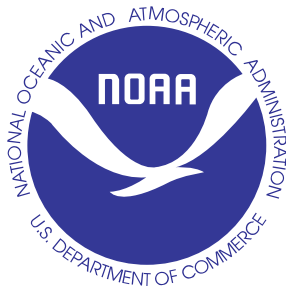


# Distances Between United States Ports

2002 (9th) Edition



## **U.S. DEPARTMENT OF COMMERCE**

Donald L. Evans, Secretary

## **National Oceanic and Atmospheric Administration (NOAA)**

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## **National Ocean Service**

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### LIMITS OF UNITED STATES COAST PILOT

**ATLANTIC COAST**

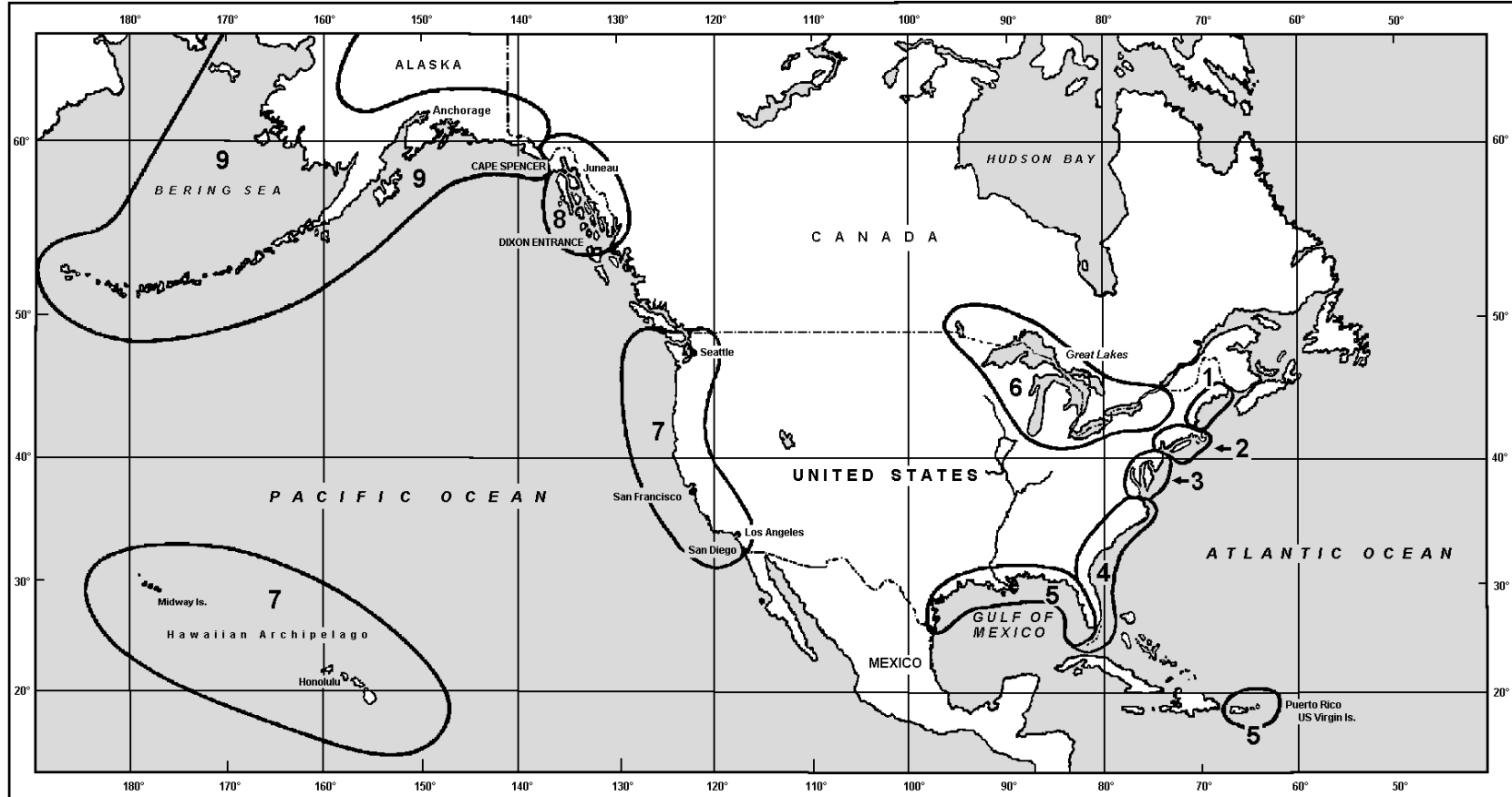
- 1 Eastport to Cape Cod
- 2 Cape Cod to Sandy Hook
- 3 Sandy Hook to Cape Henry
- 4 Cape Henry to Key West
- 5 Gulf of Mexico, Puerto Rico, and Virgin Islands

**PACIFIC COAST**

- 7 California, Oregon, Washington, Hawaii
- 8 Alaska: Dixon Entrance to Cape Spencer
- 9 Alaska: Cape Spencer to Beaufort Sea

**GREAT LAKES**

- 6 Great Lakes and Connecting Waterways



# Preface

**Distances Between United States Ports** is published by the Office of Coast Survey, National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), pursuant to the Act of 6 August 1947 (33 U.S.C. 883a and b), and the Act of 22 October 1968 (44 U.S.C. 1310).

**Distances Between United States Ports** contains distances from a port of the United States to other ports in the United States, and from a port in the Great Lakes in the United States to Canadian ports in the Great Lakes and St. Lawrence River.

**Distances Between Ports**, Publication 151, is published by National Imagery and Mapping Agency (NIMA) and distributed by NOS. NIMA Pub. 151 is international in scope and lists distances from foreign port to foreign port and from foreign port to major U.S. ports. The two publications, **Distances Between United States Ports** and **Distances Between Ports**, complement each other.

This volume of **Distances Between United States Port** cancels the 1993 (8th) edition.

Mariners and other are urged to promptly report errors in this publication to NOAA. These reports should be sent to  
Chief, Coast Pilot Branch (N/CS51)  
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## Record of Changes

Change Number	From LNM No.	Entered By	Date Entered	Change Number	From LNM No.	Entered By	Date Entered

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## GENERAL INFORMATION

- (1) **Distance Between United States Ports** contains distances from a port of the United States to other ports in the United States, and from a port in the Great Lakes in the United States to Canadian Ports in the Great Lakes and St Lawrence River. These distances are measured along navigable tracklines.
- (2) **General.**—Departure and arrival geographic coordinates, where listed, are for a centrally located pier inside the port.
- (3) Distances given are given in nautical miles for tables relating to distances along the coasts. Generally speaking, distances in tables of the Mississippi River System, the Great Lakes, and other inland waters are in statute miles. The individual tables show in their heading, what the units of the table are in, i.e., nautical miles or statute miles.
- (4) **International nautical mile.**—The nautical mile is a special unit employed for marine and aerial navigation to express distance. The International nautical mile is exactly 1,852 meters in length. 1,852 meters = 6,076.11549 U.S. feet.
- (5) Each distance between the two ports concerned is along the shortest route that safe navigation permits. The navigator must make his own adjustments for weather or prevailing currents.
- (6) **Junction Points.**—These are positions where two or more routes converge; they are shown in CAPITAL LETTERS in the tables. Distances between ports listed in different tables can be obtained by adding the respective distances to the junction points. Where a port is listed in more than one table, additional combinations of distances can also be obtained by using the port as a common reference point. (See examples that follow.)
- (7) **Foreign Ports.—Distances Between Ports, Pub. 151,** is published by **National Imagery and Mapping Agency (NIMA)** and distributed by National Ocean Service. **NIMA Pub 151** is International in scope and lists distances from foreign port to foreign port, and from foreign port to major United States ports. The two publications, **Distances Between United States Ports** and **Distances Between Ports**, complement each other. See Example 20.
- (8) **Examples.**—The following examples will illustrate the use of the tables. The index will show in which table the ports are listed.

### Ports in the same table

- (9) **Example 1.**—Find the distance from New York, NY to Charleston, SC.
- (10) In Table T-1 find New York, NY, in the list of cities along the left edge of the table, and Charleston, SC, in the list of cities along the top of the table. The intersection of the row and column will contain the distance (630 miles) between these two parts.

### Use of Junction and common reference points

- (11) **Example 2.**—Find the distance from Bridgeport, CT, to Albany, NY:
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- (15) **Example 3.**—Find the distance from New York, NY, to Miami, FL, via the Intracoastal Waterway:
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- (17) East entrance of Chesapeake and Delaware Canal Norfolk, VA (table T-9) . . . . . 209
- (18) Norfolk to Miami (table T-13) . . . . . 947
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- (20) **Example 4.**—Find the distance from Portland, ME, to New York, NY, by two routes:
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- (27) **Example 5.**—Find the distance from Boston, MA, to Baltimore, MD, by two routes:
- (28) 1. Outside, via Nantucket Shoals and Chesapeake Bay entrance:
- (29) Boston to Baltimore (table T-1) . . . . . 694
- (30) 2. Via Cape Cod Canal and Chesapeake and Delaware Canal:
- (31) Boston to Cape Cod Canal E entrance (table T-2) . . . . . 52
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- (40) **Example 7.**—Find the distance from Beaumont, TX to Lisboa, Portugal:
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- (42) Straits of Florida to Lisboa, Portugal (**Pub. 151**) 3,831
- (43) Beaumont to Lisboa, Portugal . . . . . 4,557



**ATLANTIC OCEAN DISTANCES**  
**MONTREAL, CANADA to the PANAMA CANAL**  
(Nautical Miles)

	PANAMA CANAL (Pacific)	Panama Canal (Atlantic)	YUCATAN CHANNEL	San Juan, PR	Corpus Christi, TX	Galveston, TX	Port Arthur, TX	New Orleans (via SW Pass)	Mobile, AL	Pensacola, FL	Tampa, FL	STRAITS OF FLORIDA	Key West, FL	Jacksonville, FL	Savannah, GA	Charleston, SC	Wilmington, NC	Diamond Shoals	Norfolk, VA	Chesapeake Bay Entrance	Baltimore, MD	Philadelphia, PA	New York, NY	Nantucket Shoals	Boston, MA	Portland, ME	Gulf of Canso (Lock)	Cabot Strait
MONTREAL, QUE* (St. Lambert Lock)	3249	3203	2730	2445	3347	3242	3240	3080	3011	2977	2722	2540	2479	2172	2088	2014	1948	1729	1716	1689	1838	1682	1534	1311	1318	1276	717	681
Cabot Strait 45°07.0'N., 60°17.0'W.	2568	2522	2049	1764	2666	2561	2559	2399	2330	2296	2091	1859	1798	1491	1407	1333	1267	1048	1035	1008	1157	1001	853	630	637	595	120	-
Gulf of Canso (Lock) 45°39.0'N., 61°25.0'W.	2465	2419	1937	1669	2558	2453	2451	2291	2222	2188	1983	1751	1690	1379	1295	1221	1155	936	923	896	1046	890	742	519	526	484	-	-
Portland, ME 43°39.4'N., 70°14.7'W.	2235	2189	1629	1531	2255	2150	2148	1988	1919	1885	1680	1448	1387	1071	987	913	847	628	611	584	734	575	426	203	100	-	-	-
Boston, MA 42°22.0'N., 71°03.0'W.	2195	2149	1589	1486	2215	2110	2108	1948	1879	1845	1640	1408	1347	1031	947	873	807	588	571	544	694	535	386	163	-	-	-	-
NANTUCKET SHOALS 40°30.0'N., 69°25.0'W.	2032	1986	1426	1334	2052	1947	1945	1785	1716	1682	1477	1245	1184	868	784	710	644	425	408	381	531	372	223	-	-	-	-	-
NEW YORK, NY 40°42.0'N., 74°01.0'W.	2018	1972	1346	1399	1977	1872	1870	1710	1641	1607	1402	1170	1109	788	704	630	564	345	294	267	417	240	-	-	-	-	-	-
Philadelphia, PA 39°56.8'N., 75°08.3'W.	2001	1955	1323	1395	1954	1849	1847	1687	1618	1584	1379	1147	1086	765	681	607	541	322	269	242	392	-	-	-	-	-	-	-
Baltimore, MD 39°16.0'N., 76°34.5'W.	1950	1904	1268	1375	1899	1794	1792	1632	1563	1529	1324	1092	1031	710	626	552	486	267	173	150	-	-	-	-	-	-	-	-
CHESAPEAKE BAY ENTRANCE 36°56.3'N., 75°58.6'W.	1800	1754	1118	1225	1749	1644	1642	1482	1413	1379	1174	942	881	560	476	402	336	117	27	-	-	-	-	-	-	-	-	-
Norfolk, VA 36°50.9'N., 76°17.9'W.	1827	1781	1145	1252	1776	1671	1669	1509	1440	1406	1201	969	908	587	503	429	363	144	-	-	-	-	-	-	-	-	-	-
Diamond Shoals 35°08.0'N., 75°15.0'W.	1683	1637	1001	1114	1632	1527	1525	1365	1296	1262	1057	825	764	443	359	285	219	-	-	-	-	-	-	-	-	-	-	-
Wilmington, NC 34°14.0'N., 77°57.0'W.	1655	1609	904	1153	1535	1430	1428	1268	1199	1165	960	728	667	315	227	151	-	-	-	-	-	-	-	-	-	-	-	-
Charleston, SC 32°47.2'N., 79°55.2'W.	1609	1563	809	1138	1440	1335	1333	1173	1104	1070	865	633	572	197	102	-	-	-	-	-	-	-	-	-	-	-	-	-
Savannah, GA 32°05.0'N., 81°05.7'W.	1610	1564	780	1156	1411	1306	1304	1144	1075	1041	836	604	543	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jacksonville, FL 30°19.2'N., 81°39.0'W.	1559	1513	699	1121	1330	1225	1223	1063	994	960	755	523	462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Key West, FL 24°33.7'N., 81°48.5'W.	1106	1060	251	966	880	775	773	613	544	510	305	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STRAITS OF FLORIDA 24°25.0'N., 83°00.0'W.	1047	1001	192	1017	807	702	700	540	471	437	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tampa, FL 27°56.5'N., 82°26.7'W.	1259	1213	404	1249	810	703	697	502	389	347	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pensacola, FL 30°24.0'N., 87°13.0'W.	1388	1342	533	1448	618	509	504	288	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobile, AL 30°42.5'N., 88°02.5'W.	1417	1371	562	1448	605	496	491	269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW ORLEANS (via SW Pass) 29°57.0'N., 90°03.7'W.	1442	1396	587	1557	555	446	441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Arthur, TX 29°19.0'N., 94°47.0'W.	1533	1487	691	1717	249	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Galveston, TX 27°48.8'N., 97°24.0'W.	1539	1493	696	1719	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corpus Christi, TX 18°27.8'N., 66°06.7'W.	1595	1549	769	1824	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Juan, PR 18°27.8'N., 66°06.7'W.	1036	990	1111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YUCATAN CHANNEL 21°50.0'N., 85°03.0'W.	855	809	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Panama Canal (Atlantic) 9°23.5'N., 79°55.3'W.	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PANAMA CANAL (Pacific) 8°53.0'N., 79°31.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All tabular distances are by outside routes which can be used by the deepest-draft vessel that the listed ports can accommodate. Lighter-draft vessels can save considerable mileage by transiting Canso Lock (Canada), the Cape Cod Canal (Massachusetts), and the Chesapeake and Delaware Canal (Delaware-Maryland); see the detailed tables. Gulf of Mexico distances are through the Shipping Safety Fairways.

\* For Quebec City, Canada - subtract 139 miles

**GULF OF MAINE DISTANCES**  
**CALAIS, MAINE to CAPE COD, MASSACHUSETTS**  
 (Nautical Miles)

	Nantucket Shoals	Provincetown, ME	Cape Cod Canal E. Entrance	Plymouth, MA	Scituate, MA	Boston, MA	Lynn, MA	Marblehead, MA	Salem, MA	Gloucester, MA	Rockport, MA	Newburyport, MA	Portsmouth, NH	York Harbor, ME	Portland, ME	Augusta, ME	Bath, ME	Wiscasset, ME	Boothbay Harbor, ME	Bangor, ME	Bucksport, ME	Searsport, ME	Rockland, ME	Stonington, ME	Buck Harbor, ME	Bar Harbor, ME	Jonesport, ME	Machiasport, ME	Lubec, ME	Eastport, ME rt.	Calais, ME	
Calais, ME 45° 11.4'N., 67° 16.7'W.	312	258	270	268	259	265	261	251	252	245	236	241	230	222	198	214	187	189	168	176	159	152	145	118	125	98	66	61	26	24	-	
Eastport, ME 44° 54.3'N., 66° 59.0'W.	297	243	255	253	244	250	246	236	237	230	221	226	216	208	183	200	173	175	153	162	145	137	130	102	109	83	42	46	3	-	-	
Lubec, ME 44° 51.7'N., 66° 59.0'W.	286	232	244	242	233	239	235	225	226	219	210	215	204	196	172	188	161	162	142	150	133	126	118	91	98	72	40	35	-	-	-	
Machiasport, ME 44° 41.9'N., 67° 23.6'W.	271	214	226	224	215	221	217	207	208	200	192	197	186	178	153	169	142	144	123	132	115	107	100	73	80	52	20	-	-	-	-	
Jonesport, ME 44° 31.6'N., 67° 37.0'W.	257	197	209	206	196	203	198	188	189	182	173	178	167	159	135	149	122	124	105	113	96	89	82	53	60	34	-	-	-	-	-	
Bar Harbor, ME 44° 23.5'N., 68° 12.0'W.	243	179	190	188	177	184	179	169	170	163	154	159	148	140	115	130	103	105	86	94	77	70	62	33	39	-	-	-	-	-	-	
Buck Harbor, ME 44° 20.3'N., 68° 44.2'W.	237	165	176	174	159	162	157	148	149	138	131	137	123	114	85	94	67	68	57	39	22	16	22	16	-	-	-	-	-	-	-	-
Stonington, ME 44° 09.2'N., 68° 39.8'W.	226	155	165	163	155	158	153	143	145	133	126	132	119	109	81	90	63	64	53	47	30	24	20	-	-	-	-	-	-	-	-	-
Rockland, ME 44° 06.0'N., 69° 05.5'W.	223	148	160	155	142	147	142	132	133	126	115	118	107	99	71	86	59	62	42	50	33	23	-	-	-	-	-	-	-	-	-	-
Searsport, ME 44° 27.0'N., 68° 54.0'W.	242	166	178	174	161	166	161	151	152	145	134	137	126	118	90	105	78	80	61	30	13	-	-	-	-	-	-	-	-	-	-	-
Bucksport, ME 44° 34.3'N., 68° 48.0'W.	250	175	187	182	169	174	169	159	160	153	143	145	135	126	98	113	86	89	70	17	-	-	-	-	-	-	-	-	-	-	-	-
Bangor, ME 44° 47.7'N., 68° 46.3'W.	267	192	204	199	186	191	186	176	177	170	160	162	151	144	115	131	104	106	87	-	-	-	-	-	-	-	-	-	-	-	-	-
Boothbay Harbor, ME 43° 51.0'N., 69° 37.6'W.	207	119	130	125	112	115	110	101	102	95	84	86	74	64	36	50	23	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wiscasset, ME 43° 59.5'N., 69° 40.1'W.	217	127	139	133	120	123	118	109	110	103	92	94	82	72	44	57	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bath, ME 43° 54.5'N., 69° 48.7'W.	213	123	137	129	115	119	114	104	105	98	88	89	78	67	40	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Augusta, ME 44° 18.9'N., 69° 46.4'W.	240	150	164	156	142	146	141	131	132	125	115	116	104	94	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portland, ME 43° 39.4'N., 70° 14.7'W.	203	107	118	112	97	100	95	86	87	79	66	67	56	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Harbor, ME 43° 07.9'N., 70° 38.6'W.	182	75	83	75	60	63	58	48	49	42	29	25	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portsmouth, NH 43° 04.6'N., 70° 44.5'W.	180	73	81	73	58	61	56	46	47	40	27	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newburyport, MA 42° 48.8'N., 70° 52.4'W.	171	63	72	64	48	51	47	37	38	31	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockport, MA 42° 40.0'N., 70° 36.5'W.	157	49	58	50	34	37	33	23	24	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gloucester, MA 42° 36.6'N., 70° 39.6'W.	155	45	52	43	26	26	22	11	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Salem, MA 42° 31.3'N., 70° 52.5'W.	159	49	53	45	24	27	18	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marblehead, MA 42° 30.2'N., 70° 50.7'W.	156	45	48	39	22	19	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lynn, MA 42° 22.3'N., 70° 56.6'W.	159	47	48	40	22	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boston, MA 42° 22.0'N., 71° 03.0'W.	163	49	52	40	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scituate, MA 42° 11.9'N., 70° 43.5'W.	143	29	29	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plymouth, MA 41° 57.6'N., 70° 39.8'W.	144	26	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAPE COD CANAL E. ENT. 41° 46.8'N., 70° 29.0'W.	144	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Provincetown, ME 42° 02.5'N., 70° 10.0'W.	132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NANTUCKET SHOALS 40° 30.0'N., 69° 25.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Each distance is by the shortest route that safe navigation permits between the two ports concerned. Vessels standing along the coast must make their own adjustments for non-direct routes. For example, the table shows a distance of 214 miles by direct route from Machiasport to Provincetown; the distance via Matineus Rock and Cape Ann is 235 miles. Distances from Eastport to Machiasport and other ports southward are via deep Head Harbor Passage, which is 8 miles farther than via shallow Lubec Channel.

**COASTWISE DISTANCES**  
**CAPE COD, MA, to NEW YORK, NY**  
(Nautical Miles)

	Port Newark, NJ	Elizabethport, NJ	Perth Amboy, NJ	New York City, NY	Montauk Point, NY	Port Jefferson, NY	Greenport, NY	Sag Harbor, NY	Montauk, NY	Stamford, CT	South Norwalk, CT	Bridgeport, CT	Stratford, CT	New Haven, CT	Hartford, CT	New London, CT	Stonington, CT	Great Salt Pond, RI	Providence, RI	Fall River, MA	Newport, RI	New Bedford, MA	Woods Hole, MA	Vineyard Haven, MA	Nantucket, MA	Nantucket Shoals, MA	Cape Cod Canal E. Ent.
CAPE COD CANAL E ENT. 41°46.8'N., 70°29.0'W.	193	191	202	182	76	134	99	100	85	152	151	138	132	127	140	89	77	66	74	69	54	31	22	43	69	144	-
NANTUCKET SHOALS, MA 40°30.0'N., 69°25.0'W.	227	225	223	223	113	178	142	143	127	196	195	182	176	171	187	136	126	114	131	126	111	111	92	88	85	-	-
Nantucket, MA 41°17.2'N., 70°05.7'W.	208	206	216	196	89	149	113	114	99	167	166	153	147	140	155	103	92	80	91	77	71	53	33	29	-	-	-
Vineyard Haven, MA 41°27.3'N., 70°35.8'W.	183	181	191	171	63	123	87	88	74	141	140	127	121	114	129	77	67	54	65	51	45	28	7	-	-	-	-
Woods Hole, MA 41°31.4'N., 70°40.4'W.	178	176	186	166	59	118	82	83	69	136	135	123	117	109	125	72	61	50	57	44	38	15	-	-	-	-	-
New Bedford, MA 41°38.1'N., 70°55.1'W.	178	176	186	166	60	118	80	81	66	136	135	122	113	111	124	74	58	48	58	54	38	-	-	-	-	-	-
Newport, RI 41°29.8'N., 71°19.8'W.	151	149	159	139	35	91	56	57	42	109	108	95	90	84	98	48	34	23	21	16	-	-	-	-	-	-	-
Fall River, MA 41°42.4'N., 71°09.8'W.	166	164	174	154	51	107	71	72	58	125	124	110	105	100	113	63	49	38	21	-	-	-	-	-	-	-	-
Providence, RI 41°48.5'N., 71°24.0'W.	171	169	179	159	56	112	76	77	63	130	129	115	110	105	118	68	55	43	-	-	-	-	-	-	-	-	-
Great Salt Pond, RI 41°11.1'N., 71°34.9'W.	133	131	141	121	15	74	37	39	23	92	91	78	72	65	80	29	19	-	-	-	-	-	-	-	-	-	-
Stonington, CT 41°19.9'N., 71°54.6'W.	121	119	129	109	19	61	28	29	18	79	77	64	59	52	66	12	-	-	-	-	-	-	-	-	-	-	-
New London, CT 41°21.4'N., 72°05.4'W.	116	114	124	104	28	56	25	27	20	74	73	60	54	49	62	-	-	-	-	-	-	-	-	-	-	-	-
Hartford, CT 41°45.0'N., 72°39.0'W.	143	141	151	131	75	84	62	64	66	102	101	86	81	74	-	-	-	-	-	-	-	-	-	-	-	-	-
New Haven, CT 41°17.4'N., 72°54.5'W.	80	78	88	68	62	23	47	49	51	37	36	25	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stratford, CT 41°11.3'N., 73°07.3'W.	69	67	77	57	65	15	52	54	56	27	26	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport, CT 41°10.3'N., 73°10.8'W.	64	62	72	52	74	15	58	60	62	22	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Norwalk, CT 41°05.7'N., 73°24.7'W.	52	50	60	40	84	23	71	73	75	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stamford, CT 41°01.8'N., 73°32.3'W.	45	43	53	33	85	24	72	74	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montauk, NY 41°02.8'N., 71°57.5'W.	117	115	125	105	16	58	22	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sag Harbor, NY 41°00.2'N., 72°17.7'W.	115	113	123	103	32	56	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greenport, NY 41°06.0'N., 72°21.5'W.	114	112	122	102	30	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Jefferson, NY 40°57.0'N., 73°04.5'W.	64	62	72	52	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MONTAUK POINT, NY 41°01.7'N., 71°47.3'W.	126	124	123	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW YORK CITY, NY 40°42.0'N., 74°01.0'W.	12	10	20	-	-	-	Ambrose Light (40°27.5'N., 73°49.9'W.) to New York (The Battery), 20.7 miles.																				
Perth Amboy, NJ 40°30.3'N., 74°15.7'W.	15	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elizabethport, NJ 40°38.8'N., 74°11.2'W.	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Newark, NJ 40°41.8'N., 74°09.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**INSIDE-ROUTE DISTANCES**  
**SOUTH SIDE OF LONG ISLAND**  
**GREENPORT, NY, to EAST ROCKAWAY INLET, NY**  
 (Nautical Miles)

	Manasquan Inlet, NJ *	New York (The Battery) *	Rockaway Point *	East Rockaway Inlet	Long Beach	Freeport	Jones Inlet	Jones Beach	Amityville	Babylon	Fire Island Inlet	Bay Shore	Patchogue	Bellport	Moriches Inlet	Westhampton Beach	Shinnecock Inlet	Shinnecock Canal, N. end	Riverside	Sag Harbor	Greenport
Greenport 41°06.0'N., 72°21.5'W.	116	107	94	85	80	77	76	72	66	61	62	57	48	42	34	28	21	16	21	11	-
Sag Harbor 41°00.2'N., 72°17.7'W.	117	108	95	86	81	78	77	73	67	62	63	58	49	43	35	29	22	17	22	-	
Riverside 40°55.0'N., 72°39.4'W.	108	99	86	77	72	69	68	64	58	53	54	49	40	34	26	20	13	8	-		
Shinnecock Canal 40°53.9'N., 72°30.3'W.	100	91	78	69	64	61	60	56	50	45	46	41	32	26	18	12	5	-			
Shinnecock Inlet 40°50.3'N., 72°28.6'W.	97	88	75	66	61	58	58	54	47	42	44	39	29	23	15	9	-				
Westhampton Beach 40°48.2'N., 72°38.4'W.	89	80	67	58	53	49	49	45	39	34	35	30	21	15	7	-					
Moriches Inlet 40°45.8'N., 72°45.3'W.	85	76	63	54	49	46	45	42	35	30	32	27	17	11	-						
Bellport 40°45.1'N., 72°56.0'W.	75	66	53	44	38	35	35	31	24	19	21	16	6	-							
Patchogue 40°45.5'N., 73°01.2'W.	72	63	50	41	36	32	32	28	22	17	18	13	-								
Bay Shore 40°42.8'N., 73°14.2'W.	60	51	38	29	24	21	21	17	10	5	9	-									
Fire Island Inlet 40°37.8'N., 73°18.6'W.	60	51	38	29	24	21	20	16	12	8	-										
Babylon 40°41.2'N., 73°18.9'W.	57	48	35	26	21	18	17	13	6	-											
Amityville 40°39.6'N., 73°24.8'W.	51	42	29	20	15	12	11	7	-												
Jones Beach 40°36.2'N., 73°30.8'W.	44	35	22	13	8	4	4	-													
Jones Inlet 40°34.4'N., 73°34.9'W.	41	32	19	10	5	4	-														
Freeport 40°37.6'N., 73°34.9'W.	42	33	20	11	6	-															
Long Beach 40°35.7'N., 73°39.4'W.	36	27	14	5	-																
East Rockaway 40°34.9'N., 73°45.4'W.	31	22	9	-																	
Rockaway Point * 40°32.4'N., 73°56.5'W.	27	13	-																		
NEW YORK (THE BATTERY) * 40°42.0'N., 74°01.0'W.	40	-																			
Manasquan Inlet, NJ * 40°06.1'N., 74°01.9'W.	-																				

\* Outside distances westward of East Rockaway Inlet

## DISTANCES ON HUDSON RIVER

### NEW YORK, NY, to TROY LOCK, NY

(Nautical Miles)

	Troy Lock	Watervliet	Troy	Rensselaer	Albany	Coeymans	Coxsackie	Athens	Hudson	Catskill	Saugerties	Kingston	Hyde Park	Poughkeepsie	Newburgh	West Point	Peekskill	Haverstraw	Ossining	Nyack	Tarrytown	Yonkers	New York (The Battery)
NEW YORK (THE BATTERY) 40°42.0'N., 74°01.0'W.	134	132	132	126	126	115	108	102	102	99	89	80	71	66	53	45	38	33	29	25	24	16	-
Yonkers 40°56.1'N., 73°54.3'W.	118	116	116	110	110	100	93	86	86	83	74	64	55	50	37	29	23	18	14	10	9	-	-
Tarrytown 41°04.7'N., 73°52.2'W.	110	108	108	102	102	92	85	78	78	75	66	56	47	42	29	21	15	9	6	2	-	-	-
Nyack 41°05.4'N., 73°54.9'W.	110	108	108	102	102	92	85	78	78	75	66	57	48	43	29	22	15	10	6	-	-	-	-
Ossining 41°09.6'N., 73°52.3'W.	106	104	104	98	98	88	80	74	74	71	62	52	43	38	25	17	11	5	-	-	-	-	-
Haverstraw 41°11.8'N., 73°57.5'W.	102	100	100	94	94	84	76	70	70	67	58	48	39	34	21	13	6	-	-	-	-	-	-
Peekskill 41°17.3'N., 73°56.0'W.	96	94	94	88	88	78	71	64	64	61	52	43	34	29	15	8	-	-	-	-	-	-	-
West Point 41°23.1'N., 73°57.3'W.	89	87	87	81	81	70	63	57	57	54	45	35	26	21	8	-	-	-	-	-	-	-	-
Newburgh 41°30.1'N., 74°00.3'W.	81	79	79	73	73	62	55	49	49	46	37	27	18	13	-	-	-	-	-	-	-	-	-
Poughkeepsie 41°42.3'N., 73°56.5'W.	68	66	66	60	60	49	42	36	36	33	24	14	5	-	-	-	-	-	-	-	-	-	-
Hyde Park 41°47.3'N., 73°56.9'W.	63	61	61	55	55	44	37	31	31	28	19	9	-	-	-	-	-	-	-	-	-	-	-
Kingston 41°55.1'N., 73°59.0'W.	56	54	54	48	48	38	30	24	24	21	12	-	-	-	-	-	-	-	-	-	-	-	-
Saugerties 42°04.4'N., 73°56.7'W.	46	44	44	38	38	28	21	14	14	11	-	-	-	-	-	-	-	-	-	-	-	-	-
Catskill 42°13.0'N., 73°52.1'W.	37	35	35	29	29	19	11	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hudson 42°15.3'N., 73°48.1'W.	32	30	30	24	24	14	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Athens 42°15.6'N., 73°48.5'W.	32	30	30	24	24	14	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coxsackie 42°21.0'N., 73°47.6'W.	26	24	24	18	18	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coeymans 42°28.5'N., 73°47.4'W.	18	16	16	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Albany 42°37.9'N., 73°45.3'W.	8	6	6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rensselaer 42°37.9'N., 73°45.1'W.	8	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Troy 42°43.7'N., 73°41.8'W.	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Watervliet 42°43.7'N., 73°41.9'W.	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Troy Lock 41°45.1'N., 73°41.1'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**COASTWISE DISTANCE**  
**NEW YORK, NY, to CHESAPEAKE BAY ENTRANCE, VA**  
 (Nautical Miles)

	Chesapeake Bay Ent.	Chincoteague, VA	Ocean City, MD	Indian Riv. Inlet, DE	Trenton, NJ	Fmr. US Steel Basin, PA	Philadelphia, PA	Chester, PA	Marcus Hook, PA	Wilmington, DE	C & D Canal East Ent.	Harbor of Refuge, DE	Deleware Bay Ent.	Cape May Harbor, NJ	Atlantic City, NJ	Barnegat Inlet, NJ	Manasquan Inlet, NJ	New York, NY	Montauk Point, NY	Nantucket Shoals
NANTUCKET SHOALS 40°30.0'N., 69°25.0'W.	381	328	295	285	400	395	372	356	353	347	336	285	285	271	242	221	212	223	113	-
MONTAUK POINT, NY 41°01.7'N., 71°47.3'W.	322	262	227	209	327	322	299	283	280	274	263	212	212	192	159	131	117	122	-	-
NEW YORK, NY 40°42.0'N., 74°01.0'W.	267	201	161	145	268	263	240	224	221	215	204	153	153	128	94	63	40	-	-	-
Manasquan Inlet, NJ 40°06.9'N., 72°30.3'W.	219	161	121	105	212	207	184	169	165	159	148	98	97	85	52	22	-	-	-	-
Barnegat Inlet, NJ 39°46.0'N., 74°06.3'W.	199	141	101	86	193	188	165	150	146	140	129	79	78	65	32	-	-	-	-	-
Atlantic City, NJ 39°22.6'N., 74°24.9'W.	171	113	73	57	164	159	136	121	117	111	100	50	49	37	-	-	-	-	-	-
Cape May Harbor, NJ 38°57.1'N., 74°52.6'W.	141	80	40	24	131	126	103	88	84	78	67	17	16	-	-	-	-	-	-	-
DELAWARE BAY ENTRANCE 38°50.5'N., 75°03.3'W.	155	72	32	15	115	110	87	72	68	62	51	2	-	-	-	-	-	-	-	-
Harbor of Refuge, DE 38°49.0'N., 75°05.2'W.	155	71	31	14	116	111	88	73	69	63	52	-	-	-	-	-	-	-	-	-
C&D CANAL EAST ENT. 39°33.8'N., 75°32.8'W.	206	123	83	66	64	59	36	21	17	11	-	-	-	-	-	-	-	-	-	-
Wilmington, DE 39°43.2'N., 75°31.5'W.	218	134	95	77	54	49	26	11	8	-	-	-	-	-	-	-	-	-	-	-
Marcus Hook, PA 39°48.2'N., 75°25.2'W.	224	140	101	83	46	41	18	3	-	-	-	-	-	-	-	-	-	-	-	-
Chester, PA 39°50.0'N., 75°22.0'W.	227	144	104	86	43	38	15	-	-	-	-	-	-	-	-	-	-	-	-	-
Philadelphia, PA 39°56.8'N., 75°08.3'W.	242	159	119	101	28	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Former US Steel Basin, PA 40°08.2'N., 74°45.3'W.	265	182	142	124	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenton, NJ 40°37.6'N., 73°34.9'W.	270	187	147	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indian River Inlet, DE 38°36.5'N., 75°03.6'W.	118	60	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ocean City, MD 38°19.6'N., 75°05.6'W.	100	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chincoteague, VA 37°56.1'N., 75°22.8'W.	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHESAPEAKE BAY ENTRANCE 40°42.0'N., 74°01.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ambrose Light (40°27.0'N., 73°48.0'W.) To New York, 28 miles.  
 Five Fathom Bank Lighted Buoy F (38°46.8'N., 74°34.5'W.) To Philadelphia, 111 miles.  
 Delaware Lighted Buoy D (38°27.3'N., 74°41.8'W.) To Philadelphia, 116 miles.  
 Chesapeake Light (36°54.3'N., 75°42.8'W.) To Norfolk, 42 miles; to Baltimore, 165 miles.

## DISTANCES BY INTRACOASTAL WATERWAY MANASQUAN INLET, NJ, to CAPE MAY CANAL, NJ

(Nautical Miles)

	C & D Canal E. Ent.	Cape May Canal W. Ent.	Cape May Harbor	Wildwood	Stone Harbor	Avalon	Sea Isle City	Ocean City	Mays Landing	Atlantic City	Beach Haven	Barnegat Inlet	Forked River (town)	Seaside Park	Toms River (town)	Mantoloking	Bay Head	Manasquan Inlet	Shark River Inlet*	New York, NY
NEW YORK, NY (THE BATTERY) 40°42.0'N., 74°01.0'W.	190	142	138	133	128	123	119	108	124	97	79	66	63	54	58	46	44	40	34	-
Shark River Inlet* 40°11.2'N., 74°00.5'W.	156	108	103	99	94	89	85	74	90	62	45	32	29	20	23	11	9	6	-	-
Manasquan Inlet 40°06.1'N., 74°01.9'W.	150	102	98	93	88	83	79	68	84	57	39	26	23	14	18	6	4	-	-	-
Bay Head 40°03.8'N., 74°03.1'W.	146	98	94	89	85	79	76	64	80	53	35	22	19	10	14	2	-	-	-	-
Mantoloking 40°02.2'N., 74°03.4'W.	144	96	92	88	83	77	74	63	79	51	33	20	17	9	12	-	-	-	-	-
Toms River (town) 39°56.9'N., 74°11.8'W.	142	94	90	86	81	75	72	60	77	49	31	18	15	7	-	-	-	-	-	-
Seaside Park 39°55.3'N., 74°05.0'W.	137	89	85	80	75	70	66	55	71	44	26	13	10	-	-	-	-	-	-	-
Forked River (town) 39°50.1'N., 74°11.7'W.	132	84	80	75	70	65	61	50	66	39	21	8	-	-	-	-	-	-	-	-
Barnegat Inlet 39°46.0'N., 74°06.3'W.	131	83	79	74	69	64	60	49	65	38	20	-	-	-	-	-	-	-	-	-
Beach Haven 39°34.0'N., 74°14.8'W.	111	63	59	54	49	44	40	29	45	18	-	-	-	-	-	-	-	-	-	-
Atlantic City 39°22.6'N., 74°24.9'W.	95	47	43	39	34	28	25	13	30	-	-	-	-	-	-	-	-	-	-	-
Mays Landing 39°26.9'N., 74°43.4'W.	100	52	47	43	38	33	29	18	-	-	-	-	-	-	-	-	-	-	-	-
Ocean City 39°17.3'N., 74°34.4'W.	82	34	30	25	20	15	11	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea Isle City 39°09.4'N., 74°42.0'W.	71	23	18	14	9	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Avalon 39°06.6'N., 74°44.0'W.	67	19	15	10	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stone Harbor 39°03.4'N., 74°46.0'W.	62	14	9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wildwood 39°00.5'N., 74°49.8'W.	57	9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape May Harbor 38°57.1'N., 74°52.6'W.	52	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape May Canal W. Ent. 38°58.0'N., 74°58.0'W.	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C & D CANAL EAST ENTRANCE 39°33.8'N., 75°32.8'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Outside distances between New York and Manesquan Inlet.





## CHESAPEAKE BAY DISTANCES

(Nautical Miles)

	Chesapeake Bay Entrance	Norfolk, VA	Richmond, VA	Petersburg, VA	Hopewell, VA	Suffolk, VA	Newport News, VA	West Point, VA	Yorktown, VA	Cape Charles, VA	Fredericksburg, VA	Crisfield, MD	Washington, DC	Potomac River mouth	Salisbury, MD	Cambridge, MD	Cambridge, MD	St. Michaels, MD	Annapolis, MD	Chestertown, MD	Baltimore, MD	Havre de Grace, MD	Chesapeake City, MD	C & D Canal, East Entrance
C & D CANAL, EAST ENTRANCE 39°33.8'N., 75°32.8'W.	187	209	284	259	265	209	207	214	192	169	243	134	213	122	143	103	98	83	65	78	62	33	13	-
Chesapeake City, MD 39°31.8'N., 75°48.9'W.	174	196	271	246	252	196	194	201	179	156	230	121	200	109	130	90	85	70	52	65	49	20	-	-
Havre de Grace, MD 39°32.7'N., 76°05.0'W.	166	175	249	240	230	190	172	185	163	149	224	115	192	101	124	84	78	62	45	61	41	-	-	-
Baltimore, MD 39°16.0'N., 79°34.5'W.	150	173	247	222	228	172	170	174	155	132	206	98	175	84	107	66	60	45	28	45	-	-	-	-
Chestertown, MD 39°12.4'N., 76°03.8'W.	162	170	244	235	225	185	167	178	156	146	219	110	187	96	119	78	72	59	40	-	-	-	-	-
Annapolis, MD 38°59.0'N., 76°28.6'W.	129	140	213	204	194	152	136	152	130	112	186	77	155	64	86	45	39	25	-	-	-	-	-	-
St. Michaels, MD 38°47.2'N., 76°13.2'W.	132	141	215	206	196	156	138	149	126	116	190	80	156	65	89	48	36	-	-	-	-	-	-	-
Cambridge, MD 38°34.4'N., 76°04.3'W.	123	132	206	197	187	147	129	140	117	107	182	72	149	58	81	39	-	-	-	-	-	-	-	-
Solomons, MD 39°19.2'N., 76°27.4'W.	92	100	174	165	155	115	97	109	87	76	150	42	118	27	51	-	-	-	-	-	-	-	-	-
Salisbury, MD 38°21.9'N., 75°36.3'W.	103	113	187	178	168	128	110	122	100	87	165	43	141	49	-	-	-	-	-	-	-	-	-	-
Potomac River mouth 37°57.7'N., 76°16.7'W.	67	89	163	137	144	89	86	90	68	50	125	27	96	-	-	-	-	-	-	-	-	-	-	-
Washington, DC 38°52.4'N., 77°01.4'W.	163	185	259	233	240	185	182	186	164	146	221	121	-	-	-	-	-	-	-	-	-	-	-	-
Crisfield, MD 37°58.6'N., 75°51.9'W.	67	77	151	142	132	92	74	86	64	51	129	-	-	-	-	-	-	-	-	-	-	-	-	-
Fredericksburg, VA 38°17.8'N., 77°27.2'W.	136	146	220	211	201	161	143	154	132	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape Charles, VA 37°15.9'N., 76°01.4'W.	21	32	106	97	88	48	29	50	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yorktown, VA 37°14.4'N., 76°30.5'W.	34	58	132	101	114	55	55	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Point, VA 37°31.6'N., 76°48.1'W.	56	66	140	123	122	78	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newport News, VA 36°58.0'N., 76°26.0'W.	24	12	77	68	58	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suffolk, VA 36°44.3'N., 76°35.0'W.	42	29	98	89	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hopewell, VA 37°19.0'N., 77°16.4'W.	82	70	19	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petersburg, VA 37°14.1'N., 77°24.0'W.	92	80	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Richmond, VA 37°31.4'N., 77°25.2'W.	101	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norfolk, VA 36°50.9'N., 76°17.9'W.	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHESAPEAKE BAY ENTRANCE 36°56.3'N., 75°58.6'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## POTOMAC RIVER DISTANCES

(Nautical Miles)

	Chain Bridge	Key Bridge	Washington, DC	Bladensburg, MD	Alexandria, VA	Mount Vernon, VA	Indian Head, MD	Occoquan, VA	Quantico, VA	Potomac R. (US 301) Bridge	Dahlgren, VA	Colonial Beach, VA	Wicomico River mouth, MD	Breton Bay Entrance, MD	Nomini Bay, VA	Lower MachodocCreek, VA	Piney Point, MD	Yeocomico River mouth, VA	St. Marys River mouth, MD	Smith Creek mouth, MD	Coan River mouth, VA	Potomac River mouth
Potomac River mouth 37°57.7'N., 76°16.7'W.	101	98	96	101	91	84	76	80	68	44	43	38	31	26	27	23	16	13	12	11	11	-
Coan River mouth, VA 37°59.7'N., 76°27.1'W.	96	93	90	96	86	79	70	75	63	38	37	33	26	22	22	18	11	6	8	17	-	-
Smith Creek mouth, MD 38°05.8'N., 76°24.0'W.	95	92	89	95	85	78	69	74	62	37	36	32	25	21	21	17	10	8	3	-	-	-
St. Marys River mouth 38°06.2'N., 76°26.3'W.	93	90	87	93	83	76	68	72	60	35	34	30	23	19	19	15	8	7	-	-	-	-
Yeocomico River mouth, VA 38°02.1'N., 76°31.0'W.	94	91	88	94	84	76	68	72	61	36	35	31	24	19	20	16	9	-	-	-	-	-
Piney Point, MD 38°08.0'N., 76°32.0'W.	85	82	80	85	75	68	60	64	52	28	27	22	15	11	11	7	-	-	-	-	-	-
Lower MachodocCreek, VA 38°08.5'N., 76°39.1'W.	80	77	75	80	70	63	55	59	47	22	21	17	10	6	5	-	-	-	-	-	-	-
Nomini Bay, VA 38°08.6'N., 76°43.4'W.	78	75	72	78	68	60	52	57	45	20	19	15	8	6	-	-	-	-	-	-	-	-
Breton Bay Entrance, MD 38°14.0'N., 76°41.8'W.	79	76	74	79	69	62	54	58	46	21	20	16	9	-	-	-	-	-	-	-	-	-
Wicomico River mouth, MD 38°14.5'N., 76°49.1'W.	71	68	66	71	61	53	45	50	38	13	12	9	-	-	-	-	-	-	-	-	-	-
Colonial Beach, VA 38°14.4'N., 76°57.9'W.	68	65	63	68	58	51	43	47	35	11	10	-	-	-	-	-	-	-	-	-	-	-
Dahlgren, VA 38°19.1'N., 77°02.1'W.	63	60	58	63	53	46	38	42	30	6	-	-	-	-	-	-	-	-	-	-	-	-
Potomac R. (US 301) Bridge 38°21.7'N., 76°59.4'W.	58	55	52	58	48	40	32	36	24	-	-	-	-	-	-	-	-	-	-	-	-	-
Quantico, VA 38°31.2'N., 76°17.2'W.	33	30	28	34	24	16	8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occoquan, VA 38°41.0'N., 77°15.4'W.	33	30	27	33	23	15	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indian Head, MD 38°36.4'N., 77°10.0'W.	26	23	20	26	16	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mount Vernon, VA 38°42.3'N., 77°05.3'W.	19	16	13	19	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alexandria, VA 38°48.2'N., 77°02.3'W.	10	7	4	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bladensburg, MD 38°56.1'N., 76°56.4'W.	14	11	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington, DC 38°52.4'N., 77°01.4'W.	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Key Bridge 38°54.1'N., 77°04.2'W.	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chain Bridge 38°55.7'N., 77°07.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## COASTWISE DISTANCES NORFOLK, VA, to KEY WEST, FL

(Nautical Miles)

	Straits of Florida	Key West, FL	Miami, FL	Port Everglades, FL	Port of Palm Beach, FL	Stuart, FL	Fort Pierce, FL	Cape Canaveral, FL	St. Augustine, FL	Jacksonville, FL	Fernandina Beach, FL	Brunswick, GA	Savannah, GA	Port Royal, SC	Charleston, SC	Georgetown, SC	Wilmington, NC	Southport, NC	Morehead City, NC	Diamond Shoals, NC	Norfolk, VA	Chesapeake Bay Entrance
CHESAPEAKE BAY ENTRANCE 36°56.3'N., 75°58.6'W.	942	881	743	720	678	666	647	612	557	560	533	527	476	465	402	365	336	315	222	117	27	-
Norfolk, VA 46°50.9'N., 76°17.9'W.	969	908	770	747	705	693	674	639	584	587	560	554	503	492	429	392	363	342	249	144	-	-
Diamond Shoals, NC 35°08.0'N., 75°15.0'W.	825	764	626	603	561	549	530	495	440	443	416	410	359	348	285	248	219	198	105	-	-	-
Morehead City, NC 34°42.8'N., 76°41.8'W.	772	711	573	550	509	497	476	438	377	379	352	346	295	284	220	184	154	133	-	-	-	-
Southport, NC 33°54.8'N., 78°01.0'W.	707	646	508	485	443	423	407	367	296	294	265	260	206	191	130	87	21	-	-	-	-	-
Wilmington, NC 34°14.0'N., 77°57.0'W.	728	667	529	506	464	444	428	388	317	315	286	281	227	212	151	108	-	-	-	-	-	-
Georgetown, SC 33°21.4'N., 79°16.9'W.	671	610	472	449	407	391	368	324	246	247	216	210	154	141	79	-	-	-	-	-	-	-
Charleston, SC 32°47.2'N., 79°55.2'W.	633	572	434	411	369	353	329	283	199	197	166	156	102	90	-	-	-	-	-	-	-	-
Port Royal, SC 32°22.3'N., 80°41.6'W.	605	544	406	383	341	324	298	251	157	152	120	110	51	-	-	-	-	-	-	-	-	-
Savannah, GA 32°05.0'N., 81°05.7'W.	604	543	405	382	340	324	298	251	152	145	115	104	-	-	-	-	-	-	-	-	-	-
Brunswick, GA 31°08.0'N., 81°29.7'W.	549	488	350	327	285	268	242	195	90	82	50	-	-	-	-	-	-	-	-	-	-	-
Fernandina Beach, FL 30°40.3'N., 81°28.0'W.	526	465	327	304	262	242	216	169	61	53	-	-	-	-	-	-	-	-	-	-	-	-
Jacksonville, FL 30°19.2'N., 81°39.0'W.	523	462	324	301	259	240	214	167	56	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Augustine, FL 29°53.6'N., 81°18.5'W.	475	414	276	253	211	192	167	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape Canaveral, FL 28°24.6'N., 80°36.5'W.	374	313	175	152	110	91	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fort Pierce, FL 27°27.5'N., 80°19.3'W.	316	255	117	94	52	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stuart, FL 27°12.2'N., 80°15.6'W.	300	239	101	78	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port of Palm Beach, FL 26°46.1'N., 80°03.0'W.	267	207	68	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Everglades, FL 26°05.6'N., 80°07.0'W.	226	165	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miami, FL 25°47.0'N., 80°11.0'W.	211	151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Key West, FL 24°33.7'N., 81°48.5'W.	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STRAITS OF FLORIDA 24°25.0'N., 83°00.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

### INSIDE-ROUTE DISTANCES NORFOLK, VA, TO FERNANDINA BEACH, FL (Nautical and Statute Miles)

	Fernandina Beach, FL	Brunswick, GA	Thunderbolt, GA	Savannah, GA	Beaufort, SC	Charleston, SC	McClellanville, SC	Georgetown, SC	Bucksport, SC	Little River, SC	Southport, NC	Wilmington, NC	Wrightsville, NC	Jacksonville, NC	Swansboro, NC	Morehead City, NC	Beaufort, NC	New Bern, NC	Oriental, NC	Ocracoke, NC	Washington, NC	Belhaven, NC	Manteo, NC	Plymouth, NC	Edenton, NC	Columbia, NC	Herford, NC	Elizabeth City, NC	Norfolk, VA
Norfolk, VA 36°50.9N., 76°17.9W.	717	685	583	585	536	467	430	405	377	344	308	314	283	266	230	205	204	207	184	151	180	138	92	121	113	102	102	89*	-
Elizabeth City, NC 36°18.1N., 76°13.0W.	669	636	535	536	488	419	382	358	329	296	260	266	235	217	182	157	154	160	136	105	131	91	45	64	55	45	45	-	77*
Herford, NC 36°11.6N., 76°28.0W.	670	638	535	537	489	421	383	358	330	298	261	267	236	219	184	158	158	160	137	112	132	91	53	48	40	30	-	39	89
Columbia, NC 35°55.0N., 76°15.4'	669	636	535	536	488	419	382	357	329	296	260	266	235	217	182	157	157	159	136	110	131	90	52	38	29	-	26	39	89
Edenton, NC 35°03.3N., 76°36.6W.	678	647	545	547	497	429	391	366	338	306	270	276	245	227	191	167	166	168	145	120	142	100	62	16	-	25	35	48	98
Plymouth, NC 35°51.8N., 76°45.6W.	688	656	555	556	508	438	402	376	349	315	280	285	254	237	201	175	175	178	154	130	150	109	70	-	14	33	42	56	105
Manteo, NC 35°54.6N., 75°40.2'	639	606	505	506	457	388	352	326	299	267	231	236	205	186	152	127	127	127	105	70	121	81	-	61	54	45	46	39	80
Belhaven, NC 35°32.1N., 76°37.4W.	582	551	450	451	402	334	296	270	243	211	175	181	150	131	96	70	70	72	49	49	45	-	70	95	87	78	79	79	120
Washington, NC 35°32.6N., 77°03.7W.	597	565	464	465	417	348	311	285	258	224	189	194	163	146	110	85	85	87	64	69	-	39	105	130	123	114	115	114	156
Ocracoke, NC 35°06.8N., 75°59.1W.	580	549	448	449	399	331	293	268	241	208	173	178	147	129	93	68	68	71	47	-	60	43	61	113	104	96	97	91	131
Oriental, NC 35°01.5N., 76°41.8W.	537	506	405	406	357	289	251	226	198	166	130	136	105	86	51	25	25	26	-	41	56	43	91	134	126	118	119	118	160
New Bern, NC 35°06.1N., 77°02.1W.	557	525	423	425	376	307	270	245	216	184	148	154	123	105	69	44	44	-	23	62	76	63	110	155	146	138	139	139	180
Beaufort, NC 34°43.1N., 76°40.2W.	514	483	382	383	334	266	229	203	175	143	107	112	81	63	28	3	-	38	22	59	74	61	110	152	144	136	137	134	177
Morehead City, NC 34°42.8N., 76°40.2W.	512	481	380	381	331	264	226	200	173	140	105	110	79	61	25	-	3	38	22	59	74	61	110	152	145	136	137	136	178
Swansboro, NC 34°41.0N., 77°07.3W.	487	456	353	356	306	238	200	175	147	115	79	84	53	36	-	22	24	60	44	81	96	83	132	175	166	158	160	158	200
Jacksonville, NC 34°44.7N., 77°26.3W.	489	457	356	357	308	239	203	177	148	116	81	86	55	-	31	53	55	91	75	112	127	114	162	206	197	189	190	189	231
Wrightsville, NC 34°13.1N., 77°48.8W.	434	402	300	302	253	184	147	122	94	61	25	31	-	48	46	69	70	107	91	128	142	130	178	221	213	204	205	204	246
Wilmington, NC 34°14.0N., 77°57.0W.	433	402	299	300	252	183	146	121	93	60	24	-	27	75	73	96	97	134	118	155	169	157	205	248	240	231	232	231	273
Southport, NC 33°54.8N., 78°01.0W.	409	376	275	276	228	159	122	97	69	36	-	21	22	70	69	91	93	129	113	150	164	152	201	243	235	226	227	226	268
Little River, SC 33°52.2N., 78°36.6W.	373	341	239	241	192	123	86	61	32	-	31	52	53	101	100	122	124	160	144	181	195	183	232	274	266	257	259	257	299
Bucksport, SC 33°39.0N., 79°05.6W.	339	308	206	208	159	91	53	28	-	28	60	81	82	129	128	150	152	188	172	209	224	211	260	303	294	286	287	286	328
Georgetown, SC 33°21.4N., 79°16.9W.	314	283	181	183	133	64	28	-	24	53	84	105	106	154	152	174	177	213	196	233	248	235	283	327	318	310	311	311	352
McClellanville, SC 33°04.7N., 79°27.6W.	287	255	153	155	106	37	-	24	46	75	106	127	128	176	174	196	199	235	218	255	270	257	306	349	340	332	333	332	374
Charleston, SC 32°47.2N., 79°55.2W.	251	220	119	120	69	-	32	56	79	107	138	159	160	208	207	229	231	267	251	288	302	290	337	381	373	364	366	364	406
Beaufort, SC 32°25.6N., 80°40.2W.	181	150	47	49	-	60	92	116	138	167	198	219	220	268	266	288	290	327	310	347	362	349	397	441	432	424	425	424	466
Savannah, GA 32°05.0N., 81°08.7W.	150	117	16	-	43	104	135	159	181	209	240	261	262	310	309	331	333	369	353	390	404	392	440	483	475	466	467	466	508
Thunderbolt, GA 32°01.5N., 81°02.8W.	133	101	-	14	41	103	133	157	179	208	239	260	261	309	307	330	332	368	352	389	403	391	439	482	474	465	466	465	507
Brunswick, GA 31°08.0N., 81°28.7W.	40	-	88	102	130	191	222	246	268	296	327	349	349	397	396	418	420	456	440	477	491	479	527	570	562	553	554	553	595
Fernandina Beach, FL 30°40.3N., 81°28.0W.	-	35	116	130	157	218	249	273	295	324	355	376	377	425	423	445	447	484	467	504	519	506	555	598	589	581	582	581	623

\* 51 statute miles/44 nautical miles via the Dismal Swamp Canal

Nautical miles on top (upright text)  
Statute miles on the bottom (shaded, slant text)

**INSIDE-ROUTE DISTANCES**  
**FERNANDINA BEACH, FL, TO KEY WEST, FL**  
 (Nautical and Statute Miles)

	Key West, FL	Flamingo, FL	Marathon, FL	Matecumbe Harbor, FL	Tavernier, FL	Miami, FL	Port Everglades, FL	Fort Lauderdale, FL	Port, Palm Beach, FL	Jupiter, FL	Fort Myers, FL	Moore Haven, FL	Clewiston, FL	Port Mayaca, FL	Stuart, FL	Salerno, FL	Fort Pierce, FL	Vero Beach, FL	Melbourne, FL	Eau Gallie, FL	Cocoa, FL	Titusville, FL	New Smyrna Beach, FL	Daytona Beach, FL	Marineland, FL	St. Augustine, FL	Jacksonville, FL	Fernandina Beach, FL	Norfolk, VA
Norfolk, VA 36°50.9'N., 76°17.9'W.	1244	1208	1203	1170	1150	1090	1067	1064	1018	1005	1122	1066	1053	1026	995	990	966	952	918	915	898	879	846	831	796	778	758	717	-
Fernandina Beach, FL 30°40.3'N., 81°28.0'W.	527	491	486	453	435	373	350	348	302	289	406	349	336	310	278	273	249	235	201	198	181	162	130	114	79	60	41	-	623
Jacksonville, FL 30°19.2'N., 81°39.0'W.	522	486	481	449	430	368	345	344	297	284	402	344	331	305	274	268	244	230	197	193	176	158	124	109	75	56	-	36	659
St. Augustine, FL 29°53.8'N., 81°18.5'W.	466	430	425	392	373	312	289	287	241	227	344	288	275	248	217	212	188	174	140	137	120	101	68	53	18	-	49	53	676
Marineland, FL 29°40.1'N., 81°13.0'W.	448	412	407	374	356	293	270	269	222	209	327	270	257	230	199	194	170	157	122	119	102	83	51	35	-	16	65	69	692
Daytona Beach, FL 29°12.6'N., 81°00.7'W.	413	377	372	339	321	259	236	235	188	175	292	235	222	196	165	159	135	121	87	84	67	48	16	-	30	46	95	99	722
New Smyrna Beach, FL 29°01.7'N., 80°55.1'W.	397	362	356	323	305	243	220	219	173	159	276	220	207	181	150	144	120	106	72	68	52	32	-	14	44	59	108	113	735
Titusville, FL 28°37.3'N., 80°47.9'W.	365	329	323	291	273	211	188	186	139	127	244	188	174	147	116	112	87	74	39	36	20	-	28	42	72	88	137	141	764
Cocoa, FL 28°21.3'N., 80°43.1'W.	346	311	304	273	253	191	168	167	121	107	224	168	155	129	98	92	68	54	21	16	-	17	45	58	89	104	153	157	780
Eau Gallie, FL 28°07.9'N., 80°37.1'	329	293	288	257	237	175	152	151	104	91	208	152	138	112	81	76	52	38	3	-	14	31	59	73	103	119	168	172	795
Melbourne, FL 28°05.0'N., 80°35.5'W.	326	290	284	252	234	171	148	147	100	87	205	148	135	108	77	71	47	34	-	3	18	34	63	76	106	122	171	175	798
Vero Beach, FL 27°39.0'N., 80°22.4'W.	292	257	250	219	199	137	114	113	67	53	170	114	101	75	44	38	14	-	29	33	47	64	92	105	136	151	200	204	827
Fort Pierce, FL 27°27.5'N., 80°19.3'W.	278	243	236	205	185	123	100	99	53	39	157	100	87	61	30	24	-	12	41	45	59	76	104	117	148	163	212	216	839
Salerno, FL 27°08.8'N., 80°11.6'W.	258	222	216	185	166	104	80	79	32	20	137	81	67	40	9	-	21	33	62	66	80	97	125	138	169	184	233	237	860
Stuart, FL 27°12.2'N., 80°15.6'W.	264	228	222	190	171	109	86	85	38	25	128	70	58	31	-	8	26	38	67	70	85	101	130	143	173	189	238	242	865
Port Mayaca, FL 26°59.1'N., 80°36.8'W.	295	259	253	221	203	141	117	116	69	56	96	40	26	-	27	35	53	65	94	97	112	128	157	170	200	216	265	269	892
Clewiston, FL 26°45.6'N., 80°55.2'W.	321	285	280	247	229	167	144	143	96	83	70	13	-	23	50	58	76	88	117	120	135	151	180	193	223	239	288	292	915
Moore Haven, FL 26°50.0'N., 81°05.3'W.	334	298	292	261	242	180	156	155	108	96	56	-	11	34	61	70	87	99	128	132	146	163	191	204	235	250	299	303	926
Fort Myers, FL 26°38.9'N., 81°52.3'W.	390	356	349	318	298	236	213	212	166	152	-	49	61	83	111	119	136	148	178	181	195	212	240	254	284	299	349	353	975
Jupiter, FL 26°56.8'N., 80°05.4'W.	239	204	197	166	146	84	61	60	14	-	132	83	72	49	22	17	34	46	76	79	93	110	138	152	182	197	247	251	873
Port of Palm Beach, FL 26°46.1'N., 80°03.0'W.	226	190	184	152	133	71	48	47	-	12	144	94	83	60	33	28	46	58	87	90	105	121	150	163	193	209	258	262	885
Fort Lauderdale, FL 26°06.8'N., 80°07.2'W.	178	144	137	106	86	24	1	-	41	52	184	135	124	101	74	69	86	98	128	131	145	162	190	204	234	249	299	303	925
Port Everglades, FL 26°05.6'N., 80°07.0'W.	177	142	136	105	85	23	-	1	42	53	185	136	125	102	75	70	87	99	129	132	146	163	191	205	235	251	300	304	927
Miami, FL 25°47.0'N., 80°11.0'W.	154	120	113	82	62	-	20	21	62	73	205	156	145	122	95	90	107	119	149	152	166	183	211	225	255	271	320	324	947
Tavernier, FL 25°00.7'N., 80°31.3'W.	96	60	54	22	-	54	74	75	116	127	259	210	199	176	149	144	161	173	203	206	220	237	265	279	309	324	374	378	999
Matecumbe Harbor, FL 24°51.1'N., 80°44.5'W.	75	40	33	-	19	71	91	92	132	144	276	227	215	192	165	161	178	190	219	223	237	253	282	295	325	341	390	394	1017
Marathon, FL 24°42.2'N., 81°06.7'W.	48	39	-	29	47	98	118	119	160	171	303	254	243	220	193	188	205	217	247	250	264	281	309	323	353	369	418	422	1045
Flamingo, FL 25°08.8'N., 80°55.4'W.	84	-	34	35	52	104	123	125	165	177	309	259	248	225	198	193	211	223	252	255	270	286	315	328	358	374	423	427	1050
Key West, FL 24°33.7'N., 81°48.5'W.	-	73	42	65	83	134	154	155	196	207	339	290	279	256	229	224	242	254	283	386	301	317	345	359	389	405	454	458	1081

Nautical miles on top (upright text)  
 Statute miles on the bottom (shaded, slant text)

## DISTANCES ON ST. JOHNS RIVER, FL (Nautical and Statute Miles)

	Lake Harney	Sanford	Astor-Volusia	Georgetown	Leesburg,	Moss Bluff Lock,	Silver Springs,	Welaka	Crescent City	Palatka	Doctors Lake, inlet	Jacksonville	Broward River - mouth	Intracoastal Waterway	Mayport	St. Johns River - mouth
St. Johns River - mouth 30°24.0'N., 81°23.8'W.	161	143	109	95	162	145	136	86	89	68	32	20	12	4	2	-
Mayport 30°23.7'N., 81°25.9'W.	159	141	107	93	160	143	134	84	87	66	30	18	10	2	-	2
Intracoastal Waterway 30°23.1'N., 81°27.7'W.	157	139	105	91	158	141	132	82	85	64	28	16	8	-	2	5
Broward River - mouth 30°24.6'N., 81°35.7'W.	149	131	97	83	150	133	124	74	77	56	20	8	-	9	12	14
Jacksonville 30°19.2'N., 81°39.0'W.	141	123	89	75	142	125	116	66	69	48	12	-	9	18	21	23
Doctors Lake, inlet 30°08.9'N., 81°41.2'	129	111	77	62	129	112	104	54	56	36	-	14	23	32	35	37
Palatka 29°38.6'N., 81°37.6'W.	93	75	41	26	94	76	68	18	20	-	41	55	64	74	76	78
Crescent City 29°25.8'N., 81°30.3'W.	101	83	49	35	102	85	76	26	-	23	64	79	89	98	100	102
Welaka 29°28.8'N., 81°40.5'W.	75	57	23	8	75	58	50	-	30	21	62	76	85	94	97	99
Silver Springs, Oklawaha River	123	105	71	56	31	14	-	58	87	78	120	134	143	152	154	157
Moss Bluff Lock, Oklawaha River	131	113	79	65	17	-	16	67	98	87	129	144	153	162	165	167
Leesburg, Oklawaha River	148	131	96	82	-	20	36	86	117	108	148	163	173	182	184	186
Georgetown 29°23.1'N., 81°38.3'W.	66	49	14	-	94	75	64	9	40	30	71	86	96	105	107	109
Astor-Volusia 29°10.0'N., 81°31.4'W.	52	34	-	16	110	91	82	26	56	47	89	102	112	121	123	125
Sanford 28°49.1'N., 81°16.2'W.	18	-	39	56	151	130	121	66	96	86	128	142	151	160	162	165
Lake Harney 28°48.6'N., 81°03.2'W.	-	21	60	76	170	151	142	86	116	107	148	162	171	181	183	185

Nautical miles on top (upright text)  
 Statute miles on the bottom (shaded, slant text)

## GULF OF MEXICO DISTANCES

### KEY WEST, FL TO PORT BROWNSVILLE, TX

(Nautical Miles)

	Port Brownsville, TX	Port Isabel, TX	Corpus Christi, TX	La Quinta, TX	Point Comfort, TX	Freeport, TX	Houston, TX	Texas City, TX	Galveston, TX	Beaumont, TX	Orange, TX	Port Arthur, TX	Lake Charles, LA	Morgan City, LA	New Orleans (SW Pass)*	New Orleans (South Pass)*	New Orleans (Gulf Outlet)*	Gulfport, MS	Pascagoula, MS	Mobile, AL	Pensacola, FL	Panama City, FL	Port St. Joe, FL	Tampa, FL	Port Tampa, FL	St. Petersburg, FL	Port Boca Grande, FL	Key West, FL	STRAITS OF FLORIDA
YUCATAN CHANNEL	729	718	769	763	761	717	740	702	696	717	713	691	705	602	587	579	575	576	554	562	533	506	495	404	399	389	332	251	192
STRAITS OF FLORIDA	793	782	807	802	797	743	746	707	702	726	722	700	715	581	540	524	513	492	469	471	437	381	369	232	228	219	150	73	-
Key West, FL	866	855	880	875	870	816	819	780	775	799	795	773	789	653	613	597	586	564	542	544	510	454	442	305	301	292	223	-	-
Port Boca Grande, FL	825	814	816	811	806	747	752	714	709	730	726	704	717	564	512	489	474	436	414	413	372	294	281	113	109	100	-	-	-
St. Petersburg, FL	813	802	797	792	786	729	733	695	690	710	707	684	697	539	488	459	444	401	379	377	334	252	240	18	8	-	-	-	-
Port Tampa, FL	822	810	805	800	795	738	742	704	699	719	715	693	706	548	496	467	452	409	387	386	343	261	248	18	-	-	-	-	-
Tampa, FL	826	815	810	804	799	742	746	708	703	723	719	697	710	552	502	472	457	413	392	389	347	265	252	-	-	-	-	-	-
Port St. Joe, FL	695	684	671	666	661	604	605	567	562	581	577	565	568	397	346	308	288	235	213	206	154	42	-	-	-	-	-	-	-
Panama City, FL	684	673	659	654	649	593	594	555	550	571	567	545	558	385	333	295	274	222	200	193	139	-	-	-	-	-	-	-	-
Pensacola, FL	643	632	618	614	609	552	553	514	509	530	526	504	517	339	288	253	186	117	94	89	-	-	-	-	-	-	-	-	-
Mobile, AL	629	618	605	600	595	538	539	501	496	517	513	491	504	324	269	236	170	98	75	-	-	-	-	-	-	-	-	-	-
Pascagoula, MS	609	598	585	580	575	518	519	481	476	497	493	471	484	304	250	216	149	52	-	-	-	-	-	-	-	-	-	-	-
Gulfport, MS	632	621	607	602	597	540	542	503	498	519	515	493	506	330	271	238	171	-	-	-	-	-	-	-	-	-	-	-	-
New Orleans (Gulf Outlet)*	604	593	580	575	570	513	514	476	471	492	488	466	479	304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Orleans (South Pass)*	599	588	574	569	564	508	470	465	486	482	460	472	298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW ORLEANS (SW PASS)*	580	569	555	550	545	489	490	451	446	467	463	441	454	278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morgan City, LA	426	415	395	390	354	273	278	240	235	216	212	190	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake Charles, LA	387	376	289	283	248	166	172	133	128	109	105	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Arthur, TX	347	336	249	244	208	126	132	94	89	26	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orange, TX	369	358	271	266	230	148	154	116	111	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beaumont, TX	373	362	275	270	234	152	158	120	115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Galveston, TX	304	293	207	201	165	84	47	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Texas City, TX	309	298	212	206	170	89	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Houston, TX	348	337	250	244	209	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Freeport, TX	258	247	160	154	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Point Comfort, TX	215	204	117	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La Quinta, TX	148	137	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corpus Christi, TX	154	142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Isabel, TX	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Brownsville, TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Entrance Lighted Whistle Buoy KW (24°27.7'N., 81°48.1'W.) to Key West - 6.3 miles  
 Entrance Lighted Whistle Buoy T (27°35.3'N., 83°00.7'W.) to Tampa - 43 miles  
 Entrance Lighted Bell Buoy 2 (30°16.3'N., 87°17.4'W.) to Pensacola - 11.6 miles  
 Entrance Buoy M (30°08.1'N., 88°03.9'W.) to Mobile - 35 miles  
 Mississippi River-Gulf Outlet Approach Lt. Horn Buoy NO (29°26.4'W., 88°56.8'W.) to New Orleans - 96 miles  
 South Pass Lighted Bell Buoy 2 (28°58.7'N., 89°06.5'W.) to New Orleans - 102 miles  
 Southwest Pass Entrance Lighted Buoy SW (28°52.7'N., 89°25.9'W.) to Lake Charles - 50 miles  
 Calcasieu Channel Lighted Buoy 2B (29°27.3'N., 93°13.3'W.) to Lake Charles - 50 miles  
 Sabine Pass Lighted Buoy 32 (29°36.8'N., 93°48.5'W.) to Port Arthur - 16.7 miles  
 Galveston Bay Entrance Lighted Whistle Buoy GA (29°09.5'N., 94°25.9'W.) to Galveston - 23 miles,  
 to Texas City - 28 miles, to Houston - 67 miles  
 Aransas Pass Entrance Lighted Whistle Buoy AP (27°47.6'N., 96°57.4'W.) to Corpus Christi - 25 miles  
 Brazos Santiago Entrance Lighted Whistle Buoy BS (26°03.9'N., 97°06.6'W.) to Port Brownsville - 17.5 miles

\* Baton Rouge, LA - add 115 miles.

All tabular distances are via STRAITS OF FLORIDA (24°25.0'N., 82°00.0'W.), and through the Shipping Safety Fairways. For distances from Key West to west Florida ports via Rebecca Shoal channel (24°24.4'N.,

82°42.4'W.), subtract 24 miles from Port Boca Grande distance, 17 miles from Tampa Bay distances, 9 miles from Port St. Joe and Panama City distances, and 5 miles from Pensacola distance.

## COASTWISE and INSIDE ROUTE DISTANCES KEY WEST, FL to APALACHICOLA, FL (Nautical Miles)

	Apalachicola, FL	Carrabelle, FL	St. Marks, FL	Cedar Key, FL	Tarpon Springs, FL	Clearwater, FL	Tampa, FL	St. Petersburg, FL	Bradenton, FL	Sarasota, FL	Venice, FL	Port Boca Grande, FL	Fort Myers, FL	Naples, FL	Everglades, FL	Cape Sable, FL	Flamingo, FL	Matecumbe Harbor, FL	Marathon, FL	Key West, FL
Key West, FL	406	389	367	310	250	234	232	218	210	186	172	144	134	96	88	57	70	65	42	-
Marathon, FL	408	391	389	313	253	237	235	221	213	189	174	146	136	100	80	31	37	29	-	-
Matecumbe Harbor, FL	411	394	392	316	255	240	237	224	215	191	177	149	139	103	81	32	35	-	-	-
Flamingo, FL	396	379	377	301	240	225	222	209	200	176	162	134	124	88	66	17	-	-	-	-
Cape Sable, FL	379	362	360	284	223	208	205	192	183	159	145	117	107	71	49	-	-	-	-	-
Everglades, FL (25°52.0'N, 81°23.1'W.)	350	334	332	255	195	179	177	163	155	131	116	88	79	38	-	-	-	-	-	-
Naples, FL	316	299	297	221	160	145	143	129	120	96	82	54	44	-	-	-	-	-	-	-
Fort Myers, FL	297	280	278	202	142	126	124	110	102	78	63	35	-	-	-	-	-	-	-	-
Port Boca Grande, FL	262	245	244	167	107	91	89	75	67	43	28	-	-	-	-	-	-	-	-	-
Venice, FL	234	218	216	139	79	63	61	47	39	15	-	-	-	-	-	-	-	-	-	-
Sarasota, FL	221	204	202	125	65	49	42	33	25	-	-	-	-	-	-	-	-	-	-	-
Bradenton, FL	209	193	191	114	54	38	36	22	-	-	-	-	-	-	-	-	-	-	-	-
St. Petersburg, FL	202	186	184	107	47	31	18	-	-	-	-	-	-	-	-	-	-	-	-	-
Tampa, FL	218	202	200	123	63	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clearwater, FL	174	157	155	79	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tarpon Springs, FL	164	147	145	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cedar Key, FL	118	101	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Marks, FL	69	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carrabelle, FL	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apalachicola, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Routes used in table: Hawk Channel between Marathon and Key West; Northwest Channel (Key West) and outside to places between Cape Sable and San Carlos Bay, thence inside to Anciotte

Keys, and thence outside to St. George Sound. Distances from Everglades northward are inside via Big Marco River and Gordon Pass.



## INTRACOASTAL WATERWAY DISTANCES

### APALACHICOLA, FL to PORT BROWNSVILLE, TX

(Nautical and Statute Miles)

	Port Brownsville, TX	Port Isabel, TX	Port Mansfield, TX	Corpus Christi, TX	La Quinta, TX	Aransas Pass, TX	Rockport, TX	Port O'Conner, TX	Freeport, TX	Texas City, TX	Houston, TX	Galveston, TX	Port Arthur, TX	Beaumont, TX	Orange, TX	Lake Charles, LA	Morgan City, LA	Houma, LA	New Orleans, LA	Gulfport, MS	Biloxi, MS	Pascagoula, MS	Mobile, AL	Pensacola, FL	Fort Walton Beach, FL	Panama City, FL	Port St. Joe, FL	Apalachicola, FL
Apalachicola, FL	900	887	856	786	780	769	762	717	651	615	653	614	556	562	537	525	388	356	302	248	236	222	214	150	112	51	27	-
Port St. Joe, FL	885	872	841	771	766	754	748	703	636	600	636	599	542	547	523	510	374	341	288	233	224	208	200	135	98	36	-	31
Panama City, FL	849	836	805	735	730	718	712	666	600	564	602	563	506	511	487	474	338	305	252	197	188	171	164	99	62	-	41	59
Fort Walton Beach, FL	788	775	743	673	666	656	650	605	539	503	541	502	444	450	425	412	276	243	190	136	126	110	102	37	-	71	113	129
Pensacola, FL	758	746	714	644	639	627	621	576	510	474	512	473	415	421	396	383	247	214	161	106	97	81	73	-	43	114	155	173
Mobile, AL	736	723	692	622	616	605	598	553	487	451	489	450	392	396	373	361	224	191	138	84	74	58	-	84	117	189	230	246
Pascagoula, MS	693	680	649	579	574	562	556	510	444	408	446	407	350	355	331	318	182	149	96	41	32	-	67	93	127	197	239	255
Biloxi, MS	680	668	636	566	561	549	543	496	431	396	433	394	337	342	318	305	169	136	83	26	-	37	85	112	145	216	258	274
Gulfport, MS	664	651	620	550	544	533	526	481	415	379	417	378	320	326	302	289	152	120	66	-	32	47	97	122	157	227	268	285
NEW ORLEANS, LA	598	585	553	483	578	466	460	415	349	313	351	312	254	260	235	222	86	53	-	76	96	110	159	185	219	290	331	348
Houma, LA	544	532	500	430	425	413	407	362	295	260	297	258	201	206	182	169	33	-	61	138	157	171	220	246	280	351	392	410
Morgan City, LA	512	499	467	397	392	380	374	329	263	227	265	226	168	174	149	136	-	38	99	175	194	209	258	284	318	389	430	447
Lake Charles, LA	395	382	351	280	275	264	257	212	146	110	148	109	51	57	32	-	157	194	255	333	351	366	415	441	474	545	587	604
Orange, TX	364	352	320	250	245	233	227	182	115	80	117	78	21	26	-	37	171	209	270	348	366	381	429	456	489	560	602	618
Beaumont, TX	370	357	326	255	250	236	232	187	121	85	123	84	26	-	30	66	200	237	299	375	394	409	458	484	518	588	629	647
Port Arthur, TX	344	331	300	229	224	212	206	161	95	59	97	58	-	30	24	59	193	231	292	368	388	403	451	478	511	582	624	640
Galveston, TX	289	276	244	174	169	158	151	106	40	10	48	-	67	97	90	125	260	297	359	435	453	468	518	544	578	648	689	707
Houston, TX	333	320	289	219	213	202	195	150	84	48	-	55	112	142	135	170	305	342	404	480	496	513	563	589	623	693	734	751
Texas City, TX	294	281	249	179	174	162	156	111	44	-	55	12	68	98	92	127	261	299	360	436	456	470	519	545	579	649	690	708
Freeport, TX	253	240	209	139	133	122	115	70	-	51	97	46	109	139	132	168	303	339	402	478	496	511	560	587	620	690	732	749
Port O'Conner, TX	183	170	136	68	63	52	45	-	81	128	173	122	185	215	209	244	379	417	478	554	573	587	636	663	696	766	809	825
Rockport, TX	140	127	96	26	20	9	-	52	132	180	224	174	237	267	261	296	430	468	529	605	625	640	688	715	748	819	861	877
Aransas Pass, TX	131	118	87	17	12	-	10	60	140	186	232	182	244	274	268	304	437	475	536	613	632	647	696	722	755	826	868	885
La Quinta, TX	129	116	85	15	-	14	23	72	153	200	245	194	258	288	282	316	451	489	550	626	646	661	709	735	769	840	881	898
Corpus Christi, TX	133	120	89	-	17	20	30	78	160	206	252	200	264	293	288	322	457	495	556	633	651	666	716	741	774	846	887	905
Port Mansfield, TX	46	33	-	102	98	100	110	159	241	287	333	281	345	375	368	404	537	575	636	713	732	747	796	822	855	926	968	985
Port Isabel, TX	13	-	38	138	133	136	146	196	276	323	368	318	381	411	405	440	574	612	673	749	769	783	832	858	892	962	1003	1021
Port Brownsville, TX	-	15	53	153	148	151	161	211	291	338	383	333	396	426	419	455	589	626	688	764	783	797	847	872	907	977	1018	1036

Nautical miles on top (upright text)

Statute miles on the bottom (shaded, slant text)

## PUERTO RICO and VIRGIN ISLANDS DISTANCES

(Nautical Miles)

	Krause Lagoon, St. Croix, VI	Frederiksted, St. Croix, VI	Christiansted, St. Croix, VI	Road Town, Tortola, BVI	Cruz Bay, St. John, VI	Charlotte Amalie, St. Thomas, VI	Isabel Segunda, Vieques	Ensenada Honda, Culebra	Puerto Arecibo, PR	Bahia de Aguadilla, PR	Mayaguez, PR	Bahia de Guanica, PR	Bahia de Guayanilla, PR	Bahia de Tallaboa, PR	Ponce, PR	Bahia de Jobos, PR	Humacao, PR	Ensenada Honda, PR	Fajardo, PR	San Juan, PR
San Juan, PR	112	96	103	94	82	80	55	59	43	74	92	138*	145*	145*	152*	103	59	52	40	0
Fajardo, PR	77	61	68	66	53	46	18	25	72	103	121	99	89	88	83	65	21	14	0	0
Ensenada Honda, PR	72	60	69	65	51	44	12	25	84	115	133	90	80	79	74	56	11	0	0	0
Humacao, PR	70	58	68	71	57	50	17	31	92	123	131	82	72	71	65	48	0	0	0	0
Bahia de Jobos, PR	101	89	101	113	99	93	62	76	140	105	96	47	37	36	31	0	0	0	0	0
Ponce, PR	117	106	119	131	116	110	79	93	118	83	74	22	14	13	0	0	0	0	0	0
Bahia de Tallaboa, PR	122	111	124	136	121	116	85	98	112	76	67	16	5	0	0	0	0	0	0	0
Bahia de Guayanilla, PR	123	112	125	137	122	117	86	99	112	77	67	15	0	0	0	0	0	0	0	0
Bahia de Guanica, PR	133	122	135	147	132	126	96	109	105	70	60	0	0	0	0	0	0	0	0	0
Mayaguez, PR	182	171	184	175	164	161	136	141	58	23	0	0	0	0	0	0	0	0	0	0
Bahia de Aguadilla, PR	176	159	166	157	146	144	118	123	40	0	0	0	0	0	0	0	0	0	0	0
Puerto Arecibo, PR	144	128	135	126	115	112	87	92	0	0	0	0	0	0	0	0	0	0	0	0
Ensenada Honda, Culebra	59	42	48	47	31	24	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Isabel Segunda, Vieques	62	46	54	55	40	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Charlotte Amalie, St. Thomas, VI	54	38	38	24	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cruz Bay, St. John, VI	55	39	37	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Road Town, Tortola, BVI	62	46	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Christiansted, St. Croix, VI	35	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frederiksted, St. Croix, VI	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Krause Lagoon, St. Croix, VI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

\* via Mona Passage

Limetree Bay, St. Croix, VI, is 1 mile E of Krause Lagoon

**Distances on the Mississippi River System**

- (1) Distances in this section are the mileages (in statute miles) from the mouth of a river (or other designated point) taken from charts, maps, and publications of the U.S. Army Corps of Engineers. Distances between any two points on the same waterway may be obtained by taking the difference of the indicated mileages. Distances between places on different waterways can be determined by taking distances to and from a common reference point.
- (2) At Head of Passes three of the Mississippi River's important passes come together: South Pass, Southwest Pass and Pass a Loutre. This point of confluence is at Head of Passes East Jetty Light (29°09.1'N., 89°15.0'W.). From this point distances on the Mississippi River are measured in statute miles "above Head of Passes", abbreviated AHP, to its confluence with the Ohio River.
- (3) The reach of the Mississippi River from the Head of Passes to Baton Rouge is charted by NOAA's National Ocean Service (NOS). (See the appendix for information relating to procurement of NOS charts and publications.) The reach from the Head of Passes to the confluence with the Ohio River is charted by the U.S. Army Corps of Engineers in "**Flood Control and Navigation Maps of the Mississippi River**" (www.mvd.usace.army.mil/reegis/navbook/main2.htm). Mileages indicated in Flood Control and Navigation Maps of the Mississippi River are in statute miles AHP and are so listed following.
- (4) The following segment of the Mississippi River is from Head of Passes to its junction with the mouth of the Ohio River.

Head of Passes	0
Buras, LA	25
Port Sulphur, LA	39
Algiers Alternate Route (entrance to Algiers Lock)	88
Inner Harbor Navigation Canal (Industrial Canal)	93
New Orleans (Canal Street)	95
Harvey Canal (lock entrance)	98
Donaldson, LA	175
Plaquemine, LA	209
Baton Rouge, LA (IS 10 bridge)(add 64 miles to Morgan City by Intracoastal waterway via Port Allen Lock)	229
Red River mouth, LA (Old River)	304
Natchez, MS (US84 bridge)	363
Vicksburg, MS	437
Greenville, MS (Warfield Pt. Lt)	537
Helena, AR	663
Memphis, TN (IS 55 bridge)	734
Ohio River mouth (Cairo, IL is 2 miles up the Ohio River.)	954

- (5) The following segment of the Mississippi River is from its junction with the mouth of the Ohio River northerly. The Upper River is charted by the U.S. Army Corps of Engineers in "**Upper Mississippi River Navigation Charts**" (www.mvr.usace.army.mil/NavCharts/UMRNavCharts.asp). The following mileages are in statute miles AHP.

Mississippi River and Ohio River junction	954
Commerce, MO	994
Cape Girardeau, MO	1,006
Grand Tower, IL	1,034
St. Louis, MO	1,134
Lock No. 27	1,139
Dam No. 27	1,144
Missouri River mouth	1,149
Alton, IL (Lock and Dam No. 26)	1,157
Illinois River mouth (Grafton, IL)	1,172
Lock and Dam No. 25	1,195
Lock and Dam No. 24	1,227
Lock and Dam No. 22	1,255
Hannibal, MO	1,264
Quincy, IL (Lock and Dam No. 21)	1,279
La Grange, MO	1,290
Lock and Dam No. 20	1,297
Keokuk, IA (Lock and Dam No. 19)	1,318
Fort Madison, IA	1,338
Burlington, IA	1,357
Lock and Dam No. 18	1,364
Lock and Dam No. 17	1,391
Lock and Dam No. 16	1,411
Davenport, IA (Lock and Sam No. 15)	1,437
Lock and Dam No 14	1,447
Clinton, IA	1,473
Lock and Dam No. 13	1,477
Lock and Dam No. 12	1,511
Dubuque, IA	1,534
Lock and Dam No. 11	1,537
Lock and Dam No. 10	1,569
Prairie du Chien, WI	1,589
Lock and Dam No. 9	1,602
Lock and Dam No. 8	1,633
La Crosse, WI	1,652
Lock and Dam No.7	1,656
Lock and Dam No.6	1,668
Winona, MN	1,680
Lock and Dam No. 5A	1,682
Lock and Dam No. 5	1,692
Lock and Dam No. 4	1,702
Lock and Dam No. 3	1,751
Lock and Dam No. 2	1,769
St. Paul, MN	1,793
Lock and Dam No. 1	1,802
Minneapolis, MN	1,807

**Ohio River**

(6) The Ohio River is charted by the U.S. Army Corps of Engineers in “Ohio River Navigation Charts” in three volumes. Distances are in statute miles. The following locations appear in “Ohio River Navigation Charts, Louisville District” (www.lrl.usace.army.mil/optm/).

Ohio River mouth (junction with the Mississippi River)	0
Cairo, IL	2
Dam 53	18
Dam 52	42
Tennessee River mouth (Paducah, KY)	46
Cumberland River mouth	58
Smithland Lock and Dam	62
Wabash River mouth	133
Evansville, IN	187
Newburg Lock and Dam	205
Owensboro, KY	225
Cannelton Lock and Dam	260
McAlpine Lock and Dam	374
Louisville, KY (IS 65 bridge)	378
Madison, IN	423
Markland Lock and Dam	449
Cincinnati, OH	509
Captain Anthony Meldahl Dam	545

(7) The following locations appear in “Ohio River Navigation Charts, Huntington District.”

Portsmouth, OH	626
Greenup Dam	640
Ironton, OH	655
Huntington, WV	673
Gallipolis Dam	702
Gallipolis, OH	711
Belleville Dam	777
Parkersburg, WV	797
Marietta, OH	809
Willow Island Dam	820

(8) The following locations appear in “Ohio River Navigation Charts, Pittsburgh District.”

Hannibal Lock and Dam	855
Wheeling, WV	894
Pike Island Lock and Dam	897
Steubenville, OH	913
New Cumberland Lock and Dam	927
East Liverpool, OH	938
Montgomery Lock and Dam	950
Dashiields Lock and Dam	968
Emsworth Lock and Dam	975
Pittsburgh, PA (Point Bridge)	981

**Tennessee River**

(9) The Tennessee River is charted by the U.S. Army Corps of Engineers in “Tennessee River Naviga-

tion Charts, Nashville District.” (See appendix for procurement information.) Distances are in statute miles.

Tennessee River mouth (junction with the Ohio River)	0
Paducah, KY	0
Kentucky Lock and Dam	22
New Johnsonville, TN	100
Perryville, TN	135
Saltillo	172
Cerro Gordo	178
Savannah	190
Pickwick Landing Lock and Dam	207
Waterloo, AL	227
Sheffield, AL	254
Wilson Lock and Dam (Florence, AL)	260
General Joe Wheeler Lock and Dam	275
Decatur, AL	304
Guntersville Lock and Dam	349
Bridgeport	414
South Pittsburgh	418
Nickajack Lock and Dan	425
Chattanooga, TN	464
Chickamauga Lock and Dam	471
Watts Bar Lock and Dam	530
Clinch River mouth	568
Loudon, TN	592
Fort Loudon Lock and Dam	602
Knoxville, TN (Gay Street bridge)	648

**Missouri River**

(10) The Missouri River is charted by the U.S. Army Corps of Engineers in “Missouri River Navigation Charts” in two volumes. (See appendix for procurement information.) Distances are in statute miles. The following locations appear in “Missouri River Navigation Charts, Kansas City District.”

Missouri River mouth (junction with the Mississippi River)	0
St. Charles, MO	28
Washington, MO	67
Hermann, MO	98
Mouth of Gasconade River	104
Gasconade, MO	105
Mouth of Auxvass River	120
Mouth of Middle River	125
Mouth of Osage River	130
Jefferson City, MO	143
Boonville, MO	197
Mouth of Lamine River	202
Glasgow, MO	226
Mouth of Charitan River	239
Mouth of Grand River	250
Miami, MO	263
Waverly, MO	294
Lexington, MO	317
Napoleon, MO	329
Kansas City, MO	363
Mouth of Kansas River	367

(11) The following locations appear in “Missouri River Navigation Charts, Omaha District.”

Kansas City, MO	363
Mouth of Kansas River	367
Leavenworth, KS	396
St. Joseph, MO	448
Mouth of Big Nemaha River	495
Rulo, NE	498
Mouth of Tarkio River	507
Mouth of Nishnabotna River	542
Nebraska City, NE	563
Plattsmouth, NE	591
Omaha, NE	615
Council Bluffs, IA	617
Dakota City, NE	725
Sioux City, IA	732
Ponca, NE	753

**Illinois Waterway**

(12) The Illinois Waterway is charted by the U.S. Army Corps of Engineers in “Charts of the Illinois Waterway from Mississippi River at Grafton, IL to Lake Michigan at Chicago.” Distances therein and following are in statute miles.

**Illinois River**

Illinois River mouth (junction of the Mississippi River at Grafton, IL)	0
Hardin, IL	21.0
Florence, IL	55
Naples, IL	65
La Grange Lock	80
Beardstown, IL	89
Peoria Lock	158
Chillicothe, IL	180
Hennepin, IL	207
Illinois and Mississippi Canal	210
Peru, IL	222
Ottawa, IL	239
Marseille Lock	244
Dresden Island Lock	271

**Des Plaines River**

Joliet, IL	288
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**Chicago Sanitary and Ship Canal**

Lockport, IL	293
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**Chicago River**

Chicago, IL (41°43.8'N., 87°31.9'W.)	333
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## GREAT LAKES DISTANCES

(Statute Miles)

	Montreal, Quebec	Ogdensburg, NY	Kingston, Ontario	Toronto, Ontario	Oswego, NY	Rochester, NY	Port Colborne, Ontario	Buffalo, NY	Erie, PA	Conneaut, OH	Ashtabula, OH	Fairport, OH	Cleveland, OH	Lorain, OH	Toledo, OH	Detroit, MI	Port Huron, MI	Midland, Ontario	Collingwood, Ontario	Goderich, Ontario	Bay City, MI	Alpena, MI	Ludington, MI	Muskegon, MI	Gary, IN	Chicago, IL	Milwaukee, WI	Green Bay, WI	Escanaba, MI	Sault Ste. Marie, MI	Marquette, MI	Houghton, MI	Ashland, WI	Duluth, MN	Two Harbors, MN	Thunder Bay, Ontario				
Thunder Bay, Ontario	1217	1096	1034	903	1016	965	848	864	795	768	754	729	711	694	658	604	542	539	531	506	505	410	536	587	699	686	621	560	492	273	171	116	164	195	172	-				
Two Harbors, MN	1315	1194	1132	1001	1114	1063	946	963	893	866	852	828	809	792	756	702	640	638	630	604	603	508	634	685	797	785	720	659	590	371	239	157	71	26	-	-				
Duluth, MN	1339	1218	1156	1025	1138	1087	970	986	917	890	876	851	833	816	781	726	664	661	653	628	627	532	657	709	820	808	743	682	614	394	261	179	96	-	-	-				
Ashland, WI	1293	1172	1110	979	1092	1041	924	941	871	844	830	806	788	771	734	680	618	616	606	583	581	486	612	663	775	763	698	637	568	349	213	131	-	-	-	-				
Houghton, MI	1165	1044	982	851	964	913	796	813	743	716	702	678	659	643	606	552	490	488	480	455	453	358	484	535	647	635	570	509	440	221	84	-	-	-	-	-				
Marquette, MI	1104	983	921	790	903	852	735	751	682	655	641	616	598	581	545	491	429	426	418	393	391	297	422	474	585	573	508	447	378	159	-	-	-	-	-	-				
Sault Ste. Marie, MI (a)	944	823	761	630	743	692	575	592	522	495	481	457	438	422	385	331	269	267	259	234	232	137	263	314	426	414	349	288	219	-	-	-	-	-	-	-				
Escanaba, MI	1051	930	868	737	850	799	682	699	629	602	588	564	545	526	492	438	376	384	376	340	339	244	130	181	288	274	201	101	-	-	-	-	-	-	-	-	-			
Green Bay, WI	1120	999	937	806	919	868	751	767	696	671	657	632	614	597	561	507	445	452	444	409	407	313	123	171	272	255	180	-	-	-	-	-	-	-	-	-	-			
Milwaukee, WI	1181	1060	998	867	980	929	812	828	759	732	718	693	675	658	622	568	506	513	505	470	468	374	97	80	103	85	-	-	-	-	-	-	-	-	-	-	-	-		
Chicago, IL	1246	1125	1063	932	1045	994	877	893	824	797	783	758	740	723	688	633	571	578	570	535	534	439	156	114	25	-	-	-	-	-	-	-	-	-	-	-	-	-		
Gary, IN	1258	1137	1075	944	1057	1006	889	905	836	809	795	770	752	735	699	645	583	590	582	547	546	451	167	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Muskegon, MI	1146	1025	963	832	945	894	777	794	724	697	683	659	640	623	587	533	471	479	471	435	434	339	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ludington, MI	1095	974	912	781	894	843	726	742	673	646	632	607	589	572	536	482	420	427	419	384	383	288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alpena, MI	832	711	649	518	631	580	463	479	410	383	369	344	326	309	273	219	157	193	185	124	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bay City, MI	837	716	654	523	638	585	466	484	415	388	374	349	331	314	278	224	162	265	257	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Goderich, Ontario	740	619	557	426	539	488	371	387	318	291	277	252	234	217	181	127	65	211	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Collingwood, Ontario	933	812	750	619	732	681	564	580	511	484	470	446	427	410	374	320	258	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Midland, Ontario	941	820	758	627	740	689	572	588	519	492	478	453	435	418	382	326	266	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Port Huron, MI (b)	675	554	492	361	474	423	306	322	253	226	213	188	170	152	116	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Detroit, MI (c)	613	492	430	299	412	361	244	261	191	164	150	126	108	91	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toledo, OH (river mouth)	606	485	423	292	405	354	237	254	185	157	144	119	96	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lorain, OH	549	428	366	235	348	297	180	197	124	95	80	53	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cleveland, OH (main entrance)	529	408	346	215	326	277	160	176	102	73	59	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fairport, OH	499	378	316	185	298	247	130	146	73	44	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashtabula, OH	473	352	290	159	272	221	104	119	45	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conneaut, OH	461	340	278	147	260	209	92	107	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Erie, PA	434	313	251	120	233	182	65	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buffalo, NY (north entrance)	391	270	208	77	190	139	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Colborne, Ontario	369	248	186	55	168	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rochester, NY	271	149	89	95	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oswego, NY	232	108	55	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toronto, Ontario	342	223	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kingston, Ontario	185	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ogdensburg, NY	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montreal, Quebec (d)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(a) From abreast east end of U. S. center pier  
(b) From foot of Grand River Ave.  
(c) From Woodward Ave.  
(d) From St. Lambert Dock

**EXPLANATION**

Measurements are by the shortest marked or safe direct courses, starting (unless otherwise noted) from the main entrance between pierheads of breakwaters or piers, or from the principal landings of open roadsteads.

Where landings are appreciably remote from protected entrances, the distance from the main entrance to the landing may be ascertained from the harbor description or from nautical charts.

Points in this table are arraigned in the order of their location on the Great Lakes in the following sequence (top to bottom): Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario- St. Lawrence River.

# DISTANCES BETWEEN POINTS ON LAKE ONTARIO AND ST. LAWRENCE RIVER

(Statute Miles)

	Quebec City, Quebec	Montreal, Quebec	Cote St. Cath. Lock, Quebec	Beauharnois Lock, Quebec	Colquhoun Island, Ontario	Snell Lock, NY	Eisenhower Lock, NY	Iroquois Lock, Ontario	Ogdensburg, NY	Brockville, Ontario	Alexandria Bay, NY	Thousand Island Park, NY	Clayton, NY	Gananoque, Ontario	Kingston, Ontario	Pictou, Ontario	Deseronto, Ontario	Belleville, Ontario	Trenton, Ontario	Cobourg, Ontario	Port Hope, Ontario	Toronto, Ontario	Hamilton, Ontario	Port Weller, NY	Lewiston, NY	Niagara-on-the-Lake, Ontario	Olcott, NY	Rochester, NY	Sodus Bay, NY	Little Sodus Bay, NY	Oswego, NY	Sacketts Harbor, NY	Cape Vincent, NY	Port Colborne, Ontario	Port Huron, MI	Old Mackinac Point, MI	
OLD MACKINAC POINT, MI (a)	1084	922	914	892	848	841	837	812	799	787	766	760	755	758	739	726	713	69	688	653	648	608	610	580	598	592	608	670	698	712	721	745	740	553	247	-	
PORT HURON, MI (b)	837	675	667	645	601	594	590	565	552	540	519	513	508	511	492	479	466	45	441	406	401	361	363	333	351	345	361	423	451	465	474	498	493	306	-	-	
PORT COLBORNE, ONTARIO	531	369	361	339	295	288	284	259	246	234	213	207	202	205	186	173	160	14	135	100	95	55	57	27	45	39	55	117	145	159	168	192	187	-	-	-	
Cape Vincent, NY	344	183	175	153	109	102	98	73	60	48	27	20	16	19	24	45	51	67	78	101	106	160	186	160	160	154	134	89	69	59	49	26	-	-	-	-	
Sacketts Harbor, NY	370	209	201	179	135	128	124	99	86	74	53	46	42	45	36	56	61	78	88	106	112	165	191	165	164	158	138	88	54	52	41	-	-	-	-	-	
Oswego, NY	391	232	224	202	158	151	147	122	108	97	76	69	65	68	55	66	71	88	82	91	96	145	166	141	139	133	113	59	29	15	-	-	-	-	-	-	
Little Sodus Bay, NY	401	241	233	211	167	160	156	131	118	106	85	78	74	77	64	73	78	88	79	85	90	136	157	131	130	124	104	48	18	-	-	-	-	-	-	-	
Sodus Bay, NY	411	251	243	221	177	170	166	141	128	116	95	88	84	87	72	80	86	83	74	77	81	124	145	118	118	112	92	35	-	-	-	-	-	-	-	-	
Rochester, NY (Charlotte)	432	271	263	241	197	190	186	161	149	136	115	108	104	107	90	98	89	73	64	57	60	96	117	89	89	83	63	-	-	-	-	-	-	-	-	-	
Olcott, NY	478	316	308	286	242	235	231	206	193	181	160	153	149	152	134	121	109	92	83	51	47	38	55	28	28	22	-	-	-	-	-	-	-	-	-	-	
Niagara-on-the-Lake, Ontario	500	336	328	306	262	255	251	226	213	201	180	173	169	172	154	141	128	11	102	66	63	30	39	11	6	-	-	-	-	-	-	-	-	-	-	-	
Lewiston, NY	506	342	334	312	268	261	257	232	219	207	186	179	175	178	160	147	134	11	108	72	69	36	45	17	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Weller, NY	504	342	334	312	268	261	257	232	219	207	186	179	175	178	159	146	133	11	107	72	68	28	30	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hamilton, Ontario	530	367	359	337	293	286	282	257	244	232	211	205	200	204	185	169	156	14	131	94	88	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Toronto, Ontario (West Entrance)	506	342	334	312	268	261	257	232	219	207	186	180	175	179	160	142	129	11	103	65	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Port Hope, Ontario	449	289	281	259	215	208	204	179	166	154	132	126	121	125	106	85	72	56	47	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cobourg, Ontario	444	283	275	253	209	202	196	173	160	148	127	120	116	120	101	79	67	50	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trenton, Ontario	417	255	247	225	181	174	170	145	132	120	101	94	90	89	71	40	28	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Belleville, Ontario	406	244	236	214	170	163	159	134	121	109	90	84	80	78	60	29	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Deseronto, Ontario	390	228	220	198	154	147	143	118	105	93	74	68	63	62	44	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pictou, Ontario	383	222	214	192	148	141	137	112	99	87	68	62	57	56	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kingston, Ontario	346	185	177	155	111	104	100	75	62	50	32	25	21	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gananoque, Ontario	327	167	159	137	93	86	82	57	44	32	18	11	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Clayton, NY	327	167	159	137	93	86	82	57	44	32	11	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Thousand Island Park, NY	326	164	156	134	90	83	79	54	41	29	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alexandria Bay, NY	317	156	148	127	83	76	72	46	33	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Brockville, Ontario	295	135	127	105	61	54	50	25	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ogdensburg, NY	283	123	115	93	49	42	38	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iroquois Lock, Ontario	270	110	102	80	36	29	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eisenhower Lock, NY	245	85	77	55	11	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Snell Lock, NY	241	81	73	51	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Colquhoun, Island, Ontario	233	74	66	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beauharnois Lock, Quebec	190	30	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cote St. Catherine Lock, Quebec	169	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Montreal, St. Lambert Lock, Quebec	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Quebec City, Quebec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(a) From sailing course point north of Old Mackinac Point  
 (b) From foot of Grand River Ave. to Toronto west entrance.

**DISTANCES BETWEEN POINTS ON LAKE ERIE AND THE ST. CLAIR, DETROIT AND NIAGARA RIVERS**  
(Statute Miles)

	Kingsville, Ontario	Rondeau, Ontario	Port Stanley, Ontario	Port Burwell, Ontario	Port Dover, Ontario	Port Maitland, Ontario	Niagara Falls, NY	Tonawanda, NY	Buffalo, NY	Dunkirk, NY	Erie, PA	Conneaut, OH	Ashtabula, OH	Fairport, OH	Cleveland, OH	Lorain, OH	Vermilion, OH	Huron, OH	Sandusky, OH	Put-in-Bay, OH	Port Clinton, OH	Toledo, OH	Monroe, MI	Detroit River Light, MI	Amherstburg, Ontario	Trenton, MI	Wyandotte, MI	Detroit, MI	Chatham, Ontario	Mount Clemons, MI	St. Clair Flats, MI/Ont.	Algonac, MI	Marine City, MI	St. Clair, MI	Port Huron, MI	Port Colborne, Ontario	Old Mackinac Point, MI
OLD MACKINAC POINT, MI (a)	358	414	459	475	527	538	588	580	569	539	500	473	460	435	417	399	391	387	380	363	369	363	348	334	326	324	320	309	322	296	286	274	266	259	247	553	-
PORT COLBORNE, ONTARIO	201	146	109	89	52	18	41	33	22	25	65	92	104	130	160	180	190	198	204	204	213	237	227	219	227	229	234	244	292	278	267	281	287	294	306	-	-
PORT HURON, MI (b)	111	167	212	228	280	291	341	333	322	292	253	226	213	188	170	152	144	140	133	116	122	116	101	87	79	77	73	62	75	49	39	27	19	12	-	-	-
St. Clair, MI	99	155	200	216	268	279	330	322	311	281	241	214	201	176	158	141	133	129	122	105	111	105	89	75	67	65	61	50	63	37	27	15	7	-	-	-	-
Marine City, MI	92	148	193	209	261	272	322	314	303	273	234	207	194	169	151	133	125	121	114	97	103	97	82	68	60	58	54	43	56	30	20	7	-	-	-	-	-
Algonac, MI	86	143	188	203	255	267	317	309	296	268	228	201	188	163	145	128	120	116	109	92	98	92	76	62	55	53	48	37	49	22	14	-	-	-	-	-	-
St. Clair Flats, MI/Ont. (c)	72	129	174	189	241	253	303	295	284	254	215	187	174	149	131	114	106	102	95	78	84	78	62	48	41	39	34	23	35	15	-	-	-	-	-	-	-
Mount Clemons, MI	83	140	185	200	252	264	314	306	295	265	226	199	185	161	142	125	117	113	106	89	95	89	73	59	53	50	45	35	49	-	-	-	-	-	-	-	-
Chatham, Ontario	97	154	199	214	265	278	328	320	309	279	239	212	198	174	156	139	130	127	120	102	108	102	87	73	66	63	59	48	-	-	-	-	-	-	-	-	-
Detroit, MI (Woodward Ave.)	49	106	151	166	217	230	280	272	261	231	191	164	150	126	108	91	82	79	72	54	60	54	39	25	18	15	11	-	-	-	-	-	-	-	-	-	-
Wyandotte, MI	39	96	141	156	208	220	270	262	251	221	182	154	141	116	98	81	73	69	62	45	51	45	29	15	8	5	-	-	-	-	-	-	-	-	-	-	-
Trenton, MI	34	91	136	151	203	215	265	257	246	216	177	149	136	111	93	76	68	64	57	40	46	40	24	10	13	-	-	-	-	-	-	-	-	-	-	-	-
Amherstburg, Ontario	31	88	133	148	200	212	262	254	243	213	173	146	133	108	90	73	64	61	54	36	42	36	21	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Detroit River Light, MI	24	81	126	141	193	205	255	247	236	206	166	139	126	101	83	66	58	54	47	30	36	30	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monroe, MI (piers)	33	89	134	149	200	213	263	255	244	214	174	147	133	109	89	68	60	5	48	30	35	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toledo, OH (river mouth)	45	98	143	159	210	223	272	265	254	224	185	157	144	119	96	72	65	59	52	38	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Clinton, OH	37	75	120	136	187	199	249	241	230	200	160	131	118	92	67	43	36	29	22	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Put-in-Bay, OH	27	66	111	127	177	190	240	232	221	190	150	122	109	83	51	38	32	27	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sandusky, OH (wharves)	41	69	114	130	178	190	239	232	221	189	149	120	107	79	55	29	21	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Huron, OH	47	68	111	124	172	184	233	226	215	183	142	113	99	72	47	20	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vermilion, OH	46	62	104	117	163	175	225	217	206	174	133	104	90	63	37	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lorain, OH	48	57	97	109	154	166	215	208	197	164	124	95	80	53	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cleveland, OH (main entrance)	65	53	85	93	134	146	194	187	176	143	102	73	59	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fairport, OH	83	48	62	66	104	116	165	157	146	114	73	44	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashtabula, OH	108	63	56	47	79	90	138	130	119	86	45	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conneaut, OH	122	74	59	48	68	80	126	118	107	74	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Erie, PA	149	98	70	53	47	54	98	89	78	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dunkirk, NY	188	134	98	78	50	28	55	48	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buffalo, NY	218	163	126	106	72	38	21	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tonawanda, NY	230	174	137	117	83	49	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Niagara Falls, NY	237	182	145	125	90	57	-	-	-	(a) From sailing point north of Old Mackinac Point.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Maitland, Ontario	187	132	95	75	37	-	-	-	-	(b) From foot of Grand River Avenue.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Dover, Ontario	175	120	83	62	-	-	-	-	-	(c) From south end of canal dike.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Burwell, Ontario	123	65	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Stanley, Ontario	108	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rondeau, Ontario	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kingsville, Ontario	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPLANATION  
Points in this table are arranged in geographical sequence proceeding southward in St. Clair River and Lake, and Detroit River, then eastward along the south shore of Lake Erie to Niagara River, and returning westward along the north lake shore



## DISTANCES BETWEEN POINTS ON LAKE HURON AND ST. MARYS RIVER (Statute Miles)

	Thessalon, Ontario	Algoma Mills, Ontario	Gore Bay, Ontario	Little Current, Ontario	French River, Ontario	Key Harbor, Ontario	Byng Inlet, Ontario	Parry Sound, Ontario	Depot Harbor, Ontario	Port McNicoll, Ontario	Midland, Ontario	Penetanguishene, Ontario	Collingwood, Ontario	Meaford, Ontario	Owen Sound, Ontario	Warton, Ontario	Southampton, Ontario	Kincardine, Ontario	Goderich, Ontario	Port Sanilac, MI	Harbor Beach, MI	Saginaw, MI	Bay City, MI	East Tawas, MI	Au Sable, MI	Alpena, MI	Rockport, MI	Stoneport, MI	Rogers City, MI	Cheboygan, MI	Mackinac Island, MI	St. Ignace, MI	Port Dolomite, MI	DeTour, MI	South Ste. Marie, MI	Old Mackinac Point, MI	Port Huron, MI	
Port Huron, MI (a)	*238	+238	+250	225	224	232	229	247	243	267	266	265	258	241	238	228	121	94	65	33	63	175	162	119	117	157	166	182	194	233	243	247	239	224	269	247	-	
Old Mackinac Point, MI (b)	69	*101	*116	*143	*196	*205	*211	235	231	256	255	254	247	230	227	217	189	192	211	215	186	223	210	163	142	115	83	78	54	18	7	6	27	45	90	-	-	
Sault Ste. Marie, MI (c)	& 48	& 88	& 108	& 131	& 184	& 193	& 201	& 242	+238	268	267	266	259	242	239	229	207	213	234	238	208	246	232	185	165	137	107	96	84	84	84	90	68	45	-	-	-	
DeTour, MI	%24	%58	%76	%101	%154	%163	%171	201	198	224	222	221	214	197	194	185	162	168	189	193	164	201	187	140	120	92	61	51	40	39	39	44	23	-	-	-	-	
Port Dolomite, MI	+92	+90	+108	+135	197	199	198	218	215	243	241	238	233	220	219	207	176	183	203	218	190	219	206	163	143	113	76	70	47	31	26	28	-	-	-	-		
St. Ignace, MI	%68	*100	*115	*142	*195	*204	*209	234	231	256	254	252	246	229	227	217	191	194	214	216	187	224	210	163	143	115	83	82	55	20	8	-	-	-	-	-		
Mackinac Island, MI	%63	*95	*110	*137	*190	*199	*204	229	226	251	249	248	241	224	221	212	186	189	209	212	184	220	207	159	140	111	79	77	50	17	-	-	-	-	-	-		
Cheboygan, MI	%63	*92	*106	*133	*186	*195	*197	221	217	242	241	240	233	216	213	204	175	178	198	202	173	210	196	149	129	101	69	66	40	-	-	-	-	-	-	-	-	
Rogers City, MI	*63	+74	+87	+114	157	163	164	187	183	208	206	206	199	182	177	169	139	142	161	163	134	171	157	110	90	61	31	27	-	-	-	-	-	-	-	-	-	
Stoneport, MI	+75	+73	+92	+118	145	147	147	166	163	190	189	186	181	164	163	151	115	120	146	158	130	154	141	97	76	48	9	-	-	-	-	-	-	-	-	-	-	-
Rockport, MI	*79	+79	+92	+119	136	143	143	166	162	187	186	185	178	161	158	148	112	113	132	134	106	142	129	82	62	31	-	-	-	-	-	-	-	-	-	-	-	-
Alpena, MI	*107	+107	+120	+143	145	151	152	174	171	195	193	192	185	168	165	156	109	107	124	125	97	129	116	69	49	49	-	-	-	-	-	-	-	-	-	-	-	-
Au Sable, MI	*135	+135	+148	158	160	163	166	183	180	204	202	201	189	177	174	165	98	85	93	86	58	83	69	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Tawas, MI	*155	+155	+168	175	176	180	182	199	196	220	218	217	210	194	190	181	110	94	95	88	60	68	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bay City, MI	*202	+202	+215	222	223	228	229	245	243	267	265	264	257	240	237	226	153	136	137	130	102	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saginaw, MI	*216	+216	+228	235	237	242	242	258	256	280	278	278	271	254	250	241	167	149	151	144	115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Harbor Beach, MI	*178	+178	+191	171	171	176	176	194	190	214	213	212	205	188	185	175	79	56	47	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Sanilac, MI	*207	+207	+219	197	196	201	201	219	215	239	238	237	230	213	210	200	97	70	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Goderich, Ontario	+195	+196	204	169	172	172	174	192	189	213	211	210	207	187	183	174	64	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kincardine, Ontario	+173	+174	174	141	142	149	144	162	158	182	181	180	176	156	153	144	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southampton, Ontario	+166	+166	155	122	123	130	125	143	140	163	162	161	157	137	134	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warton, Ontario (d)	+188	158	142	110	88	79	81	74	71	76	74	73	53	36	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Owen Sound, Ontario (d)	+197	167	152	119	97	97	89	79	75	71	70	69	46	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Meaford, Ontario (d)	+200	169	153	121	96	96	86	71	68	55	53	52	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Collingwood, Ontario (d)	+217	186	171	138	108	107	97	80	76	57	55	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Penetanguishene, Ontario	+224	187	172	139	106	104	94	72	69	12	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Midland, Ontario (d)	+225	186	173	140	107	105	95	73	70	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Port McNicoll, Ontario (d)	+227	190	174	142	106	106	97	75	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Depot Harbor, Ontario (d)	193	155	140	107	73	71	62	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Parry Sound, Ontario (d)	197	159	143	111	77	75	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Byng Inlet, Ontario (d)	155	118	102	70	31	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Key Harbor, Ontario (d)	148	110	94	62	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
French River, Ontario (d)	139	101	86	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Little Current, Ontario	86	48	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gore Bay, Ontario	61	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Algoma Mills, Ontario	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Thessalon, Ontario	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(a) From foot of Grand River Ave.  
 (b) From sailing course point north of Old Mackinac Point.  
 (c) From abreast east end of U.S. center pier and (except those marked by S) via Middle Neebish and DeTour; distances downbound through West Neebish are 1 mile less.  
 (d) Distances to Georgian Bay ports (except those marked \*, +, S, =) are via the bay entrance from Lake Huron and St. Marys River points and via Little Current from North Channel points.

\* Via False Detour and North Channels.  
 + Via Mississagi Straight and North Channel.  
 S Via Lake Nicolet, St. Joseph and North Channels.  
 = Via Potamissing Bay and North Channel.

**EXPLANATION**

Points in this table are arranged in geographical sequence proceeding from St. Marys River southward along the west shore, and returning northward up the east shore, around Georgian Bay, and westward through North Channel.

### DISTANCES BETWEEN POINTS ON LAKE MICHIGAN (Statute Miles)

	Beaver Island Harbor, MI	Petoskey, MI	Charlevoix, MI	Traverse City, MI	Frankfort, MI	Portage Lake, MI	Manistee, MI	Ludington, MI	Penwater, MI	White Lake, MI	Muskegon, MI	Grand Haven, MI	Holland, MI	Saugatuck, MI	South Haven, MI	St. Joseph, MI	Michigan City, IN	Gary, IN	Indiana Harbor, IN	South Chicago, IL	Chicago, IL	Waukegan, WI	Kenosha, WI	Racine, WI	Milwaukee, WI	Port Washington, WI	Sheboygan, WI	Manitowoc, WI	Kewaunee, WI	Algoma, WI	Sturgeon Bay, WI	Green Bay, WI	Menominee, MI	Escanaba, MI	Manistique, MI	Port Inland, MI	Old Mackinac Point, MI	
OLD MACKINAC PT., MI (a)	41	55	56	97	122	142	150	173	184	213	224	238	257	263	261	300	325	336	334	333	324	296	282	272	259	237	212	191	170	161	155	198	155	129	75	59	-	
Port Inland, MI	31	66	55	88	96	116	123	146	157	186	197	211	229	235	253	271	298	314	308	304	298	270	254	245	226	204	179	161	131	124	110	149	104	78	23	-	-	
Manistique, MI	43	76	64	94	91	110	118	141	152	182	193	207	225	232	250	268	294	303	301	298	290	260	244	235	220	195	168	146	120	111	103	135	92	66	-	-	-	-
Escanaba, MI	99	113	99	120	91	106	112	130	141	170	181	195	213	220	238	255	280	288	286	283	274	242	226	217	201	176	149	127	100	90	69	101	55	-	-	-	-	
Menominee, MI (b)	122*	134*	119*	138*	80	86	87	96	108	135	146	159	177	183	200	216	239	246	243	240	230	198	184	172	155	130	103	81	52	43	22	49	-	-	-	-	-	
Green Bay, WI	165*	176	160	178	105	111	112	123	134	159	171	184	202	209	225	242	264	272	268	265	255	223	209	197	180	155	128	106	78	68	47	-	-	-	-	-	-	
Sturgeon Bay, WI	123	129	113	131	58	64	65	76	87	113	124	137	155	162	178	195	217	225	222	218	208	176	162	150	133	108	81	58	30	21	-	-	-	-	-	-	-	
Algoma, WI	131	135	119	136	59	60	59	66	75	100	111	123	142	146	163	179	200	206	203	200	190	158	142	132	115	89	62	40	12	-	-	-	-	-	-	-	-	-
Kewaunee, WI	138	143	126	143	62	60	58	61	70	93	104	116	135	141	156	171	192	197	194	191	181	149	133	123	105	79	53	31	-	-	-	-	-	-	-	-	-	-
Manitowoc, WI	161	163	147	164	79	71	66	60	64	79	90	102	118	123	137	150	169	173	169	166	156	123	107	97	79	53	26	-	-	-	-	-	-	-	-	-	-	-
Sheboygan, WI	180	181	165	182	95	83	76	60	63	68	78	87	102	106	118	130	146	149	146	143	132	99	83	74	55	29	-	-	-	-	-	-	-	-	-	-	-	-
Port Washington, WI	206	205	189	206	119	104	98	80	76	72	77	84	94	97	105	112	124	125	121	118	107	74	58	48	29	-	-	-	-	-	-	-	-	-	-	-	-	-
Milwaukee, WI	228	227	211	228	140	125	117	97	91	78	80	83	88	89	93	96	104	103	99	96	85	51	35	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Racine, WI	242	241	225	242	153	137	129	108	100	81	80	80	79	80	80	78	84	83	78	75	64	30	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kenosha, WI	252	251	234	252	163	147	138	117	108	86	87	86	82	82	79	75	76	73	67	64	54	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waukegan, WI	266	265	249	266	177	160	152	130	122	100	96	93	86	84	78	70	64	58	52	49	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chicago, IL	294	293	276	293	204	186	179	156	146	120	114	108	95	90	77	60	38	25	19	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Chicago, IL	302	301	285	302	213	196	188	165	154	127	120	114	100	95	79	60	33	14	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indiana Harbor, IN	304	303	287	304	215	198	189	167	156	129	122	115	99	95	79	59	31	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gary, IN	309	308	292	309	216	199	191	167	157	129	121	114	99	93	77	55	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Michigan City, IN	295	294	278	295	206	189	181	157	146	117	108	99	82	75	57	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Joseph, MI	269	268	251	268	179	162	154	130	119	88	78	69	50	44	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Haven, MI	251	250	233	250	161	144	136	111	101	39	58	49	29	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saugatuck, MI	232	231	215	232	143	126	118	93	83	51	40	29	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Holland, MI	227	226	210	227	137	120	112	88	77	45	34	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Haven, MI	206	205	189	206	117	100	92	67	57	25	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Muskegon, MI	195	194	178	195	106	89	80	56	46	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White Lake, MI	184	183	167	184	95	78	69	45	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentwater, MI	154	153	137	154	65	48	39	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ludington, MI	143	142	126	143	54	37	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manistee, MI	118	117	100	118	28	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portage Lake, MI	110	109	93	110	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frankfort, MI	93	92	75	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traverse City, MI	69	58	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charlevoix, MI	33	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petoskey, MI	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beaver Island Harbor, MI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(a) From sailing course point north of Old Mackinac Point.  
 (b) Distances from Menominee and Green Bay to Lake Michigan points (except those marked with \*) are via Sturgeon Bay Canal.  
 \* Via Rock Island Passage.

**EXPLANATION**

Points in this table are arranged in geographical sequence proceeding southward along the west shore and returning northward along the east shore.

## DISTANCES BETWEEN POINTS ON LAKE SUPERIOR (Statute Miles)

	Gargantua Harbor, Ontario	Michigan, Ontario	Quebec Harbor, Ontario	Peninsula Harbor, Ontario	Rosspport, Ontario	Thunder Bay, Ontario	Passage Island, MI	Rock of Ages, MI	Grand Marais, MN	Taconite, MN	Silver Bay, MN	Two Harbors, MN	Duluth, MN	Superior, WI	Port Wing, WI	Bayfield, WI	Ashland, WI	Ontonagon, MI	Keweenaw, Upper Entry	Houghton, MI	Dollar Bay, MI	Lake Linden, MI	Chassell, MI	Portage Entry, MI	Eagle Harbor, MI	Copper Harbor, MI	Mendota Canal, MI	L'Anse, MI	Huron Bay, MI	Marquette,	Munising, MI	Grand Marais, MI	Whitefish Point, MI	St. Ste. Marie, MI	Old Mackinac Point, MI	Port Huron, MI		
PORT HURON, MI (a)	360	391	385	465	503	542	498	532	574	603	621	640	664	662	633	606	618	544	501	490	487	493	485	476	473	458	458	486	473	429	400	361	311	269	247	-		
OLD MACKINAC POINT, MI (b)	181	212	206	285	324	363	319	353	395	426	444	461	485	483	454	426	439	365	322	311	308	314	306	297	294	279	279	307	294	249	221	182	134	90	-	-		
SAULT STE. MARIE, MI (c)	91	121	116	195	234	273	229	263	305	334	352	371	394	393	364	336	349	274*	232*	221	218	224	215	207	204	189	189	217	204	159	131	92	42	-	-	-		
Whitefish Point, MI	54	83	74	153	192	231	187	221	263	292	310	329	352	351	322	294	307	232*	190*	179	176	182	173	165	162	147	147	175	162	117	89	50	-	-	-	-		
Grand Marais, MI	78	102	70	144	171	198	154	182	224	255	270	289*	312*	310*	282*	252*	264*	187*	143*	133	130	135	127	119	123	108	105	129	114	68	40	-	-	-	-	-		
Munising, MI	112	136	97	162	179	193	150	174	212*	245	260	271*	293*	291*	263*	233*	245*	168*	124*	114	111	116	108	99	113	100	93	110	93	42	-	-	-	-	-	-		
Marquette, MI	135	154	112	160	164	171	128	149*	181*	228	239	239*	261*	260*	231*	201*	213*	136*	93*	84	81	84	76	68	91	76	67	78	62	-	-	-	-	-	-	-		
Huron Bay, MI	165	179	132	159	152	157	113	110*	142*	156*	181*	201*	223*	222*	193*	163*	175*	98*	54*	44	41	46	38	30	74	60	44	39	-	-	-	-	-	-	-	-		
L'Anse, MI	179	192	146	169	162	145*	108	95*	127*	151*	168*	186*	208*	206*	178*	148*	160*	83*	39*	29	26	31	23	14	70	71	51	-	-	-	-	-	-	-	-	-		
Mendota Canal, MI	138	152	105	125	117	122	78	103	145	172	190	212	234	232	204	174*	186*	110*	69*	55	52	58	50	41	42	27	-	-	-	-	-	-	-	-	-	-	-	
Copper Harbor, MI	137	145	100	112	99	100	56	77	119	142	161	185	208	206	178	150	163	88	45	56	59	71	65	60	16	-	-	-	-	-	-	-	-	-	-	-	-	-
Eagle Harbor, MI	151	159	114	122	102	96	53	65	105	129	146	170	194	192	163	135	147	72	31	41	45	57	50	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portage Entry, MI	168	181	135	157	149	130*	94	81*	113*	136	153	171*	193*	192*	163*	133*	145*	68*	25*	14	11	17	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chassell, MI	177	190	143	166	145	125	89	76	108	128	146	166	188	187	158	128	140	63	20	9	6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake Linden, MI	185	198	151	174	151	131	95	82	113	136	153	172	194	193	163	134	146	69	26	15	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dollar Bay, MI	180	192	146	163	139	119	83	70	102	122	140	160	182	181	152	122	134	57	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Houghton, MI	182	195	149	160	136	116	80	67	99	118	135	157	179	178	149	119	131	54	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Keweenaw, Upper Entry	180	187	142	149	126	105	69	56	88	108	125	147	169	167	139	109	120	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ontonagon, MI	221	228	183	189	165	117	103	68	76	86	95	114	136	135	106	74	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashland, WI	295	304	258	261	227	164	165	115	85	77	62	71	93	92	63	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bayfield, WI	282	291	246	254	221	149	152	99	70	60	45	57	78	77	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Wing, WI	312	319	275	272	233	169	175	121	83	56	35	22	34	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Superior, WI	340	347	303	300	259	195	199	147	107	78	54	28	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duluth, MN	342	349	305	300	259	195	200	147	105	77	53	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Two Harbors, MN	319	327	281	277	236	172	177	124	82	55	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver Bay, MN	300	302	260	250	210	145	156	100	55	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taconite, MN	280	283	240	227	190	130	136	78	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Marais, MN	252	256	214	199	157	92	99	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock of Ages, MI	209	213	171	155	112	49	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Passage Island, MI	164	166	127	102	63	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thunder Bay, Ontario (d)	208	209	171	142	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rosspport, Ontario	157	155	125	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peninsula Harbor, Ontario	114	112	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec Harbor, Ontario	41	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Michigan, Ontario	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gargantua Harbor, Ontario	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(a) From foot of Grand River Avenue.  
 (b) From sailing course point north of Old Mackinac Point  
 (c) From abeam of east end of United States center pier.  
 (d) old Port Arthur.  
 \* Via Keweenaw Waterway.

**EXPLANATION**  
 Points in this table are arranged in geographical sequence proceeding westward along the south shore and returning eastward around the north shore.

**DISTANCES ON NEW YORK STATE WATERWAYS**  
(Statute Miles)

<b>City - Local Point</b>	<b>From Buffalo, Erie Basin</b>	<b>From Oswego, Lake Terminal</b>	<b>From Troy Lock</b>
<b>Erie Canal</b>			
Buffalo - Erie Basin	-	214.2	353.3
Tonawanda - Terminal	12.9	201.3	340.3
Lockport - Lower Terminal	30.9	183.3	322.3
Rochester	93.9	126.9	265.9
Newark - Dock	124.3	89.9	228.9
Syracuse - Terminal	190.1	37.2	176.2
Rome - Terminal	235.9	69.1	117.3
Utica - Terminal	249.9	83.1	104.9
Little Falls - Terminal	270.8	104.0	82.5
Amsterdam - Terminal	313.3	146.5	40.0
Schenectady	330.1	163.3	23.8
Cohoes	351.6	184.8	1.7
Troy Lock	353.3	186.5	-
<b>Cayuga and Seneca Canal</b>			
Watkins Glen	201.4	116.8	255.9
Ithaca	191.4	106.7	245.8
<b>Oswego Canal</b>			
Fulton - Dock Wall	202.5	11.7	174.7
Oswego - Lake Terminal	214.2	-	186.5
<b>Champlain Canal and Lake</b>			
Mechanicville - Terminal	360.1	193.3	11.4
Fort Edward - Terminal	388.7	222.0	40.1
Whitehall - Terminal	411.2	244.5	62.6
Burlington - Landing	481.8	315.1	133.1
Plattsburg - Terminal	497.2	330.5	148.5
Rouses Point - Terminal	593.3	366.5	173.0

**DISTANCE IN PANAMA CANAL**  
**(Nautical Miles)**

**Atlantic entrance (9°23.5'N., 79°55.3'W.) to:**

<b>Cristobal (Colon)</b> .....	<b>2.5</b>
<b>Gatun Locks (north end)</b> .....	<b>6.5</b>
<b>Pedro Miguel Locks (north end)</b> .....	<b>35.2</b>
<b>Miraflores Lock (north end)</b> .....	<b>36.8</b>
<b>Balboa (Panama)</b> .....	<b>40.5</b>
<b>Pacific entrance (8°53.0'N., 79°31.0'W.)</b> .....	<b>46.0</b>

# PACIFIC OCEAN DISTANCES

(Nautical Miles)

	Midway Island	Port Allen, HI	Nawiliwili, HI	Pearl Harbor, HI	Honolulu, HI	Kahului, HI	Kawaihae, HI	Hilo, HI	Kuluk Bay, AK	UNIMAK PASS, AK	Kodiak, AK	Anchorage, AK	Seward, AK	Port Valdez, AK	CAPE SPENCER, AK	Sitka, AK	Ketchikan, AK	Seattle, WA	SWIFTSURE BANK, WA	CAPE FLATTERY, WA	Portland, OR	Astoria, OR	San Francisco, CA	Los Angeles, CA	Long Beach, CA	San Diego, CA		
PANAMA CANAL 8°53.0'N, 79°31.0'W. San Diego, CA 32°43.0'N, 117°10.5'W. Long Beach, CA 33°46.2'N, 118°13.3'W.	5707 3097 3034	4777 2347 2302	4767 2330 2284	4690 2283 2241	4685 2278 2236	4609 2212 2173	4594 2219 2183	4527 2175 2143	5604 2806 2725	5228 2412 2331	4924 2115 2034	5117 2303 2223	4940 2124 2043	4984 2174 2092	4603 1787 1707	4538 1723 1643	4387 1575 1497	4044 1228 1148	- - -	3920 1104 1024	3888 1074 992	3803 989 908	3270 455 374	2939 95 3	2939 94 -	2867 -		
Los Angeles, CA 33°45.0'N, 118°16.2'W. San Francisco, CA 37°48.5'N, 122°24.0'W. Astoria, OR 46°11.7'N, 123°50.0'W.	3031 2792 2724	2299 2146 2281	2281 2128 2262	2238 2096 2251	2233 2091 2246	2170 2036 2207	2180 2051 2235	2140 2019 2214	2722 2403 2071	2328 1990 1626	2031 1693 1261	2220 1882 1435	2040 1702 1242	2089 1745 1239	1703 1366 883	1639 1302 815	1493 1156 660	1144 807 278	- - -	1020 683 153	989 652 85	904 567 -	371 -	-	-	-		
Portland, OR 45°33.0'N, 122°41.7'W. CAPE FLATTERY, WA 48°26.0'N, 124°47.0'W. SWIFTSURE BANK, WA 48°31.0'N, 125°00.0'W.	2809 2694 -	2366 2308 -	2347 2289 -	2336 2290 -	2331 2285 -	2292 2245 -	2320 2276 -	2299 2260 -	2156 - 1973	1711 - 1510	1346 - 1124	1520 - 1294	1327 - 1100	1324 - 1100	968 - 739	900 - 681	745 - 518	362 124 134	- 10 -	238 -	-	-	-	-	-	-		
Seattle, WA 47°36.2'N, 122°20.3'W. Ketchikan, AK 55°20.5'N, 131°38.7'W. Sitka, AK 57°03.1'N, 135°20.5'W.	2818 2570 2481	2432 2387 2380	2413 2368 2361	2414 2388 2390	2409 2383 2385	2369 2361 2365	2400 2405 2412	2384 2398 2410	2107 1656 1490	1644 1193 1027	1258 742 564	1428 892 708	1234 682 494	1234 713 479	976* 307 85	815 224 -	659* -	-	-	-	-	-	-	-	-	-	-	
CAPE SPENCER, AK 58°10.0'N, 136°38.3'W. Port Valdez, AK 61°06.0'N, 146°24.0'W. Seward, AK 60°06.0'N, 149°26.0'W.	2472 2386 2250	2407 2445 2351	2388 2429 2332	2416 2473 2378	2411 2468 2373	2398 2463 2377	2445 2513 2432	2447 2524 2439	1450 1224 1115	987 761 652	505 280 175	641 385 274	422 144 -	400 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anchorage, AK 61°14.2'N, 149°53.3'W. Kodiak, AK 57°47.1'N, 152°25.1'W. UNIMAK PASS, AK 54°20.0'N, 164°45.0'W.	2305 2088 1680	2459 2203 1972	2440 2184 1963	2482 2235 2024	2477 2230 2028	2479 2233 2044	2535 2289 2110	2542 2296 2126	1151 968 463	688 505 -	242 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kuluk Bay, AK 51°51.6'N, 176°37.6'W. Hilo, HI 19°44.1'N, 155°03.5'W. Kawaihae, HI 20°02.3'N, 155°49.9'W.	1460 1338 1278	1990 297 240	1989 287 230	2057 201 145	2061 196 140	2099 121 85	2164 83 -	2198 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kahului, HI 20°54.0'N, 156°28.2'W. Honolulu, HI 21°18.5'N, 157°52.3'W. Pearl Harbor, HI 21°20.0'N, 157°58.3'W.	1232 1150 1146	193 106 102	181 96 92	94 9 -	89 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nawiliwili, HI 21°57.4'N, 159°21.5'W. Port Allen, HI 24°51.1'N, 159°35.6'W. Midway Island 28°13.0'N, 177°22.0'W.	1069 1042 -	21 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Via inside passage

## PACIFIC COAST DISTANCES SAN DIEGO, CALIFORNIA, TO CAPE FLATTERY, WASHINGTON

(Nautical Miles)

	Cape Flattery, WA	Aberdeen, WA	South Bend, WA	Portland, OR	Vancouver, WA	Longview, WA	Astoria, OR	Garibaldi, OR	Depoe Bay, OR	Newport, OR	Florence, OR	Gardinar, OR	Coos Bay, OR	Crescent City, CA	Eureka, CA	Sacramento, CA	Stockton, CA	Oakland, CA	San Francisco, CA	Monterey, CA	Port San Luis, CA	Santa Barbara, CA	Port Hueneme, CA	Los Angeles, CA	Long Beach, CA	Newport Beach, CA
SAN DIEGO, CA 32°43.0'N., 117°10.5'W.	1104	1031	1019	1074	1070	1034	989	937	891	881	848	832	817	704	653	530	526	458	455	370	259	174	147	95	94	78
Newport Beach, CA 33°37.1'N., 117°55.5'W.	1038	965	953	1007	1003	967	922	871	825	815	782	766	751	638	587	464	460	392	389	304	193	108	81	27	25	-
Long Beach, CA 33°46.2'N., 118°13.3'W.	1024	951	939	992	988	953	908	857	810	800	768	751	736	624	572	449	445	377	374	290	179	94	66	3	-	-
Los Angeles, CA 33°45.0'N., 118°16.2'W.	1020	947	935	989	985	949	904	853	807	797	764	748	733	620	569	446	442	374	371	286	175	90	62	-	-	-
Port Hueneme, CA 34°09.0'N., 119°12.4'W.	961	888	876	930	925	890	845	794	748	737	706	689	674	561	510	387	383	315	312	228	116	29	-	-	-	-
Santa Barbara, CA 34°24.5'N., 119°41.1'W.	937	864	852	905	901	866	821	770	723	713	681	664	649	537	485	362	358	290	287	203	91	-	-	-	-	-
Port San Luis, CA 35°10.4'N., 120°44.8'W.	854	781	769	823	819	783	739	687	641	631	599	582	567	455	403	280	276	208	205	121	-	-	-	-	-	-
Monterey, CA 36°36.5'N., 121°53.0'W.	746	673	661	714	710	675	630	579	532	522	490	474	459	346	294	171	167	100	96	-	-	-	-	-	-	-
San Francisco, CA 37°48.5'N., 122°24.0'W.	683	610	598	652	647	612	567	516	469	459	427	411	396	283	232	79	75	3	-	-	-	-	-	-	-	-
Oakland, CA 37°48.2'N., 122°19.5'W.	686	613	601	655	651	615	570	520	473	463	430	414	399	287	235	82	78	-	-	-	-	-	-	-	-	-
Stockton, CA 37°57.2'N., 121°18.8'W.	755	682	670	723	719	684	639	588	541	531	498	482	467	354	303	75	-	-	-	-	-	-	-	-	-	-
Sacramento, CA 38°33.8'N., 121°33.0'W.	758	685	673	727	722	687	642	591	544	534	502	486	471	358	307	-	-	-	-	-	-	-	-	-	-	-
Eureka, CA 40°47.8'N., 124°11.2'W.	468	395	383	436	432	397	352	301	254	244	212	195	180	64	-	-	-	-	-	-	-	-	-	-	-	-
Crescent City, CA 41°44.5'N., 124°11.4'W.	411	339	327	381	377	341	296	245	199	188	156	140	125	-	-	-	-	-	-	-	-	-	-	-	-	-
Coos Bay, OR 43°22.4'N., 124°12.5'W.	321	244	232	285	281	246	201	150	101	92	59	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gardinar, OR 43°43.9'N., 124°06.8'W.	298	221	209	262	258	223	178	127	78	69	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florence, OR 43°58.0'N., 124°06.3'W.	273	196	184	238	234	198	153	102	54	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newport, OR 44°37.8'N., 124°03.1'W.	235	158	146	200	196	160	115	63	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depoe Bay, OR 44°48.6'N., 124°03.6'W.	222	144	133	186	182	146	101	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garibaldi, OR 45°33.3'N., 123°55.1'W.	179	102	90	142	138	103	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Astoria, OR 46°11.7'N., 123°50.0'W.	153	75	63	85	80	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Longview, WA 46°06.3'N., 122°57.7'W.	198	119	108	39	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vancouver, WA 45°37.6'N., 122°41.3'W.	234	155	143	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portland, OR 45°33.0'N., 122°41.7'W.	238	159	147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Bend, WA 46°40.1'N., 123°47.5'W.	131	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen, WA 46°58.4'N., 123°48.5'W.	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAPE FLATTERY, WA 48°26.0'N., 124°47.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-





## DISTANCES ON COLUMBIA RIVER SYSTEM

(Nautical and Statute Miles)

	Johnson Bar Landing, ID	Lewiston, ID	Central Ferry, WA	Ice Harbor Dam, WA	Harrisburg, OR	Corvallis, OR	Albany, OR	Salem, OR	Oregon City, OR	Portland, OR	Richland, WA	Pasco, WA	Port of Walla Walla, WA	McNary Lock & Dam	Umatilla, OR	Arlington, OR	John Day Lock & Dam	The Dalles Lock & Dam	Hood River (town), OR	Bonneville Lock & Dam	Vancouver, WA	St. Helens, OR	Longview, WA	Astoria, OR	Warrenton, OR	Ilwaco, WA	Columbia River Mouth	
Columbia River	Columbia River Mouth 46°14.8'N., 124°05.5'W.	483	404	354	291	230	203	192	162	110	97	293	285	276	254	251	210	188	166	148	126	92	75	58	12	11	6	-
	Ilwaco, WA	484	404	355	292	230	203	193	163	111	98	294	286	276	254	252	211	189	167	149	127	93	76	59	13	12	-	7
	Warrenton, OR	475	396	346	283	222	195	184	154	103	89	285	277	268	246	244	202	180	159	140	118	84	67	50	4	-	14	13
	Astoria, OR	470	391	342	278	217	190	180	149	98	85	281	273	263	241	239	198	175	154	136	114	80	62	45	-	5	15	14
	Longview, WA	425	345	296	233	171	144	134	104	52	39	235	227	217	195	193	152	130	108	90	68	34	17	-	52	58	68	67
	St. Helens, OR	411	332	282	219	158	131	121	90	39	25	222	214	204	182	180	138	117	95	76	55	20	-	20	71	77	87	86
	Vancouver, WA	391	312	262	199	145	118	108	77	26	13	202	193	184	162	160	118	96	75	56	35	-	23	39	92	97	107	106
	Bonneville Lock & Dam	356	277	228	164	180	153	142	112	61	47	167	159	149	127	125	84	62	40	22	-	40	63	78	131	136	146	145
	Hood River (town), OR	335	256	206	143	201	174	164	134	82	69	145	137	128	106	103	62	40	18	-	25	64	87	104	157	161	171	170
	The Dalles Lock & Dam	316	237	188	124	220	193	183	152	101	87	127	119	109	87	85	44	22	-	21	46	86	109	124	177	183	192	191
	John Day Lock & Dam	294	215	166	102	242	215	204	174	123	109	105	97	87	65	63	22	-	25	46	71	110	135	150	203	207	217	216
	Arlington, OR	273	194	144	81	263	236	226	195	144	130	83	75	66	44	42	-	25	51	71	97	136	159	175	228	232	243	242
	Umatilla, OR	231	152	103	39	305	278	268	237	186	172	42	34	24	2	-	48	72	98	119	144	184	207	222	275	281	290	289
McNary Lock & Dam	229	150	101	37	307	280	270	239	188	174	40	32	22	-	2	51	75	100	122	146	186	209	224	277	283	292	292	
Port of Walla Walla, WA	207	128	79	15	329	302	292	261	210	196	18	10	-	25	28	76	100	125	147	171	212	235	250	303	308	318	318	
Pasco, WA	204	125	75	12	339	312	301	271	220	206	8	-	12	37	39	86	112	137	158	183	222	246	261	314	319	329	328	
Willamette River	Richland, WA	212	133	83	20	347	320	309	279	228	214	-	9	21	46	48	96	121	146	167	192	232	255	270	323	328	338	337
	Portland, OR	403	324	275	211	133	106	96	65	14	-	246	237	226	200	198	150	125	100	79	54	15	29	45	98	102	113	112
	Oregon City, OR	417	338	288	225	119	92	82	51	-	16	262	253	242	216	214	166	142	116	94	70	30	45	60	113	119	128	127
	Salem, OR	468	389	340	276	68	41	31	-	59	75	321	312	300	275	273	224	200	175	154	129	89	104	120	171	177	188	186
	Albany, OR	499	420	370	307	37	10	-	36	94	110	356	346	336	311	308	260	235	211	189	163	124	139	154	207	212	222	221
	Corvallis, OR	509	430	380	317	27	-	12	47	106	122	368	359	348	322	320	272	247	222	200	176	136	151	166	219	224	234	234
Harrisburg, OR	536	457	407	344	-	31	43	78	137	153	399	390	379	353	351	303	278	253	231	207	167	182	197	250	255	265	265	
Snake River	Ice Harbor Dam, WA	192	113	63	-	396	365	353	318	259	243	23	14	17	43	45	93	117	143	165	189	229	252	268	320	326	336	335
	Central Ferry, WA	129	50	-	72	468	437	426	391	331	316	96	86	91	116	119	166	191	216	237	262	302	325	341	394	398	409	407
	Lewiston, ID	79	-	58	130	526	495	483	448	389	373	153	144	147	173	175	223	247	273	295	319	359	382	397	450	456	465	465
	Johnson Bar Landing, ID	-	91	148	221	617	586	574	539	480	464	244	235	238	264	266	314	338	364	386	410	450	473	489	541	547	557	556

Nautical miles on top (upright text)

Statute miles on the bottom (shaded, slant text)

## DISTANCES IN STRAIT OF JUAN DE FUCA AND STRAIT OF GEORGIA

(Nautical Miles)

	Vancouver, BC, Canada	New Westminster, BC, Canada	Nanaimo, BC, Canada	Blaine, WA	Bellingham, WA	Anacortes, WA	Friday Harbor, WA	Roche Harbor, WA	Olympia, WA	Tacoma, WA	Bremerton, WA	Eagle Harbor, WA	Seattle, WA	Point Wells, WA	Everett, WA	Port Gamble, WA	Port Ludlow, WA	Port Townsend, WA	Victoria, BC, Canada	Port Angeles, WA	Neah Bay, WA	Swiftsure Bank, WA	Cape Flattery, WA
Cape Flattery, WA 48°26.0'N., 124°47.0'W.	141	139	145	112	108	93	87	83	168	143	131	123	124	111	117	104	100	86	62	61	10	10	-
Swiftsure Bank, WA 48°31.0'N., 125°00.0'W.	150	148	154	121	117	102	96	92	178	153	141	133	134	121	127	114	110	96	71	71	20	-	-
Neah Bay, WA 48°22.4'N., 124°36.5'W.	133	132	138	105	101	86	80	76	160	136	124	115	116	103	110	97	93	79	55	54	-	-	-
Port Angeles, WA 48°07.5'N., 123°26.4'W.	95	93	99	65	54	42	37	36	113	89	77	68	69	56	63	50	46	32	19	-	-	-	-
Victoria, BC, Canada 48°25.0'N., 123°23.5'W.	83	82	89	55	50	36	30	25	115	91	80	71	72	59	66	53	48	34	-	-	-	-	-
Port Townsend, WA 48°06.8'N., 122°45.2'W.	92	91	97	59	43	30	30	41	84	59	48	40	40	27	34	21	16	-	-	-	-	-	-
Port Ludlow, WA 47°55.3'N., 122°41.0'W.	106	105	111	72	57	43	44	54	75	52	40	32	32	19	26	10	-	-	-	-	-	-	-
Port Gamble, WA 47°51.3'N., 122°34.7'W.	110	109	115	76	61	47	48	58	78	53	42	34	34	21	28	-	-	-	-	-	-	-	-
Everett, WA 47°59.3'N., 122°13.2'W.	115	114	118	80	63	49	62	71	73	49	38	29	30	16	-	-	-	-	-	-	-	-	-
Point Wells, WA 47°47.1'N., 122°23.7'W.	117	116	121	83	68	54	54	64	59	34	23	14	14	-	-	-	-	-	-	-	-	-	-
Seattle, WA 47°36.2'N., 122°20.3'W.	129	128	134	95	80	66	67	77	50	25	14	8	-	-	-	-	-	-	-	-	-	-	-
Eagle Harbor, WA 47°34.2'N., 122°30.7'W.	129	128	134	95	80	66	67	76	50	25	13	-	-	-	-	-	-	-	-	-	-	-	-
Bremerton, WA 47°33.5'N., 122°38.0'W.	138	137	142	104	88	74	76	85	50	29	-	-	-	-	-	-	-	-	-	-	-	-	-
Tacoma, WA 47°16.0'N., 122°26.0'W.	149	148	154	115	100	86	86	96	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Olympia, WA 47°03.1'N., 122°54.3'W.	173	171	177	139	124	110	112	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Harbor, WA 48°36.6'N., 123°09.1'W.	62	60	66	35	37	27	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Friday Harbor, WA 48°32.2'N., 123°00.9'W.	62	60	69	37	28	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anacortes, WA 48°31.4'N., 122°36.7'W.	71	70	76	36	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bellingham, WA 48°45.1'N., 122°29.0'W.	72	71	75	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blaine, WA 48°59.5'N., 122°45.9'W.	48	48	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nanaimo, BC, Canada 49°10.1'N., 123°56.0'W.	36	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Westminster, BC, Canada 49°12.0'N., 122°54.5'W.	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vancouver, BC, Canada 49°17.4'N., 123°06.6'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## HAWAII DISTANCES

(Nautical Miles)

	Palmyra Island	Johnston Island	Midway Island	Nonopapa, Nihau	Hanalei, Kauai	Waimea, Kauai	Port Allen, Kauai	Nawiliwili, Kauai	Ahukini, Kauai	Pearl Harbor, Oahu	Honolulu, Oahu	Kalaupapa, Molokai	Haleolono, Molokai	Kaunakakai, Molokai	Kamalo, Molokai	Kaumalapau, Lanai	Kahalui, Maui	Lahaina (Mala), Maui	Hana, Maui	Mahukona, Hawaii	Kawaihae, Hawaii	Kailua, Hawaii	Napoopoo, Hawaii	Hilo, Hawaii
Hilo, Hawaii 19 44.1'N., 155° 03.5'W.	959	905	1338	332	308	303	297	287	287	201	196	154	155	145	137	136	121	125	85	72	83	109	120	-
Napoopoo, Hawaii 19 28.6'N., 155° 55.3'W.	-	-	-	287	266	260	254	244	245	162	157	138	124	120	112	101	120	99	84	50	45	11	-	-
Kailua, Hawaii 19 38.6'N., 156° 00.0'W.	-	-	-	278	257	251	245	235	236	152	147	127	114	109	102	91	110	88	73	39	34	-	-	-
Kawaihae, Hawaii 20 02.3'N., 155° 49.9'W.	928	811	1278	277	251	246	240	230	230	145	140	110	103	93	86	82	85	72	48	12	-	-	-	-
Mahukona, Hawaii 20 11.2'N., 155° 54.2'W.	-	-	-	272	244	239	233	223	223	138	133	102	95	85	77	76	74	63	36	-	-	-	-	-
Hana, Maui 20 45.6'N., 155° 59.1'W.	-	-	-	262	224	226	220	210	210	124	119	70	80	69	59	72	37	57	-	-	-	-	-	-
Lahaina (Mala), Maui 20 53.5'N., 156° 41.5'W.	-	-	-	214	186	182	177	165	165	78	73	39	34	23	15	25	27	-	-	-	-	-	-	-
Kahalui, Maui 20 54.0'N., 156° 28.2'W.	1010	798	1232	232	194	199	193	181	181	94	89	41	50	39	30	50	-	-	-	-	-	-	-	-
Kaumalapau, Lanai 20 47.4'N., 156° 59.7'W.	-	-	-	199	172	167	161	151	151	65	60	54	24	21	25	-	-	-	-	-	-	-	-	-
Kamalo, Molokai 21 02.9'N., 156° 52.7'W.	-	-	-	203	173	169	163	153	153	66	61	37	22	12	-	-	-	-	-	-	-	-	-	-
Kaunakakai, Molokai 21 05.1'N., 157° 02.0'W.	-	-	-	193	164	160	154	144	144	57	52	45	13	-	-	-	-	-	-	-	-	-	-	-
Haleolono, Molokai 21 05.2'N., 157° 15.2'W.	-	-	-	181	152	148	142	132	132	45	40	33	-	-	-	-	-	-	-	-	-	-	-	-
Kalaupapa, Molokai 21 11.7'N., 156° 59.3'W.	-	-	-	194	159	162	156	144	143	58	53	-	-	-	-	-	-	-	-	-	-	-	-	-
Honolulu, Oahu 21 18.5'N., 157° 52.3'W.	959	725	1150	147	116	112	106	96	96	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pearl Harbor, Oahu 21 20.0'N., 157° 58.3'W.	960	722	1146	143	112	108	102	92	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ahukini, Kauai 21 59.7'N., 159° 20.1'W.	-	-	-	65	29	29	23	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nawiliwili, Kauai 21 57.4'N., 159° 21.5'W.	986	668	1069	63	32	27	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Allen, Kauai 21 54.1'N., 159° 35.6'W.	979	656	1042	45	42	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waimea, Kauai 21 57.4'N., 159° 40.4'W.	-	-	-	40	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hanalei, Kauai 22 12.9'N., 159° 30.1'W.	-	-	-	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonopapa, Nihau 21 52.0'N., 160° 14.1'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Midway Island 28 13.0'N., 177° 22.0'W.	1606	825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Johnston Island 16 44.6'N., 169° 31.2'W.	785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Palmyra Island 5 52.5'N., 162° 08.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



## INSIDE-PASSAGE DISTANCES

### Seattle, Washington, to Cape Spencer, Alaska

(Nautical Miles)

	Cape Spencer, AK	Gustavus, AK	Skagway, AK	Haines, AK	Juneau, AK	Pelican, AK	Sitka, AK	Petersburg, AK	Port Alexander, AK	Cape Decision, AK	Wrangell, AK	Craig, AK	Ketchikan, AK	Metlakatla, AK	Cape Chacon, AK	Hyder, AK	Dixon Entrance, B.C.	Victoria, B.C.	Seattle, WA
Seattle, WA 47°36.2'N., 122°20.3'W.	976	938	962	950	879	989	883	771	812	788	749	716	659	660	640	690	664	72	-
Victoria, B.C. 48°25.0'N., 123°28.5'W.	924	886	910	898	827	937	832	719	761	737	697	664	608	608	588	638	612	-	
Dixon Entrance, AK 54°28.0'N., 132°52.0'W.	319	290	371	359	288	332	221	180	150	126	157	77	79	66	34	169	-		
Hyder, AK 55°54.2'N., 130°00.6'W.	451	423	447	435	364	464	368	256	297	273	234	212	144	148	136	-			
Cape Chacon, AK 54°40.6'N., 131°59.7'W.	318	289	337	325	254	331	220	146	149	125	123	76	45	32	-				
Metlakatla, AK 55°07.8'N., 131°34.2'W.	321	293	317	305	235	334	238	126	167	143	104	109	16	-					
Ketchikan, AK 55°20.5'N., 131°38.7'W.	307	278	303	291	220	320	224	112	153	129	89	121	-						
Craig, AK 55°28.7'N., 133°09.7'W.	242	213	264	253	206	255	144	113	73	49	111	-							
Wrangell, AK 56°28.2'N., 132°23.2'W.	235	208	231	219	148	248	170	40	99	75	-								
Cape Decision, AK 55°59.4'N., 134°08.1'W.	193	164	215	204	157	206	95	76	24	-									
Port Alexander, AK 56°14.8'N., 134°38.8'W.	173	147	198	186	140	186	82	100	-										
Petersburg, AK 56°48.9'N., 132°57.8'W.	195	166	191	179	108	207	159	-											
Sitka, AK 57°03.1'N., 135°20.5'W.	85	136	187	176	162	79	-												
Pelican, AK 57°57.6'N., 136°13.8'W.	18	45	148	136	123	-													
Juneau, AK 58°17.9'N., 134°24.7'W.	110	82	100	88	-														
Haines, AK 59°13.8'N., 135°26.1'W.	124	96	14	-															
Skagway, AK 59°26.8'N., 135°19.3'W.	136	106	-																
Gustavus, AK 58°23.3'N., 135°43.6'W.	32	-																	
CAPE SPENCER, AK 58°10.0'N., 136°38.3'W.	-																		

## DISTANCES ON YUKON RIVER, ALASKA

(Nautical Miles)

**Apoon Pass (63°02.6'N., 163°22.3'W.) to:**

<b>Hamilton</b> .....	<b>22</b>
<b>Azacharak</b> .....	<b>85</b>
<b>Pilot Station</b> .....	<b>115</b>
<b>Marshall</b> .....	<b>153</b>
<b>Russian Mission</b> .....	<b>195</b>
<b>Paimiut</b> .....	<b>231</b>
<b>Holy Cross</b> .....	<b>257</b>
<b>Anvik</b> .....	<b>292</b>
<b>Kaltag</b> .....	<b>409</b>
<b>Nulato</b> .....	<b>438</b>
<b>Koyukuk</b> .....	<b>453</b>
<b>Galena</b> .....	<b>481</b>
<b>Ruby</b> .....	<b>526</b>
<b>Kokrines</b> .....	<b>556</b>
<b>Tanana</b> .....	<b>628</b>
<b>Rampart</b> .....	<b>688</b>
<b>Stevens</b> .....	<b>762</b>
<b>Beaver</b> .....	<b>835</b>
<b>Fort Yukon</b> .....	<b>896</b>
<b>Circle</b> .....	<b>959</b>
<b>Coal Creek</b> .....	<b>1,002</b>
<b>Nation</b> .....	<b>1,047</b>
<b>Eagle</b> .....	<b>1,089</b>
<b>U.S.–Canada International Boundary</b> .....	<b>1,099</b>
<b>Fortymile, Canada</b> .....	<b>1,149</b>
<b>Dawson, Canada</b> .....	<b>1,197</b>

# BERING SEA and ARCTIC OCEAN DISTANCES

ALASKA  
(Nautical Miles)

	Alaska-Canada Boundary			Wainwright			Deering			Savoonga			Golovin Bay			Unalakleet			Hooper Bay			Platinum			Port Moller			Alcan Harbor			Constantine Harbor			Kuluk Bay		
	Barter Island	Barrow		Point Lay	Point Hope		Cape Prince of Wales	Port Clarence		Nome		Unalakleet	St. Michael	Apoon Pass	Bethel		Dillingham	Naknek	Meshik	St. Paul Island	Massacre Bay	Kiska		Kuluk Bay	Dutch Harbor	Unimak Pass										
UNIMAK PASS 54°20'N., 164°45.0'W.	1490	1428	1155	1079	998	868	900	702	708	642	646	686	737	711	708	472	421	307	384	377	277	208	254	833	805	672	614	463	75	-						
Dutch Harbor 53°52.7'N., 166°31.8'W.	1503	1440	1167	1092	1011	881	913	715	720	654	659	699	750	724	721	485	464	343	432	425	325	256	239	777	749	616	558	407	-	-						
Kuluk Bay 51°51.6'N., 176°37.6'W.	1678	1616	1343	1268	1187	1057	1089	891	896	830	835	875	926	900	897	678	776	662	785	779	694	627	387	396	368	235	175	-	-	-						
Constantine Harbor 51°24.0'N., 179°18.1'W.	1763	1701	1428	1353	1272	1142	1174	976	981	915	920	960	1011	985	982	775	903	789	919	912	832	769	501	249	222	79	-	-	-	-						
Kiska 51°58.3'N., 177°34.5'W.	1762	1700	1427	1352	1271	1141	1173	975	980	914	919	958	1009	984	981	783	931	817	951	945	871	809	526	185	157	-	-	-	-	-						
Alcan Harbor 52°44.0'N., 174°04.5'W.	1795	1733	1460	1385	1304	1174	1206	1008	1013	945	950	990	1044	1018	1015	830	1007	893	1036	1029	978	920	604	33	-	-	-	-	-	-						
Massacre Bay 52°48.9'N., 173°15.6'W.	1819	1756	1483	1408	1327	1197	1229	1031	1036	970	975	1015	1066	1040	1037	854	1034	921	1062	1056	991	934	632	-	-	-	-	-	-	-	-					
St. Paul Island 57°07.6'N., 170°17.9'W.	1317	1255	982	906	825	695	727	529	535	468	470	504	555	529	528	304	415	302	444	437	381	335	-	-	-	-	-	-	-	-	-					
Port Moller 55°59.0'N., 160°36.5'W.	1469	1407	1134	1059	978	848	880	682	687	621	618	652	703	678	676	452	310	196	207	198	88	-	-	-	-	-	-	-	-	-	-					
Meshik 56°56.5'N., 158°49.0'W.	1477	1414	1141	1066	985	855	887	689	695	628	625	660	712	685	684	459	293	179	130	118	-	-	-	-	-	-	-	-	-	-	-					
Naknek 58°41.5'N., 157°16.0'W.	1507	1442	1169	1094	1012	883	915	717	722	656	653	687	738	712	711	486	315	202	72	-	-	-	-	-	-	-	-	-	-	-	-					
Dillingham 59°02.0'N., 158°29.0'W.	1513	1448	1175	1100	1019	889	921	723	728	662	659	693	744	719	718	493	322	208	-	-	-	-	-	-	-	-	-	-	-	-	-					
Platinum 59°01.5'N., 161°52.0'W.	1358	1296	1023	948	866	737	769	571	576	510	507	541	592	566	565	340	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Bethel 60°49.0'N., 161°47.0'W.	1472	1410	1137	1061	980	850	883	685	690	624	620	655	706	680	679	454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Hooper Bay 61°29.0'N., 166°04.0'W.	1058	995	722	647	566	436	468	270	276	209	200	235	286	260	259	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Apoon Pass 63°02.6'N., 163°22.3'W.	1010	947	674	599	518	388	420	222	228	229	116	85	88	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
St. Michael 63°32.4'N., 161°54.8'W.	1007	945	672	596	515	385	417	219	225	230	110	59	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Unalakleet 63°53.0'N., 160°50.0'W.	1025	963	690	615	534	404	436	238	244	254	126	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Golovin Bay 64°22.3'N., 163°06.7'W.	961	899	626	551	470	340	372	174	179	197	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Nome 64°29.0'N., 165°26.0'W.	901	839	566	490	409	279	312	114	119	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Savoonga 63°43.0'N., 170°27.0'W.	912	850	577	502	420	291	323	125	151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Port Clarence 65°17.1'N., 166°24.5'W.	846	783	510	435	354	223	255	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Cape Prince of Wales 65°37.6'N., 168°31.5'W.	787	725	452	377	296	166	198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Deering 66°06.0'N., 162°44.0'W.	794	732	458	383	302	172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Point Hope 68°21.0'N., 167°18.0'W.	621	560	286	211	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Point Lay 68°21.0'N., 163°08.0'W.	496	434	161	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Wainwright 70°40.0'N., 160°00.0'W.	412	350	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Barrow 71°18.0'N., 156°48.0'W.	337	274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Barter Island 70°09.0'N., 143°40.0'W.	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Alaska-Canada Boundary 69°43.0'N., 141°00.0'W.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					

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	0-2	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	18-21	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



## Measurement and Conversion Factors

	<b>Equivalencies</b>
nautical mile	1,852.0 meters 6,076.12 feet
statute mile	5,280 feet; 1,609.3 meters; 1.6 093 kilometers
cable	0.1 nautical mile (Canada); 720 feet (U.S.)
fathom	6 feet; 1.8 288 meters
foot	0.3 048 meter
inch	2.54 centimeters
meter	39.37 inches; 3.281 feet; 1.0 936 yards
kilometer	1,000 meters
knot	1.6 877 feet per second 0.5 144 meters per second
miles (statute) per hour	1.466 feet per second 0.44 704 meters per second
acre	43,560 square feet 4,046.82 square meters
pound (avoirdupois)	453.59 gram
gram	0.0 022 046 pound (avoirdupois)
short ton	2,000 pounds
long ton	2,240 pounds
metric ton	2,204.6 pounds;
gram	0.035 274 ounce
kilogram	2.2 pounds
liter	1.0 567 quarts
barrel (petroleum)	42 gallons (U.S.)

## Conversion Factors

Symbol	When you know	Multiply by	To find	Symbol
<u>Linear</u>				
in	inches	25.40	millimeters	mm
in	inches	2.540	centimeters	cm
cm	centimeters	0.032 808	feet	ft
ft	feet	30.48	centimeters	cm
ft	feet	0.3 048	meters	m
ft	feet	0.00 016 458	nautical miles	nm
yd	yards	0.9 144	meters	m
m	meters	3.2 808	feet	ft
m	meters	1.094	yards	yd
m	meters	0.0 005 399	nautical miles	nm
sm	statute miles	0.86 897	nautical miles	nm
sm	statute miles	1.6 093	kilometers	km
sm	statute miles	1,609.3	meters	m
nm	nautical miles	1.151	statute miles	sm
<u>Area</u>				
ft <sup>2</sup>	square feet	0.0 929	square meters	m <sup>2</sup>
m <sup>2</sup>	square meters	10.764	square feet	ft <sup>2</sup>
	acres	4,046.9	square meters	m <sup>2</sup>
	acres	43,560	square feet	ft <sup>2</sup>
m <sup>2</sup>	square meters	0.0 002 471	acres	
ft <sup>2</sup>	square feet	0.00 002 296	acres	
ha	hectare	2.471 054	acre	
ha	hectare	10,000	square meters	m <sup>2</sup>
ha	hectare	1.07 639x10 <sup>5</sup>	square feet	ft <sup>2</sup>
	acre	0.404 685	hectare	ha
<u>Depths</u>				
	fathoms	1.8 288	meters	m
m	meters	0.54 681	fathoms	
m	meters	3.2 808	feet	ft
ft	feet	0.3 048	meters	m

## Conversion Factors (continued)

Symbol	When you know	Multiply by	To find	Symbol
<u>Rates</u>				
ft/sec	feet per second	0.5 925	knots	kt
ft/sec	feet per second	0.6 818	miles per hour	mph
ft/sec	feet per second	30.48	centimeters per second	cm/s
mph	statute miles per hour	0.8 689	knots	kt
mph	statute miles per hour	1.467	feet per second	fps
mph	statute miles per hour	0.447	meters per second	m/s
kt	knots	1.151	miles per hour	mph
kt	knots	0.5 144	meters per second	m/s
kt	knots	1.6 878	feet per second	fps
cm/sec	centimeter per second	0.01 944	knots	kt
cm/sec	centimeter per second	0.02 237	miles per hour	mph
cm/sec	centimeter per second	0.032 808	feet per second	fps
<u>Mass</u>				
g	grams	0.035 275	ounces (avoirdupois)	oz
g	grams	0.002 205	pounds (avoirdupois)	lb
oz	ounces (avoirdupois)	28.349	grams	g
lb	pounds	0.45 359	kilograms	kg
	short tons	2,000	pounds	Lb
	short tons	0.89 286	long tons	
	short tons	0.9 072	metric tons	t
	long tons	2,240	pounds	Lb
	long tons	1.12	short tons	
	long tons	1.016	metric tons	t
t	metric tons	1,000	kilograms	kg
t	metric tons	0.9 842	long tons	
t	metric tons	1.1 023	short tons	
t	metric tons	2,204.6	pounds	Lb
<u>Volume</u>				
	barrels (petroleum)	42	gallons (U.S.)	gal
	barrels (petroleum)	158.99	liters	L
	barrels (liquid, U.S.)	31.5	gallons (U.S.)	gal
	barrels (liquid, U.S.)	26.229	gallons (British)	gal
	barrels (liquid, U.S.)	119.24	liters	L
gal	gallons (U.S.)	0.02 381	barrels (petroleum)	
L	liters	0.26 417	gallons (U.S.)	Gal
gal	gallons (U.S.)	3.7 854	liters	L
<u>Temperature</u>				
	Degrees Fahrenheit	5/9 (after subtracting 32)	Degrees Celsius	
	Degrees Celsius	9/5 (then add 32)	Degrees Fahrenheit	

## METRIC STYLE GUIDE

**Prefixes:** Some of the metric units listed include prefixes such as kilo, centi, and milli. Prefixes, added to a unit name, create larger or smaller units by factors that are powers of 10. For example, add the prefix kilo, which means a thousand, to the unit gram to indicate 1000 grams; thus 1000 grams become 1 kilogram. The more common prefixes follow.

<u>Factor</u>		<u>Prefix</u>	<u>Symbol</u>
1 000 000	$10^6$	mega	M
1 000	$10^3$	kilo	k
1/100	$10^{-2}$	centi	c
1/1000	$10^{-3}$	milli	m
1/1 000 000	$10^{-6}$	micro	$\mu$

**Spelling:** All units and prefixes should be spelled as shown in this guide.

**Conversions:** Conversions should follow a rule of reason; do not include figures that imply more accuracy than justified by the original data. For example, 36 inches should be converted to 91 centimeters, not 91.44 centimeters (36 inches x 2.54 centimeters per inch = 91.44 centimeters), and 40.1 inches converts to 101.9 centimeters, not 101.854.

**Capitalization of Units:** The names of all units start with a lower case letter except, of course, at the beginning of the sentence. There is one exception: in "degree Celsius" (symbol °C) the unit "degree" is lower case but the modifier "Celsius" is capitalized. Thus body temperature is written as 37 degrees Celsius.

**Capitalization of Symbols:** Unit symbols are written in lower case letters except for liter and those units derived from the name of a person (m for meter, but W for Watt, Pa for pascal, etc.).

**Capitalization of Prefixes:** Symbols of prefixes that mean a million or more are capitalized and those less than a million are lower case (M for mega (millions), m for milli (thousandths)).

**Pluralizations of Units:** Names of units are made plural only when the numerical value that precedes them is more than 1. For example, 0.25 liter or 1/4 liter, but 250 milliliters. Zero degrees Celsius is an exception to this rule.

**Pluralization of Symbols:** Symbols for units are never pluralized (250 mm=250 millimeters).

**Incorrect Terms:** The prefix "kilo" stands for one thousand of the named unit. It is not a stand-alone term in the metric system. The most common misuse of this is the use of "kilo" for a "kilogram" of something. The word "micron" is an obsolete term for the quantity "micrometer." Also "degree centigrade" is no longer the correct unit term for temperature in the metric system; it has been replaced by degree Celsius.

**Spacing:** A space is used between the number and the symbol to which it refers. For example: 7 m, 31.4 kg, 37° C.

When a metric value is used as a one-thought modifier before a noun, hyphenating the quantity is not necessary. However, if a hyphen is used, write out the name of the metric quantity with the hyphen between the numeral and the quantity. For example:

a 2-liter bottle, not a 2-L bottle;  
a 100-meter relay, not a 100-m relay;  
35-millimeter film, not 35-mm film.

In names or symbols for units having prefixes, there is no space between letters making up the symbol or name. Examples: milligram, mg; kilometer, km.

Spaces (not commas) are used in writing metric values containing five or more digits. Examples 1 234 567 km, 0.123 456 mm. For values with four digits, either a space or no space is acceptable.

**Period:** Do not use a period with metric unit names and symbols except at the end of a sentence.

**Decimal Point:** The dot or period is used as the decimal point within numbers. In numbers less than one, zero should be written before the decimal point. Examples: 7.038 g; 0.038 g.

## APPENDIX

### National Ocean Service Offices

- (1) **Washington, DC (Headquarters):** Assistant Administrator, National Ocean Service, NOAA, Herbert C. Hoover Building, 14th Street and Constitution Avenue, NW, Washington, DC 20230-0001.
- (2) **Silver Spring:** Chief, Office of Coast Survey (N/CS), National Ocean Service, NOAA, 1315 East-West Highway, Silver Spring, MD 20910-3282.
- (3) **Norfolk:** Director, Atlantic Marine Center, National Ocean Service, NOAA, 439 West York Street, Norfolk, VA 23510-1114.
- (4) **Seattle:** Director, Pacific Marine Center, National Ocean Service, NOAA, 1801 Fairview Avenue East, Seattle, WA 98102-3767.

### Charts and Publications—National Ocean Service

- (5) **Sales Information.**—National Ocean Service (NOS) publications, nautical charts and unclassified National Imagery and Mapping Agency (NIMA) nautical charts are sold by NOS and its authorized sales agents in many U.S. ports and in some foreign ports through the National Aeronautical Charting Office. Mail orders should be addressed to:
  - (6) National Aeronautical Charting Office, AVN-530
  - (7) FAA Distribution Division
  - (8) 6501 Lafayette Avenue
  - (9) Riverdale, MD 20737-1199
- (10) Mail orders must be accompanied by a check or money order (payable in U.S. funds) payable to FAA. Remittance from outside the United States should be made either by an International Money Order or by a check payable on a U.S. bank.
- (11) **National Ocean Service Chart Catalogs.**—Chart catalogs, which include a listing of authorized sales agents, are free upon request. Telephone orders may be placed by calling 301-436-8301 or toll-free 1-800-638-8972 (Visa or Mastercard accepted); or by FAX, 301-436-6829 or by Email: 9-AMC-Chartsales@faa.gov.
- (12) NOS maintains an over-the-counter sales office at the FAA, Riverdale, MD (see address above). Visa, Mastercard, checks, cash, and money orders are accepted. Sales information is located on the internet website address, <http://www.naco.faa.gov>.
- (13) **New York State Barge Canal.**—The National Ocean Service provides chart coverage of the New York State Barge Canal System from the Hudson River at Troy, NY, as far west as Lyons, NY. (See National Ocean Service Sales Information, above.)
- (14) **National Imagery and Mapping Agency (NIMA), Department of Defense.**—The National Imagery and Mapping Agency provides hydrographic,

navigation, topographic, and geodetic data, charts, maps, and related products and services to the Armed Forces, other Federal Agencies, the Merchant Marine and mariners in general. Publications include Sailing Directions, List of Lights, Distances Between Ports, Radio Navigational Aids, International Code of Signals, American Practical Navigator (Bowditch), and Notice to Mariners.

- (15) **National Imagery and Mapping Agency Procurement Information.**—Unclassified publications produced by the National Imagery and Mapping Agency (NIMA) are available from the U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-1954. Orders can be placed on the U.S. Government Online Bookstore (<http://bookstore.gpo.gov>), by phone 202-512-1800 or by FAX 202-512-2250.

- (16) Classified NIMA publications and charts are available to authorized users from National Imagery and Mapping Agency from the Defense Supply Center Richmond (Attn: JNAA), 8000 Jefferson Davis Highway, Richmond, VA 23297-5336. Defense Supply Center Richmond, Customer Assistance Office may be contacted at 1-800-826-0342

- (17) **U.S. Army Corps of Engineer, Chart Coverage.**—Many of the inland waters tabulated in this publication are charted by the Corps of Engineers, U.S. Army. The charts are sold by Office of the U.S. Army Corps of Engineers which have cognizance of the waters. The telephone number listed is direct to “Chart Sales.” District Engineer, St. Louis, has delegated Chart Sales to a private organization (see District Engineer, St. Louis, below.)

### U.S. Army Corps of Engineer Offices: Districts

- (18) U.S. Army Engineer District,
- (19) Vicksburg (CEMVK)
- (20) Attn: Map Sales
- (21) 4155 Clay Street
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**State Abbreviations**

AL	Alabama	NH	New Hampshire
AK	Alaska	NJ	New Jersey
AZ	Arizona	NM	New Mexico
AR	Arkansas	NY	New York
CA	California	NC	North Carolina
CO	Colorado	ND	North Dakota
CT	Connecticut	OH	Ohio
DE	Delaware	OK	Oklahoma
FL	Florida	OR	Oregon
GA	Georgia	PA	Pennsylvania
HI	Hawaii	RI	Rhode Island
ID	Idaho	SC	South Carolina
IL	Illinois	SD	South Dakota
IN	Indiana	TN	Tennessee
IA	Iowa	TX	Texas
KS	Kansas	UT	Utah
KY	Kentucky	VT	Vermont
LA	Louisiana	VA	Virginia
ME	Maine	WA	Washington
MD	Maryland	WV	West Virginia
MA	Massachusetts	WI	Wisconsin
MI	Michigan	WY	Wyoming
MN	Minnesota	CZ	Canal Zone
MS	Mississippi	DC	District of Columbia
MO	Missouri	GU	Guam
MT	Montana	PR	Puerto Rico
NE	Nebraska	VI	Virgin Islands
NV	Nevada		

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