull, Republic of 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, Republic of 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
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 (Frederickshaab), 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, Republic of South Africa, 4,836
Cape Leeuwin, Australia, 5,172
Selat Lombok, Indonesia, 4,415
Port Said, Arab Republic of 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°69'00"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, Republic of South Africa, 6,169
Fastnet Rock, Republic of Ireland, 2,651
Inishtrahull, Republic of 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
Manzanilla, 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, ARAB REPUBLIC OF 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
Rantk-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
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
Bælt), 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
Bælt), 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, Republic of Ireland,
309
Inishtrahull, Republic of Ireland,
216
Pentland Firth, Scotland, 435

Ports

Ardrossan, Scotland, 173
Belfast, Northern Ireland, 137
Brest, France, 422
Cardiff, Wales, 280
Cobh, Republic of Ireland, 248
Fishguard, Wales, 153
Newport, Wales, 290
Waterford, Republic of Ireland,
196

HIGASHI-IWASE, JAPAN
(36°46'00"N., 137°14'00"E.) to:**Ports**

Busan, Republic of 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.)**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, Republic of 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, B.C.C., 917
Honolulu, Hawaii, U.S.A., 5,542
Iloilo, Philippines, 1,051
Incheon, Republic of 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, Republic of South Korea,
1,904
Nampo, Democratic People's
Republic of 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 Chetvertiy Kuril'sky
Proliv, 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
Tanjung 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, Democratic People's
Republic of 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, Republic of Ireland, 232
Inishtrahull, Republic of Ireland, 181
Pentland Firth, Scotland, 422

Ports

Avonmouth, England, 217
Brest, France, 345
Cardiff, Wales, 202
Cherbourg, France, 377
Cobh, Republic of 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, Republic of South Africa, 4,458
Cape Leeuwin, Australia, 3,775
Port Said, Arab Republic of Egypt, 3,087
Singapore, 2,147

Ports

Ail Basrah, Iraq, 1,826
Bombay, India, 306
Calcutta, India, 1,817
Colombo, Sri Lanka, 590
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, BRITISH CROWN COLONY
(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, Republic of 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 Paracel Islands), 917
Honolulu, Hawaii, U.S.A., 4,857
Hua-lien Kang, Taiwan, 518
Incheon, Republic of 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, Republic of South Korea, 1,049
Nagasaki, Japan, 1,069
Nampo, Democratic People's Republic of 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, Democratic People's Republic of 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, Marquesas, 2,102
Bikini, Marshall Islands, 2,179
Brisbane, Australia (via Northwest Channel), 4,117
Brito, Nicaragua, 4,155
Busan, Republic of South Korea, 3,973
Butaritari, Gilbert Islands, 2,050
Callao, Peru, 5,161
Cebu, Philippines, 4,610
Chimbote, Peru, 5,015
Christmas Islands, 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
Eniwetok, 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, B.C.C., 4,857
Hot Springs Bay, Alaska, U.S.A., 2,076
Howland Island, 1,650
Iloilo, Philippines, 4,632
Incheon, Republic of South Korea (via Maenggol Suido and Bungo Suido), 4,323
Incheon, Republic of 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, Republic of South Korea (via Changjuk Sudo and Mango Strait), 4,146
Nagasaki, Japan, 3,986
Naknek, Alaska, U.S.A., 2,404
Nampo, Democratic People's Republic of 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, Democratic People's Republic of 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 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

HORSENS, 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, Republic of South Africa, 5,152
 Inishtrahull, Republic of 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 Rial 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, Republic of South Korea, 782
 Hong Kong, B.C.C., 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.

HUDIKSVALL, 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

HUNGNAM, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
 (39°49'00"N., 127°37'00"E.) to:

Ports

Busan, Republic of 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

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

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, Arab Republic of
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, Republic of
South Africa, 5,746
Fastnet Rock, Republic of 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

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, Republic of 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

ILlichivs'K, UKRAINE
(BLACK SEA)

(46°18'00"N., 30°45'46"E.) to:

Junction Points*

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

Ports

Alexandria, Arab Republic of
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, Republic of 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

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

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, REPUBLIC OF 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, Republic of South Korea, 51
Busan, Republic of 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, B.C.C., 1,202
Honolulu, Hawaii, U.S.A. (via Maenggol 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, Republic of South Korea, 403
Misumi, Japan, 478
Mogpo, Republic of South Korea (via south of Kasa Do), 236
Mogpo, Republic of South Korea (via Myondo Suido), 189
Mojji, Japan, 485
Nagasaki, Japan, 453
Nampo, Democratic People's Republic of Korea, 216
Osaka, Japan, 721
Petropavlovsk-Kamchatskiy, Russia (via La Perouse Strait

and Maenggol Sudo), 2,120
Petropavlovsk-Kamchatskiy, Russia (via Osumi Kaikyo), 2,449
Petropavlovsk-Kamchatskiy, Russia (via Tsugaru-Kaikyo), 2,136
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, Republic of South Korea, 435
Vladivostok, Russia (via Malmul Sudo), 911
Weihai, China, 238
Wenzhou, China, 723
Weonsan, Democratic People's Republic of 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, REPUBLIC OF IRELAND*

(55°25'00"N., 7°30'00"W.) to:

Junction Points*

Bishop Rock, England, 395
Cape of Good Hope, Republic of South Africa, 6,141
Fastnet Rock, Republic of 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
Argentia, 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, Republic of Ireland, 184
Fleetwood, England, 189
Freetown, Sierra Leone, 3,024
Funchal, Madeira Island, 1,466
Galway, Republic of 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, Republic of 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, Republic of 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
Talcahuano, 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, Arab Republic of Egypt, 455
Strait of Gibraltar, 1,516

Ports

Al Latakia, Syria, 527
Alexandria, Arab Republic of 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, Arab Republic of Egypt, 308
Messina, Sicily, 510
Napoli, Italy, 681
Navplion, Greece, 237
Odesa, 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

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

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
Nuevitás, 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, Arab Republic of 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, Arab Republic of Egypt, 804
Strait of Gibraltar, 1,821

Ports

Alexandria, Arab Republic of 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
Odesa, 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, Republic of 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., 27°1'07'58"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 608
Strait of Gibraltar (south of Greece), 1,667

Ports

Alexandria, Arab Republic of Egypt, 547
Algiers, Algeria, 1,238
Alicante, Spain, 1,405
Ancona, Italy, 904
Annaba, Algeria, 1,014
Ashdod, Israel, 668
Banghazi, Libya, 561
Banzart, Tunisia, 909
Barcelona, Spain, 1,332
Bari, Italy, 697
Bat'umi, Georgia, 880
Beirut, Lebanon, 651
Brindisi, Italy, 639
Cartagena, Spain, 1,430
Ceuta, Morocco, 1,648
Ermoupolis, Greece, 158
Genova, Italy, 1,137
Gibraltar, 1,650
Haifa, Israel, 654
Iraklion, Kriti, 262
Iskenderun, Turkey, 652
Istanbul, Turkey, 292
Kavala, Greece, 209
Khalkis, Greece, 210
Kyrenia, Cyprus, 524
La Spezia, Italy, 1,101
Larnaca, Cyprus, 570
Limassol, Cyprus, 530
Livorno, Italy, 1,066
Malaga, Spain, 1,597
Marseille, France, 1,229
Mersin, Turkey, 594
Messina, Sicily, 655
Mitilini, Greece, 60
Napoli, Italy, 827
Navplion, Greece, 258
Odesa, Ukraine, 640
Oran, Algeria, 1,436
Palermo, Sicily, 772
Palma, Balearic Islands, 1,290
Piraeus, Greece, 210
Rethimnon, Kriti, 277
Rhodes, Greece, 256
Rijeka, Croatia (south of Greece), 974
Rijeka, Croatia (via Corinth Canal), 875
Salamis, Greece, 225
Savona, Italy, 1,147
Sibenik, Croatia (south of Greece), 846
Sibenik, Croatia (via Corinth Canal), 747
Siracusa, Sicily, 644
Soudha, Kriti, 281
Split, Croatia (south of Greece), 831
Split, Croatia (via Corinth Canal), 732
Tarabulus, Libya, 799

Taranto, Italy (south of Greece), 652
 Taranto, Italy (via Corinth Canal), 56
 Thessaloniki, Greece, 259
 Toulon, France, 1,197
 Trieste, Italy (south of Greece), 1,007
 Trieste, Italy (via Corinth Canal), 908
 Tunis, Tunisia, 896
 Valencia, Spain, 1,403
 Valletta, Malta, 683
 Venezia, Italy (south of Greece), 1,015
 Venezia, Italy (via Corinth Canal), 919
 Volos, Greece, 226
 Yumurtalik, Turkey, 639

JACKSONVILLE, FLORIDA, U.S.A.
 (30°19'00"N., 81°39'00"W.) to:

Junction Points*

Bishop Rock, England, 3,527
 Cape of Good Hope, Republic of South Africa, 6,862
 Fastnet Rock, Republic of Ireland, 3,413
 Inishtrahull, Republic of 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, Republic of 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
 Guantánamo, 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, Arab Republic of 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, Republic of South Korea, 2,836
 Cebu, Philippines (via Lumbucan Channel), 1,563
 Dagu, China, 3,088
 Hakodate, Japan, 3,468
 Ho Chi Minh, Vietnam, 1,025
 Hong Kong, B.C.C., 1,782
 Iloilo, Philippines (via Lumbucan Channel and Selat Gaspar), 1,476
 Incheon, Republic of 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, Democratic People's Republic of Korea, 2,741
 Nagasaki, Japan, 2,712
 Nampo, Democratic People's Republic of 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, Democratic People's Republic of Korea, 3,142
 Xiamen, China, 1,971
 Yantai, 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, B.C.C. (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
 Valparaíso, 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, Republic of South Africa, 4,831
 Cape Leeuwin, Australia, 5,071
 Selat Lombok, Indonesia, 4,285
 Port Said, Arab Republic of 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.

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

Junction Points*

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

Ports

Aden, Yemen, 133

JIDDAH, SAUDI ARABIA
 (21°28'00"N., 39°09'20"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 722

Ports

Aden, Yemen, 707
 Al Aqabah, Jordan, 573
 Massawa, Ethiopia, 364
 Port Sudan, Sudan, 161

JINHAIE, REPUBLIC OF 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

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

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, Republic of
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, Republic of 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, Republic of
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

KALAMAI, GREECE
(37°01'02"N., 22°06'38"E.) to:

Junction Points*

Port Said, Arab Republic of
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, Arab Republic of
Egypt, 446
Strait of Gibraltar, 1,504

Ports

Alexandria, Arab Republic of
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
Naples, 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 (via Store Baelt),
470
Skagens Odde (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, REPUBLIC OF GUINEA
(10°39'00"N., 14°37'00"W.) to:

Junction Points*

Bishop Rock, England, 2,562
Cape of Good Hope, Republic of
South Africa, 3,294
Fastnet Rock, Republic of Ireland,
2,625
Grand Banks South, 2,701
Ile d'Ouessant, France, 2,520
Inishtrahull, Republic of 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, Republic of 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.

KANEOHE 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 POINT.—See Preface for use of junction points

Junction Points*

Cape of Good Hope, Republic of South, Africa, 4,545
Cape Leeuwin, Australia, 3,353
Selat Lombok, Indonesia, 2,487
Port Said, Arab Republic of 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, Republic of South Africa, 4,658
Cape Leeuwin, Australia, 4,512
Port Said, Arab Republic of 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, Republic of South Africa, 3,887
Fremantle, Australia, 4,437
Galle, Sri Lanka, 1,393
Madras, India, 1,908
Malacca, Malaysia, 2,768
Marmgao, 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 Points*

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

Ports

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

KAUNAKAKAI, HAWAII, U.S.A.

(21°05'00"N., 157°02'00"W.) to:

Junction Points*

Panama, Panama, 4,633

Ports

Midway Island, 1,220
Seattle, Washington, U.S.A., 2,398
Yokohama, Japan, 3,454

KAVALA, GREECE

(40°55'50"N., 24°24'11"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 714
Strait of Gibraltar (south of Greece), 1,706
Strait of Gibraltar (via Corinth Canal), 1,689

Ports

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

KAWASAKI, JAPAN

(35°30'00"N., 139°45'00"E.) Use Yokohama distances.

KEELUNG, TAIWAN

(25°08'10"N., 121°44'00"E.) See Chi-Lung, Taiwan.

KEFLAVIK, ICELAND

(64°00'00"N., 22°33'25"W.) to:

Junction Points*

Pentland Firth, Scotland, 671
Strait of Gibraltar, 1,947

Ports

Bergen, Norway, 875
Murmansk, Russia, 1,521
St. John's, Canada, 1,404

KENTRA, MOROCCO

(34°16'13"N., 6°35'00"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,056
Ile d'Ouessant, France, 954

Ports

Casablanca, Morocco, 69
Dakar, Senegal, 1,389
Tangier, Morocco, 117

KERCH, GEORGIA

(45°21'16"N., 36°28'40"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,238
Strait of Gibraltar, 2,256

Ports

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

KERET, RUSSIA

(66°17'00"N., 33°35'00"E.) Add 54 miles to Arkhangel'sk distances.

KERKIRA, GREECE

(39°37'45"N., 19°54'35"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 845
Strait of Gibraltar, 1,324

Ports

Brindisi, Italy, 123
Catania, Sicily, 290
Dubrovnik, Croatia, 208
Patrai, Greece, 138
Taranto, Italy, 167

KETCHIKAN, ALASKA, U.S.A.

(55°20'30"N., 131°38'45"W.) to:

Ports

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

KEY WEST, FLORIDA, U.S.A.

(24°33'30"N., 81°48'30"W.) to:

Junction Points*

Bishop Rock, England, 3,783
Fastnet Rock, Republic of Ireland, 3,783
Inishtrahull, Republic of 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

Ports

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
 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

KHALKIS, GREECE

(38°27'40"N., 23°35'15"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 630
 Strait of Gibraltar, 1,562

Ports

Iraklion, Kriti, 210
 Izmir, Turkey, 210
 Volos, Greece, 88

KHARG ISLAND, IRAN

(29°13'34"N., 50°16'34"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,153
 Cape Leeuwin, Australia, 5,393
 Selat Lombok, Indonesia, 4,582
 Port Said, Arab Republic of Egypt, 2,955
 Singapore, 3,768
 Selat Sunda, Indonesia, 3,993
 Torres Strait, Australia, (via south of Java), 6,151

Ports

Aden, Yemen, 1,087
 Belawan, Indonesia, 3,404
 Calcutta, India, 3,412
 Malacca, Malaysia, 3,612
 Port Darwin, Australia (via south of Java), 5,480
 Rangoon, Burma, 3,417
 Sabang, Indonesia, 3,144

KHAWR-AL-AMAYA, IRAQ

(29°48'23"N., 48°48'20"E.)
 Subtract 76 miles from Al Basrah.

KHOLMSK, SAKHALIN, RUSSIA

(47°03'00"N., 142°02'45"E.) to:

Ports

Bukhta Shelikohova, Kuril Islands, Russia, 707
 Matsugahama, Japan, 361
 Tomari, Japan, 314

KHORRAMSHAHR, IRAN

(30°25'30"N., 48°10'00"E.)
 Subtract 181 1/2 miles from Al Basrah distances.

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 Nord-Ostsee Kanal (East Entrance).

KIIRE, JAPAN

(31°24'42"N., 130°33'17"E.)
 Subtract 9 miles from Kagoshima distances.

KIMCHAEK, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

(40°39'15"N., 129°12'30"E.) to:

Ports

Busan, Republic of South Korea, 351
 Hakodate, Japan, 540
 Maizuru, Japan, 431
 Shimonoseki, Japan, 421
 Vladivostok, Russia, 206
 Yeosu, Republic of South Korea, 439

KIN WAN, JAPAN

(26°24'00"N., 27°58'00"E.) to:

Junction Points*

Honshu Japan, 826
 Selat Lombok, Indonesia (via 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, Republic of Ireland (via Windward Passage), 3,748
 Inishtrahull, Republic of 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
 Bahia Cayo 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
 Belem, 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, Republic of 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. Johns, 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
 Matsugahama, Japan, 1,345
 Midway Island, 1,453
 Petropavlovsk-Kamchatskiy, Russia, 724
 Tomari, Japan, 1,406
 Yokohama, Japan, 1,997

KISMAAYO, SOMALI REPUBLIC
 (0°23'56"S., 42°32'20"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 2,685
 Cape Leeuwin, Australia, 4,534
 Port Said, Arab Republic of 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, Republic of 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

KLAKSIVIG, FAROE ISLANDS
 (62°14'28"N., 6°35'45"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 6,535
 Grand Banks South, 1,925
 Inishtrahull, Republic of Ireland, 410
 Montreal, Canada (via Strait of Belle Isle), 2,481

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, Republic of 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, B.C.C. (via Osumi Kaikyo), 1,372
 Honolulu, Hawaii, U.S.A., 3,669
 Iloilo, Philippines (via San Bernardino Strait), 1,623
 Imabari, Japan, 120
 Incheon, Republic of South Korea, 733
 Itozakicho, 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, Democratic People's Republic of 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
 Vejle, 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

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

Nagasaki, Japan (via Osumi Kaiyo), 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, B.C.C., 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, Republic of South Africa, 2,646
Fastnet Rock, Republic of Ireland, 4,175
Grand Banks South, 4,326
Ile d'Ouessant, France, 4,106
Inishtrahull, Republic of 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 Republic, 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:

Ports

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

KOPER, SLOVENIA
(45°33'48"N., 13°42'15"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt (via south of Greece), 1,310
Strait of Gibraltar, 1,682

Ports

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, Arab Republic of Egypt, 1,155
Messina, Sicily, Italy, 621
Oran, Algeria, 1,432
Ravenna, Italy, 91
Tunis, Tunisia, 917
Villefranche, France, 1,136

KORSAKOV, SAKHALIN, RUSSIA
(46°37'30"N., 142°45'30"E.) to:

Ports

Bukhta Shelikhova, Kuril Islands, Russia, 618
Matsuga-hana, Japan, 279
Nevel'sk, Russia, 115
Sovetskaya Gavan, Russia, 264
Tomari, Japan, 239

KORSOR, DENMARK
(55°20'07"N., 11°07'48"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 73
Skagens Odde, Denmark, 162

Ports

Gdynia, Poland, 344
Stockholm, Sweden, 524
Swinoujscie, Poland, 239

KOTA KINABALU, MALAYSIA
(6°00'32"N., 116°04'37"E.) to:

Junction Points*

Selat Lombok, Indonesia (via Balabac Strait), 1,362
Panama, Panama (via Surigao Strait), 9,860
Singapore, 807
Selat Sunda, Indonesia, 1,031

Ports

Cebu, Philippines (via Balabac Strait), 589

Ho Chi Minh, Vietnam, 761
Honolulu, Hawaii, U.S.A. (via Surigao Strait), 5,092
Makassar, Sulawesi (via west of Palawan), 616
Sandakan, Sabah (via Balabac Strait), 261
Zamboanga, Philippines, 442

KOTKA, FINLAND
(60°27'00"N., 26°59'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 694
Skagens Odde, Denmark, 755

Ports

Helsinki, Finland, 99
Riga, Latvia, 296
Stockholm, Sweden, 311
Vysotsk, Russia, 69

KOVDA, RUSSIA
(66°42'00"N., 32°52'00"E.) Add 76 1/2 miles to Arkhangel'sk distances.

KPEME, TOGO REPUBLIC
(6°11'22"N., 01°30'20"E.) to:

Junction Points*

Bishop Rock, England, 4,099
Cape of Good Hope, Republic of South Africa, 2,615
Fastnet Rock, Republic of Ireland, 3,884
Grand Banks South, 4,036
Ile d'Ouessant, France, 3,815
Inishtrahull, Republic of 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

Ports

Abidjan, Ivory Coast, 405
Accra, Ghana, 159
Cape Town, Republic of South Africa, 1,316
New York, New York, U.S.A., 4,800
Pointe Noire, Congo, 903
Takoradi, Ghana, 255

KRAGERO, NORWAY
(58°51'40"N., 9°23'35"E.) to:

Junction Points*

Pentland Firth, Scotland, 441

Ports

Bergen, Norway, 289
London, England, 582
Oslo, Norway, 95

KRALENDIJK, BONAIRE
(12°09'30"N., 68°16'40"W.) to:

Ports

Guantanamo, Cuba, 620

KRIBI, CAMEROON
(2°56'00"N., 9°54'00"E.) to:**Ports**

Douala, Cameroon, 81
Malabo, Equitorial Guinea, 106
Port Gentil, Gabon, 231
Takoradi, Ghana, 704

KRISTIANSAND, NORWAY
(58°08'30"N., 7°59'40"E.) to:**Junction Points***

Bishop Rock, England, 309
Ile d'Ouessant, France, 794
Pentland Firth, Scotland, 372
Skagens Odde, Denmark, 92

Ports

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

KRISTIANSUND, NORWAY
(63°06'40"N., 7°45'00"E.) to:**Ports**

Bergen, Norway, 232
Kristiansand, Norway, 447
Oslo, Norway, 599
Stavanger, Norway, 332

KRISTINESTAD, FINLAND
(62°15'45"N., 21°22'30"E.) to:**Junction Points***

Nord-Ostsee Kanal (East entrance), Germany, 703
Skagens Odde, Denmark (via the Sound), 764

Ports

Gdynia, Poland, 473
Helsinki, Finland, 279
Kobenhavn, Denmark, 587
Kotka, Finland, 342
Oulu, Finland, 214
Sankt-Peterburg, Russia, 433
Stockholm, Sweden, 232

KUNG THEP, THAILAND
See Bangkok.**KUCHING, SARAWAK**
(1°33'35"N., 110°20'35"E.) to:**Junction Points***

Selat Lombok, Indonesia, 974
Singapore, 443

Ports

Iloilo, Philippines, 948
Jakarta, Indonesia, 627
Olongapo, Philippines, 992
Zamboanga, Philippines, 863

KUNSAN, JAPAN
(35°59'18"N., 126°43'00"E.) See Gunsan, Republic of South Korea.**KURE, JAPAN**
(34°14'00"N., 132°32'00"E.) to:**Ports**

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, Shikoku, Japan, 141
Shimonoseki, Japan, 116
Tokuyama, Japan, 76
Uno, Japan, 117
Wakamatsu, Japan, 125
Yokohama, Japan, 515

KUSHIRO, JAPAN
(42°58'00"N., 144°21'30"E.) to:**Ports**

Busan, Republic of South Korea, 876
Hakodate, Japan, 210
Kobe, Japan, 876
Vladivostok, Russia, 624
Yokohama, Japan, 594

KWA IBO, NIGERIA
(4°21'40"N., 8°00'00"E.) See Qua Iboe.**KYNDBY, DENMARK**
(55°48'36"N., 11°52'48"E.) to:**Junction Points***

Nord-Ostsee Kanal (East Entrance), Germany, 164
Skagens Odde, Denmark, 136

Ports

Gdynia, Poland, 334
Stockholm, Sweden, 493
Swinoujscie, Poland, 197

KYOMIPO, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
(38°44'00"N., 125°37'00"E.) Add 16 miles to Nampo distances.**LA CEIBA, HONDURAS**
(15°46'30"N., 86°50'00"W.) to:**Junction Points***

Panama, Panama, 709

Ports

Colon, Panama, 666
New York, New York, U.S.A., 1,743
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
Guiria, 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 a 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, Republic of 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, Republic of 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 a Pitre, Guadeloupe (via Mona Passage), 1,309
 Pointe a 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 Manati, 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, Arab Republic of Egypt, 1,582
 Strait of Gibraltar, 658

Ports

Alexandria, Arab Republic of 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

Bilboa, 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, Arab Republic of Egypt, 1,391
 Strait of Gibraltar, 891

Ports

Alexandria, Arab Republic of 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
 Castellamare 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
 Odesa, Ukraine (south of Greece), 1,604
 Odesa, 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

LA UNION, EL SALVADOR

(13°20'00"N., 87°49'00"W.) to:

Junction Points*

Panama, Panama, 748

Ports

Corinto, Nicaragua, 73
 Golfito, Costa Rica, 432
 San Francisco, California, U.S.A., 2,586

LAE, PAPUA NEW GUINEA

(6°44'30"S., 147°01'00"E.) to:

Ports

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

LAGOS, NIGERIA

(6°27'00"N., 3°23'00"E.) to:

Junction Points*

Ile d'Ouessant, France, 3,746
 Strait of Gibraltar, 3,100
 Straits of Florida, 5,225

Ports

Accra, Ghana, 229
 Baltimore, Maryland, U.S.A., 5,063
 Benguela, Angola, 1,289
 Boma, Republic of Zaire, 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

LAKE CHARLES, LOUISIANA, U.S.A.

(30°13'30"N., 93°14'00"W.) to:

Junction Points*

Straits of Florida, 677
 Yucatan Channel, 689

Ports

Kingston, Jamaica, 1,190

La Habana, Cuba, 750
Veracruz, Mexico, 688

LAND SKRONA, SWEDEN
(55°52'08"N., 12°49'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 167
Skagens Odde, Denmark, 137

Ports

Oslo, Norway, 261
Stockholm, Sweden, 424
Szczecin, Poland, 170

LARNACA, CYPRUS
(34°54'44"N., 33°38'23"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 231
Strait of Gibraltar, 1,953

Ports

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

LARNE, ENGLAND
(54°52'00"N., 5°47'40"W.) to:

Junction Points*

Bishop Rock, England, 323
Fastnet Rock, Republic of Ireland, 312
Inishtrahull, Republic of Ireland, 86

Ports

Cardiff, Wales, 295
Cobh, Republic of Ireland, 251
Londonderry, Northern Ireland, 71
Milford Haven, Wales, 220
Stornoway, Scotland, 219
Workington, England, 85

LARVIK, NORWAY
(59°03'00"N., 10°01'35"E.) to:

Junction Points*

Pentland Firth, Scotland, 461

Ports

Bergen, Norway, 317
London, England, 604

Oslo, Norway, 72

LAS PALMAS, CANARY ISLANDS
(28°08'30"N., 15°25'00"W.) to:

Junction Points*

Bishop Rock, England, 1,360
Strait of Gibraltar, 681
Straits of Florida, 3,713

Ports

Baltimore, Maryland, U.S.A., 3,251
Brunswick, Georgia, U.S.A., 3,442
Charleston, South Carolina, 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

LAS PIEDRAS, VENEZUELA
(11°42'15"N., 70°13'15"W.) to:

Ports

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

LATCHI, CYPRUS
(35°06'00"N., 32°27'00"E.) See Khrysokhou Bay, Cyprus.

LAUNCESTON, TASMANIA
(41°27'00"S., 147°07'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,577
Torres Strait, Australia, 2,278

Ports

Melbourne, Australia, 246
Sydney, Australia, 514
Wellington, New Zealand, 1,326

LAUTOKA HARBOR, FIJI ISLANDS
(17°36'09"S., 177°26'16"E.) to:

Junction Points*

Torres Strait, Australia, 2,204
Wilson Promontory, Australia, 2,070

Ports

Apra, Guam, 2,899
Sydney, Australia, 1,732
Wellington, New Zealand, 1,554

LAVAN ISLAND, IRAN
(26°47'05"N., 53°20'15"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,785
Cape Leeuwin, Australia, 5,121
Port Said, Arab Republic of Egypt, 2,967
Singapore, 3,506
Selat Sunda, Indonesia, 3,713

Ports

Abadan, Iran, 349
Aden, Yemen, 1,578
Assab, Ethiopia, 1,722
Bandar, Abbas, Iran, 198
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 POINT.**—See Preface for use of junction points

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, 5342
 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, B.C.C. (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 Kaiyo), 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, Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 208
 Strait of Gibraltar, 1,914

Ports

Alexandria, Arab Republic of Egypt, 272
 Iraklion, Kriti, 405
 Izmir, Turkey, 530

LIMERICK, REPUBLIC OF IRELAND
 (52°39'40"N., 8°38'15"W.) to:

Junction Points*

Fastnet Rock, Republic of Ireland, 157
 Inishtrahull, Republic of Ireland, 279
 Pentland Firth, Scotland, 538

Ports

Belfast, Northern Ireland (north of Ireland), 376
 Cobh, Republic of 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

Ports

Baltimore, Maryland, U.S.A., 1,454
 Buenos Aires, Argentina, 4,648
 Jacksonville, Florida, U.S.A., 1,216
 Philadelphia, Pennsylvania, U.S.A., 1,474
 Port of Spain, Trinidad, 470
 Willemstad, Curacao, 428

LIMHAMN, SWEDEN
 (55°35'30"N., 12°55'40"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 159
 Skagens Odde, Denmark, 159

Ports

Oslo, Norway, 279
 Stockholm, Sweden, 427
 Swinoujscie, Poland, 128

LIMON, COSTA RICA
 (9°59'30"N., 83°01'00"W.) to:

Junction Points*

Panama, Panama, 234
 Yucatan Channel, 732

Ports

Baltimore, Maryland, U.S.A. (via Windward Passage and Crooked Island Passage), 1,974
 Boston, Massachusetts, U.S.A. (via Windward Passage and Crooked Island Passage), 2,230
 Brunswick, Georgia, U.S.A., 1,611
 Cartagena, Colombia, 447
 Charleston, South Carolina, U.S.A. (via Windward Passage and Crooked Island Passage), 1,637
 Colon, Panama, 190
 Galveston, Texas, U.S.A., 1,394
 Georgetown, Guyana, 1,647
 Halifax, Canada, 2,368
 Hamilton, Bermuda (via Windward Passage), 1,715
 Jacksonville, Florida, U.S.A., 1,589

Kingston, Jamaica, 605
 La Habana, Cuba, 1,170
 Mobile, Alabama, U.S.A. (via inside route), 1,292
 New York, New York, U.S.A. (via Windward Passage and Crooked Island Passage), 2,047
 Norfolk, Virginia, U.S.A. (via Windward Passage and Crooked Island Passage), 1,852
 Pensacola, Florida, U.S.A., 1,256
 Philadelphia, Pennsylvania, U.S.A. (via Windward Passage and Crooked Island Passage), 2,019
 Port of Spain, Trinidad, 1,313
 Port Castries, St. Lucia, 1,316
 Puerto Cortes, Honduras, 623
 San Juan, Puerto Rico (via Mona Passage), 1,119
 Savannah, Georgia, U.S.A. (via Windward Passage), 1,636
 Veracruz, Mexico, 1,338
 Wilmington, North Carolina, U.S.A., 1,680

LINGKAS, KALIMANTAN, INDONESIA
 (3°17'00"N., 117°35'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 830
 Singapore, 1,286
 Selat Sunda, Indonesia, 1,191

Ports

Manila, Philippines, 785
 Tjilatjap, Indonesia, 1,217

LISBOA, PORTUGAL
 (38°42'00"N., 9°08'00"W.) to:

Junction Points*

Bishop Rock, England, 710
 Cape of Good Hope, Republic of South Africa, 5,152
 Ile d'Ouessant, France, 666
 Inishtrahull, Republic of Ireland, 1,093
 Montreal, Canada, 3,032
 Pentland Firth, Scotland, 1,341
 Punta Arenas, Chile, 6,398
 Strait of Gibraltar, 286
 Straits of Florida, 3,823

Ports

Argentia, Canada, (via Cape Race), 2,101
 Banjul, Gambia, 1,632
 Belem, Brazil, 3,251
 Bordeaux, France, 733
 Boston, Massachusetts, U.S.A., 2,817
 Buenos Aires, Argentina, 5,339
 Cadiz, Spain, 253
 Cape Town, Republic of South Africa, 5,134
 Casablanca, Morocco, 324
 Charleston, South Carolina, U.S.A., 3,385
 Charlotte Amalie, Virgin Islands, 3,147
 Colon, Panama (via Mona Passage), 4,152
 Dakar, Senegal, 1,544
 El Ferrol del Caudillo, Spain, 356
 Freetown, Sierra Leone, 2,023
 Funchal, Madeira Island, 532
 Georgetown, Guyana, 3,264

Guantanamo, Cuba, 3,570
 Halifax, Canada, 2,484
 Horta, Azores, 917
 Huelva, Spain, 235
 Jacksonville, Florida, U.S.A., 3,539
 Key West, Florida, U.S.A., 3,765
 Kingston, Jamaica, 3,725
 Las Palmas, Canary Islands, 712
 Marin, Spain, 255
 Monrovia, Liberia, 2,225
 New York, New York, U.S.A., 2,980
 Norfolk, Virginia, U.S.A., 3,129
 Oporto, Portugal, 176
 Philadelphia, Pennsylvania, U.S.A., 3,122
 Ponta Delgada, Azores, 783
 Port of Spain, Trinidad, 3,287
 Port Castries, St. Lucia, 3,111
 Porto Grande, Cape Verde Islands, 1,555
 Praia, Da Vitoria, Terceira, Azores, 850
 Recife, Brazil, 3,156
 Rio de Janeiro, Brazil, 4,219
 San Juan, Puerto Rico, 3,185
 Santa Cruz de Tenerife, Canary Islands, 714
 Viana do Castelo, Portugal, 210
 Vigo, Spain, 247
 Villa do Porto, Azores, 771
 Villagarcia, Spain, 264

LISBON, PORTUGAL
 (38°42'00"N., 9°08'00"W.) See Lisboa.

LITTLE CREEK, VIRGINIA, U.S.A.
 (36°56'00"N., 76°10'40"W.)
 Subtract 13 1/2 miles from Norfolk distances.

LIVERPOOL, CANADA
 (44°02'30"N., 64°42'00"W.) to:

Ports

Boston, Massachusetts, U.S.A., 325
 Colon, Panama, 2,244
 Kingston, Jamaica, 1,752
 New York, New York, U.S.A., 536
 Norfolk, Virginia, U.S.A., 715
 Philadelphia, Pennsylvania, U.S.A., 686
 San Juan, Puerto Rico, 1,540
 St. John, Canada, 212
 Sydney, Canada, 293

LIVERPOOL, ENGLAND
 (53°27'00"N., 3°01'00"W.) to:

Junction Points*

Bishop Rock, England, 297
 Fastnet Rock, Republic of Ireland, 295
 Inishtrahull, Republic of Ireland (north of Isle of Man), 210
 Pentland Firth, Scotland (south of Isle of Man), 460
 Pentland Firth, Scotland (via The Minch), 451

Ports

Antwerp, Belgium, 698
 Ardrossan, Scotland, 180
 Arkhangel'sk, Russia, 2,075
 Avonmouth, England, 282

Brest, France, 410
 Cardiff, Wales, 267
 Cherbourg, France, 442
 Cobh, Republic of Ireland, 246
 Douglas, Isle of Man, 68
 Falmouth, England, 313
 Holyhead, Wales, 72
 Kingston, Jamaica, 1,744
 Le Havre, France, 510
 London, England, 659
 Londonderry, Northern Ireland, 215
 Milford Haven, Wales, 197
 Murmansk, Russia, 1,703
 Newport, Wales, 284
 Port Talbot, Wales, 244
 Southampton, England, 479
 Swansea, Wales, 236
 Waterford, Republic of Ireland, 189

LIVORNO, ITALY
 (43°33'06"N., 10°17'45"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,355
 Strait of Gibraltar, 887

Ports

Alexandria, Arab Republic of Egypt, 1,244
 Algiers, Algeria, 528
 Alicante, Spain, 585
 Anaba, Algeria, 431
 Ancona, Italy, 946
 Banghazi, Libya, 841
 Banzart, Tunisia, 382
 Barcelona, Spain, 386
 Bari, Italy, 739
 Beirut, Lebanon, 1,437
 Brindisi, Italy, 681
 Cagliari, Sardinia, 304
 Cannes, France, 149
 Cartagena, Spain, 636
 Catania, Sicily, 464
 Ceuta, Morocco, 868
 Civitavecchia, Italy, 120
 Gaeta, Italy, 228
 Gibraltar, 869
 Haifa, Israel, 1,433
 Iraklion, Kriti, 920
 Istanbul, Turkey (south of Greece), 1,220
 Istanbul, Turkey (via Corinth Canal), 1,178
 Izmir, Turkey (south of Greece), 1,066
 Izmir, Turkey (via Corinth Canal), 1,024
 Malaga, Spain, 817
 Marseille, France, 236
 Messina, Sicily, 414
 Napoli, Italy, 267
 Nice, France, 134
 Odesa, Ukraine (south of Greece), 1,568
 Odesa, Ukraine (via Corinth Canal), 1,527
 Oran, Algeria, 691
 Palermo, Sicily, 359
 Palma, Balearic Islands, 470
 Piraievs, Greece (south of Greece), 906
 Piraievs, Greece (via Corinth Canal), 825
 Rijeka, Croatia, 1,013
 Sete, France, 298
 Sibenik, Croatia, 887
 Siracusa, Sicily, 486

Split, Croatia, 872
 Tarabulus, Libya, 754
 Taranto, Italy, 634
 Thessaloniki, Greece (south of Greece), 1,114
 Thessaloniki, Greece (via Corinth Canal), 1,073
 Toulon, France, 204
 Trieste, Italy, 1,047
 Tunis, Tunisia, 417
 Valencia, Spain, 539
 Valletta, Malta, 519
 Venezia, Italy, 1,057
 Villefranche, France, 133
 Volos, Greece (south of Greece), 1,056
 Volos, Greece (via Corinth Canal), 1,014

LO-HSING-TA MAO-TI, CHINA
 (25°59'00"N., 119°26'30"E.) to:

Junction Points*

Singapore, 1,817

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,868
 Apra, Guam, 1,617
 Busan, Republic of 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, B.C.C., 459
 Honolulu, Hawaii, U.S.A., 4,487
 Iloilo, Philippines (via Balintang Channel), 1,073
 Incheon, Republic of South Korea, 818
 Kobe, Japan, 1,003
 Manila, Philippines, 787
 Mogpo, Republic of South Korea, 665
 Nagasaki, Japan, 691
 Nampo, Democratic People's Republic of 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, Democratic People's Republic of 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, Republic of 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

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

LONDONDERRY, NORTHERN IRELAND
(55°00'00"N., 7°19'00"W.) to:

Junction Points*

Bishop Rock, England, 396
Fastnet Rock, Republic of Ireland
(west of Ireland), 371
Pentland Firth, Scotland, 310

Ports

Avonmouth, England, 384
Belfast, Northern Ireland (via
Rathlin Sound), 102
Cardiff, Wales, 369
Cobh, Republic of Ireland, 340
Dublin, Republic of 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, Republic of
South Africa, 2,359
Ile d'Ouessant, France, 4,179

Ports

Lagos, Nigeria, 463
Matadi, Republic of Zaire, 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, Marquesas, 2,858
Bangkok, Thailand (via Balintang
Channel), 7,775
Brisbane, Australia, 6,274
Busan, Republic of 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, B.C.C., 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
Manzanilla, Mexico, 1,205
Mazatlan, Mexico, 1,011
Melbourne, Australia, 7,032
Nagasaki, Japan, 5,572
Nampo, Democratic People's
Republic of 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, Democratic People's
Republic of 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
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, Republic of
South Africa, 1,627

Ports

Boma, Republic of Zaire, 190
Cape Town, Republic of 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
Bælt), 248
Aabenra, Denmark, 131
Assens, Denmark, 127
Faaborg, Denmark, 102
Flensburg, Germany, 131
Fredericia, Denmark, 155
Frederikshavn, Denmark, 155
Gdynia, Poland, 328
Grena, Denmark, 169
Inaderslev, Denmark, 137
Kobenhavn, Denmark, 148
Middelfart, Denmark, 149
Naestved, Denmark, 136
Stockholm, Sweden, 491
Veje, 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
Bælt), 1,067
Skagens Odde, Denmark (via The
Sound), 941

Ports

Bergen, Norway (via The Sound),
1,247
Oslo, Norway (via Store Bælt),
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

LYTTELTON, 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, Republic of South Africa (via east of Madagascar), 4,790
Cape Leeuwin, Australia, 3,480
Selat Lombok, Indonesia, 2,559

Port Said, Arab Republic of 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 Nagayeve.

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, Arab Republic of Egypt, 1,472
Strait of Gibraltar, 542

Ports

Alexandria, Arab Republic of Egypt, 1,349
Banghazi, Libya, 896
Ceuta, Morocco, 388
Genova, Italy, 340
Malaga, Spain, 517
Trieste, Italy, 1,314
Tunis, Tunisia, 372

MAIZUZU, JAPAN
(35°31'00"N., 135°20'00"E.) to:

Ports

Akita, Japan, 352
Bohang, Republic of South Korea, 313
Busan, Republic of South Korea, 333
Changjon, Democratic People's Republic of Korea, 411
Chongjin, Democratic People's Republic of Korea, 463
Hakodate, Japan, 460
Kimchaek, Democratic People's Republic of Korea, 431
Nanao, Japan, 213
Niigata, Japan, 256
Sakata, Japan, 314
Shanghai, China, 800
Shimonoseki, Japan, 302

Ulsan, Republic of South Korea, 315
Unggi, Democratic People's Republic of Korea, 474
Vladivostok, Russia, 485
Wakamatsu, Japan, 299

MAJUNGA, MADAGASCAR
(15°44'00"S., 46°18'00"E.) to:

Junction Points*

Port Said, Arab Republic of 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
Tulear, 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
Manila, Philippines (via Mindoro Strait and Sibutu Passage), 1,232
Mogpo, Republic of South Korea, 2,483
Semarang, Indonesia, 596
Sorido, Indonesia, 1,180
Sorong, Indonesia, 872
Tandjung 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, Republic of Zaire, 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, Republic of South Africa, 5,464
Selat Lombok, Indonesia, 1,091
Port Said, Arab Republic of

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, Al Bahrayn, 3,534
Albany, Australia, 2,602
Beira, Mozambique, 4,405
Belawan, Indonesia, 253
Berbera, Somali Republic, 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, Republic of South Africa, 4,757
East London, Republic of 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, Republic of 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, Arab Republic of Egypt, 1,873
Strait of Gibraltar, 78

Ports

Alexandria, Arab Republic of 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, Kiti, 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
Odesa, 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, Arab Republic of 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.

MANITSOQ, 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, Republic of 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, B.C.C., 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, Republic of 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 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, Republic of South Korea, 1,338
Moji, Japan, 1,436
Nagasaki, Japan, 1,298
Nakagusuku, Ryukyu Islands, 935
Nampo, Democratic People's Republic of 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 Chetvertyy Kuril'sky

Proliv 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
Tanjung 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, Democratic People's Republic of 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

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

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, Republic of South Africa, 1,057
Port Said, Arab Republic of Egypt, 4,348
Singapore, 4,769

Ports

Aden, Yemen, 2,973
Beira, Mozambique, 476
Belawan, Indonesia, 4,436
Durban, Republic of 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

Bilboa, Spain, 387
Horta, Azores, 944
Lisboa, Portugal, 255

MARMGAO, INDIA
(15°25'00"N., 73°47'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,447
Port Said, Arab Republic of 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 BURAYQA, LIBYA
(30°28'15"N., 19°32'45"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 782
Strait of Gibraltar, 1,408

Ports

Alexandria, Arab Republic of 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
Volos, Greece, 655

MARSAXLOKK, MALTA
(35°48'54"N., 14°33'06"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 942
Strait of Gibraltar, 1,017

Ports

Messina, Sicily, 164
Trarabulus, Libya, 191
Tunis, Tunisia, 246

MARSEILLE, FRANCE
(43°19'10"N., 5°21'17"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,518
Strait of Gibraltar, 711

Ports

Ajaccio, Corsica, 188
Alexandria, Arab Republic of Egypt, 1,407
Algiers, Algeria, 410
Alicante, Spain, 406
Ancona, Italy, 1,109
Annaba, Algeria, 409
Banghazi, 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
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
Odesa, Ukraine (south of Greece), 1,731
Odesa, 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, REPUBLIC OF SOUTH KOREA
(35°11'00"N., 128°35'00"E.) to:

Ports

Dalian, China, 546
Incheon, Republic of 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 Areras, 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

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

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, Republic of South Africa, 4,341
Cape Leeuwin, Australia, 5,345
Port Said, Arab Republic of 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, REPUBLIC OF ZAIRE
(5°49'00"S., 13°27'00"E.) to:

Ports

Bata, Equatorial Guinea, 663
Calabar, Nigeria, 818
Cape Town, Republic of South Africa, 1,827
Longji, Cameroon, 731
Mayumba, Gabon, 282
Port Nolloth, Republic of South Africa, 1,559
Swakopmund, Republic of 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, Republic of Ireland, 3,467

Ports

Belize, Belize, 902
New York, New York, U.S.A. (via Crooked Island Passage), 1,205

MATRUH, ARAB REPUBLIC OF EGYPT
(31°22'30"N., 27°14'30"E.) to:

Junction Points*

Port Said, Arab Republic of 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, Republic of South Africa, 5,823
Fastnet Rock, Republic of 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, British Guiana, 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, Arab Republic of Egypt, 617
Strait of Gibraltar (via 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 Points*

Cape Leeuwin, Australia, 1,497
Panama, Panama (via Foveaux Strait), 7,928
Wilson Promontory, Australia, 154

Ports

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

MELILLA, MOROCCO
(35°17'30"N., 2°56'00"W.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,821
Strait of Gibraltar, 153

Ports

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

MENTON, FRANCE
(43°46'30"N., 7°30'40"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,449
Strait of Gibraltar, 791

Ports

Barcelona, Spain, 285
Civitavecchia, Italy, 180
Palma, Balearic Islands, 382

MERS EL KEBIR, ALGERIA
(35°44'00"N., 0°42'00"W.) to:

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

<p>Junction Points*</p> <p>Port Said, Arab Republic of 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, ARAB REPUBLIC OF EGYPT (30°58'42"N., 28°52'12"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 945 Strait of Gibraltar, 1,049</p> <p>Ports</p> <p>Alexandria, Arab Republic of</p>	<p>Egypt, 834 Algiers, Algeria, 621 Alicante, Spain, 776 Ancona, Italy, 536 Annaba, Algeria, 401 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 Odesa, Ukraine (south of Greece), 1,158 Odesa, 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, Republic of South Africa, 6,685 Fastnet Rock, Republic of Ireland, 3,578 Inishtrahull, Republic of 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</p>	<p>London, England, 293</p> <p>MIDWAY ISLAND, NORTH PACIFIC (28°13'00"N., 177°22'00"W.) to:</p> <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, B.C.C., 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>MIIKE, 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</p>
---	---	---	--

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

Suido), 766
Yokohama, Japan (via Osumi
Kaikyo), 725

MILAZZO, SICILY, ITALY
(38°13'00"N., 15°15'00"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 973
Strait of Gibraltar, 1,025

Ports

Napoli, Italy, 54
Palermo, Sicily, 97
Taranto, Italy, 316

MILFORD HAVEN, WALES
(51°42'00"N., 5°02'00"W.) to:

Junction Points*

Bishop Rock, England, 129
Fastnet Rock, Republic of Ireland,
178
Inishtrahull, Republic of Ireland,
286

Ports

Belfast, Northern Ireland, 222
Horta, Azores, 1,266
Liverpool, England, 197

**MILLER ANCHORAGE,
ELEUTHERA ISLAND,
BAHAMA ISLANDS**
(24°39'15"N., 76°11'30"W.) to:

Junction Points*

Panama, Panama, 1,115
Straits of Florida, 495

Ports

Jacksonville, Florida, U.S.A., 507
Nuevitas, Cuba, 363
San Juan, Puerto Rico, 714

MILNER BAY, AUSTRALIA
(13°56'30"S., 136°25'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 6,656
Cape Leeuwin, Australia, 2,557
Honshu, Japan, 3,295
Port Said, Arab Republic of Egypt
(via South of Java), 7,269
Torres Strait, Australia, 375
Tetar Passage, Indonesia, 728

Ports

Belawan, Indonesia, 2,736
Geraldton, Australia, 2,220
Hong Kong, B.C.C. (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

MINA ABD ALLAH, KUWAIT
(29°01'00"N., 48°12'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 5,101
Cape Leeuwin, Australia, 5,437
Port Said, Arab Republic of
Egypt, 3,283
Singapore, 3,822

Ports

Aden, Yemen, 1,894
Bombay, India, 1,514

MINA AL AHMADI, KUWAIT
(29°04'00"N., 48°10'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 5,104
Cape Leeuwin, Australia, 5,440
Port Said, Arab Republic of
Egypt, 3,286
Singapore, 3,825

Ports

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

MINA RAYSUT, OMAN
(16°56'58"N., 54°02'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 3,991
Cape Leeuwin, Australia, 4,791
Selat Lombok, Indonesia, 4,049
Port Said, Arab Republic of
Egypt, 1,979
Singapore, 3,178
Selat Sunda, Indonesia, 3,409
Torres Strait, Australia, 5,627

Ports

Aden, Yemen, 601
Al Basrah, 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

**MINA SAQR, UNITED ARAB
EMIRATES**
(26°00'08"N., 56°01'54"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 4,766
Cape Leeuwin, Australia, 4,933
Selat Lombok, Indonesia, 4,176
Port Said, Arab Republic of
Egypt, 2,568
Singapore, 3,380
Selat Sunda, Indonesia, 3,559
Torres Strait, Australia, 5,764

Ports

Aden, Yemen, 1,531
Belawan, Indonesia, 3,114

Bombay, India, 1,069
Fremantle, Australia, 4,937
Penang, Malaysia, 3,150

MINA SAUD, KUWAIT
(28°45'00"N., 48°24'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 5,082
Cape Leeuwin, Australia, 5,418
Port Said, Arab Republic of
Egypt, 3,264
Singapore, 3,803

Ports

Aden, Yemen, 1,873
Bombay, India, 1,495

MINA SULMAN, BAHRAYN
(26°17'00"N., 50°32'30"E.) See
Al Manamah.

MINATITLAN, MEXICO
(18°00'00"N., 94°32'00"W.) Add
18 miles to Coatzacoalcos
distances.

MIRAGOANE, HAITI
(18°27'30"N., 73°06'00"W.) to:

Ports

Kingston, Jamaica, 243
San Juan, Puerto Rico, 526
Santo Domingo, Dominican
Republic, 407

MISUMI, JAPAN
(32°36'00"N., 130°28'00"E.) to:

Ports

Chi-lung, Taiwan, 654
Hakata, Japan, 161
Incheon, Republic of South Korea,
478
Kagoshima, Japan, 184
Shanghai, China, 490

MITILINI, GREECE
(39°06'13"N., 26°33'23"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 592
Strait of Gibraltar (south of
Greece), 1,528
Strait of Gibraltar (via Corinth
Canal), 1,631

Ports

Iraklion, Greece, 229
Iskenderun, Turkey, 612
Izmir, Turkey, 84
Mersin, Turkey, 551
Piraeus, Greece, 191
Thessaloniki, Greece, 232

MOIRANA, NORWAY
(66°18'31"N., 14°06'57"E.) to:

Junction Points*

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

Ports

Bergen, Norway, 474
Brevik, Norway, 762
Hammerfest, Norway, 433
Hull, England, 908
Oslo, Norway, 824
Reykjavik, Iceland, 1,010
Zeebrugge, Belgium, 1,018

MOA, CUBA
(20°40'56"N., 74°52'20"W.) See
Bahia Cayo Moa, Cuba.

MOBILE, ALABAMA, U.S.A.
(30°42'30"N., 88°02'30"W.) to:

Junction Points*

Straits of Florida, 471
Yucatan Channel, 558

Ports

Belize, Belize, 845
Bocas del Toro, Panama, 1,340
Campeche, Mexico, 674
Carmen, Mexico, 749
Cartagena, Colombia, 1,450
Coatzacoalcos, 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

**MOCAMBIQUE,
MOZAMBIQUE**
(15°01'00"S., 40°43'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 1,807
Port Said, Arab Republic of
Egypt, 3,522
Singapore, 4,080

Ports

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

MOCAMEDES, ANGOLA
(15°11'20"S., 12°08'15"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 1,239
Ile d'Ouessant, France, 4,697

Ports

Lagos, Nigeria, 1,399
Porto Grande, Cape Verde Islands,
2,939
Walvisbaai, Namibia, 518

MOENGO, SURINAME
(5°37'42"N., 54°24'39"W.) Add
88 1/2 miles to Paramaribo
distances.

**MOGADISCIO, SOMALI
REPUBLIC**
(2°01'21"N., 45°21'02"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 2,855
Port Said, Arab Republic of
Egypt, 2,493
Singapore, 3,611

Ports

Aden, Yemen, 1,106
Mombasa, Kenya, 502

**MOGPO, REPUBLIC OF
SOUTH KOREA**
(34°46'45"N., 126°23'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 2,725
Singapore, 2,407
Selat Sunda, Indonesia, 2,760
Selat Wetar, Indonesia (via
Molucca Passage), 2,632

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 1,330
Balikpapan, Kalimantan,
Indonesia, 2,308
Bangkok, Thailand, 2,438
Busan, Republic of 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, B.C.C., 1,049
Honolulu, Hawaii, U.S.A., 4,146
Incheon, Republic of South Korea
(south of Ka Do), 236
Incheon, Republic of 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, Democratic People's
Republic of Korea (south of
Kasa Do), 320
Nampo, Democratic People's
Republic of 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, Republic of South
Korea, 189
Vladivostok, Russia, 726
Weihai, China (south of Kasa Do),
308
Weonsan, Democratic People's
Republic of Korea, 530
Xiamen, China, 790
Yantai, China (south of Kasa Do),
342
Yeosu, Republic of South Korea,
151
Yokohama, Japan, 838

MOHAMMEDIA, MOROCCO
(33°42'52"N., 7°23'52"W.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 4,951
Ile d'Ouessant, France, 944

Ports

Dakar, Senegal, 1,338
Tangier, Morocco, 158

MOJI, JAPAN
(33°6'30"N., 130°57'30"E.) to:

Ports

Busan, Republic of South Korea,
123
Dalian, China, 633
Incheon, Republic of South Korea,
485
Manila, Philippines, 1,436
Nagasaki, Japan, 152
Tianjin, China, 840
Ulegorsk, Russia, 1,100
Yantai, China, 600

MOLDE, NORWAY
(62°44'06"N., 7°10'00"E.) to:

Junction Points*

Pentland Firth, Scotland, 412
Skagens Odde, Denmark, 492

Ports

Bergen, Norway, 201
Reykjavik, Iceland, 875

MOMBASA, KENYA
(4°03'30"S., 39°41'15"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 2,472
Port Said, Arab Republic of
Egypt, 3,006
Singapore, 3,987

Ports

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, Republic of South Africa,
1,718
Fremantle, Australia, 4,564
Karachi, Pakistan, 2,361
Malacca, Malaysia, 3,872
Maputo, Mozambique, 1,508
Massawa, Ethiopia, 2,006
Mogadiscio, Somali Republic, 502
Penang, Malaysia, 3,699
Port Darwin, Australia, 5,434
Rangoon, Burma, 3,714
Sabang, Indonesia, 3,388
Tanga, Tanzania, 69

MON FALCONE, ITALY
(46°45'56"N., 13°33'45"E.) See
Trieste.

MONACO, MONACO
(43°44'00"N., 7°26'00"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,450
Strait of Gibraltar, 792

Ports

Barcelona, Spain, 280
Napoli, Italy, 363
Palma, Balearic Islands, 377

**MONI ANCHORAGE,
CYPRUS**
(34°41'44"N., 33°11'11"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 219
Strait of Gibraltar, 1,931

Ports

Alexandria, Arab Republic of
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

MONOPOLI, ITALY
(40°67'20"N., 17°18'30"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 953
Strait of Gibraltar, 1,346

Ports

Ancona, Italy, 239
Durrës, Albania, 100
Split, Croatia, 173

MONROVIA, LIBERIA
(6°20'00"N., 10°49'00"W.) to:

Ports

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

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, Republic of
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, Republic of 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

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

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
Valparaíso, 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, Republic of 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, Republic of 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

Argentia, 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, Republic of 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
Amsterdam, Netherlands, 372
Antwerp, Belgium, 457
Bremerhaven, Germany, 431
Dundee, Scotland, 30
Oostende, Belgium, 393
Rotterdam, Netherlands, 385
Wilhelmshaven, Germany, 423
Zeebrugge, Belgium, 398

**MOKPO, REPUBLIC OF
SOUTH KOREA**
(34°46'45"N., 126°23'00"E.) See
Mogpo.

**MOREHEAD CITY, NORTH
CAROLINA, U.S.A.**
(34°39'10"N., 76°40'33"W.) to:

Junction Points*

Cape of Good Hope, Republic of
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, Republic of South
Africa, 6,752
Georgetown, British Guiana, 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
Marmgao, 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
Valparaíso, 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, REPUBLIC
OF SOUTH AFRICA**
(34°10'00"S., 22°09'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
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, REPUBLIC OF
SOUTH AFRICA**
(34°10'00"S., 22°09'00"E.) See
Mosselbaai.

MOSTAGANEM, ALGERIA
(35°56'12"N., 0°04'22"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,678
Strait of Gibraltar, 283

Ports

Algiers, Algeria, 172
Alicante, Spain, 148
Melilla, Morocco, 154

MOURILYAN, AUSTRALIA
(17°36'08"S., 146°07'59"E.) See
Innisfail.

MTWARA, TANZANIA
(10°15'30"S., 40°13'04"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 2,111
Port Said, Arab Republic of
Egypt, 3,265
Singapore, 4,042

Ports

Dar es Salaam, Tanzania, 230
Mocambique, Mozambique, 327

**MUBARRAZ ISLAND,
UNITED ARAB EMIRATES**
(24°26'55"N., 53°32'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 5,078
Cape Leeuwin, Australia, 5,170
Selat Lombok, Indonesia, 4,372
Port Said, Arab Republic of
Egypt, 2,969
Singapore, 3,549
Selat Sunda, Indonesia, 3,774
Torres Strait, Australia, 5,994

Ports

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

MURMANSK, RUSSIA
(68°58'30"N., 33°03'00"E.) to:

Junction Points*

Montreal, Canada, 3,870

Ports

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
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
Seyðisfjörður, Iceland, 1,173
Stavanger, Norway, 1,199
Qaanaaq (Thule), Greenland, 3,462
Trondheim, Norway, 875

MURORAN, JAPAN
(42°19'20"N., 140°58'40"E.) to:

Ports

Bukhta Shelikhova, Kuril Islands, Russia, 859
Hachinohe, Japan, 123
Hakodate, Japan, 64
Kastka, Japan, 401
Kawasaki, Japan, 551
Matsugahama, Japan, 310
Mojik, Japan (via Shimonoseki Strait), 736
Osaka, Japan, 834
Sasebo, Japan (via Korean Strait), 831
Shimonoseki, Japan, 736
Tokyo, Japan, 557
Tomari, Japan, 295

MUTRAH, OMAN
(23°38'13"N., 58°34'50"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,487
Cape Leeuwin, Australia, 4,760
Selat Lombok, Indonesia, 3,982
Port Said, Arab Republic of Egypt, 2,289
Singapore, 3,207
Selat Sunda, Indonesia, 3,364
Torres Strait, Australia, 5,590

Ports

Aden, Yemen, 1,254
Al Basrah, Iraq, 847
Belawan, Indonesia, 2,866
Karachi, Pakistan, 496
Malacca, Malaysia, 3,068

Penang, Malaysia, 2,902

MYRTLE GROVE, LOUISIANA, U.S.A.
(29°38'32"N., 89°56'50"W.)
Subtract 34 miles from New Orleans distances.

NAESTVED, DENMARK
(55°13'33"N., 11°45'24"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 74
Skagens Odde, Denmark, 212

Ports

Gdynia, Poland, 383
Göteborg, Sweden, 1396
Lubeck, Germany, 136

NAGASAKI, JAPAN
(32°44'30"N., 129°52'15"E.) to:

Junction Points*

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

Ports

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, Republic of 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, B.C.C., 1,069
Honolulu, Hawaii, U.S.A., 3,986
Iloilo, Philippines, 1,428
Incheon, Republic of 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
Miike, Japan, 82
Mogpo, Republic of South Korea, 261
Mojik, 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 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, Democratic People's Republic of Korea, 452
Xiamen, China, 810
Yantai, China, 560
Yokohama, Japan (via Osumi Kaikyo), 691

NAGOYA, JAPAN
(35°05'00"N., 136°53'00"E.) to:

Ports

Apra, Guam, 1,378
Hachinohe, Japan, 577
Hirohata, Japan, 259
Imabari, Japan, 341
Kawasaki, Japan, 218
Kobe, Japan, 245
Kure, Japan, 412
Mojik, Japan, 433
Nagasaki, Japan (via Osumi Strait), 577
Shimizu, Japan, 143
Shimonoseki, Japan, 434
Ube, Japan, 419
Yokohama, Japan, 214

NAHA, OKINAWA JIMA, RYUKYU ISLANDS
(26°12'20"N., 127°40'11"E.) to:

Ports

Apra, Guam, 1,236
Busan, Republic of South Korea, 550
Chi-lung, Taiwan, 337

Hachinohe, Japan, 1,239
Shanghai, China, 479
Shimonoseki, Japan, 530

NAIKIN, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
(42°14'00"N., 130°18'00"E.) to:

Ports

Kobe, Japan, 754
Tongyeong, Republic of South Korea, 501
Ulsan, Republic of South Korea, 418
Yeosu, Republic of South Korea, 535

NAKAGUSUKU, OKINAWA JIMA, RYUKYU ISLANDS
(26°17'00"N., 127°53'00"E.) to:

Ports

Apra, Guam, 1,216
Dagu, China, 1,026
Manila, Philippines, 935
Shanghai, China, 515
Yokohama, Japan, 839

NAKHODKA, RUSSIA
(42°49'07"N., 132°53'52"E.) to:

Ports

Busan, Republic of South Korea, 508
Hakodate, Japan, 62
Shanghai, China, 991
Shimonoseki, Japan, 552

NAKNEK, ALASKA, U.S.A.
(58°42'00"N., 157°15'00"W.) to:

Junction Points*

Panama, Panama, 5,604

Ports

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

NAKSKOV, DENMARK
(54°50'00"N., 11°07'30"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 46
Skagens, Odde, Denmark, 213

Ports

Gdynia, Poland, 335
Göteborg, Sweden, 201
Swinoujscie, Poland, 190

NAMPO, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
(38°43'00"N., 125°25'00"E.) to:

Junction Points*

Selat Lombok, Indonesia, 2,946
Singapore, 2,621
Selat Sunda, Indonesia, 2,974
Selat Wetar, Indonesia (via Selat

Manipa), 2,861

Ports

Aleksandrovsk-Sakhalinskiy, Russia, 1,601
Bangkok, Thailand (outer bar), 2,652
Busan, Republic of South Korea (via Maenggol Sudo), 496
Dagu, China, 369
Dalian, China, 180
Ho Chi Minh, Vietnam, 2,118
Hong Kong, B.C.C., 1,263
Honolulu, Hawaii, U.S.A., 4,417
Incheon, Republic of 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, Republic of South Korea (south of Kasa Do), 320
Mogpo, Republic of South Korea (via Myondo Sudo), 288
Petropavlovsk-Kamchatskiy, Russia, 2,214
Qingdao, China, 309
Qinhuangdao China, 307
Shanghai, China, 561
Shantou, China, 1,113
Vladivostok, Russia, 997
Weihai, China, 172
Weonsan, Democratic People's Republic of Korea (via Maenggol Sudo), 801
Xiamen, China, 1,004
Yantai, China, 205
Yokohama, Japan, 1,109

NAMSOS, NORWAY

(64°28'00"N., 11°29'25"E.) to:

Junction Points*

Pentland Firth, Scotland, 615
Skagens Odde, Denmark, 696

Ports

Bergen, Norway, 384

NAN-CHING, CHINA

(32°06'00"N., 118°44'00"E.) See Nanjing, China.

NANAIMO, CANADA

(49°10'00"N., 123°55'45"W.) to:

Ports

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

NANAO, JAPAN

(37°03'40"N., 136°58'00"E.) to:

Ports

Busan, Republic of South Korea, 476
Hakodate, Japan, 337
Maizuru, Japan, 213
Shimonoseki, Japan, 453

Vladivostok, Russia, 460

NANCHITAL, MEXICO

(18°00'00"N., 94°27'00"W.) Add 3 miles to Coatzacoalcos distances.

NANJING, CHINA

(32°06'00"N., 118°44'00"E.) Add 177 miles to Shanghai distances.

NANORTALIK, GREENLAND

(60°08'30"N., 45°14'35"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,291
Strait of Gibraltar, 2,138

Ports

Churchill, Canada, 1,511
Reykjavik, Iceland, 737
St. John's, Canada, 821

NANTES, FRANCE

(47°11'42"N., 1°35'15"W.) Add 29 miles to St. Nazaire distances.

NAPIEIR, NEW ZEALAND

(39°28'00"S., 176°57'21"E.) to:

Junction Points*

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

Ports

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

NAPLES, ITALY

(40°50'19"N., 14°16'20"E.) See Napoli.

NAPOLI, ITALY

(40°50'19"N., 14°16'20"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,116
Strait of Gibraltar, 1,001

Ports

Al Latakia, Syria, 1,191
Alexandria, Arab Republic of 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
Odesa, Ukraine (south of Greece), 1,329
Odesa, 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
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

NARSARSUAQ, GREENLAND

(61°09'45"N., 45°27'45"W.) to:

Junction Points*

Pentland Firth, Scotland, 1,384
Strait of Gibraltar, 2,257

Ports

Churchill, Canada, 1,513
Reykjavik, Iceland, 830
St. John's, Canada, 916

NARVIK, NORWAY

(68°25'30"N., 17°25'00"E.) to:

Junction Points*

Bishop Rock, England (via English Channel), 1,505
Ile d'Ouessant, France, 1,498

Ports

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

NASIPIT, PHILIPPINES

(8°59'27"N., 125°20'03"E.) to:

Junction Points*

Honshu, Japan, 1,770
Selat Lombok, Indonesia, 1,332
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, Republic of 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, Arab Republic of
Egypt, 655
Strait of Gibraltar, 1,337

Ports

Alexandria, Arab Republic of
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, Arab Republic of
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, Republic of 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, Republic of Ireland,
2,727
Inishtrahull, Republic of 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, Republic of
South Africa, 4,523
Cape Leeuwin, Australia, 3,695
Selat Lombok, Indonesia, 2,939
Port Said, Arab Republic of
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
Coatzacoalcas, 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., 14°01'00"W.) to:

Junction Points*

Bishop Rock, England, 2,937
Cape of Good Hope, Republic of
South Africa, 6,814
Fastnet Rock, Republic of Ireland,
2,815
Inishtrahull, Republic of 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
Argentia, 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

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

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, Republic of Zaire, 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, Republic of 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. Johns, 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 Odd, 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
 Portland, England, 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, Republic of Ireland, 258
 Inishtrahull, Republic of Ireland, 371

Ports

Cardiff, Wales, 16
 Cobh, Republic of Ireland, 210
 Cork, Republic of Ireland, 220
 Dover, England, 439
 Dublin, Republic of Ireland, 219
 Falmouth, England, 191
 Limerick, Republic of Ireland, 418
 Liverpool, England, 284
 Manchester, England, 324
 Plymouth, England, 224
 Portsmouth, England, 341
 Southampton, England, 339
 Waterford, Republic of 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, B.C.C., 678
 Kao-hsiung Kang, Taiwan, 895
 Manila, Philippines, 706

NICE, FRANCE
 (43°41'40"N., 7°17'07"E.) to:

Junction Points*

Port Said, Arab Republic of 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, Republic of South Korea, 516
Hakodate, Japan, 247
Incheon, Republic of South Korea, 894
Kawasaki, Japan (via Balintang Channel), 762
Maizuru, Japan, 256
Muran, 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-NAAMURE, 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, B.C.C. (via South Channel), 2,394
Matsugahama, 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, B.C.C., 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
Petrovsk-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
Karlshamn, 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
Muskö Island, Sweden, 473
Naestved, Denmark, 94
Nakskov, Denmark, 46
Newcastle, England, 439
Norrköping, Sweden, 459
Odense, Denmark, 117
Oostende, Belgium, 364
Ornskoldsvik, Sweden, 733
Oulu, Finland, 918
Oxelösund, Sweden, 420
Peenemünde, 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
Travemünde, Germany, 88
Trelleborg, Sweden, 141
Turku, Finland, 576
Umea, Sweden, 751
Uusikaupunki, Finland, 624
Vaa, Finland, 744
Vejle, 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, Republic of South Africa, 6,802
Fastnet Rock, Republic of Ireland, 2,979
Inishtrahull, Republic of 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

Argentia, Canada, 1,189
Arkhangelsk, 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, Republic of 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
Guantanamo, Cuba, 1,117
Halifax, Canada, 790
Hamilton, Bermuda, 683
Ivittuut, 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, Republic of South Africa, 4,379
 Fastnet Rock, Republic of Ireland, 1,865
 Grand Banks South, 2,104
 Ile d'Ouessant, France, 1,770
 Inishtrahull, Republic of 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, Republic of Zaire, 2,666
 Casablanca, Morocco, 936
 Dakar, Senegal, 373
 Freetown, Sierra Leone, 850
 Galway, Republic of 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, Republic of South Africa, 4,248
 Fastnet Rock, Republic of Ireland, 2,068
 Grand Banks South, 2,275
 Ile d'Ouessant, France, 1,971
 Inishtrahull, Republic of 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

Accru, Ghana, 1,605
 Boma, Republic of Zaire, 4,250
 Cape Town, Republic of South Africa, 5,547
 Casablanca, Morocco, 1,114
 Dakar, Senegal, 217
 Freetown, Sierra Leone, 699
 Galway, Republic of 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, Marquesas, 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, B.C.C., 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, Arab Republic of 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
 Odesa, 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 Liberte, 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 Points*

Panama, Panama, 5,953

Ports

Apia, Samoa, 509
 Apra, Guam, 3,202
 Auckland, New Zealand, 1,099
 Brisbane, Australia, 1,827
 Burnie, 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

<p>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 Masnedsund 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>ODESA, UKRAINE (46°29'40"N., 30°44'40"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 1,152 Strait of Gibraltar, 2,169</p> <p>Ports</p> <p>Alexandria, Arab Republic of Egypt, 1,090 Algiers, Algeria, 1,741 Alicante, Spain, 1,908</p>	<p>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 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</p>	<p>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 Valetta, 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, Arab Republic of 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, Arab Republic of 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, B.C.C., 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 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</p> <p>OPORTO, PORTUGAL (41°08'30"N., 8°41'00"W.) to:</p>
---	---	--	---

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

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, Arab Republic of Egypt, 1,711
Strait of Gibraltar, 282

Ports

Alcudia, Balearic Islands, 281
Alexandria, Arab Republic of 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
Odesa, 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, Republic of South Korea, 721
Komatsushima, Japan, 58
Mogpo, Republic of South Korea, 544
Pago Pago, American Samoa, 4,307
Petropavlovsk-Kamchatskiy, Russia, 1,709
Shimotsui, Japan, 116
Vladivostok, Russia, 815
Weonsan, Democratic People's Republic of 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 Baelt), 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 Baelt), 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 Baelt), 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 Baelt), 596
Kalmar, Sweden (via The Sound), 464
Klaipeda, Lithuania (via Store Baelt 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 Baelt), 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 Baelt), 871
Riga, Latvia (via The Sound), 739
Risør, Norway, 106
Ronne, Denmark (via Store Baelt), 491
Rosyth, Scotland, 550
Rotterdam, Netherlands, 554
Sankt-Peterburg, Russia (via Store Baelt), 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 Baelt), 819
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
 Matsugahama, 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, Republic of 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, B.C.C., 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, Democratic People's Republic of 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, Arab Republic of Egypt, 1,061
 Strait of Gibraltar, 940

Ports

Alexandria, Arab Republic of Egypt, 950
 Algiers, Algeria, 513
 Alicante, Spain, 667
 Ancona, Italy, 652
 Annaba, Algeria, 292
 Augusta, Sicily, 187
 Banghazi, 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
 Odesa, Ukraine (south of Greece), 1,274
 Odesa, 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, Republic of 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
 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, Arab Republic of
Egypt, 1,555
Strait of Gibraltar, 471

Ports

Alexandria, Arab Republic of
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
Mentone, France, 382
Messina, Sicily, 639
Monaco, Monaco, 377
Napoli, Italy, 582
Odesa, Ukraine (south of Greece),
1,792
Odesa, 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 Antioco Ponti, 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, Republic of
South Africa, 6,466
Fastnet Rock, Republic of 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
Acajutla, El Salvador, 833
Acapulco, Mexico, 1,426
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, Marquesas, 3,826
Bahia Cayo 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, Marshalls, 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, Republic of 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
Coatzacoalcas, Mexico, 1,420
Colon, Panama, 44
Comodoro Rivadavia, Argentina,
6,185
Coquimbo, Chile, 2,448
Corinto, Nicaragua, 683
Covenas, Columbia, 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
Endenburg 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 Island, 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, B.C.C., 9,195
Honolulu, Hawaii, U.S.A., 4,685
Iloilo, Philippines, 9,235
Incheon, Republic of 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
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 Descado, 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, Democratic People's Republic of 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, Marquesas, 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, B.C.C., 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, Republic of South Africa, 5,352
 Cape Leeuwin, Australia, 3,667
 Selat Lombok, Indonesia, 2,707
 Port Said, Arab Republic of 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, Republic of 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 Points*

Cape of Good Hope, Republic of South Africa, 3,496
 Panama, Panama, 4,607
 Punta Arenas, Chile, 2,001

Ports

Montevideo, Uruguay, 797
Santos, Brazil, 163

PARANAM, SURINAME

(5°36'30"N., 55°05'12"W.) Add
21 miles to Paramaribo distances.

PARRSBORO, CANADA

(45°22'00"N., 64°18'00"W.) to:

Ports

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

PASADENA, TEXAS, U.S.A.

(29°43'00"N., 95°13'00"W.)
Subtract 5 miles from Houston
distances.

PASAJES DE SAN JUAN, SPAIN

(43°19'30"N., 1°55'00"W.) See
Puerto de Pasajes.

PASCAGOULA, MISSISSIPPI, U.S.A.

(30°21'00"N., 88°34'00"W.) to:

Junction Points*

Straits of Florida, 469
Yucatan Channel, 554

Ports

Campeche, Mexico, 676
Coatzacoalcos, Mexico, 860
Tampico, Mexico, 780

PATRAI, GREECE

(38°15'08"N., 21°43'53"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt
(south of Greece), 762
Port Said, Arab Republic of Egypt
(via Corinth Canal), 690
Strait of Gibraltar, 1,350

Ports

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
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

PAULILLAC, FRANCE

(45°12'00"N., 0°43'45"W.)
Subtract 24 1/2 miles from
Bordeaux distances.

PEARL HARBOR, HAWAII, U.S.A.

(21°20'00"N., 157°58'20"W.) to:

Junction Points*

Panama, Panama, 4,692

Ports

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

PECHENGA, RUSSIA

(69°35'00"N., 31°17'00"E.) to:

Junction Points*

Skagens Odde, Denmark, 1,325

Ports

Kirkens, Norway, 53
Longyearbyen, Svalbard, 638
Narvik, Norway, 500
Reykjavik, Iceland, 1,460

PEI-HAI, CHINA

(20°29'00"N., 109°02'00"E.) See
Beihai, China.

PEMBA, MOZAMBIQUE

(12°58'14"S., 40°29'23"E.) See
Porto Amelia.

PENANG, MALAYSIA

(5°25'00"N., 100°21'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 5,291
Port Said, Arab Republic of
Egypt, 4,733
Singapore, 367

Ports

Aden, Yemen, 3,344
Akyab, Burma, 1,215
Al Basrah, Iraq, 3,598
Al Manamah, Al Bahrayn, 3,361
Bassein, Burma, 786
Beira, Mozambique (north of
Madagascar), 4,232
Berbera, Somali Republic (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, Republic of South Africa,
4,584
East London, Republic of 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, Republic of South
Africa, 5,096
Phuket, Thailand, 187
Port Elizabeth, Republic of 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

PENARTH, WALES

(51°26'45"N., 3°10'00"W.)
Subtract 1 mile from Cardiff
distances.

PENNINGTON TERMINAL, NIGERIA

(4°14'40"N., 5°36'45"E.) to:

Junction Points*

Bishop Rock, England, 4,092
Cape of Good Hope, Republic of
South Africa, 2,434
Fastnet Rock, Republic of Ireland,
3,998
Grand Banks South, 4,065
Ile d'Ouessant, France, 3,929
Inishtrahull, Republic of 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

Ports

Abidjan, Ivory Coast, 585
Accra, Ghana, 356
Boma, Republic of Zaire, 762
Cape Town, Republic of 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
Villa Cisneros, Western Sahara,
2,274

PENSACOLA, FLORIDA, U.S.A.

(30°24'00"N., 87°13'00"W.) to:

Junction Points*

Straits of Florida, 431
Yucatan Channel, 531

Ports

Belize, Belize, 826
Campeche, Mexico, 670
Carmen, Mexico, 745
Cienfuegos, Cuba, 825
Coatzacoalcos, Mexico, 836
Colon, Panama, 1,344
La Habana, Cuba, 515
Limon, Costa Rica, 1,265
Tampico, Mexico, 759
Tuxpan, Mexico, 785
Veracruz, Mexico, 831

PENTLAND FIRTH, SCOTLAND*

(58°42'00"N., 3°20'00"W.) to:

Junction Points*

Bishop Rock, England, 636
Cape of Good Hope, Republic of
South Africa, 6,389
Fastnet Rock, Republic of Ireland
(east of Ireland), 625
Fastnet Rock, Republic of Ireland
(west of Ireland), 578
Grand Banks South, 1,998
Ile d'Ouessant, France, 872
Inishtrahull, Republic of 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

Ports

Aasiaat (Egedesminde),
Greenland, 1,925
Akureyri, Iceland, 702
Amsterdam, Netherlands, 481
Antwerp, Belgium, 553
Ardrossan, Scotland, 282
Arendal, Norway, 452
Argentina, 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 Kap Farvel), 2,820
 Cienfuegos, Cuba, 4,229
 Cobh, Republic of Ireland, 578
 Colon, Panama (via Mona Passage), 4,594
 Dakar, Senegal, 2,794
 Den Helder, Netherlands, 447
 Douglas, Isle of Man, 397
 Dublin, Republic of 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
 Guantanamo, 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
 Kragero, Norway, 441
 Kristiansand, Norway, 371
 La Habana, Cuba, 4,018
 Larvik, Norway, 461
 Lillesand, Norway, 390
 Limerick, Republic of 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
 Mosjoen, 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
 Qaanaaq (Thule), Greenland, 2,456
 Qasigiannguit, 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
 Seydhisfjörður, 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
 Vardø, 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, Republic of South Africa, 3,594
 Fastnet Rock, Republic of Ireland, 2,753
 Grand Banks South, 2,828
 Ile d'Ouessant, France, 2,648
 Inishtrahull, Republic of 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, Republic of Ireland, 2,937
 Lagos, Nigeria, 1,142
 Lisboa, Portugal, 2,002
 Lome, Togo Republic, 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, Republic of South Korea (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 1,731
 Cebu, Philippines, 3,101
 Dagū, China (via La Perouse Strait), 2,419
 Dagū, 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, B.C.C. (via Osumi Kaikyo), 2,938
 Hong Kong, B.C.C. (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,863
 Hong Kong, B.C.C. (via Tsugaru-Kaikyo), 2,870
 Honolulu, Hawaii, U.S.A., 2,762
 Iloilo, Philippines, 3,123
 Incheon, Republic of South Korea (via La Perouse Strait and Maenggol Sudo), 2,120
 Incheon, Republic of South Korea (via Chetvertyy Kuril'skiy Proliv and La Perouse Strait), 2,114

Incheon, Republic of 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
 Matsugahama, Japan, 765
 Midway Island, Pacific, 1,831
 Mogpo, Republic of South Korea (via La Perouse Strait and Changjuk Sudo), 1,943
 Mogpo, Republic of South Korea (via Myongyangdo), 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, Democratic People's Republic of 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

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

Strait, 2,215
 Weonsan, Democratic People's Republic of Korea, 1,609
 Xiamen, China (via La Perouse Strait), 2,596
 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, Republic of South Africa, 6,874
 Fastnet Rock, Republic of Ireland, 2,985
 Inishtrahull, Republic of 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
 Argentina, Canada, 1,159
 Arkhangel'sk, Russia, 4,369
 Bahia Blanca, Argentina, 6,201
 Baness, 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, Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 599
 Strait of Gibraltar (via south of Greece), 1,508
 Strait of Gibraltar (via Corinth Canal), 1,451

Ports

Alexandria, Arab Republic of 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
 Durrës, 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
 Odesa, 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
 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, Arab Republic of 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, REPUBLIC OF SOUTH KOREA
 (36°02'42"N., 129°23'30"E.) See Bohang, Republic of 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. Johns, Antigua (east of Guadeloupe), 107
 St. Johns, 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, Republic of Zaire, 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, 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
Callao, Peru, 7,515
Hakodate, Japan, 2,298
Hobart, Tasmania, 3,130
Hong Kong, B.C.C., 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, Republic of 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
Ostende, 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, Columbia, 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, Republic of 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, Republic of 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, Republic of South Africa, 2,078
Cape Leeuwin, Australia, 4,546
Selat Lombok, Indonesia, 4,442
Port Said, Arab Republic of 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
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, Republic of Ireland (via Windward Passage), 3,622
Inishtrahull, Republic of 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, Republic of South Africa, 5,075
Port Said, Arab Republic of 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, Republic of 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. Johns, 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, Republic of South Africa, 6,100
Cape Leeuwin, Australia, 1,978
Selat Lombok, Indonesia (south of Pulau Roti), 926
Port Said, Arab Republic of 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, Al 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, Somali Republic, 5,384
Bombay, India, 4,193
Bunbury, Australia, 1,906
Busan, Republic of 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, Republic of South Africa, 5,561
Dutch Harbor, Alaska, U.S.A., 5,332
East London, Republic of 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, B.C.C., 2,363
Incheon, Republic of South Korea (via Molucca 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, Republic of South Korea, 2,916
 Mombasa, Kenya, 5,434
 Mosselbaai, Republic of South Africa, 5,929
 Nagasaki, Japan (via Selat Sele), 2,785
 Port Elizabeth, Republic of 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
 Shanghai, China, 2,804
 Shimomoseki, 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, Democratic People's Republic of 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, Republic of South Africa, 2,120
 Cape Leeuwin, Australia, 3,241
 Port Said, Arab Republic of Egypt, 3,747
 Singapore, 3,450

Ports

Durban, Republic of South Africa, 1,418

PORT ETIENNE, MAURITANIA
 (20°40'00"N., 17°04'12"W.) to:

Junction Points*

Cape of Good Hope, Republic of 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, Republic of Zaire, 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, Republic of South Africa, 5,225
 Cape Leeuwin, Australia, 1,104
 Selat Lombok, Indonesia, 715
 Port Said, Arab Republic of Egypt, 6,187
 Selat Sunda, Indonesia, 1,208
 Torres Strait, Australia, 1,637

Ports

Aden, Yemen, 4,800
 Bombay, India, 3,702
 Busan, Republic of 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, REPUBLIC OF GUINEA
 (10°39'00"N., 14°37'00"W.) to:

Junction Points*

Bishop Rock, England, 2,560
 Cape of Good Hope, Republic of South Africa, 3,294
 Fastnet Rock, Republic of Ireland, 2,625
 Grand Banks South, 2,701
 Ile d'Ouessant, France, 2,520

Inishtrahull, Republic of 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, Republic of South Africa, 3,274
 Dakar, Senegal, 330
 Freetown, Sierra Leone, 153
 Galway, Republic of 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, Republic of South Africa, 5,369
 Port Said, Arab Republic of Egypt, 4,817
 Singapore, 220

Ports

Aden, Yemen, 3,430
 Akyab, Sittwe Harbor, Burma, 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, Republic of 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, Republic of 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, Republic of South Africa, 5,393
Inishtrahull, Republic of 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
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, Republic of 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
Guantanamo, 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. Johns, 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, Republic of 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, ARAB REPUBLIC OF EGYPT*
(31°16'00"N., 32°19'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of 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), 5,232
Selat Sunda, Indonesia (via One and Half Degree Channel), 5,225
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, Al Bahrayn, 3,132
Alcudia, Balearic Islands, 1,536
Alexandria, Arab Republic of 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, Arab Republic of 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
Cochin, India, 3,237
Colombo, Sri Lanka, 3,481
Constanta, Romania, 1,000
Dar es Salaam, Tanzania, 3,238
Darnah, Libya, 514
Derince, Turkey, 837
Dubrovnik, Croatia, 1,038
Dumai, Indonesia, 4,943
Durban, Republic of South Africa, 4,567
Dures, Albania, 951
East London, Republic of 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
Hyerres, Greece, 1,474
Iraklion, Kriti, 455
Iskenderun, Turkey, 381
Istanbul, Turkey, 804
Izmir, Turkey, 608
Jakarta, Indonesia, 5,293
Jibuti, Republic of Jibuti, 1,374
Jiddah, Saudi Arabia, 722
Jiddah, 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
Marmgao, India, 3,078
Marsaxlokk, Malta, 942
Marseille, France, 1,518
Massawa, Ethiopia, 1,041
Matruh, Arab Republic of Egypt, 281
Melilla, Morocco, 1,821
Mentone, 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
Mogadiscio, Somali Republic, 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
 Odesa, 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, Arab Republic of Egypt, 112
 Ras Gharib, Arab Republic of 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, Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 788

Ports

Aden, Yemen, 668
 Assab, Ethiopia, 524
 Bur Safaga, Arab Republic of 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, Arab Republic of 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, Republic of Ireland, 331

Ports

Dublin, Republic of 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, Republic of South Africa, 5,137
 Cape Leeuwin, Australia, 1,005
 Selat Lombok, Indonesia, 707
 Port Said, Arab Republic of Egypt, 6,170
 Sundra Strait, Indonesia, 3,346
 Torres Strait, Australia, 1,662
 Selat Wetar, Indonesia, 942

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, Arab Republic of 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, Republic of 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, Republic of 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, Arab Republic of Egypt, 1,023
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, Arab Republic of 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, Republic of 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, 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, Arab Republic of 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, Arab Republic of Egypt, 1,298
Strait of Gibraltar, 701

Ports

Alexandria, Arab Republic of 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, Republic of South Africa, 6,732
Straits of Florida, 1,461
Yucatan Channel, 1,612

Ports

Argentia, 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, Arab Republic of Egypt, 1,399
Strait of Gibraltar (via Corinth Canal), 4,266
Strait of Gibraltar (south of Greece), 4,326

Ports

Alexandria, Arab Republic of 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, Arab Republic of 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
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, Arab Republic of
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.

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, B.C.C. (alternate
route, north of Aleutian
Islands), 5,286
Hong Kong, B.C.C. (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, Republic of Ireland,
2,719
Inishtrahull, Republic of 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
Pevke, 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
Cape 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 Or 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 CAYO MAO, CUBA
(20°40'00"N., 74°54'00"W.) See
Bahia Cayo Mao, Cuba.

**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. Johns, 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

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

<p>PUERTO DE LA LUZ, CANARY ISLANDS (28°08'30"N., 15°25'00"W.) See Las Palmas.</p> <p>PUERTO DE PASAJES, SPAIN (43°19'30"N., 1°55'00"W.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 340 Strait of Gibraltar, 894</p> <p>Ports</p> <p>Bordeaux, France, 178 El Ferrol del Caudillo, Spain, 300 Horta, Azores, 1,260</p> <p>PUERTO DESEADO, ARGENTINA (47°45'20"S., 65°55'05"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,222 Punta Arenas, Chile, 440</p> <p>Ports</p> <p>Buenos Aires, Argentina, 965</p> <p>PUERTO LA CRUZ, VENEZUELA (10°14'50"N., 64°35'57"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,016 Yucatan Channel, 1,381</p> <p>Ports</p> <p>La Guaira, Venezuela, 145 Philadelphia, Pennsylvania, U.S.A., 1,900 Port of Spain, Trinidad, 214</p> <p>PUERTO MADRYN, ARGENTINA (42°45'45"S., 65°01'35"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 6,012 Punta Arenas, Chile, 760</p> <p>Ports</p> <p>Buenos Aires, Argentina, 748</p> <p>PUERTO MANATI, CUBA (21°21'40"N., 76°49'20"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 959 Straits of Florida, 397</p> <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, Arab Republic of 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 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, Republic of South Africa, 4,262 Fastnet Rock, Republic of Ireland, 7,051 Grand Banks South, 6,440 Honshu, Japan, 9,286 Ile d'Ouessant, France, 6,986 Inishtrahull, Republic of 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 Cabeldelo, Cuba, 3,327 Caldera, Chile, 1,795 Caleta Olivia, Argentina, 570 Callao, Peru, 2,671 Cape Town, Republic of 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</p>
---	---	---	---

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

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 Descado, Argentina, 440
 Puerto Madryn, Argentina, 760
 Puerto Montt, Chile, 992
 Puntarenas, 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
 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 Amuay 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, REPUBLIC OF SOUTH KOREA
 (35°06'00"N., 129°03'00"E.) See Busan, Republic of 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, Arab Republic of 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

QEQERTARSUAQ (GODHAVN), GREENLAND
 (69°14'00"N., 53°32'00"W.) to:

Junction Points*

Inishtrahull, Republic of Ireland (via 75 miles off Kap Farvel), 1,953
 Inishtrahull, Republic of Ireland, 1,901

Ports

Ivittuat, 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, Republic of 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, B.C.C., 1,120
 Honolulu, Hawaii, U.S.A., 4,456
 Hua-lien Kang, Taiwan, 792
 Incheon, Republic of 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, Republic of South Korea, 336
 Nampo, Democratic People's Republic of Korea, 309
 Nikolayevsk-Na-Armure, 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, Republic of 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, Republic of South Korea, 650
Dagu, China, 131
Dalian, China, 145
Incheon, Republic of South Korea, 406
Lo hsing-ta Mao-ti, China (via Steep Island Pass), 977
Mogpo, Republic of South Korea (south of Kasa Do), 484
Nagasaki, Japan, 702
Nampo, Democratic People's Republic of Korea, 307
Petropavlovsk-Kamchatskiy, Russia, 2,368
Qingdao, China, 381
Shanghai, China, 668
Vladivostok, Russia (via Maenggol Sudo), 1,151
Weihai, China, 191
Weonsan, Republic of 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, Republic of South Africa, 2,658
Fastnet Rock, Republic of Ireland, 4,164
Grand Banks South, 4,315
Ile d'Ouessant, France, 4,095
Inishtrahull, Republic of 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, Republic of 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
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

QUINHON, 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, B.C.C., 592

QUINFUGUENA, ANGOLA
(6°19'28"S., 12°14'20"E.) to:

Junction Points*

Bishop Rock, England, 4,518
Cape of Good Hope, Republic of South Africa, 1,777
Fastnet Rock, Republic of Ireland, 4,534
Grand Banks South, 4,669
Ile d'Ouessant, France, 4,465
Inishtrahull, Republic of 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, Republic of Zaire, 56
Cape Town, Republic of South Africa, 1,727
Dakar, Senegal, 2,261
Freetown, Sierra Leone, 1,799
Georgetown, Ascension Island, 1,590
Lisboa, Portugal, 3,784
Moni Matadi, Republic of Zaire, 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 KHAFFI, SAUDI ARABIA
(28°24'00"N., 48°33'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,078
Cape Leeuwin, Australia, 5,414
Port Said, Arab Republic of Egypt, 3,260
Singapore, 3,799

Ports

Aden, Yemen, 1,871
Bombay, India, 1,491

RA'S AS SIDR, ARAB REPUBLIC OF EGYPT
(29°34'36"N., 32°42'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,189
Port Said, Arab Republic of Egypt, 112
Singapore, 4,902

Ports

Aden, Yemen, 1,282

RA'S GHARIB, ARAB REPUBLIC OF EGYPT
(28°20'30"N., 33°07'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,114
Port Said, Arab Republic of Egypt, 187
Singapore, 4,827

Ports

Aden, Yemen, 1,207

RA'S SHUKHAYR, ARAB REPUBLIC OF EGYPT
(28°07'04"N., 33°19'04"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,200
Cape Leeuwin, Australia, 6,094
Selat Lombok, Indonesia, 5,557
Port Said, Arab Republic of 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, Republic of South Africa, 4,980
Cape Leeuwin, Australia, 5,316
Port Said, Arab Republic of 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, B.C.C., 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, Papua 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, Republic of South Africa, 4,932
Cape Leeuwin, Australia, 5,732
Selat Lombok, Indonesia, 5,194
Port Said, Arab Republic of 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

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

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
Swinoujście, Poland, 266

RANGOON, BURMA
(16°46'00"N., 96°10'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa (east of
Madagascar), 5,443
Cape Leeuwin, Australia (west of
Sumatra), 3,359
Port Said, Arab Republic of
Egypt, 4,696
Singapore, 1,109

Ports

Aden, Yemen, 3,309
Al Basrah, Iraq, 3,603
Al Manamah, Al Bahrayn, 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, Republic of
South Africa, 4,398
Cape Leeuwin, Australia, 5,198
Selat Lombok, Indonesia, 4,660
Port Said, Arab Republic of
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, Arab Republic of
Egypt, 807
Strait of Gibraltar, 1,367

Ports

Alexandria, Arab Republic of
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, DEMOCRATIC
PEOPLE'S REPUBLIC OF
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, Arab Republic of
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, Arab Republic of
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, Republic of
South Africa, 3,324
Ile d'Ouessant, France, 3,743
Inishtrahull, Republic of 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, Republic of 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

Guiría, 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, Arab Republic of
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, Arab Republic of
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, Republic of 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

Aasiaat (Egedesminde),
Greenland, 1,371
Alesund, Norway, 848
Argentina, 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
 Iokan'ga, Russia, 1,646
 Ivittuut, Greenland (via 75 miles off Kap Farvel), 980
 Ivittuut, Greenland, 887
 Kangerluarsoruseq, 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
 Qasigianguit, 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, Arab Republic of 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, Republic of South Africa, 6,031
 Fastnet Rock, Republic of Ireland, 479
 Grand Banks South, 1,865
 Ile d'Ouessant, France, 313
 Inishtrahull, Republic of Ireland, 764
 Montreal, Canada (via Strait of Belle Isle), 3,060
 Panama, Panama, 4,338
 Pentland Firth, Scotland, 1,096
 Punta Arenas, Chile, 6,788
 Strait of Gibraltar, 725

Ports

Baltimore, Maryland, U.S.A., 3,215
 Belem, Brazil, 3,519
 Cape Town, Republic of 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, REPUBLIC OF SOUTH AFRICA
 (28°51'07"S., 32°07'45"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 959
 Cape Leeuwin, Australia, 4,129
 Selat Lombok, Indonesia, 4,811
 Port Said, Arab Republic of 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, Republic of 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, Arab Republic of Egypt, 1,276
 Strait of Gibraltar, 1,648

Ports

Alexandria, Arab Republic of 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
 Marseilles, France, 1,176
 Messina, Sicily, 603
 Napoli, Italy, 774
 Odesa, Ukraine (south of Greece), 1,476
 Odesa, 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, Republic of South Africa, 3,267
 Fastnet Rock, Republic of Ireland, 4,873
 Ile d'Ouessant, France, 4,815
 Inishtrahull, Republic of 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, Republic of 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
Maceio, 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.

ROCHEFORT, 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
Wilson Promontory, Australia, 1,213

Ports

Brisbane, Australia, 391
Noumea, New Caledonia, 902
Wellington, New Zealand, 1,685

ROMANA, DOMINICAN REPUBLIC
(18°25'00"N., 68°57'10"W.) to:

Ports

San Pedro de Macoris, Dominican Republic, 21
Santo Domingo, Dominican Republic, 61

RONNE, BORNHOLM, DENMARK
(55°06'00"N., 14°41'40"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 175
Skagens Odde, Denmark (via Store Baelt), 367
Skagens Odde, Denmark (via The Sound), 244

Ports

Oslo, Norway (via Store Baelt), 491
Oslo, Norway (via The Sound), 366

ROOSEVELT ROADS, PUERTO RICO
(18°10'00"N., 65°34'00"W.) to:

Junction Points*

Panama, Panama, 1,054
Straits of Florida, 1,063

Ports

New York, New York, U.S.A., 1,429
Port of Spain, Trinidad, 525
Willemstad, Curacao, 440

ROSARIO, ARGENTINA
(32°56'30"S., 60°38'00"W.) Add 191 miles to Buenos Aires distances.

ROSEAU, DOMINICA
(15°17'15"N., 61°24'00"W.) to:

Ports

Basse-Terre, Guadeloupe, 48
Fort de France, Martinique, 50
Frederiksted, St. Croix, 252
Hamilton, Bermuda, 1,061
Pointe a Pitre, Guadeloupe, 60

ROSTOCK, GERMANY
(54°05'52"N., 12°09'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 92
Skagens Odde, Denmark, 254

Ports

Klaipeda, Lithuania, 347
Kobenhavn, Denmark, 231
Stockholm, Sweden, 456

ROSTOV-NA-DONU, RUSSIA
(47°11'30"N., 39°40'10"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,440
Strait of Gibraltar, 2,458

Ports

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

ROSYTH, SCOTLAND
(56°01'15"N., 3°27'00"W.) to:

Junction Points*

Pentland Firth, Scotland, 263
Skagens Odde, Denmark, 478

Ports

Hull, England, 248
Oslo, Norway, 550
Rotterdam, Netherlands, 393

ROTA, SPAIN
(36°37'15"N., 6°20'00"W.) to:

Junction Points*

Ile d'Ouessant, France, 885
Strait of Gibraltar, 70

Ports

Casablanca, Morocco, 202
Horta, Azores, 1,096

ROTOAVA, ILES TUAMOTU
(16°02'30"S., 145°37'00"W.) to:

Junction Points*

Panama, Panama, 4,256

Ports

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

ROTTERDAM, NETHERLANDS
(51°54'00"N., 4°28'00"E.) to:

Junction Points*

Bishop Rock, England, 454
Ile d'Ouessant, France, 444
Nord-Ostsee Kanal (East Entrance), Germany, 323
Pentland Firth, Scotland, 495
Skagens Odde, Denmark, 447

Ports

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

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

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

ROUEN, FRANCE
(49°26'30"N., 1°04'00"E.) Add
69 miles to Le Havre distances.

RUCH'I, RUSSIA
(59°45'30"N., 28°25'00"E.) to:

Junction Points*

Nord-Ostsee Kanal (East
Entrance), Germany, 766
Skagens Odde, Denmark, 816

Ports

Gdynia, Poland, 530
Riga, Latvia, 403
Stockholm, Sweden, 344

RUMOI, JAPAN
(43°57'30"N., 141°38'00"E.) to:

Ports

Busan, Republic of 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 Points*

Cape of Good Hope, Republic of
South Africa, 4,980
Cape Leeuwin, Australia, 2,711
Selat Lombok, Indonesia, 1,575
Port Said, Arab Republic of
Egypt, 4,422
Singapore, 601
Selat Sunda, Indonesia, 1,103
Torres Strait, Australia, 3,072

Ports

Aden, Yemen, 3,033
Al Basrah, Iraq, 3,287
Al Manamah, Al Bahrain, 3,050
Beira, Mozambique, 3,921
Belawan, Indonesia, 268
Berbera, Somali Republic, 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, Republic of 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, Republic of South
Africa, 4,785
Penang, Malaysia, 313
Port Elizabeth, Republic of South
Africa, 4,610
Port Louis, Mauritius, 2,731
Rangoon, Burma, 664
Tamatave, Madagascar, 3,076
Victoria, Seychelles, 2,468
Zanzibar, Tanzania, 3,461

SAFI, MOROCCO
(32°18'35"N., 9°15'15"W.) to:

Junction Points*

Cape of Good Hope, Republic Of
South Africa, 4,870
Ile d'Ouessant, France, 1,023

Ports

Casablanca, Morocco, 134
Dakar, Senegal, 1,228

SAIDA, LEBANON
(33°32'02"N., 35°19'49"E.) See
Sayda.

SAIPAN, MARIANA ISLANDS
(15°13'40"N., 145°44'00"E.) to:

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

SAKAIDE, JAPAN
(34°19'45"N., 133°51'30"E.) to:

Ports

Hirohata, Japan, 89
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, Republic of 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, Arab Republic of
Egypt, 614
Strait of Gibraltar, 1,520
Durrës, 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, REPUBLIC
OF SOUTH AFRICA**
(33°05'25"S., 17°52'20"E.) to:

Junction Points*

Bishop Rock, England, 5,752
Cape Town, Republic of South
Africa, 57
Fastnet Rock, Republic of Ireland,
5,792
Grand Banks South, 5,880
Ile d'Ouessant, France, 5,709
Inishtrahull, Republic of 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
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, Arab Republic of
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

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

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, Republic of
 South Africa, 6,011
 Fastnet Rock, Republic of Ireland,
 466
 Grand Banks South, 1,846
 Ile d'Ouessant, France, 308
 Inishtrahull, Republic of 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, Republic of 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, Marquesas,
 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, B.C.C. (via Tsugaru-
 Kaikyō), 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
 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-
 Kaikyō), 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, B.C.C., 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, Marquesas,
 2,986
 Bai Taio-Hae, Marquesas, 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, Republic of 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
 Dagu, China (via Osumi Kaikyō),
 5,856
 Dagu, China (via Tsugaru-
 Kaikyō), 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, B.C.C., 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, Republic of South Korea,
 5,125
 Nagasaki, Japan, 5,029
 Newcastle, Australia, 4,467
 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
 Kaikyō), 5,185
 Seward, Alaska, U.S.A., 1,701
 Shanghai, China (via Tsugaru
 Strait), 5,398
 Shantou, China (via Osumi
 Kaikyō), 5,900
 Shimonoseki, Japan (via Tsugaru-
 Kaikyō), 4,910
 Sitka, Alaska, U.S.A., 1,302
 Surabaya, Indonesia, 7,343
 Suva, Fiji Islands, 4,749
 Sydney, Australia, 6,448
 Talara, 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, Chetvertyy 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, Democratic People's Republic of 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, Republic of Ireland (via Mona Passage), 3,299

Inishtrahull, Republic of 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
 Argentia, Canada, 1,840
 Arkhangel'sk, Russia, 5,001
 Bahia Cayo 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
 Cape Haitien, Haiti, 372
 Cape Town, Republic of 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 Liberte, Haiti, 373
 Freetown, Sierra Leone, 3,141
 Funchal, Madeira Island, 2,773
 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. Johns, 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, Republic of South Africa, 2,735
 Fastnet Rock, Republic of Ireland, 3,413
 Grand Banks South, 3,552
 Ile d'Ouessant, France, 3,344
 Inishtrahull, Republic of 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, Republic of 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	Victoria, Sabah, 412 Zamboanga Philippines, 251	Ports	Junction Points*
SAN PEDRO DE MACORIS, DOMINICAN REPUBLIC (18°26'45"N., 69°18'20"W.) to:	SANDEFJORDEN, NORWAY (59°07'25"N., 10°13'50"E.) to:	Ports	Panama, Panama, 731 Yucatan Channel, 416
Ports	Junction Points*	Ports	Ports
Kingston, Jamaica, 461 Port au Prince, Haiti, 473 Romana, Dominican Republic, 21 San Juan, Puerto Rico, 199	Pentland Firth, Scotland, 518	Guantanamo, Cuba, 222 La Habana, Cuba, 542 Montego Bay, Jamaica, 134	
SAN SEBASTIAN, SPAIN (43°19'00"N., 1°59'30"W.) to:	Ports	SANTA FE, ARGENTINA (31°39'00"S., 60°42'00"W.) Add 258 miles to Buenos Aires distances.	SANTA LUCIA, CUBA (22°42'00"N., 83°58'30"W.) to:
Junction Points*	SANKT-PETERSBURG, RUSSIA (59°55'00"N., 30°15'00"E.) to:	SANTA CRUZ DE TENERIFE, CANARY ISLANDS (28°38'00"N., 16°14'00"W.) to:	Junction Points*
Ile d'Ouessant, France, 353 Strait of Gibraltar, 892	Junction Points*	Junction Points*	Straits of Florida, 120 Yucatan Channel, 99
Ports	Nord-Ostsee Kanal (East Entrance), Germany, 779 Skagens Odde, Denmark (via Store Baelt), 971 Skagens Odde, Denmark (via The Sound), 841	Bishop Rock, England, 1,356 Cape of Good Hope, Republic of South Africa, 4,453 Ile d'Ouessant, France, 1,320 Inishtrahull, Republic of 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	Ports
Bordeaux, France, 210 El Ferrol del Caudillo, Spain, 302 Horta, Azores, 957	Ports	Ports	Kingston, Jamaica, 651 Nuevitas, Cuba, 447 San Juan, Puerto Rico, 1,079
SAN VICENTE, CHILE (36°43'55"S., 73°10'00"W.) to:	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	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, Republic of 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 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 Vincente, 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	SANTA MARIA, CUBA (21°17'00"N., 78°34'00"W.) to:
Junction Points*	SANMEN WEN, CHINA (29°03'00"N., 121°45'00"E.) to:	Ports	Junction Points*
Panama, Panama, 2,800 Punta Arenas, Chile, 1,210 Wilson Promontory, Australia (via Cook Strait), 6,485	Ports	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	Panama, Panama, 814 Yucatan Channel, 381
Ports	Chi-lung, Taiwan, 248 Hong Kong, B.C.C., 650 Incheon, Republic of South Korea, 628 Nagoya, Japan, 143 Qingdao, China, 528 Shanghai, China, 270	SANTA MARTA, COLOMBIA (11°15'00"N., 74°13'00"W.) to:	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	SAINT ANTIOCO PONTI, SARDINIA (39°03'12"N., 8°28'12"E.) to:	Junction Points*	Yucatan Channel, 892
SAN-MEN WEN, CHINA (29°03'00"N., 121°45'00"E.) See Sanmen Wen, China.	Junction Points*	Ports	Ports
SAN-YA CHIANG, CHINA (18°14'00"N., 109°26'00"E.) See Sanya Gang, China.	Port Said, Arab Republic of Egypt, 1,282 Strait of Gibraltar, 715	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 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	
SANDAKAN, SABAH (5°50'00"N., 118°07'00"E.) to:	Ports	SANTA ROSALIA, MEXICO (27°20'00"N., 112°16'00"W.) to:	
Junction Points*	Banzart, Tunisia, 132 Nice, France, 310 Palma, Balearic Islands, 298		
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	SANTA BARBARA, CALIFORNIA, U.S.A. (34°24'00"N., 119°41'00"W.) to:		
Ports	Junction Points*		
Honolulu, Hawaii, U.S.A., 5,044 Jolo, Philippines, 180	Panama, Panama, 2,980 Punta Arenas, Chile, 5,938		

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

<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, B.C.C., 1,502 Honolulu, Hawaii, U.S.A., 5,112 Makasar, 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, Republic of South Africa, 4,546 Fastnet Rock, Republic of Ireland, 3,754 Grand Banks South, 2,595 Ile d'Ouessant, France, 3,776 Inishtrahull, Republic of 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, Republic of Ireland, 3,491 Inishtrahull, Republic of Ireland (via Mona Passage), 3,641 Montreal, Canada (via Mona 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</p>	<p>Ports</p> <p>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, Republic of 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</p> <p>SANTO TOMAS DE CASTILLA, GUATEMALA (15°42'30"N., 88°37'00"W.) Add 2 miles to Puerto Barrios.</p> <p>SANTOS, BRAZIL (23°56'00"S., 46°19'00"W.) to:</p>	<p>Junction Points*</p> <p>Ile d'Ouessant, France, 5,002 Montreal, Canada, 5,544 Panama, Panama, 4,609 Strait of Gibraltar, 4,378 Straits of Florida, 4,799</p> <p>Ports</p> <p>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, Republic of 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</p> <p>SANYA GANG, CHINA (18°14'00"N., 109°26'00"E.) to:</p> <p>Ports</p> <p>Haiphong, Vietnam, 253 Ho Chi Minh, Vietnam, 624 Hong Kong, B.C.C., 391 Kao-hsiung Kang, Taiwan, 682 Manila, Philippines, 714</p> <p>SAO FRANCISCO DO SUL, BRAZIL (26°13'32"S., 48°38'22"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 5,210 Cape of Good Hope, Republic of South Africa, 3,445 Fastnet Rock, Republic of Ireland, 5,236 Grand Banks South, 4,613 Ile d'Ouessant, France, 5,177 Inishtrahull, Republic of 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</p> <p>Ports</p> <p>Buenos Aires, Argentina, 950 Cape Town, Republic of South Africa, 6,671 Charleston, South Carolina, U.S.A., 5,103 Colon, Panama, 4,671 Maldonado, Uruguay, 709 Monrovia, Republic of Liberia, 3,096 New York, New York, U.S.A., 5,205</p>
---	---	--	---

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

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, Republic of South Africa, 3,349
Fastnet Rock, Republic of Ireland, 5,051
Grand Banks South, 4,441
Ile d'Ouessant, France, 4,994
Inishtrahull, Republic of 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, Republic of 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, Republic of Zaire, 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, Arab Republic of 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, Republic of South Korea, 343
Honolulu, Hawaii, U.S.A. (via Osumi Kaikyo), 4,009
Itzakicho, 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, Republic of 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, Arab Republic of Egypt, 1,437

Strait of Gibraltar, 852

Ports

Alexandria, Arab Republic of Egypt, 1,326
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
Odesa, Ukraine (south of Greece), 1,650
Odesa, Ukraine (via Corinth Canal), 1,608
Oran, Algeria, 672
Palermo, Sicily, 434
Palma, Balearic Islands, 433
Piraeus, Greece (south of Greece), 988
Piraeus, 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, Arab Republic of 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, Republic of 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 Kruzenshterna), 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
 Endenburg 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 Aleutians), 5,463
 Xiamen, China (via Osumi Kaikyo and south of Aleutians), 5,515
 Xiamen, China (via Tsugaru-Kaikyo and north of Aleutians), 5,464
 Xiamen, China (via Tsugaru-Kaikyo and south of Aleutians), 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, Republic of South Africa, 5,461
 Cape Leeuwin, Australia, 1,571
 Honshu, Japan, 3,059
 Port Said, Arab Republic of 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, B.C.C. (via Linapacan Strait), 2,029
 Iloilo, Philippines, 1,247
 Incheon, Republic of 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, Republic of South Korea, 2,725
 Nampo, Democratic People's Republic of Korea, 2,946
 Port Darwin, Australia (south of Pulau Roti), 926
 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, Republic of South Africa, 5,100
 Cape Leeuwin, Australia, 1,815
 Honshu, Japan, 3,171
 Selat Lombok, Indonesia (north of Java), 677
 Port Said, Arab Republic of Egypt (via Eight Degree Channel), 5,211
 Port Said, Arab Republic of Egypt (via One and Half Degree Channel), 5,322
 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, Republic of 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, B.C.C., 1,807
 Incheon, Republic of South Korea, 2,913
 Jakarta, Indonesia, 77
 Kompong Som, Camb (via Los Angeles, California, U.S.A.), 1,096, (via Makassar Strait), 796
 Makassar, Sulawesi, 861
 Malacca, Malaysia, 619
 Manila, Philippines, 1,578
 Mogpo, Republic of South Korea, 2,760
 Nampo, Democratic People's

Republic of 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 Island, 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, Republic of 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, Democratic People's Republic of 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, Republic of South Africa, 6,768
 Cape Leeuwin, Australia, 1,954
 Honshu, Japan, 2,838
 Selat Lombok, Indonesia, 727
 Singapore, Indonesia (via Selat Riouw and Selat Karimata), 1,587
 Sundra Strait, Indonesia, 1,330
 Torres Strait, Australia, 881

Ports

Balikpapan, Kalimantan, Indonesia, 870
 Busan, Republic of South Korea (via Selat Manipa and Molucca Passage), 2,632
 Incheon, Republic of South Korea (via Selat Manipa and Molucca Passage), 2,767
 Jakarta, Indonesia, 1,266
 Lingkas, Indonesia, 1,161
 Makassar, Sulawesi, 614
 Mogpo, Republic of South Korea (via Molucca Passage), 2,632
 Nampo, Democratic People's Republic of 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

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

Vladivostok, Russia (via Selat Manipa), 3,133
 Weonsan, Democratic People's Republic of 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, B.C.C., 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, Republic of South Africa, 6,785
 Grand Banks South, 818
 Ile d'Ouessant (via Strait of Belle Isle), 2,338
 Inishtrahull, Republic of 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, Arab Republic of 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, Republic of South Africa, 6,917
 Fastnet Rock, Republic of Ireland, 1,049
 Grand Banks South, 2,070

Ile d'Ouessant, France, 931
 Inishtrahull, Republic of 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, Republic of 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
 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, B.C.C. (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

SEYDHIJSFJORDHUR, 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, Arab Republic of 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 (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 (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, Republic of 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
 Dagou, 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, Republic of 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, B.C.C. (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, Republic of 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, Republic of South Korea, 369
 Nagasaki, Japan, 463
 Naha, Ryukyu Islands, 479
 Nakagusuku, Ryukyu Islands, 515
 Nakhodka, Russia, 991
 Nampo, Democratic People's Republic of 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

Tsugar 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, Democratic People's Republic of 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, Republic of South Africa, 4,701
 Cape Leeuwin, Australia, 5,037
 Selat Lombok, Indonesia, 4,288
 Port Said, Arab Republic of 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, Arab Republic of 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

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, Republic of South Korea, 164
 Cebu, Philippines, 1,547
 Changion, Democratic People's Republic of Korea, 337
 Chongjin, Democratic People's Republic of 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, B.C.C., 1,179
 Honolulu, Hawaii, U.S.A., 3,804
 Hulu Dao, China, 781
 Iloilo, Philippines, 1,569
 Imabari, Japan, 123
 Incheon, Republic of 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, Democratic People's Republic of Korea, 421
 Kobe, Japan, 241
 Kure, Japan, 116
 Lo hsing-ta Mao-ti, China, 799
 Maizuru, Japan, 302

Manila, Philippines, 1,424
 Masan, Republic of 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, Democratic People's Republic of Korea, 511
 Uno, Japan, 177
 Valparaiso, Chile, 9,709
 Vladivostok, Russia, 565
 Weihai, China, 562
 Xiamen, China, 920
 Yantai, China, 596
 Yeosu, Republic of 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, Arab Republic of
Egypt, 1,148
Strait of Gibraltar, 1,522

Ports

Alexandria, Arab Republic of
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
Marseilles, France, 1,050
Messina, Sicily, 477
Napoli, Italy, 648
Odesa, Ukraine (south of Greece),
1,349
Odesa, 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, REPUBLIC OF SOUTH AFRICA

(34°11'22"S., 18°26'29"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 23
Cape Leeuwin, Australia, 4,572
Port Said, Arab Republic of
Egypt, 5,315
Selat Sunda, Indonesia, 5,085

Ports

Port Elizabeth, Republic of South
Africa, 391

SINES, PORTUGAL

(38°56'07"N., 8°52'15"W.) to:

Junction Points*

Bishop Rock, England, 689
Cape of Good Hope, Republic of
South Africa, 8,342
Fastnet Rock, Republic of Ireland,
766
Grand Banks South, 1,864
Ile d'Ouessant, France, 625
Inishtrahull, Republic of 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, Republic of
South Africa, 5,579
Honshu, Japan, 2,879
Selat Lombok, Indonesia, 963
Panama, Panama (via San
Bernardino Strait), 10,505
Port Said, Arab Republic of
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, Arab Republic of
Egypt, 4,754
Al Manamah, Al 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
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, Somali Republic, 3,646
Bikini, Marshall Islands, 3,591
Bombay, India, 2,441
Bur Safaga, Arab Republic of
Egypt, 4,729
Busan, Republic of 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
Dumai, Indonesia, 200
Durban, Republic of South Africa,
4,872
Dutch Harbor, Alaska, U.S.A.,
5,364
East London, Republic of 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, B.C.C., 1,454
Honolulu, Hawaii, U.S.A. (via
Sulu Sea), 5,881
Iloilo, Philippines (via Lumbacan
Channel), 1,268
Incheon, Republic of South Korea,
2,560
Jakarta, Indonesia (via Selat
Durian and Selat Bangka), 525
Jakarta, Indonesia (via Selat Riouw
and Selat Bangka), 526
Jibuti, Republic of Jibuti, 3,769
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
Mogadiscio, Somali Republic,
3,611
Mombasa, Kenya, 3,987
Marmgao, India, 2,217
Mosselbaai, Republic of South
Africa, 5,384
Mtwara, Tanzania, 4,042
Nagasaki, Japan (east of Taiwan),
2,413
Nagasaki, Japan (via Formosa
Strait), 2,427
Nampo, Democratic People's
Republic of Korea, 2,621
Negappattinam, 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, Republic of 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
 Pulupandan, 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, Arab Republic of
 Egypt, 4,902
 Ras Gharib, Arab Republic of
 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, Papua 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, Republic of 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. Johns, Antigua, 549

SIRACUSA, SICILY, ITALY (37°03'29"N., 15°17'21"E.) to:

Junction Points*

Port Said, Arab Republic of
 Egypt, 924
 Strait of Gibraltar, 1,054

Ports

Alexandria, Arab Republic of
 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
 Odesa, Ukraine (south of Greece),
 1,146
 Odesa, Ukraine (via Corinth
 Canal), 1,120
 Oran, Algeria, 823
 Palermo, Sicily, 192
 Palma, Balearic Islands, 668
 Piraievs, Greece (south of
 Greece), 484
 Piraievs, 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, B.C.C. (alternate
 route north of Aleutian Islands),
 5,095
 Hong Kong, B.C.C. (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
 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 ISLAND (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, Arab Republic of
 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
 Aabenra, 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 Bael),
 556
 Gdansk, Poland (via The Sound),
 418
 Gdynia, Poland (via Store Bael),
 552
 Goteborg, Sweden, 42
 Grenaa, 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

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

Harwich, England, 487
Helsingborg, Sweden, 128
Helsingør, 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
Klaipėda, Lithuania (via Store Baelt), 612
Klaipėda, Lithuania (via The Sound and north of Bornholm), 462
København, Denmark, 150
Køge, Denmark, 161
Kolding, Denmark, 289
Korsør, Denmark, 162
Kotka, Finland, 755
Kristiansand, Norway, 92
Kynndbyværket, Denmark, 136
Landskrona, Sweden, 137
Le Havre, France, 639
Leith, Scotland, 472
Lillesand, Norway, 80
Limhamn, Sweden, 159
London, England, 556
Lubeck, Germany, 263
Luleå, Sweden (via Store Baelt), 1,101
Luleå, Sweden (via The Sound), 941
Malmö, Sweden, 155
Mandal, Norway, 110
Masnedsund, Denmark, 122
Middelfart, Denmark, 186
Molde, Norway, 492
Mosjøen, Norway, 732
Musko Island, Sweden, 254
Naestved, Denmark, 212
Nakskov, Denmark, 213
Namsos, Norway, 696
Newcastle, England, 445
Norrköping, Sweden, 520
Odense, Denmark, 126
Oostende, Belgium, 489
Ornskölsvik, Sweden, 798
Oslo, Norway, 131
Oulu, Finland, 979
Oxelösund, Sweden, 481
Pechenga, Russia, 1,325
Peenemünde, Germany, 272
Piteå, 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
Risør, Norway, 73
Rønne, Denmark (via Store Baelt), 389
Rønne, 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
Sønderborg, Denmark, 251
Southampton, England, 650
Stavanger, Norway, 221
Stockholm, Sweden (via Sandhamsleden and Store Baelt), 719
Stockholm, Sweden (via The Sound), 567
Stralsund, Germany, 226
Sundsvall, Sweden, 745
Swinoujście, Poland (via Store Baelt), 462
Swinoujście, Poland (via The Sound), 275
Szczecin, Poland, 410
Tallinn, Estonia, 661
Tornio, Finland (via Store Baelt), 1,137
Tornio, Finland (via The Sound), 973
Tórshavn, Faroe Islands, 624
Travemünde, 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
Umeå, 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 Piræus 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
Umeå, 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, Arab Republic of
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

SKREDSVIK, 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, Sweden, 194
Åbenrå, Denmark, 266
København, 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 Points*

Bishop Rock, England (via Dover Strait), 915
Île 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

Ports

Aarhus, Denmark, 222
Antwerp, Belgium, 619
Bergen, Norway, 340
Bremerhaven, Germany, 390
Calais, France, 596
Drammen Harbor, Norway, 28
København, Denmark, 234
Leith, Scotland, 505
London, England, 628
Reykjavik, Iceland, 1,141
Zeebrugge, Belgium, 565

SLITE, SWEDEN
(57°40'00"N., 18°53'44"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 400
Skagens Odde, Denmark (via The Sound), 462

Ports

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

SMALKALDEN, SURINAME
(5°37'10"N., 55°05'27"W.) Add
20 miles to Paramaribo distances.

SOCHI, RUSSIA
(43°35'00"N., 39°42'45"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,313
Strait of Gibraltar (via Corinth Canal), 4,181
Strait of Gibraltar (south of Greece), 4,241

Ports

Alexandria, Arab Republic of
Egypt, 1,251
Beirut, Lebanon, 1,438
Constanza, 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

SONDERBORG, DENMARK
(54°54'36"N., 9°47'15"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 46
Skagens Odde, Denmark, 251

Ports

Gdynia, Poland, 360
Göteborg, Sweden, 239

Swinoujscie, Poland, 215

SORIDO, INDONESIA
(1°10'00"S., 136°02'00"E.) to:

Junction Points*

Singapore, 2,202
Torres Strait, Australia, 1,329

Ports

Jakarta, Indonesia, 1,879
Makassar, Sulawesi, 1,180

SORONG, INDONESIA
(0°53'00"S., 131°14'00"E.) to:

Junction Points*

Singapore, 1,894
Torres Strait, Australia, 1,021

Ports

Apra, Guam, 1,171
Davao, Philippines, 601
Makassar, Sulawesi, 872
Rabaul, Papua New Guinea, 1,304

SORVAGUR, FAEROE ISLANDS
(62°04'20"N., 7°18'17"W.) to:

Junction Points*

Bishop Rock, England, 826
Cape of Good Hope, Republic of South Africa, 6,520
Fastnet Rock, Republic of Ireland, 678
Grand Banks South, 1,931
Ile d'Ouessant, France, 904
Inishtrahull, Republic of Ireland, 401
Panama, Panama, 4,488
Pentland Firth, Scotland, 234
Punta Arenas, Chile, 7,767
Strait of Gibraltar, 1,543

Ports

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

SOUDHA, KRITI
(35°29'30"N., 24°04'45"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 507
Strait of Gibraltar, 1,479

Ports

Alexandria, Arab Republic of

Egypt, 425
Izmir, Turkey, 281
Messina, Sicily, 473
Piraeus, Greece, 159

SOUSSE, TUNISIA
(35°49'30"N., 10°39'30"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,133
Strait of Gibraltar, 909

Ports

Annaba, Algeria, 255
Tarabulus, Libya, 231
Valletta, Malta, 197

SOUTH RIDING POINT, GRAND BAHAMA ISLANDS
(26°36'45"N., 78°13'10"W.) to:

Junction Points*

Panama, Panama (via Windward Passage), 1,298
Straits of Florida, 305
Yucatan Channel, 483

Ports

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

SOUTHAMPTON, ENGLAND
(50°53'00"N., 1°23'30"W.) to:

Junction Points*

Bishop Rock, England (via Needles Channel), 232
Ile d'Ouessant, France, 223
Nord-Ostsee Kanal (East Entrance), Germany, 533
Skagens Odde, Denmark, 650

Ports

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
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

SOVETSKAYA GAVAN, RUSSIA
(48°59'00"N., 140°16'00"E.) to:

Ports

Korsakov, Sakhalin, Russia, 264
Nikolayevsk-Na-Amure, Russia (via South Channel), 276
Vladivostok, Russia, 593

SPLIT, CROATIA
(43°30'16"N., 16°26'10"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,133
Strait of Gibraltar, 1,507

Ports

Alexandria, Arab Republic of 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
Durrës, 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
Odesa, Ukraine (south of Greece), 1,334
Odesa, Ukraine (via Corinth Canal), 1,235
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

Sarandë, 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
Vlores, 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, Republic of South Korea, 2,610
Hong Kong, B.C.C., 1,546
Incheon, Republic of South Korea, 2,671
Manila, Philippines, 1,430
Mogbo, Republic of 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

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

ST. HELENA ISLAND, SOUTH ATLANTIC

(15°55'00"S., 5°43'25"W.) to:

Ports

Belem, Brazil, 4,329
 Boma, Republic of Zaire, 1,232
 Buenos Aires, Argentina, 3,052
 Cape Town, Republic of South Africa, 1,697
 Freetown, Sierra Leone, 1,564
 Georgetown, Ascension Island, 707
 Malabo, Equitorial 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, Republic of 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, Republic of 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, Republic of South Africa, 6,205
 Colon, Panama, 2,695
 Dakar, Senegal, 2,646
 El Ferrol del Caudillo, Spain, 1,861
 Frederiksdal, Greenland, 800
 Galway, Republic of 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
 Qasigianniguit, 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. JOHNS, 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
 Guantanamo, Cuba, 837
 Kingston, Jamaica, 870
 Miami, Florida, U.S.A., 1,180
 New York, New York, U.S.A., 1,572
 Pointe a Pitre, Guadeloupe (east of Guadeloupe), 107
 Pointe a 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, Arab Republic of Egypt, 1,536
 Strait of Gibraltar, 701

Ports

Ajaccio, Corsica, 197
 Alexandria, Arab Republic of 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.

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, Arab Republic of 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, Sweden, 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, Republic of South Africa, 6,471
Grand Banks South, 608
Ile d'Ouessant, France, 2,339
Inishtrahull, Republic of 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, Republic of 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 Dalero 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, 402
Porkkala, 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

Ports

Belfast, 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, Republic of South Africa, 5,082
Fastnet Rock, Republic of Ireland, 1,068
Grand Banks South, 2,070
Ile d'Ouessant, France, 918
Inishtrahull, Republic of Ireland, 1,350
Panama, Panama (via Anegada Passage), 4,351
Pentland Firth, Scotland, 1,598
Port Said, Arab Republic of 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, Arab Republic of 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
Argentia, 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, Republic of South Africa, 5,024
Cartagena, Spain, 259
Cartagena, Columbia, 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, Republic of 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
Kangerluarsoruseq, Greenland, 2,444
Kavala, Greece, 1,706
Keflavik, Iceland, 1,947
Kerch, Ukraine, 2,256
Kerkira, Greece, 1,324
Key West, Florida, U.S.A., 3,949
Khalkis, Greece (south of Greece), 1,562
Khalkis, Greece (via Corinth Canal), 1,545
Kingston, Jamaica, 3,891
Kyrenia, Cyprus, 1,910
La Guaira, Venezuela, 3,634
La Habana, Cuba, 4,013
La Pallice, France, 950
La Spezia, Italy, 891
Lagos, Nigeria, 3,100
Larnaca, Cyprus, 1,953
Las Palmas, Canary Islands, 681
Latakia, Syria, 2,029
Licata, Sicily, 958
Limassol, Cyprus, 1,914
Lisboa, Portugal, 286
Livorno, Italy, 887
Mahon, Balearic Islands, 552
Malaga, Spain, 78
Manfredonia, Italy, 1,419
Maniitsoq, Greenland, 2,547
Marin, Spain, 517
Marsaxlokk, Malta, 1,017
Marseille, France, 711
Marshall, Liberia, 2,197
Matruh, Arab Republic of Egypt, 1,695
Melilla, Morocco, 154
Mentone, France, 791
Mers el Kebir, Algeria, 252
Mersin, Turkey, 1,996
Messina, Sicily, 1,049
Milazzo, Sicily, 1,025
Monaco, Monaco, 762
Monopoli, Italy, 1,346
Montevideo, Uruguay, 5,178
Mostaganem, Algeria, 283
Nanortalik, Greenland, 2,138
Narsarsuaq, Greenland, 2,257
Natal, Brazil, 3,003
Navplion, Greece, 1,484
New Haven, Connecticut, U.S.A., 3,161
New London, Connecticut, U.S.A., 3,087
New York, New York, U.S.A., 3,176
Nice, France, 788
Norfolk, Virginia, U.S.A., 3,335
Novorossiysk, Russia, 2,277
Nuuk (Godthab), Greenland, 2,477
Odesa, Ukraine, 2,169
Olbia, Sardinia, 828
Oporto, Portugal, 432
Oran, Algeria, 252
Palermo, Sicily, 940
Palma, Balearic Islands, 471
Paphos, Cyprus, 1,872
Paramaribo, Suriname, 3,275
Patrai, Greece, 1,350
Pescara, Italy, 1,515
Philadelphia, Pennsylvania, U.S.A., 3,319
Piraeus, Greece (south of Greece), 1,508
Piraeus, Greece (via Corinth Canal), 1,451
Ploce, Croatia, 1,487

Ponta Delgada, Azores, 964
 Port au Prince, Haiti, 3,757
 Port Castries, St. Lucia, 3,236
 Port of Spain, Trinidad, 3,403
 Port St. Louis du Rhone, France, 703
 Port Vendres, France, 633
 Porto Empedocle, Sicily, 937
 Porto Grande, Cape Verde Islands, 1,539
 Porto Vecchio di Piombino, Italy, 897
 Pozzuoli, Italy, 997
 Praia Da Vitoria, Terceira, Azores, 1,034
 Preveza, Greece, 1,319
 Providence, Rhode Island, U.S.A., 3,081
 Puerto de Pasajes, Spain, 894
 Pula, Croatia, 1,628
 Qabis, Tunisia, 1,073
 Qanaaq (Thule), Greenland, 3,299
 Qasigianniguit, Greenland, 2,679
 Qutdligssat, Greenland, 2,953
 Recife, Brazil, 3,116
 Reggio Di Calabria, Sicily, 1,052
 Rethimnon, Kriti, 1,485
 Reykjavik, Iceland, 1,905
 Rhodes, Greece, 1,668
 Rijeka, Croatia, 1,648
 Rio de Janeiro, Brazil, 4,180
 Rostov-na-Donu, Russia, 2,458
 Rota, Spain, 70
 Salamis, Greece, 1,520
 Salerno, Italy, 1,018
 Salvador, Brazil, 3,516
 San Juan, Puerto Rico, 3,336
 San Sebastian, Spain, 892
 Sant Antioco Ponti, Sardinia, 715
 Santa Cruz de Tenerife, Canary Islands, 697
 Santo Domingo, Dominican Republic, 3,549
 Santos, Brazil, 4,378
 Sarande, Albania, 1,311
 Savona, Italy, 852
 Sayda, Lebanon, 2,035
 Sete, France, 684
 Setubal, Portugal, 287
 Sevastopol', Ukraine, 2,122
 Seydhisjordhur, Iceland, 1,899
 Sfax, Tunisia, 1,043
 Shengjin, Albania, 1,382
 Sibenik, Croatia, 1,522
 Sidi Ifni, Morocco, 472
 Siracusa, Sicily, 1,054
 Sisimiut, Greenland, 2,649
 Skikda, Algeria, 629
 Soudha, Ormos Soudhas, Kriti, 1,479
 Sousse, Tunisia, 909
 Split, Croatia, 1,507
 St. John's, Canada, 2,182
 St. Raphael, France, 763
 Tarabulus, Lebanon, 2,047
 Tarabulus, Libya, 1,093
 Taranto, Italy, 1,268
 Tarragona, Spain, 501
 Thessaloniki, Greece, 1,716
 Toulon, France, 722
 Trapani, Sicily, 896
 Trieste, Italy, 1,682
 Tubruq, Libya, 1,534
 Tunis, Tunisia, 820
 Upernavik, Greenland, 3,011
 Valencia, Spain, 403
 Valletta, Malta, 1,005
 Venezia, Italy, 1,691
 Viana do Castelo, Portugal, 472
 Viareggio, Italy, 898
 Vigo, Spain, 504

Vila Real de Santo Antonio, Portugal, 113
 Villa do Porto, Azores, 963
 Villa Cisneros, Western Sahara, 923
 Villa San Giovanni, Italy, 1,045
 Villa Sanjurjo, Morocco, 106
 Villagarcia, Spain, 526
 Villefranche, France, 789
 Vlores, Albania, 1,311
 Volos, Greece, 1,657
 Washington, D.C., U.S.A., 3,471
 Willemstad, Curacao, 3,685
 Wilmington, North Carolina, U.S.A., 3,524
 Yumurtalik, Turkey, 1,672

STRAITS OF FLORIDA* (24°25'00"N., 83°00'00"W.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 6,784
 Grand Banks South, 1,990
 Montreal, Canada (via Cabot Strait), 2,563
 Montreal, Canada (via Strait of Canso), 2,467
 Punta Arenas, Chile (east of South America), 6,829
 Strait of Gibraltar, 4,009
 Yucatan Channel, 192

Ports

Abraham Bay, Bahamas, 593
 Accra, Ghana (via Northwest Providence Channel), 5,016
 Antilla, Cuba, 491
 Argentia, Canada, 2,050
 Arkhangel'sk, Russia, 5,208
 Bahia Cayo Moa, Cuba, 510
 Bahia de Samana, Dominican Republic, 864
 Baltimore, Maryland, U.S.A., 1,115
 Banes, Cuba, 483
 Baracoa, Cuba, 540
 Basse-Terre, Guadeloupe, 1,317
 Belem, Brazil, 2,694
 Boca de Tanamo, Cuba, 489
 Bordeaux, France, 4,234
 Boston, Massachusetts, U.S.A., 1,440
 Brest, France, 3,933
 Bridgetown, Barbados, 1,511
 Brunswick, Georgia, U.S.A., 548
 Buenos Aires, Argentina, 5,763
 Cadiz, Spain, 3,992
 Caibarien, Cuba, 252
 Cap Haitien, Haiti, 604
 Cape Town, Republic of South Africa, 6,778
 Cardenas, Cuba, 140
 Charleston, South Carolina, U.S.A., 644
 Charlotte Amalie, Virgin Islands, 1,087
 Coatzacoalcas, Mexico, 757
 Corpus Christi, Texas, U.S.A., 803
 Dakar, Senegal (via Northwest Providence Channel), 3,768
 Douala, Cameroon, 5,526
 Elizabeth Harbor, Bahamas, 544
 Fort de France, Martinique, 1,389
 Fort Liberté, Haiti, 692
 Freetown, Sierra Leone, 4,137
 Funchal, Madeira Island, 3,532
 Galveston, Texas, U.S.A., 698
 Georgetown, Guyana (via Mona Passage), 1,869

Gibara, Cuba, 447
 Grand Turk, Grand Turk Island, 721
 Guantanamo, Cuba (via Windward Passage), 638
 Guiria, Venezuela, 2,099
 Gulfport, Mississippi, U.S.A., 494
 Halifax, Canada, 1,642
 Hamilton, Bermuda, 1,166
 Hopetown, Bahamas, 415
 Horta, Azores, 2,913
 Isabel de Sagua, Cuba, 195
 Isabel Segunda, Isla de Vieques, 1,064
 Ivittuut, Greenland, 2,969
 Jacksonville, Florida, U.S.A., 523
 Key West, Florida, U.S.A., 73
 Kingston, Jamaica (via Windward Passage), 802
 La Guaira, Venezuela (via Windward Passage), 1,331
 La Habana, Cuba, 87
 Lagos, Nigeria, 5,225
 Lake Charles, Louisiana, U.S.A., 677
 Las Palmas, Canary Islands, 3,713
 Les Cayes, Haiti, 738
 Lisboa, Portugal, 3,831
 Maracaibo, Venezuela (via Windward Passage), 1,205
 Mariel, Cuba, 86
 Marshall, Liberia (via Providence Channel), 4,349
 Matagorda Bay, Texas, U.S.A., 754
 Matanzas, Cuba, 119
 Miami, Florida, U.S.A., 217
 Miller Anchorage, Bahamas, 495
 Mobile, Alabama, U.S.A., 471
 Montecristi, Dominican Republic, 711
 Montego Bay, Jamaica, 642
 Montevideo, Uruguay, 5,644
 Nassau, Bahamas, 393
 New Orleans, Louisiana, U.S.A. (via South Pass), 524
 New York, New York, U.S.A., 1,197
 Nicaro, Cuba, 488
 Norfolk, Virginia, U.S.A., 997
 Noruevas, Cuba, 386
 Oranjestad, St. Eustatius, 1,207
 Paramaribo, Suriname (via Mona Passage), 2,014
 Pensacola, Florida, U.S.A., 431
 Philadelphia, Pennsylvania, U.S.A., 1,168
 Pointe a Pitre, Guadeloupe (via Mona Passage), 1,348
 Pointe a Pitre, Guadeloupe (via Virgin Passage), 1,347
 Ponce, Puerto Rico, 1,020
 Ponta Delgada, Azores, 3,052
 Porlamar, Venezuela, 1,450
 Port au Prince, Haiti, 701
 Port Antonio, Jamaica, 751
 Port Arthur, Texas, U.S.A., 677
 Port Castries, St. Lucia, 1,409
 Port of Spain, Trinidad (via Mona Passage), 1,533
 Portland, Maine, U.S.A., 1,485
 Porto Grande, Cape Verde Islands, 3,314
 Portsmouth, New Hampshire, U.S.A., 1,421
 Praia Da Vitoria, Terceira, Azores, 3,017
 Puerto de Hierro, Venezuela, 2,086
 Puerto Cabello, Venezuela, 1,299
 Puerto Manati, Cuba, 397
 Puerto Padre, Cuba, 409
 Puerto Vita, Cuba, 444

Recife, Brazil, 3,590
 Reykjavik, Iceland, 3,530
 Rio de Janeiro, Brazil, 4,662
 Roosevelt Roads, Puerto Rico, 1,063
 Salvador, Brazil, 3,981
 San Juan, Puerto Rico, 1,017
 Santa Barbara de Samana, Dominican Republic, 867
 Santa Cruz de Tenerife, Canary Islands, 3,614
 Santa Lucia, Cuba, 120
 Santiago de Cuba, Cuba (via Windward Passage), 676
 Santo Domingo, Dominican Republic (via Mona Passage), 1,036
 Santo Domingo, Dominican Republic (via Windward Passage), 986
 Santos, Brazil, 4,849
 Savannah, Georgia, U.S.A., 603
 St. Georges, Grenada, 1,453
 St. John, Canada, 1,611
 St. John's Canada, 2,128
 St. Marc, Haiti, 673
 Tampa, Florida, U.S.A., 232
 Tampico, Mexico, 832
 Tuxpan, Mexico, 792
 Vigo, Spain, 3,809
 Willemstad, Curacao, 1,184
 Wilmington, North Carolina, U.S.A., 735

STRALSUND, GERMANY (54°18'30"N., 13°05'45"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 104
 Skagens Odde, Denmark, 226

Ports

Gdynia, Poland, 245
 Kobenhavn, Denmark, 81
 Stockholm, Sweden, 423

SU-AO KANG, TAIWAN (24°36'00"N., 121°52'00"E.) to:

Ports

Hong Kong, B.C.C., 554
 Incheon, Republic of South Korea, 823
 Manila, Philippines, 684
 Qingdao, China, 756
 Shanghai, China, 498

SUAKIN, SUDAN (19°06'47"N., 37°20'21"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,538
 Port Said, Arab Republic of Egypt, 813
 Singapore, 4,251

Ports

Aden, Yemen, 631

SUBIC BAY, PHILIPPINES (14°43'11"N., 120°11'46"E.) Subtract 8 1/2 miles from Olongapo distances.

**SUKKERTOPPEN,
GREENLAND**(65°24'36"N., 52°54'12"W.) See
Maniitsoq, Greenland.**SUNDERLAND, ENGLAND**
(54°54'45"N., 1°22'00"W.) to:**Junction Points***Bishop Rock, England, 605
Pentland Firth, Scotland, 304**Ports**London, England, 312
Rotterdam, Netherlands, 286
Southampton, England, 400**SUNDSVALL, SWEDEN**
(62°23'12"N., 17°21'30"E.) to:**Junction Points***Nord-Ostsee Kanal (East
Entrance), Germany, 684
Skagens Odde, Denmark, 745**Ports**Gdynia, Poland, 507
Sankt-Peterburg, Russia, 507
Stockholm, Sweden, 222**SUNNDALSORA, NORWAY**
(62°41'14"N., 8°33'00"E.) to:**Junction Points***Bishop Rock, England, 1,154
Grand Banks South, 2,342
Ile d'Ouessant, France, 1,140
Nord-Ostsee Kanal (East Entrance)
Germany, 744
Pentland Firth, Scotland, 367
Skagens Odde, Denmark, 549**Ports**Aberdeen, Scotland, 484
Bergen, Norway, 238
Bremerhaven, Germany, 651
Oslo, Norway, 611
Stavanger, Norway, 334
Tromso, Norway, 539
Troxidheim, Norway, 116**SUPE BAY, PERU**
(10°49'20"S., 77°44'15"W.) to:**Junction Points***Panama, Panama, 1,265
Punta Arenas, Chile, 2,736
Torres Strait, Australia, 8,217
Wilson Promontory, Australia (via
30°S.), 7,291
Wilson Promontory, Australia (via
40°S.), 7,203**Ports**Antofagasta, Chile, 883
Callao, Peru, 85
Corinto, Nicaragua, 1,529
Pisco, Peru, 201
Salina Cruz, Mexico, 1,921
San Nicolas, Peru, 314
Talcahuano, Chile, 1,588
Valparaiso, Chile, 1,373**SURABAYA, INDONESIA**
(7°12'00"S., 112°44'00"E.) to:**Junction Points***Selat Lombok, Indonesia (north of
Madura), 275
Selat Lombok, Indonesia (south of
Madura), 232
Singapore, 763
Selat Sunda, Indonesia, 450
Torres Strait, Australia (north of
Madura and via Selat Wetar),
1,814
Selat Wetar, Indonesia (south of
Madura), 880
Selat Wetar, Indonesia (north of
Madura), 928**Ports**Ambon, Indonesia, 980
Apra, Guam, 2,334
Belawan, Indonesia, 1,132
Dagu, China, 3,174
Dutch Harbor, Alaska, U.S.A.,
5,555
Fremantle, Australia (north of
Madura and via Bali Strait),
1,674
Fremantle, Australia (south of
Madura and via Bali Strait),
1,627
Ho Chi Minh, Vietnam, 1,206
Hong Kong, B.C.C., 1,925
Honolulu, Hawaii, U.S.A., 5,598
Kodiak, Alaska, U.S.A., 6,086
Los Angeles, California, U.S.A.,
7,622
Malacca, Malaysia, 881
Malakal, Palau Islands, 1,656
Manila, Philippines, 1,540
Midway Island, 4,632
Palembang, Indonesia, 638
Qingdao, China, 2,864
San Diego, California, U.S.A.,
7,691
San Francisco, California, U.S.A.,
7,343
Seattle, Washington, U.S.A., 7,162
Semarang, Indonesia, 1,540
Shanghai, China, 2,626
Sitka, Alaska, U.S.A., 6,564
Truk, Caroline Islands, 2,623
Vinh Cam Ranh, Vietnam, 1,251
Vladivostok, Russia, 3,357
Wake Island, 3,641
Xiamen, China, 2,121
Yokohama, Japan, 3,092**SURGIDERO DE BATABANO,
CUBA**
(22°40'00"N., 82°17'00"W.) to:**Junction Points***Panama, Panama, 970
Yucatan Channel, 229**Ports**Barranquilla, Colombia, 944
Kingston, Jamaica, 595
Santiago de Cuba, Cuba, 580**SUVA, FIJI ISLANDS**
(18°08'00"S., 178°25'00"E.) to:**Junction Points***Panama, Panama, 6,325
Punta Arenas, Chile, 5,444
Torres Strait, Australia, 2,262Wilson Promontory, Australia,
2,088**Ports**Apia, Samoa, 647
Apra, Guam, 2,784
Auckland, New Zealand, 1,149
Avarua, Cook Islands, 1,256
Baker Island, 1,202
Brisbane, Australia, 1,548
Callao, Peru, 5,995
Dagu, China, 4,898
Dutch Harbor, Alaska, U.S.A.,
4,493
Guayaquil, Ecuador, 6,067
Ho Chi Minh, Vietnam, 4,679
Hobart, Tasmania, 2,198
Hong Kong, B.C.C., 4,541
Honolulu, Hawaii, U.S.A., 2,776
Kodiak, Alaska, U.S.A., 4,853
Los Angeles, California, U.S.A.,
4,788
Malakal, Palau Islands, 3,041
Manila, Philippines, 4,048
Midway Island, Pacific, 2,872
Noumea, New Caledonia, 734
Nukualofa, Tonga Islands, 416
Ocean Island, 1,207
Pago Pago, American Samoa, 688
Papeete, French Polynesia, 1,838
Petrovavlovsk-Kamchatskiy,
Russia, 4,460
Qingdao, China, 4,662
Raoul Island, Kermadec Islands,
701
San Diego, California, U.S.A.,
4,804
San Francisco, California, U.S.A.,
4,749
Seattle, Washington, U.S.A., 5,162
Seward, Alaska, U.S.A., 5,003
Shanghai, China, 4,467
Sitka, Alaska, U.S.A., 5,112
Sidney, Australia, 1,738
Truk, Caroline Islands, 2,231
Valparaiso, Chile, 5,759
Vladivostok, Russia, 4,626
Wake Island, 2,501
Wellington, New Zealand, 1,476
Wotje Island, Marshall Islands,
1,880
Xiamen, China, 4,389
Yap, Caroline Islands, 2,933
Yokohama, Japan, 3,967**SVENDBORG, DENMARK**
(55°03'45"N., 10°37'30"E.) Add
12 miles to Faborg distances.**SWAN ISLAND, HONDURAS**
(17°24'30"N., 83°57'00"W.) to:**Junction Points***Panama, Panama, 605
Yucatan Channel, 273**Ports**Mariel, Cuba, 437
Puerto Cortes, Honduras, 254**SWANSEA, WALES**
(51°37'00"N., 30°55'00"W.) to:**Junction Points***Bishop Rock, England, 155
Fastnet Rock, Republic of Ireland,
217
Pentland Firth, Scotland, 578**Ports**Barrow in Furness, England, 242
Cardiff, Wales, 46
Fishguard, Wales, 100
Holyhead, Wales, 171
Liverpool, England, 236**SWEEPER COVE, ALASKA,
U.S.A.**
(51°51'30"N., 176°38'00"W.) to:**Junction Points***

Panama, Panama, 5,586

PortsDutch 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**SWINOJSCIE, POLAND**
(53°55'00"N., 14°17'00"E.) to:**Junction Points***Nord-Ostsee Kanal (East
Entrance), Germany, 186
Skagens Odde, Denmark (via Store
Baelt), 379
Skagens Odde, Denmark (via The
Sound), 275**Ports**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**SYDNEY, AUSTRALIA**
(33°51'30"S., 151°13'00"E.) to:**Junction Points***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**Ports**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
 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

SYDNEY, CANADA

(46°08'30"N., 60°12'00"W.) to:

Ports

Boston, Massachusetts, U.S.A., 597
 Buenos Aires, Argentina, 5,749
 Cape Town, Republic of 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

SZCZECIN, POLAND

(53°26'00"N., 14°34'30"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 222
 Skagens Odde, Denmark (via Store Baelt), 410

Ports

Aarhus, Denmark, 268
 Gdansk, Poland, 240
 Halmstad, Sweden, 227
 Landskrona, Sweden, 170
 Oslo, Norway (via The Sound), 431

TACLOBAN, PHILIPPINES

(11°15'30"N., 125°00'00"E.) to:

Ports

Batangas, Philippines, 293
 Jolo, Philippines, 442
 Yap, Caroline Islands, 790
 Zamboanga, Philippines, 385

TACOMA, WASHINGTON, U.S.A.

(47°16'00"N., 122°26'00"W.)
 Add 21 miles to Seattle distances.

TA-KU, CHINA

(38°59'15"N., 117°40'45"E.) See Dagu, China.

TAKORADI, GHANA

(4°53'00"N., 1°44'30"W.) to:

Ports

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

TAKU BAR, CHINA

(38°56'15"N., 117°68'45"E.) See Dagu Bar, China.

TALARA, PERU

(4°34'30"S., 81°17'15"W.) to:

Junction Points*

Panama, Panama, 828

Ports

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

TALCAHUANO, CHILE

(36°42'00"S., 73°06'00"W.) to:

Junction Points*

Panama, Panama, 2,805
 Punta Arenas, Chile, 1,225

Ports

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

TALLINN, ESTONIA

(59°27'00"N., 24°46'30"E.) to:

Junction Points*

Nord-Ostsee Kanal, (East Entrance), Germany, 603
 Skagens Odde, Denmark, 661

Ports

Gdynia, Poland, 392
 Sankt-Peterburg, Russia, 189
 Stockholm, Sweden, 220

TALTAL, CHILE

(25°24'00"S., 70°29'00"W.) to:

Junction Points*

Panama, Panama, 2,225

Ports

San Francisco, California, U.S.A., 4,838

TAMATAVE, MADAGASCAR

(18°09'00"S., 49°25'30"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 2,055
 Port Said, Arab Republic of

Egypt, 3,598
 Singapore, 3,675

Ports

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
 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

TANDJUNGPRIOK, 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, Republic of South Africa, 2,425
Port Said, Arab Republic of 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, Arab Republic of 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, Arab Republic of Egypt, 998
Strait of Gibraltar, 1,093

Ports

Alexandria, Arab Republic of Egypt, 876
Algiers, Algeria, 665
Alicante, Spain, 832
Ancona, Italy, 820
Annaba, Algeria, 440
Banghazi, 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
Odesa, 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, Arab Republic of Egypt, 954
Strait of Gibraltar, 1,268

Ports

Alexandria, Arab Republic of 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
Cortone, Italy, 87
Durrës, 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
Odesa, Ukraine (south of Greece), 1,154
Odesa, 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, REPUBLIC OF 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, REPUBLIC OF IRELAND
(52°35'15"N., 9°21'46"W.) to:

Junction Points*

Fastnet Rock, Republic of Ireland, 125
Inishtrahull, Republic of Ireland, 250
Pentland Firth, Scotland, 509

Ports

Belfast, Northern Ireland (via north of Ireland), 338
Cobh, Republic of Ireland, 193
Larne, Northern Ireland (via west of Ireland), 336
Limerick, Republic of Ireland, 30

TARRAGONA, SPAIN
(41°06'25"N., 1°14'30"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, 1,634
Strait of Gibraltar, 501

Ports

Beirut, Lebanon, 1,738
Malaga, Spain, 431
Oran, Algeria, 336
Palma, Balearic Islands, 134
Siracusa, Sicily, 746
Toulon, France, 251
Valencia, Spain, 124

TATIBANA KO, JAPAN
(33°52'10"N., 134°40'00"E.) to:

Junction Points*

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

Ports

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

TAURANGA, NEW ZEALAND
(37°36'14"S., 176°12'10"E.) to:

Junction Points*

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

Ports

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

TAWAU, MALAYSIA

(4°13'32"N., 117°53'33"E.) to:

Junction Points*

Selat Lombok, Indonesia, 856
 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

Ports

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

TEES RIVER, ENGLAND

(54°40'57"N., 1°06'20"W.) to:

Junction Points*

Bishop Rock, England, 584
 Ile d'Ouessant, France, 578
 Nord-Ostsee Kanal (East Entrance), Germany, 421
 Pentland Firth, Scotland, 266
 Skagens Odde, Denmark, 435

Ports

Amsterdam, Netherlands, 256
 Antwerp, Belgium, 327
 Bergen, Norway, 406
 Dover, England, 270
 Emden, Germany, 303
 Hamburg, Germany, 404
 London, England, 286
 Oslo, Norway, 525

TELA, HONDURAS

(15°46'30"N., 87°27'00"W.) to:

Junction Points*

Panama, Panama, 749

Ports

Colon, Panama, 706
 New Orleans, Louisiana, U.S.A., 915
 San Juan, Puerto Rico, 1,258

Tampico, Mexico, 974

TELUKBAYUR, INDONESIA

(1°00'00"S., 100°22'00"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 4,979
 Singapore, 1,011
 Selat Sunda, Indonesia, 488

Ports

Durban, Republic of South Africa, 4,307
 Penang, Malaysia, 931
 Tjilatjap, Indonesia, 738

TEMA, GHANA

(5°37'33"N., 0°00'45"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 2,619
 Ile d'Ouessant, France, 3,597

Ports

Lagos, Nigeria, 216
 Takoradi, Ghana, 117

TERNEUZEN, NETHERLANDS

(51°20'00"N., 3°49'00"E.)

Subtract 36 miles from Antwerp distances.

TETNEY TERMINAL, ENGLAND

(53°32'22"N., 0°06'53"E.) to:

Junction Points*

Bishop Rock, England, 511
 Ile d'Ouessant, France, 503
 Nord-Ostsee Kanal, Germany, 381
 Pentland Firth, Scotland, 311
 Skagens Odde, Denmark, 442

Ports

Amsterdam, Netherlands, 216
 Bremerhaven, Germany, 321
 Le Havre, France, 337
 Oslo, Norway, 533
 Trondheim, Norway, 724
 Wilhelmshaven, Germany, 326

TEXAS CITY, TEXAS, U.S.A.

(29°22'30"N., 94°53'15"W.) Add 5 miles to Galveston distances.

THAMES HAVEN, ENGLAND

(51°30'00"N., 0°30'30"E.)

Subtract 23 miles from London distances.

THESSALONIKI, GREECE

(40°37'56"N., 22°55'48"E.) to:

Junction Points*

Port Said, Arab Republic of Egypt, Strait of Gibraltar, 1,716

Ports

Alexandria, Arab Republic of 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
 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
 Odesa, 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
 Venezia, Italy (south of Greece), 1,064
 Venezia, Italy (via Corinth Canal), 968
 Volos, Greece, 132

THORSHAVN, FAEROE ISLANDS

(62°00'20"N., 6°4'30"W.) See Torshavn.

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*

Dagu, China, 48
 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

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, REPUBLIC OF SOUTH KOREA
(34°50'00"N., 128°27'00"E.) to:

Ports

Busan, Republic of South Korea,
63
Mogpo, Republic of South Korea,
189
Nampo, Democratic People's
Republic of Korea, 446
Rajin, Democratic People's
Republic of Korea, 501
Weonsan, Democratic People's
Republic of 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
Baelt), 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, Republic of
South Africa, 6,854
Cape Leeuwin, Australia, 2,717
Honshu, Japan, 3,265
Panama, Panama, 8,451
Port Said, Arab Republic of Egypt
(via Eight Degree Channel),
7,403
Port Said, Arab Republic of 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, B.C.C., 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, Papua 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
Reykjavik, Iceland, 516

TOULON, FRANCE
(43°06'45"N., 5°35'00"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,486
Strait of Gibraltar, 722

Ports

Ajaccio, Corsica, 155
Alexandria, Arab Republic of
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
Castellamare 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
Odesa, 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

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

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, Republic of
 South Africa, 3,420
 Fastnet Rock, Republic of Ireland,
 5,445
 Grand Banks South, 5,074
 Ile d'Ouessant, France, 5,391
 Inishtrahull, Republic of 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

TRANSISVAAG, FAROE ISLANDS (61°31'58"N., 6°44'30"W.) to:

Junction Points*

Bishop Rock, England, 798
 Cape of Good Hope, Republic of
 South Africa, 6,492
 Fastnet Rock, Republic of Ireland,
 650
 Grand Banks South, 1,938

Inishtrahull, Republic of 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, Arab Republic of
 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, Arab Republic of
 Egypt, 1,310
 Strait of Gibraltar, 1,682

Ports

Al Latakia, Syria, 1,370
 Alexandria, Arab Republic of
 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
 Odesa, Ukraine (south of Greece),
 1,510
 Odesa, Ukraine (via Corinth
 Canal), 1,411
 Oran, Algeria, 1,450
 Palermo, Sicily, 753
 Palma, Balearic Islands, 1,271
 Piraievs, Greece (south of
 Greece), 848
 Piraievs, 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, SRILANKA (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, Republic of 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
 Strait), 1,188
 Nord-Ostsee Kanal (East
 Entrance), Germany, 791
 Pentland Firth, Scotland, 415
 Skagens Odde, Denmark, 597

Ports

Bergen, Norway, 321
 Hull, England, 752
 Kristiansand, Norway, 436
 Longyearbyen, Svalbard, 943
 Oslo, Norway, 688
 Reykjavik, Iceland, 969

TRUK, CAROLINE ISLANDS (7°22'00"N., 151°54'00"E.) to:

Junction Points*

Panama, Panama, 7,685
 Singapore, 3,052

Ports

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, B.C.C., 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

<p>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, B.C.C., 343 Incheon, Republic of 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, Democratic People's Republic of Korea, 620</p> <p>TSURUGA, JAPAN (35°39'30"N., 136°04'00"E.) to:</p> <p>Ports</p> <p>Hakodate, Japan, 447 Masan, Republic of 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, Arab Republic of 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, Arab Republic of</p>	<p>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, Arab Republic of Egypt, 445 Strait of Gibraltar, 1,534</p> <p>Ports</p> <p>Alexandria, Arab Republic of 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, Republic of South Africa, 1,509 Port Said, Arab Republic of 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, Arab Republic of Egypt, 1,172 Strait of Gibraltar, 820</p> <p>Ports</p> <p>Al Khums, Libya, 357 Al Latakia, Syria, 1,258 Alexandria, Arab Republic of 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 Livorno, Sicily, 187 Livorno, Italy, 417 Marsala, Sicily, 124 Marsaxlokk, Malta, 246 Marseille, France, 476 Messina, Sicily, 302 Napoli, Italy, 313 Odesa, Ukraine, 1,399 Oran, Algeria, 589 Palermo, Sicily, 193 Palma, Balearic Islands, 435 Piraeus, Greece (south of Greece), 737 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 Baelt), 768 Skagens Odde, Denmark (via The Sound), 642</p> <p>Ports</p> <p>Oslo, Norway (via Store Baelt), 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, Republic of South Africa, 6,593 Cape Leeuwin, Australia, 3,347 Port Said, Arab Republic of 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 Victoria, Seychelles, 1,583</p> <p>TUXPAN, MEXICO (20°58'00"N., 97°25'00"W.) to:</p> <p>Junction Points*</p> <p>Panama, Panama, 1,498 Straits of Florida, 817 Yucatan Channel, 689</p> <p>Ports</p> <p>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</p>
---	--	--	--

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

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 a 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
 Tees River, England, 31

UBE, JAPAN (33°55'00"N., 131°13'30"E.) to:

Ports

Busan, Republic of South Korea, 143
 Hakata, Japan, 84
 Kagoshima, Japan, 280
 Nagoya, Japan, 419
 Yokohama, Japan, 536

ULSAN, REPUBLIC OF SOUTH KOREA (35°28'00"N., 129°24'00"E.) to:

Ports

Hakodate, Japan, 661
 Incheon, Republic of South Korea, 435
 Maizuru, Japan, 315
 Rajin, Democratic People's Republic of 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, Republic of South Africa, 4,909
 Cape Leeuwin, Australia, 5,245
 Port Said, Arab Republic of 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

UNGGI, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (42°19'00"N., 130°24'45"E.) to:

Ports

Busan, Republic of 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.

UUSIKAUPUNKI, FINLAND (60°47'30"N., 21°22'30"E.) to:

Junction Points*

Nord-Ostsee Kanal (East Entrance), Germany, 624
 Skagens Odde, Denmark (via Store Bael), 825

Ports

Helsinki, Finland, 293
 Oslo, Norway (via Store Bael), 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, Arab Republic of Egypt, 1,679
 Strait of Gibraltar, 403

Ports

Al Latakia, Syria, 1,765
 Alexandria, Arab Republic of Egypt, 1,559
 Algiers, Algeria, 230
 Alicante, Spain, 98
 Ancona, Italy, 1,295
 Annaba, Algeria, 426
 Augusta, Sicily, 801
 Benghazi, 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 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
 Odesa, Ukraine (south of Greece), 1,906
 Odesa, 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, Arab Republic of Egypt, 946
 Strait of Gibraltar, 1,005

Ports

Alexandria, Arab Republic of 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
 Odesa, Ukraine, 1,185
 Oran, Algeria, 774
 Palermo, Sicily, 242
 Palma, Balearic Islands, 619
 Piraeus, 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 Controleur, Marquesas, 4,029
 Caldera, Chile, 376
 Callao, Peru, 1,306
 Chanaral, Chile, 417
 Chimbote, Peru, 1,490
 Coquimbo, Chile, 203
 Corinto, Nicaragua, 2,875
 Dagu, 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, B.C.C. (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, Arab Republic of Egypt, 952
 Strait of Gibraltar (via south of Greece), 1,986

Ports

Ajaccio, Corsica, 1,360
 Alexandria, Arab Republic of Egypt, 871
 Algiers, Algeria, 1,533
 Arbatax, 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

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.

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

VENEZIA, ITALY

(45°25'54"N., 12°18'27"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,317
Strait of Gibraltar, 1,691

Ports

Ajaccio, Corsica, 1,507
Alexandria, Arab Republic of
Egypt, 1,208
Algiers, Algeria, 1,264
Alicante, Spain, 1,418
Ancona, Italy, 124
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
Odesa, Ukraine (south of Greece),
1,518
Odesa, 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, Republic of
South Africa, 4,654
Cape Leeuwin, Australia, 4,233
Selat Lombok, Indonesia, 3,489
Port Said, Arab Republic of
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, Arab Republic of
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, Republic of
South Africa, 2,399
Ile d'Ouessant, France, 4,126

Ports

Lagos, Nigeria, 410
Matadi, Republic of Zaire, 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, Republic of
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
Mocarnbique, 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, Republic of 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
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

<p>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</p> <p>VILA REAL DE SANTO ANTONIO, PORTUGAL (37°12'00"N., 7°24'30"W.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 836 Strait of Gibraltar, 113</p> <p>Ports</p> <p>Casablanca, Morocco, 218 Horta, Azores, 1,046</p> <p>VILLA CISNEROS, WESTERN SAHARA (23°37'00"N., 16°00'00"W.) to:</p> <p>Junction Points*</p> <p>Strait of Gibraltar, 923</p> <p>Ports</p> <p>Casablanca, Morocco, 769 Dakar, Senegal, 578 Porto Grande, Cape Verde Islands, 650</p> <p>VILLA CONSTITUCION, ARGENTINA (33°13'46"S., 60°19'26"W.) Add 197 miles to Buenos Aires distances.</p> <p>VILLA DO PORTO, AZORES (36°56'00"N., 25°09'00"W.) to:</p> <p>Junction Points*</p> <p>Bishop Rock, England, 1,128 Strait of Gibraltar, 963</p> <p>Ports</p> <p>Lisboa, Portugal, 771 New York, New York, U.S.A., 2,279</p> <p>VILLA SAN GIOVANNI, ITALY (38°13'00"N., 15°37'55"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 944 Strait of Gibraltar, 1,047</p> <p>Ports</p> <p>Napoli, Italy, 173 Palermo, Sicily, 118 Taranto, Italy, 287</p> <p>VILLAGARCIA, SPAIN (42°36'00"N., 8°47'45"W.) to:</p> <p>Junction Points*</p> <p>Ile d'Ouessant, France, 433 Strait of Gibraltar, 526</p>	<p>Ports</p> <p>Bilbao, Spain, 357 Horta, Azores, 946 Lisboa, Portugal, 264</p> <p>VILLEFRANCHE, FRANCE (43°42'00"N., 7°18'45"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 1,455 Strait of Gibraltar, 789</p> <p>Ports</p> <p>Ajaccio, Corsica, 138 Barcelona, Spain, 277 Genova, Italy, 88 Livorno, Italy, 133 Napoli, Italy, 369</p> <p>VINH CAM RANH, VIETNAM (11°53'00"N., 109°09'00"E.) to:</p> <p>Junction Points*</p> <p>Singapore, 786 Selat Wetar, Indonesia (via Selat Karimata and Selat Sapudi), 2,106</p> <p>Ports</p> <p>Apra, Guam, 2,112 Bangkok, Thailand, 817 Haiphong, Vietnam, 597 Hong Kong, B.C.C., 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</p> <p>VISHAKHAPATNAM, INDIA (17°41'00"N., 83°17'00"E.) to:</p> <p>Ports</p> <p>Calcutta, India, 458 Colombo, Sri Lanka, 880 Madras, India, 332</p> <p>VITA, CUBA (21°04'45"N., 75°57'08"W.) See Puerto Vita.</p> <p>VITORIA, BRAZIL (20°19'20"S., 40°20'30"W.) to:</p> <p>Ports</p> <p>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</p> <p>VLAARDINGEN, NETHERLANDS (51°53'46"N., 4°20'29"E.) See Rotterdam.</p> <p>VLADIVOSTOK, RUSSIA (43°06'30"N., 131°53'00"E.) to:</p>	<p>Junction Points*</p> <p>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</p> <p>Ports</p> <p>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, Republic of South Korea, 514 Cebu, Philippines, 2,026 Changjon, Democratic People's Republic of Korea, 319 Chongjin, Democratic People's Republic of 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, B.C.C., 1,646 Honolulu, Hawaii, U.S.A. (via Tsugaru-Kaikyo), 3,725 Iloilo, Philippines, 2,048 Incheon, Republic of South Korea (via Maemut Sudo), 911 Jakarta, Indonesia, 3,338 Kimchaek, Democratic People's Republic of 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, Republic of South Korea, 542 Matsugahama, Japan (via Tsugaru Kaikyo), 730 Midway Island, Pacific, 2,612 Mogpo, Republic of South Korea, 726 Nagasaki, Japan, 657 Nampo, Democratic People's Republic of 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</p>	<p>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, Republic of South Korea, 486 Valparaiso, Chile, 9,606 Wake Island, Pacific, 2,305 Weihai, China (via Maenggol Sudo), 975 Weonsan, Democratic People's Republic of Korea, 324 Wotje Island, Marshall Islands, 2,928 Xiamen, China, 1,393 Yantai, China (via Maenggol Sudo), 1,009 Yokohama, Japan, 952</p> <p>VLISSINGEN, NETHERLANDS (51°26'30"N., 3°36'00"E.) Subtract 47 miles from Antwerp, Belgium distances.</p> <p>VLORES, ALBANIA (40°26'30"N., 19°28'30"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 973 Strait of Gibraltar, 1,311</p> <p>Ports</p> <p>Piraeus, Greece (via Corinth Canal), 295 Split, Croatia, 252 Taranto, Italy, 146</p> <p>VOLOS, GREECE (39°21'25"N., 22°56'37"E.) to:</p> <p>Junction Points*</p> <p>Port Said, Arab Republic of Egypt, 683 Strait of Gibraltar, 1,657</p>
---	--	---	---

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

Ports

Ajaccio, Corsica (south of Greece), 1,056
 Ajaccio, Corsica (via Corinth Canal), 1,014
 Alexandria, Arab Republic of 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
 Odesa, 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
 Piraievs, 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 (via Store Baelt), 923
 Skagens Odde (via The Sound), 803

Ports

Kotka, Finland, 69
 Oslo, Norway (via Store Baelt), 1,047

WADI FEIRAN, ARAB REPUBLIC OF EGYPT

(28°44'30"N., 33°12'36"E.) to:

Junction Points*

Cape of Good Hope, Republic of South Africa, 5,138
 Cape Leeuwin, Australia, 6,173
 Port Said, Arab Republic of 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, Republic of 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, B.C.C., 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
 Matsugahama, 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
 Mocomedes, 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, Republic of Ireland, 262
Inishtrahull, Republic of Ireland, 161

Ports

Ardrossan, Scotland, 146
Avonmouth, England, 201
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, Republic of Ireland, 3,137
Inishtrahull, Republic of 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, REPUBLIC OF IRELAND
(52°15'50"N., 7°07'00"W.) to:

Junction Points*

Bishop Rock, England, 137
Fastnet Rock, Republic of Ireland, 110
Inishtrahull, Republic of Ireland, 276

Ports

Dublin, Republic of 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, Republic of South Korea, 474
Cebu, Philippines, 1,679
Dagu, China, 237
Hakodate, Japan, 1,169
Hong Kong, B.C.C., 1,190
Honolulu, Hawaii, U.S.A. (via Osumi Kaikyo), 4,449
Iloilo, Philippines, 1,701
Incheon, Republic of 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, Republic of South Korea (via south of Kasa Do), 308
Nagasaki, Japan, 526
Nampo, Democratic People's Republic of Korea, 172
Petropavlovsk-Kamchatskiy, Russia, 2,192
Qingdao, China, 205
Qinhugngadao, 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, Chetvertiy Kuril'skiy Proлив 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, Democratic People's Republic of 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, 1,222
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

Lae, 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, B.C.C., 595
Incheon, Republic of South Korea, 723
Qingdao, China, 623
Shanghai, China, 365

WEONSAN, DEMOCRATIC PEOPLE'S REPUBLIC OF 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, Republic of South Korea, 308
Dagu, China, 1,007
Dalian, China (via Maenggol Sudo), 848
Hakodate, Japan, 638
Ho Chi Minh, Vietnam, 2,305
Hong Kong, B.C.C., 1,450
Honolulu, Hawaii, U.S.A. (via Tsugaru-Kaikyo), 3,933
Incheon, Republic of 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, Republic of South Korea (via Maenggol Sudo), 530
Nagasaki, Japan, 452
Nampo, Democratic People's Republic of Korea (via Maenggol Sudo), 801
Osaka, Japan, 627
Pago Pago, American Samoa (via Bungo Suido), 4,816

Petropavlovsk-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, Republic of 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, REPUBLIC OF 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, Republic of Ireland, 309
Inishtrahull, Republic of Ireland, 158

Ports

Belfast, Northern Ireland, 85
Cardiff, Wales, 293
Cobh, Republic of Ireland, 254
Dublin, Republic of Ireland, 124
Fishguard, Wales, 165
Glasgow, Scotland, 143
Liverpool, England, 82
Waterford, Republic of 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

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, Republic of 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, Republic of 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
 Guantnamo, 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, Republic of Ireland, 2,942
 Inishtrahull, Republic of 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, Republic of 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, Republic of South Africa, 5,530
 Cape Leeuwin, Australia, 1,324
 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, DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA**
(39°10'00"N., 127°26'00"E.) See Weonsan, Democratic People's Republic of 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

Ports

Fremantle, Australia, 1,780
Port Darwin, Australia, 274

XIAMEN, CHINA
(24°27'00"N., 118°04'00"E.) to:

Junction Points*

Panama, Panama, 8,941
Punta Arenas, Chile (via Vitiaz
Strait), 9,665
Singapore, 1,649
Torres Strait, Australia, 2,655

Ports

Aleksandrovsk-Sakhalinskiy,
Russia, 1,991
Apra, Guam, 1,669
Auckland, New Zealand, 4,990
Busan, Republic of 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, B.C.C., 290
Honolulu, Hawaii, U.S.A., 4,592
Iloilo, Philippines, 987
Incheon, Republic of South Korea,
943
Jakarta, Indonesia, 1,971
Kobe, Japan, 1,117
Lo hsing-ta, Mao-ti, China, 200
Manila, Philippines, 662

Mogpo, Republic of South Korea,
790

Nagasaki, Japan, 810
Nampo, Democratic People's
Republic of 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 Vitiaz
Strait), 4,437
Valparaiso, Chile (via Cook
Strait), 10,216
Vladivostok, Russia, 1,393
Weihai, China, 931
Weonsan, Democratic People's
Republic of Korea, 1,191
Yantai, China, 978
Yokohama, Japan (via Osumi
Kaikyo), 1,335

YABU COA, PUERTO RICO
(18°02'36"N., 65°48'34"W.) to:

Junction Points*

Panama, Panama, 1,018
Straits of Florida, 1,068

Ports

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

YAKUTAT, ALASKA, U.S.A.
(59°33'00"N., 139°45'00"W.) to:

Ports

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

YALTA, RUSSIA
(44°28'55"N., 34°10'20"E.) to:

Junction Points*

Port Said, Arab Republic of
Egypt, 1,340
Strait of Gibraltar (via Corinth
Canal), 3,992
Strait of Gibraltar (south of
Greece), 4,052

Ports

Alexandria, Arab Republic of
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

YAMPI SOUND, AUSTRALIA
(16°08'00"S., 123°38'00"E.) to:

Junction Points*

Cape Leeuwin, Australia, 1,588
Torres Strait, Australia, 1,283

Ports

Fremantle, Australia, 586
Port Darwin, Australia, 1,457

**YANBU AL BAHR, SAUDI
ARABIA**
(24°03'44"N., 38°02'48"E.) to:

Junction Points*

Cape of Good Hope, Republic of
South Africa, 4,758
Cape Leeuwin, Australia, 5,793
Port Said, Arab Republic of
Egypt, 547
Singapore, 4,471
Selat Sunda, Indonesia, 4,665
Torres Strait, Australia, 6,870

Ports

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

**YANDINA, SOLOMON
ISLANDS**
(9°04'17"S., 159°13'50"E.) to:

Junction Points*

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

Ports

Auckland, New Zealand, 1,917

Brisbane, Australia, 1,192
San Francisco, California, U.S.A.,
8,614
Sydney, Australia, 1,613

YANTAI, CHINA
(37°33'15"N., 121°23'30"E.) to:

Junction Points*

Singapore, 2,582

Ports

Aleksandrovsk-Sakhalinskiy,
Russia (via Maenggol Sudo),
1,613
Apra, Guam (via Tokara Kaikyo),
1,935
Busan, Republic of South Korea
(via Maenggol Sudo), 508
Cebu, Philippines, 1,713
Dagu, China, 205
Hakodate, Japan, 1,203
Hong Kong, B.C.C., 1,224
Honolulu, Hawaii, U.S.A. (via
Osumi Kaikyo), 4,483
Iloilo, Philippines, 1,735
Incheon, Republic of 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
Moji, Japan, 600
Mogpo, Republic of South Korea
(via south of Kasa Do), 342
Nagasaki, Japan, 560
Nampo, Democratic People's
Republic of Korea, 205
Petropavlovsk-Kamchatskiy,
Russia, 2,226
Qingdao, China, 239
Qinhuangdao, China, 168
Shanghai, China, 523
Shimonoseki, Japan, 596
Vladivostok, Russia (via Maenggol
Sudo), 1,009
Weonsan, Democratic People's
Republic of Korea, 813
Xiamen, China, 978
Yokohama, Japan, 1,140

YAP, CAROLINE ISLANDS
(9°30'30"N., 138°08'00"E.) to:

Ports

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

YARMOUTH, CANADA
(43°50'00"N., 66°07'30"W.) to:

Ports

Boston, Massachusetts, U.S.A.,
237
Colon, Panama, 2,210
Kingston, Jamaica, 1,710

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

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

YARMOUTH, ENGLAND
(50°42'30"N., 1°29'56"W.) to:

Junction Points*

Bishop Rock, England, 211
Ile d'Ouessant, France, 197
Nord-Ostsee Kanal (East
Entrance), Germany, 442
Pentland Firth, Scotland, 678
Skagens Odde, Denmark, 682

Ports

Aberdeen, Scotland, 311
Amsterdam, Netherlands, 120
Emden, Germany, 218
Esbjerg, Denmark, 297
Hull, England, 108
Leith, Scotland, 293
Wilhelmshaven, Germany, 263
Zeebrugge, Belgium, 101

YEN-TAI, CHINA
(37°33'15"N., 121°23'30"E.) See
Yantai, China.

**YEOSU, REPUBLIC OF
SOUTH KOREA**
(34°45'00"N., 127°45'30"E.) to:

Ports

Busan, Republic of South Korea,
97
Gunsan, Republic of South Korea,
245
Kimchaek, Democratic People's
Republic of Korea, 439
Mogpo, Republic of South Korea,
151
Rajin, Democratic People's
Republic of 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, Republic of 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, B.C.C., 1,585
Honolulu, Hawaii, U.S.A., 3,397
Iloilo, Philippines (via San
Bernardino Strait), 1,784
Imabari, Japan, 454
Incheon, Republic of South Korea
(via Bungo Suido and Maemul
Sudo), 1,016
Incheon, Republic of South Korea
(via Naikai), 1,070
Iquique, Chile, 9,026
Itozichico, 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, Republic of South Korea,
838
Moskal'vo, Russia, 1,453
Nagasaki, Japan (via Osumi
Kaikyo), 691
Nagoya, Japan, 214
Nakagusuku, Ryukyu Islands, 839
Nampo, Democratic People's
Republic of 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, Democratic People's
Republic of 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, REPUBLIC OF SOUTH
KOREA**
(34°45'00"N., 127°45'30"E.) See
Yeosu, Republic of South Korea.

YUCATAN CHANNEL*
(21°50'00"N., 85°03'00"W.) to:

Junction Points*

Bishop Rock, England, 4,103
Cape of Good Hope, Republic of
South Africa, 6,770
Fastnet Rock, Republic of Ireland,
3,988
Inishtrahull, Republic of 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, Republic of 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
Coatzacoalcas, 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 à 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 Points*

Port Said, Arab Republic of 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, Arab Republic of 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, Republic of 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, Republic of 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

ZELNIKA, MONTENEGRO
 (42°26'58"N., 18°34'05"E.) to:

Junction Points*

Port Said, Arab Republic of 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
 Piraievs, 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, B.C.C., 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, Arab Republic of 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

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
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	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