
Chart Coverage in Coast Pilot 6—Chapter 14
NOAA's Online Interactive Chart Catalog has complete chart coverage
http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
74°W
73°W
77°W
76°W
75°W
46°N
45°N
44°N
43°N
42°N
QUEBEC
ONTARIO
NEW YORK
VT
MA
CT
Montreal
1350
1351
RIVER RICHELIEU
ST. LAWRENCE RIVER
CANADA
UNITED STATES
LAKE ONTARIO
Plattsburgh
LAKE CHAMPLAIN
Burlington
Ticonderoga
Oswego
ONIEDA LAKE
Rome
Utica
MOHAWK RIVER
Syracuse
SENECA LAKE
CAYUGA LAKE
Ithaca
Schenectady
Troy
Albany
HUDSON RIVER

Hudson River, New York Canals, and Lake Champlain

(18)

Structures across the Hudson River

Name	Type	Location	Miles*	Clearances (feet) Horizontal	Clearances (feet) Vertical	Information
George Washington bridge	fixed	40°51'06"N., 73°57'09"W.	11.0	3,169	195	Note 1
Tappan Zee bridge	fixed	41°04'16"N., 73°53'42"W.	27.0	1,040 (center) 467 (east and west)	139 (center) 123 (east and west)	
Overhead cables	power	41°15'48"N., 73°58'17"W.	41.8		160	
Bear Mountain bridge	fixed	41°19'13"N., 73°59'00"W.	46.7	1,584	155	
Newburgh-Beacon bridges	fixed	41°31'12"N., 73°59'58"W.	62.0	960	147	Note 2
Mid-Hudson bridge	fixed	41°42'12"N., 73°56'44"W.	75.6	1,080	134	
CSX Railroad bridge	fixed	41°42'39"N., 73°56'40"W.	76.1	490	167	
Rhinecliff bridge	fixed	41°58'40"N., 73°56'44"W.	94.3	760 (both spans)	135	
Rip Van Winkle bridge	fixed	42°13'26"N., 73°51'07"W.	113.6	480	142	
Overhead cables	power	42°14'56"N., 73°48'58"W.	116.2		145	
Overhead cable	power	42°30'29"N., 73°46'30"W.	135.5		185	
CSX Railroad bridge		42°30'33"N., 73°46'28"W.	135.6	371 (center) 75(east), 566 (west)	139	Vertical clearance is for the left span
Castleton-on-Hudson bridge	fixed	42°30'36"N., 73°46'25"W.	135.7	552	135	
Overhead cable	power	42°35'46"N., 73°45'37"W.	141.9		169	
Overhead cable	power	42°35'56"N., 73°45'40"W.	142.1		194	
Dunn Memorial bridge	fixed	42°38'36"N., 73°44'51"W.	145.4	300	60	
Livingston Avenue (Amtrak) bridge	swing	42°39'16"N., 73°44'29"W.	146.2	103(east), 98 (west)	25	Note 3
Overhead cable	power	42°39'16"N., 73°44'29"W.	146.2		135	
Overhead cable	power	42°39'39"N., 73°44'02"W.	146.8		88	
Patroon Island bridge	fixed	42°39'54"N., 73°43'44"W.	147.2	300	60	
Overhead cable	power	42°40'52"N., 73°43'02"W.	148.5		95	
Overhead cable	power	42°41'46"N., 73°42'16"W.	149.7		87	
Troy-Menands bridge	fixed	42°42'04"N., 73°42'08"W.	150.2	317	61	Note 4
Congress Street bridge	fixed	42°43'44"N., 73°41'48"W.	152.1	250	55	
Troy-Green bridge	vertical lift	42°44'07"N., 73°41'21"W.	152.7	184	29	Note 3
Collar City bridge	fixed	42°44'26"N., 73°41'15"W.	153.1	359	61	
Troy Lock			153.9			
112th Street bridge	fixed	42°46'18"N., 73°40'54"W.	155.4	160	20	Notes 3 and 5

* Miles above The Battery, New York City
** Clear width in feet proceeding upstream
Note 1 – The bridge has a center clearance of 213 feet, with a clearance of 210 feet at the west end of the span and 195 feet at the east end of the span.
Note 2 – The vertical clearance of 147 feet is for a middle width of 760 feet in the center span. The bridges have a maximum vertical clearance of 172 feet at the center of the span.
Note 3– See 33 CFR 117.1 through 117.59 and 117.791, chapter 2, for the drawbridge regulations.
Note 4 – Vertical lift span maintained in the closed position. See 33 CFR 117.791, chapter 2, for drawbridge regulations.
Note 5 – Clearance at low water and above maximum navigable pool level.

(1) The **Hudson River** extends north from The Battery at New York City for about 152 miles to the head of tidal navigation at the Troy Lock and Dam at Troy, NY. (This section of the Hudson River is described in United States Coast Pilot 2, Cape Cod to Sandy Hook.)

(2) A federal project provides for a 32-foot channel from New York City to Albany, thence a 14-foot channel to the Troy Lock and Dam. (See Notices to Mariners and latest editions of charts for controlling depths.)

(3)

Chart Datum, Hudson River

(4) The plane of reference for depths shown on charts of the Hudson River is mean low water as far north as the upper end of Haverstraw Bay, about 38 miles above The Battery. From Haverstraw Bay to the Troy Lock and Dam, the reference plane is Hudson River Datum, which is mean low water during lowest river stages.

(5)

Troy Lock and Dam

(6) **Troy Lock and Dam** at **Troy, NY**, 154 miles above The Battery at New York City, is the lower entrance to the New York State Canal System. The lock has a length of 492.5 feet and width of 44.4 feet, with a depth of 13 feet over the lower sill at lowest low water. The lift of the lock at lowest stages is 17.3 feet.

(7)

Regulations

(8) (See **33 CFR 207.50**, chapter 2, for lock regulations and signals.)

(9)

New York State Canal System

(10) Above Troy Lock, the Hudson River extends north for about 2.3 miles to the junction of Erie Canal and Champlain Canal at **Waterford, NY**.

(11) The **New York State Canal System**, built and maintained by the State of New York, is a waterway providing access from the Hudson River to Lake Champlain on the east and to Lake Ontario and Lake Erie on the west. The system, comprising Champlain Canal, Erie Canal, Oswego Canal, and Cayuga and Seneca Canal, is 524 miles long, of which 370 miles are canalized rivers, streams and lakes, and 154 miles are artificial land cuts. Information on the New York State Canal System is available at *canals.ny.gov*.

(12)

Chart Datum, New York State Canal

(13) The plane of reference for depths shown on charts of the New York State Canal System is normal pool level.

(14) **Champlain Canal**, 60 miles long, follows the canalized Hudson River from Waterford north to **Fort Edward, NY**, thence follows a land cut and canalized **Wood Creek** to Lake Champlain. From Waterford, 8 locks ascend 124.8 feet to the summit elevation of 140 feet about 1.3 miles northeast of Fort Edward, thence 3 locks descend 43.5 feet to **Whitehall, NY**, at the south end of Lake Champlain.

(15) The **Erie Canal** is 338 miles long from Waterford west across New York State to Tonawanda on the Niagara River. From Waterford, the canal follows the canalized **Mohawk River**, a short reach of **Wood Creek**, and several interspersed land cuts to **Oneida Lake**. After passing through the lake, the canal follows **Oneida River**, **Seneca River**, **Clyde River** and several land cuts to **Lyons, NY** A 6.8-mile-long branch channel extends southeast from the Seneca River through **Onondaga Lake** to **Syracuse, NY**; west of Lyons, the canal is an artificial channel to Pendleton, NY thence the canal follows Tonawanda Creek to Tonawanda. About 39 miles west of Lyons, the canal crosses the **Genesee River**. From the intersection, a 3.2-mile section of the Genesee River has been improved to provide access from the canal to Rochester. A dam on the Genesee River 7 miles downstream of the canal precludes navigable access to Lake Ontario.

(16) The Erie Canal, from Waterford to Tonawanda, has 34 locks. At Waterford, a flight of 5 locks ascends 168.8 feet from the pool above Troy Lock and Dam around Cohoes Falls to the Mohawk River, thence 14 locks ascend the Mohawk Valley 236 feet to the summit level near Rome, NY, thence 3 locks descend 57 feet to Three Rivers, NY, at the junction with Oswego Canal, and thence 12 locks ascend 201 feet to the Niagara River.

(17) **Oswego Canal** branches northwest from Erie Canal about 160 miles west of Waterford at **Three Rivers, NY**, at the confluence of Oneida River, Seneca River, and Oswego River. The canal, 24 miles long, is formed almost entirely by the canalized **Oswego River**. The canal descends 118 feet through 7 locks from Three Rivers to Lake Ontario. (Oswego Harbor is described in chapter 5.)

(19) **Cayuga and Seneca Canal** branches south from the Erie Canal about 41 miles west of Three Rivers. The canal follows the canalized Seneca River and leads south through both **Cayuga Lake** and **Seneca Lake**. The canal is 92 miles long to **Ithaca, NY**, at the south end of Cayuga Lake and to **Watkins Glen, NY**, at the south end of Seneca Lake including a 2.5-mile cut to **Montour Falls, NY**, south of Watkins Glen. From the Erie Canal, 1 lock ascends 7.5 feet to Cayuga Lake, and thence 3 locks ascend 64.5 feet to Seneca Lake.

(20) **Caution**—Four private special purpose lighted mooring buoys, painted red and white, mark a barge moored about 2.9 miles north of **Long Point** (42°39'24"N., 76°54'36"W.) on Seneca Lake. Three private special-purpose lighted mooring buoys, painted red and white, mark a barge moored about 1 mile northeast of Long Point.

(21) Another facility of barge and buoys is 0.25 mile southwest of **Portland Point** near the south end of Cayuga Lake. The barge and two mooring cables are each marked by a white buoy floodlighted at night. The barge is marked by four vertical lights, one showing fixed white and three showing fixed red.

(22)

New York State Canal Chart Coverage

(23) The NOS provides chart coverage of the New York State Canal System from the Hudson River at Troy, NY, as far west as Lyons, NY. Coverage of the canal system from Syracuse west to the Niagara River at Tonawanda, NY, is contained in New York State Canal System

Cruising Guide, available at *canals.ny.gov* or telephone 800–422–6254.

(24)

Channels

(25) The **Great Lakes-Hudson River Waterway Improvement** is that part of the canal system including the Erie Canal from Waterford west to Three Rivers and thence the Oswego Canal to Lake Ontario. This section of the system, funded by the U.S. Government and maintained by the State of New York, has a project depth of 14 feet at normal pool level between locks and 13 feet at normal pool level through all locks and guard gates. These channels have widths of 104 feet in earth cuts, 120 feet in rock cuts, and 200 feet in river and lake sections.

(26) Elsewhere in the New York State Canal System, the project depth is 12 feet in all channels and through all locks and guard gates. These channels have widths of 75 feet in earth cuts, 94 feet in rock cuts and generally 200 feet in canalized rivers.

(27) The canal system is well marked by lights, lighted ranges, lighted and unlighted buoys and daybeacons, all maintained by the State of New York. The arrangement of aids considers the entire canal system as a waterway extending from the Hudson River to interior parts of the state. All red lights, daybeacons and buoys are on the right or starboard hand, and all white lights, daybeacons and buoys are on the left or port hand when proceeding up or away from the Hudson River, or away from the main line in the branches. This arrangement extends west to Tonawanda on the Niagara River. However, buoyage in the Niagara River is based on the principle that "proceeding from seaward" is proceeding from Lake Erie toward the Niagara Falls. Mariners are therefore reminded, after exit from the canal into the Niagara River, to keep red buoys to port and green buoys to starboard when continuing on to Lake Erie.

(28)

Locks

(29) The New York State Canal System has a total of 56 locks plus the federal lock at Troy. The controlling dimensions of the locks are a length of 300 feet and a width of 43.5 feet. The locks and guard gates have a depth of 12 feet over the sills at normal pool level, except 13 feet over the sills in the Great Lakes-Hudson River Waterway Improvement. The lock lifts range from 6 feet to 40.5 feet, with an average lift of 17.7 feet. The guard gates at various points in the canal system have a pier in midchannel with a clear passage of 55 feet on either side.

(30)

Bridges

(31) There are more than 300 bridges that cross the canal system. Most of the bridges are fixed, except where local conditions necessitate other types. The least vertical clearance for bridges crossing the part of the system known as the Great Lakes-Hudson River Waterway Improvement is 20 feet, and the least clearance for all other parts of the canal system is 15 feet.

(32)

Regulations

(33) A **speed limit** of 6 mph is enforced in the canal, except in the canalized rivers and lakes. In the canalized rivers and lakes, the speed limit is dependent on traffic conditions, and speed limits for the various sections are posted at each lock. Copies of the canal regulations and detailed information regarding movement through the canal are available from the New York State Canal Corporation, Office of Canals, 200 Southern Boulevard, P.O. Box 189, Albany, NY 12201-0189, telephone 800-4CANAL4 or visit *canals.state.ny.gov*.

(34)

Small-craft facilities

(35) Marinas providing all types of small craft services and supplies are located throughout the canal system. A list of sewage pump-out facilities in New York State is available from the New York State Department of Environmental Conservation, 50 Wolf Road, Albany, NY 12205.

(36)

Lake Champlain

(37) **Lake Champlain** extends from the lower end of Champlain Canal at Whitehall, NY, north for about 112 miles to the International boundary at Rouses Point, NY. The north end of the lake outlets north through Riviere Richelieu and Canal de Chambly to the St. Lawrence River.

(38) The principal ports on the lake are Port Henry, NY, at the south end, Burlington, VT, and Plattsburgh, NY, near midlake, and Rouses Point, NY, at the north end. The lake is used extensively by pleasure craft, and marinas are found on both sides throughout its length.

(39)

Chart Datum, Lake Champlain

(40) The plane of reference for depths shown on the charts covering Lake Champlain is low lake level, which is 93.0 feet above mean sea level.

(41) A **special anchorage** is on the west side of the lake in **Deep Bay**. (See **33 CFR 110.1** and **110.8(i)**, chapter 2, for limits and regulations.)

(42)

Channels

(43) The south 37 miles of Lake Champlain, from Whitehall north to **Crown Point** (44°01'48"N., 73°25'48"W.), is a narrow arm. The south 13 miles of this arm, from Whitehall north to **Benson Landing**, is filled with a marshy flat traversed by a narrow channel of open water. A federal project provides for a 12-foot channel through this reach. In 2021, the controlling depths in the channel were 2 feet (6.5 feet at midchannel) to Benson Landing. Above Benson Landing, natural deep water is available to Crown Point. The entire narrows, from

(48)

Structures across Lake Champlain

Name	Type	Location	Mile*	Clearances (feet)		Information
				Horizontal**	Vertical***	
Overhead power cable		43°33'44"N., 73°23'54"W.	0.3			Clearance data not available
Overhead power cable		43°34'15"N., 73°24'14"W.	1.0			Clearance data not available
Lake Champlain Bridge	fixed	44°01'58"N., 73°25'24"W.	36.7	300	75	Notes 1 and 4
Sand Bar Bridge	fixed	44°37'53"N., 73°15'22"W.	82.6	54	15	
U.S. Route 2 Bridge	bascule	44°45'58"N., 73°17'24"W.	91.8	81	16	Notes 2 and 5
North Hero Island-Alburg Tongue Bridge	fixed	44°53'05"N., 73°16'28"W.	99.2	82	26	
Overhead power cables		44°53'08"N., 73°16'27"W.	99.3		47	
Isle La Motte-Alburg Tounge Bridge	fixed	44°54'11"N., 73°18'57"W.	99.4	30	8	
Canadian National Railroad Bridge	swing	44°58'15"N., 73°13'14"W.	105.6	36	11	Note 2
Missisquoi Bay Bridge	fixed	44°58'23"N., 73°13'12"W.	105.9	150	35	
Korean War Veterans Memorial/ Rouses Point Bridge		44°59'54"N., 73°20'57"W.	106.8	237	56	Notes 1 and 3

* Miles from Whitehall
** Clear width in feet proceeding away from Whitehall
*** Vertical clearances are referenced to Low Water Datum

Note 1 – Bridge is across the direct route through the lake proceeding from the Hudson River to the St. Lawrence River.
Note 2 – See 33 CFR 117.1 through 117.59, 117.797, and 117.993, chapter 2, for drawbridge regulations.
Note 3 – Vertical clearance is measured at Ordinary High Water (OHW) which is 98 feet.
Note 4 – Vertical clearance is measured at Mean High Water (MHW)
Note 5 – See 33 CFR 165.1 through 165.40 and 165.T01-0682, chapter 2, for safety zone regulations.

Whitehall to Crown Point, is well marked by lights and buoys.

(44) North from Crown Point for about 75 miles to Rouses Point, Lake Champlain is deep and wide. Prominent points and shoals throughout the lake are marked by lights and buoys.

(45)

Fluctuations of water level

(46) The water level of Lake Champlain is subject to variation from year to year; the observed range is from 0.6 foot below to 8.8 feet above the reference plane of low lake level. During each year, the seasonal fluctuation is 4 to 5 feet, the lowest stage occurring in September or October and the highest stage in April or May.

(47) Following is a description of the principal ports and tributaries of Lake Champlain.

(49)

Poultney River to Bulwagga Bay

(50) **Poultney River**, not navigable, flows into the east side of Lake Champlain about 1 mile north of Whitehall. The **state boundary** between New York and Vermont follows Lake Champlain from the mouth of Poultney River north to the International boundary.

(51) Marinas in the stretch from Whitehall to Port Henry are at **Chipman Point** 19 miles north of Whitehall, 1.5 miles north of Chipman Point, and at the mouth of **Hospital Creek** opposite Port Henry. The usual services and travelifts to 20 tons are available.

(52) **La Chute** is a creek that flows into the west side of the lake about 22 miles north of Whitehall. The approach to the creek is very shoal and weedy and is not recommended for other than small outboards, which can then navigate the creek for about 1 mile during high stages. **Fort Ticonderoga**, on the point east of the creek mouth, is prominent from the lake.

(53)

Cable ferry

(54) Fort Ticonderoga Ferry crosses the lake about 1.7 miles above La Chute. The ferry barge is towed by a tug and guided across the lake by two cables that are fixed on either shore. Passing through guides and carrier wheels on the ferry, the cables are dropped to the bottom astern and picked up ahead. The cables reach the bottom about 400 feet from either end of the ferry thus allowing vessels to pass by the moving ferry. The tug and barge are marked by lights, and signs on both and along the shore warn vessels of the presence of the ferry and the cables. Extreme caution is advised when passing a cable ferry and should never be passed close-by.

(55) A **special anchorage** is on the west side of the lake just south of the ferry crossing. (See **33 CFR 110.1** and **110.8(a)**, Chapter 2, for limits and regulations.)

(56) **Port Henry, NY** is on the west side of Lake Champlain at the south end of the wide section, about 39 miles north of Whitehall.

(57)

Channels

(58) A dredged basin along the harbor front is entered from south. The east side of the entrance is marked by a buoy that marks the south end of the shoals that border the east side of the basin. At the north end of the harbor, a 500-foot pier of the New York State Canal System extends

southeast from shore and is marked at the outer end by a private light. The pier also serves as a breakwater to protect the harbor from north. A state-dredged channel leads from deep water west to the terminal. In 1967, the maximum depth available in the harbor basin and barge canal terminal channel was 12 feet.

(59)

Small-craft facilities

(60) A 50-ton marine railway, which can handle 50-foot craft for hull and engine repairs, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, launching ramps and mooring buoys are available at the marinas in Port Henry.

(61) **Bulwagga Bay**, south of Port Henry on the west side of Crown Point, is foul with submerged piles and cribs. A line of submerged piles that extends from the east side across the mouth of the bay is marked by private buoys.

(62)

Barber Point to Boquet (Bouquet) River

(63) Between **Barber Point** (44°09'12"N., 73°24'18"W.) and **The Four Brothers** 20miles north, marinas are on the west side of the lake at **Westport, NY**, and **Essex, NY**, and on the east side of the lake on the south side of **Thompsons Point** and in **McNeil Cove**. Marine railways to 50 tons, lifts to 35 tons and the usual services are available.

(64) **Special anchorages** are on the east side of Thompsons Point and at Essex, NY. (See **33 CFR 110.1** and **110.8 (b)** and **(g)**, chapter 2, for limits and regulations.)

(65) **Otter Creek** flows into the east side of the lake about 6.5 miles northeast of Barber Point. A depth of about 6 feet can be carried by small craft for 8 miles to **Vergennes, VT.**

(66) A ferry crosses the lake between **Essex, NY**, and **McNeil Cove** on the east shore. The ferry operates between April 4th and December 25th with regular service and in the winter will run as ice conditions permit.

(67) **Boquet (Bouquet) River**, 3 miles north of Essex, is navigable by small motorboats for about 1 mile during high water stages.

(68)

Willsboro Bay to Shelburne Bay

(69) **Willsboro Bay**, on the west side of the lake west of The Four Brothers, is enclosed on the east by **Willsboro Point**. Marinas on the east side of the bay provide transient berths, gasoline, diesel fuel, electricity, ice, sewage pump-out, mast-stepping service, launching ramps and hull and engine repairs.

(70) **Shelburne Bay**, east of The Four Brothers, is enclosed on the west by **Shelburne Point**. Two special anchorages are on the west side of the bay. (See **33 CFR 110.1** and **110.8(c)** and **(c–1)**, chapter 2, for limits and regulations.) A boatyard on the west side of the bay provides transient berths, gasoline, diesel fuel, water, ice, electricity and sewage pump-out. A 220-foot marine railway and a 30-ton lift are available for hull and engine repairs.

(71)

Burlington, VT

(72) **Burlington, VT**, just north of the entrance to Shelburne Bay, is the largest port on Lake Champlain. Several companies have dock facilities for receipt of petroleum products by barge. The Hilton Hotel, with a red lighted sign, is the most prominent object in the harbor approach.

(73) **Burlington Breakwater North Light** (44°28'50"N., 73°13'47"W.), 35 feet above the water, is shown from a white square lighthouse on the north end of the north breakwater.

(74)

Channels

(75) Two detached breakwaters parallel the shore and protect the harbor front from west. Lights are on the north end of the north breakwater and on the south end of the south breakwater, and a daybeacon marks the north side of the gap between them. Depths in the harbor are 6 to 12 feet off the wharves increasing to much greater depths at the breakwaters. Good anchorage is available behind the breakwaters.

(76)

Anchorages

(77) A **special anchorage area** for vessels less than 65 feet in length is about 0.2 mile northeast of Burlington Breakwater South Light. (See **33 CFR 110.1** and **110.8(h)**, chapter 2, for limits and regulations.) A **special anchorage area** for vessels less than 35 feet is off the east side of the south breakwater. (See **33 CFR 110.1** and **110.136**, chapter 2, for limits and regulations.)

(78)

Coast Guard

(79) **Burlington Coast Guard Station** is at the north end of the harbor, east of Burlington Breakwater North Light.

(80)

Harbor regulations

(81) **Harbor regulations** are established by the Burlington City Council and are enforced by the **harbormaster** who may be reached at City Hall. A **speed limit** of 5 mph is enforced in the city yacht basin. Copies of the regulations may be obtained from the Mayor, City Hall, Burlington, VT 05401.

(82)

Small-craft facilities

(83) Marinas in the city yacht basin 0.6 mile southeast of Burlington Breakwater North Light provide transient berths, gasoline, diesel fuel, water, ice, electricity and a launching ramp.

(84)

Ferry

(85) Passenger and automobile ferries cross the lake between Burlington and Port Kent, NY, 10 miles west-northwest. The ferries operate between June 16 to October 10.

(86) **Caution**—An operations area for amphibious and air rescue training is in midlake west of Burlington, bounded generally by Schuyler Reef, Appletree Shoal, Juniper Island and The Four Brothers. The using agency is Plattsburgh Air Force Base.

(87)

Willsboro Bay to Cumberland Bay

(88) From Willsboro Bay north to Plattsburgh, NY, marinas are at **Port Kent, NY**, 4.5 miles north of Port Kent, and west of **Valcour Island**. The usual small-craft facilities are available.

(89) **Winooski River**, 4 miles north-northwest of Burlington, is navigable by small motorboats.

(90) **Malletts Bay**, 6 miles north of Burlington, is a nearly landlocked bay protected on the west by **Malletts Head**. About 3.5 miles west of Malletts Head, in the approach to the bay from the open lake, an abandoned railroad dike extends from the mainland shore north to the south end of Grand Isle near midlake. A narrow gap near the north end of the dike, marked by a private light on the south side, provides access for small craft. A shifting bar at the gap has depths of as little as 3 feet. A 1-foot spot just inside the gap is marked by a buoy. **Special anchorages** are on the west side of Malletts Bay. (See **33 CFR 110.1** and **110.8(d)** and **(e)**, chapter 2, for limits and regulations.) Marinas in Malletts Bay provide transient berths, gasoline, diesel fuel by truck, water, ice, electricity, sewage pump-out, marine supplies and launching ramps. Lifts to 20 tons are available for hull and engine repairs.

(91) **Plattsburgh, NY**, is on the west side of **Cumberland Bay**, 20 miles northwest of Burlington. Several companies receive petroleum products by barge at the town.

(92)

Channels

(93) The dredged basin along the city waterfront is protected from the east by a detached breakwater paralleling the shore. The ends of the breakwater are marked by lights. The breakwater has been reported to become submerged during periods of high water; mariners are advised to use caution when transiting the area. The controlling depths are 5 to 9 feet at the wharves increasing to 12 feet at the breakwater. The protected area of the harbor provides good anchorage. A seasonally deployed floating breakwater is close south of the wharves on the west side of the basin.

(94)

Wharf

(95) A terminal pier of the New York State Canal System is in the northwest corner of Cumberland Bay. The pier has a 400-foot south face with a reported depth of 12 feet alongside. The approach to the pier is marked by a buoy; private lights mark the pier and the outer end of a breakwater just south of the pier.

(96)

Small-craft facilities

(97) A marina at Plattsburgh provides transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies and a launching ramp. A 20-ton lift is available for hull and engine repairs.

(98)

Ferry

(99) A ferry operates from the east side of **Cumberland Head**, which encloses the east side of Cumberland Bay, to the west side of Grand Isle. The ferry operates 24 hours a day, Monday through Friday, with year-round service.

(100)

Missisquoi Bay to Mooney Bay

(101) **Grand Isle** or **South Hero Island**, **North Hero Island** and **Alburg Tongue** divide the north part of Lake Champlain into two arms. **Missisquoi Bay** is at the north end of the east arm, and Riviere Richelieu flows north from the west arm.

(102) **Lamoille River**, 2.8 miles north of Mallets Bay, is navigable at low stages only by motorboats drawing 1 to 2 feet.

(103) **Missisquoi River**, flowing into the south side of Missisquoi Bay, is navigable at low stages by motorboats drawing 1 to 2 feet for about 6 miles to Swanton. **Dead Creek**, the alternate entrance to the river, has depths of 2 to 12 feet.

(104) Marinas are in the east arm of the north end of Lake Champlain on the southeast side of Grand Isle, at the northeast end of **Burton Island** on the west side of **St. Albans Bay**, in **City Bay** on the east side of North Hero Island, and on the east side of **Alburg Passage**. Lifts handling boats to 25 feet are available.

(105) A **special anchorage** is at the head of St. Albans Bay. (See **33 CFR 110.1** and **110.8(f)**, chapter 2, for limits and regulations.)

(106) **Great Chazy River** flows into the west side of Lake Champlain about 4 miles south of Rouses Point, NY. The entrance to the river is marked by private lighted and unlighted buoys. The river is navigable at low stages by small boats drawing 2 to 3 feet for about 6 miles to Champlain. In 2003, the controlling depth in the entrance channel was 1.2 feet. In 1977, a depth of 5 feet was reported to be available to the marina 0.5 mile above the mouth.

(107) Marinas are on the west side of **Treadwell Bay** in the small bight **Bay St Armand** (44°44'54"N., 73°24'50"W.); in **Mooney Bay** opposite the south end of North Hero Island (44°47'13"N., 73°21'55"W.); and 0.5 mile above the mouth of the Great Chazy River. Gasoline, transient berths, pump-out and lifts to 50 tons are available.

(108)

Rouses Point, NY to Stony Point

(109) **Rouses Point, NY**, is a town and harbor on the west side of the north end of Lake Champlain, just south of the International boundary. The harbor is formed by a bight that extends 2 miles north from **Stony Point**. A breakwater, marked by a light, extends northeast from Stony Point to protect the harbor from the south, and an abandoned pile railroad bridge trestle protects the harbor from the northeast. In 2011, the breakwater was reported submerged and a hazard to navigation. Mariners are advised to use extreme caution when transiting the area. A fixed highway bridge, with a clearance of 56 feet at Ordinary High Water (98 feet), crosses Riviere Richelieu 0.3 mile north of the abandoned railroad trestle.

(110) The harbor has depths of 6 to 8 feet in all seasons of the year, except for depths of 4 feet and less on a reef that extends 0.5 mile south from the point that encloses the north end of the harbor. Anchorage bottom in the harbor is good.

(111)

Quarantine, customs, immigration and agricultural quarantine

(112) (See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(113) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(114)

Small-craft facilities

(115) A protected basin is between the abandoned railroad trestle and a 500-foot pier just south. The outer 200 feet of the basin has depths of 6 to 8 feet, and the inner part is foul. Marinas at Rouses Point provide transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out and some marine supplies. A 10-ton mobile lift is available for hull and engine repairs.

(116)

Canadian Waters

(117) The **International boundary** between the United States and Canada is on a general east and west line about 2.7 statute miles (2.3 nm) north of **Stony Point** (44°58'15"N., 73°21'23"W.).

(118)

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(119) **Riviere Richelieu** flows north from the head of Lake Champlain at Rouses Point for about 80 statute miles (69.5 nm) to its mouth at the St. Lawrence River at the city of **Sorel, QC**, about 46 statute miles (about 40 nm) below Montreal.

(120)

Restricting dimensions

(121) The size of vessels passing through the system is limited by the dimensions of the locks of **Canal de Chambly** and by the bridge **Pont Felix-Gabriel-Marchand**across the Canal de Chambly in the vicinity of **Saint-Jean-sur-Richelieu**; length 33.98 m (111 feet), width 7 m (23 feet), depth over the sills 1.98 m (6.5 feet), least vertical clearance 8.8 m (29 feet). In periods of extreme low water levels the least draft will be less.

(122) See **Canadian Sailing Directions Saint Lawrence River-Cap Rouge to Montreal (ATL 112)** for detailed description of the system.