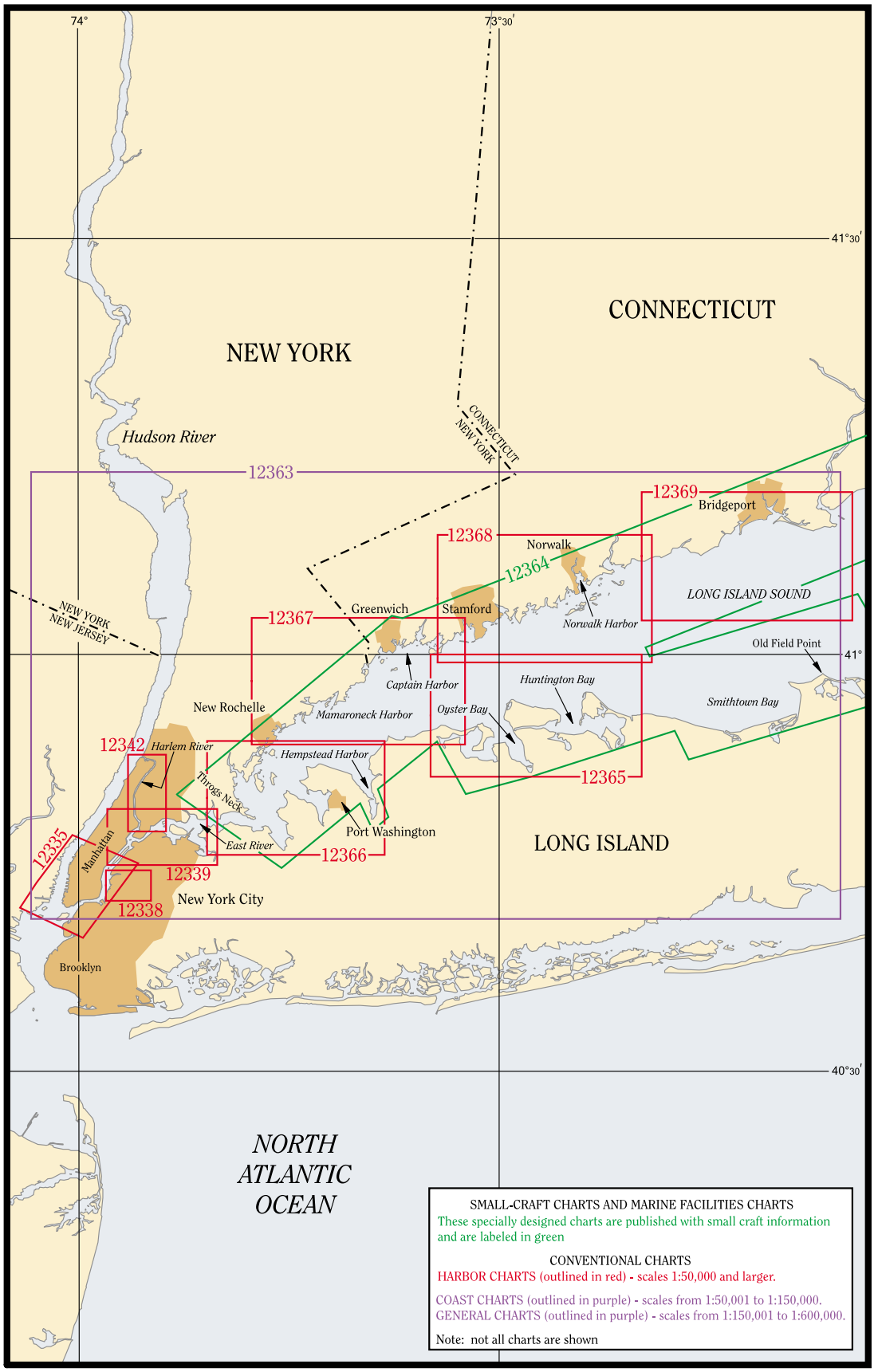
74°
73°30′
41°30′
41°
40°30′
CONNECTICUT
NEW YORK
Hudson River
CONNECTICUT
NEW YORK
12363
12369
Bridgeport
12368
Norwalk
12364
LONG ISLAND SOUND
Greenwich
Stamford
Norwalk Harbor
12367
NEW YORK
NEW JERSEY
Old Field Point
Captain Harbor
Huntington Bay
New Rochelle
Mamaroneck Harbor
Oyster Bay
Smithtown Bay
12342
Harlem River
Hempstead Harbor
Throgs Neck
12365
Port Washington
East River
12366
LONG ISLAND
12335
Manhattan
12339
12338
New York City
Brooklyn
NORTH
ATLANTIC
OCEAN
SMALL-CRAFT CHARTS AND MARINE FACILITIES CHARTS
These specially designed charts are published with small craft information and are labeled in green
CONVENTIONAL CHARTS
HARBOR CHARTS (outlined in red) - scales 1:50,000 and larger.
COAST CHARTS (outlined in purple) - scales from 1:50,001 to 1:150,000.
GENERAL CHARTS (outlined in purple) - scales from 1:150,001 to 1:600,000.
Note: not all charts are shown

Western Long Island Sound

(1) This chapter describes the western part of Long Island Sound along the north shore from Bridgeport to Throgs Neck, the south shore from Old Field Point to Willets Point, and the East and Harlem Rivers. Also described are the many bays and their tributaries that make into this part of the sound including Bridgeport Harbor, Stamford Harbor, Captain Harbor, Mamaroneck Harbor, Norwalk Harbor, Eastchester Bay, Huntington Bay, Oyster Bay, Hempstead Harbor, Manhasset Bay, Flushing Bay, and New Rochelle Harbor, and the commercial and small-craft facilities found in these waters.

COLREGS Demarcation Lines

(2) The lines established for Long Island Sound are described in **80.155,** chapter 2.

Chart 12363

(3) **Western Long Island Sound** is that portion of the deep navigable waterway between the shores of Connecticut and New York and the northern coast of Long Island westward of the line between Bridgeport and Old Field Point.

(4) This region has boulders and broken ground, with little or no natural change in the shoals. The waters are well marked by navigational aids so that strangers should experience no difficulty in navigating them. As all broken ground is liable to be strewn with boulders, vessels should proceed with caution when in the vicinity of broken areas where the charted depths are less than 6 to 8 feet greater than the draft. All of the more important places are entered through dredged channels. During fog, vessels are advised to anchor until the weather clears before attempting to enter. The numerous oyster grounds in this region are usually marked by stakes and flags. These stakes may become broken off and form obstructions dangerous to small craft which, especially at night, should proceed with caution when crossing oyster areas.

Anchorages

(5) There is anchorage for large vessels in the bight outside Bridgeport Harbor Light. Cockenoe Harbor is sometimes used by small vessels, but Sheffield Island Harbor is preferred and is sometimes used by tows. Westward of Norwalk Islands, seagoing vessels can anchor toward the north shore and, with good ground tackle, hold on in northerly winds. Captain Harbor affords good shelter, but is rarely used except by local vessels. On the south shore, Huntington Bay and Hempstead Harbor are available for large vessels; Oyster Bay is also used, and Manhasset Bay is available for light-draft vessels. City Island Harbor is a fine resort for coasters.

Tides

(6) The time of tide is nearly simultaneous throughout Long Island Sound, but the range of tide increases from about 2.5 feet at the east end to about 7.3 feet at the west end. Daily predictions of the times and heights of high and low waters for New London, Bridgeport, and Willets Point are given in the Tide Tables.

(7) The effect of strong winds, in combination with the regular tidal action, may at times cause the water to fall several feet below the plane of reference of the charts.

Currents

(8) About 1.3 miles northward of Eatons Neck Light the ebb runs about 5 hours longer than the flood. The current has a velocity of 1.4 knots; the flood sets 283° and the ebb sets 075°.

(9) The direction and velocity of the currents are affected by strong winds which may increase or diminish the periods of flood or ebb. Directions and velocities from Point Judith to Throgs Neck for each hour of the tidal cycle will be found in Tidal Current Charts, Long Island Sound and Block Island Sound. Currents in East River are described in the latter part of this chapter.

Weather, Western Long Island Sound and vicinity

(10) These waters are more protected than the eastern Sound resulting in fewer gales. However, winters are colder and summers warmer due to this sheltering effect. Fog is not so frequent either and tends to burn off quicker than farther east. Winter winds of 16 knots or more are likely about 12 to 15 percent of the time and are predominantly from the west through northwest. Harbors such as Cold Spring, Oyster Bay, Hempstead and Manhasset offer additional shelter. In summer

thunderstorms may develop on 4 to 5 days per month. These are most likely during the afternoon or evening.

(11) In Long Island Sound the north and south shores are equally subject to fog, except that on spring and summer mornings, when there is little or no wind, fog will often hang along the Connecticut shore while it is clear offshore and southward.

(12) In the western end of Long Island Sound, although fogs are liable to occur at any time, they are not encountered so often nor do they generally last so long as farther eastward.

Ice

(13) In ordinary winters the floating and pack ice in Long Island Sound, while impeding navigation, does not render it absolutely unsafe, but in exceptionally severe winters the reverse is true; then only the powerful steamers can make their way.

(14) Drift ice, which is formed principally along the northern shore of the sound under the influence of the prevailing northerly winds, drifts across to the southern side and accumulates there, massing into large fields, and remains until removed by southerly winds which drive it back to the northerly shore.

(15) In ordinary winters ice generally forms in the western end of the sound as far as Eatons Neck; in exceptionally severe winters ice may extend to Falkner Island and farther eastward.

Effects of winds on ice

(16) In Long Island Sound northerly winds drive the ice to the southern shore of the sound and southerly winds carry it back to the northern shore. Northeasterly winds force the ice westward and cause formations heavy enough to prevent the passage of vessels of every description until the ice is removed by westerly winds. These winds carry the ice eastward and, if of long enough duration, drive it through The Race into Block Island Sound, from where it goes to sea and disappears.

(17) In Bridgeport Harbor winds from north to northwest clear the harbor of drift ice, and those from southeast through south to southwest force the ice into the harbor from the sound. The outer buoys may be carried out of position by heavy ice during severe winters.

(18) Additional information concerning ice conditions in the waters adjoining Long Island Sound is given under the local descriptions.

(19) **Vessel Traffic Service, New York**, operated by the U.S. Coast Guard, serves New York Harbor (see **161.501 through 161.580**, chapter 2, for regulations).

Pilotage, Western Long Island Sound

(20) Pilotage is compulsory in Long Island Sound for foreign vessels and U.S. vessels under register. For vessels entering Long Island Sound from the east (from sea via Block Island Sound) see Pilotage, Long Island Sound (indexed as such), chapter 8. For vessels entering Long Island Sound from the west (East River) see Pilotage, New York and Approaches to New York (indexed as such), chapter 11.

Charts 12369, 12364

(21) **Bridgeport Harbor**, on the north side of Long Island Sound north-northwestward of Stratford Shoal (Middle Ground) Light and about 52 miles from New York, consists of two widely separated units. The main harbor and its branches serve the east and central portions of the city of **Bridgeport**, and Black Rock Harbor and its tributaries serve the western part. Black Rock Harbor and Cedar Creek are described under separate headings. Waterborne commerce at Bridgeport consists mostly of petroleum products, lumber, sand and gravel, building materials, and scrap iron.

Prominent features

(22) The large red and white horizontally banded stack of a powerplant on Tongue Point is the most prominent landmark in this area. Other prominent landmarks include a group of stacks on Steel Point; the towers of a high-voltage line; several church spires; a gas tank with a red and white checkered band at the top, on the west side of Pequonnock River; the radio towers at Pleasure Beach; and Bridgeport Harbor Light 13A. The rays of an aerolight about 1.3 miles northwestward of Stratford Point can be seen from offshore.

(23) **Bridgeport Harbor Channel Approach Lighted Whistle Buoy BH** (41°06'14"N., 73°11'44"W.), is 3.3 miles south-southwest of Bridgeport Harbor Light 13A and marks the entrance to the channel.

(24) **Bridgeport Harbor Light 13A** (41°09'24"N., 73°10'48"W.), 50 feet above the water, is shown from a black skeleton tower with small white house, on a black base, on the west side of the entrance channel near the end of the west breakwater.

Channels

(25) From deep water in Long Island Sound the dredged channel extends north-northeastward between two converging breakwaters into the main harbor, and thence into the three tributaries, Johnsons Creek, Yellow Mill Channel, and Pequonnock River. Federal project depth is 35 feet in the main channel to just below

the Connecticut Turnpike bridge. (See Notice to Mariners and latest edition of the chart for controlling depths.)

(26) A powerplant is at **Tongue Point**. A privately dredged channel leads from the main channel to the powerplant's offshore oil wharf on the south side of the point. In 1980, the channel, except for a 17-foot depth on the southwesterly side of the widener, had a reported controlling depth of about 26 feet; depths of 29 to 35 feet were reported alongside the wharf. Another privately dredged channel, used by barges, leads from the main channel to the powerplant's facilities on the east side of the point. In July 1978, the controlling depth in the channel was 10 feet.

(27) **Johnsons Creek**, northward of Pleasure Beach, is entered eastward of Tongue Point through a marked dredged channel leading to anchorage basins; two on the west side, and one at the head of the creek. The highway bridge 0.2 mile above the entrance has a swing span with a clearance of 7 feet. (See **117.1 through 117.49**, chapter 2, for drawbridge regulations.) Private yacht clubs and two oil-receiving piers are on the creek.

(28) **Yellow Mill Channel** is entered through a dredged channel that leads for about 0.8 mile north-northeastward from just above the first bend in the main channel to the head of the creek. Flats, largely bare at low water, are on both sides of the channel. The Stratford Avenue highway bridge about 0.3 mile above the entrance has a bascule span with a clearance of 11 feet. (See **117.1 through 117.59 and 117.225**, chapter 2, for drawbridge regulations.) About 0.1 mile above the bascule bridge is a fixed turnpike bridge with a clearance of 39 feet. Depths at the wharves are 8 to 15 feet.

(29) **Pequonnock River,** the most westerly of the tributaries, is easily followed by small craft, but larger vessels may need the assistance of a tug to get around the sharp bends. The river is entered through a dredged channel that leads northward from the main channel just below Connecticut Turnpike bridge to the head of navigation just below the Berkshire Avenue Dam, about 1.1 miles above the entrance. Depths at some of the wharves are 10 to 15 feet.

Bridges

(30) Type, distance above Steel Point, and clearance of the bridges over Pequonnock River follow: Connecticut Turnpike, fixed, 300 yards, 65 feet; Stratford Avenue, vertical-lift, 500 yards, 8 feet down and 68 feet up, Peck Railroad bridge, bascule, 0.5 mile, 26 feet; Congress Street bridge, bascule, 0.6 mile, 8 feet; highway bridge, bascule, 0.7 mile, 4 feet; (See **117.1 through 117.59 and 117.219**, chapter 2, for drawbridge regulations.) The bridgetender at the railroad bridge monitors VHF-FM channel 13; call sign KU–6033.

Anchorages

(31) Bridgeport Harbor has two anchorage areas inside the breakwaters. One with depths of 23 to 40 feet is on the east side of the main channel northwestward of Pleasure Beach, and the other with depths of 15 to 25 feet is on the west side of the main channel just northeastward of Tongue Point. A rock covered 10 feet is in the west anchorage in about 41°10'17"N., 73°10'56"W. The rest of the harbor area consists of broad and shallow sand flats. Vessels seeking shelter from strong northerly winds sometimes anchor off the entrance; the holding ground is good.

(32) A **general anchorage** is in Johnsons Creek. (See **110.1 and 110.148,** chapter 2, for limits and regulations.)

Dangers

(33) The entrance is clear, and the only dangers are the previously discussed shoals on the east, south of Stratford Point, and on the west, the Penfield Reef shoals.

Tides

(34) The mean range of tide is 6.8 feet. (See the Tide Tables for daily predictions of the times and heights of high and low waters.)

Currents

(35) The velocity of flood or ebb is about 0.7 knot in the entrance between the breakwaters. (See the Tidal Current Tables for predictions.) Inside the harbor the currents are generally weak.

Ice

(36) **Ice** does not interfere seriously with navigation in Bridgeport Harbor, although its tributaries are closed at times. The winds from the north and northwest clear the harbor of drift ice, and those from the southeast through the southwest force the ice into the harbor from the sound. The outer buoys may be carried out of position by heavy ice during severe winters.

Weather, Bridgeport and vicinity

(37) The terrain of the mainland is of glacial origin and rises in a rolling, mostly wooded, manner to the foothills of the Berkshires, 30 miles to the north, and the Catskills, about 60 to 70 miles to the northwest. There is some foehn effect (chinook) with north and northwest winds, and the upslope effect with the approach of a coastal low is quite pronounced. The most pronounced topographical effect, however, is that of the land-sea breeze which is most pronounced in the spring, summer, and early autumn. The land-sea breeze effect during this period will inevitably cause a

shift in the wind direction, even with a moderately strong isobaric flow.

(38) As a result of the sea breeze, mean monthly temperatures during the summer average 3 to 5 degrees (2 to 3°C) lower than nearby inland stations. Likewise, temperatures during the fall and winter are moderated several degrees owing to the proximity of Long Island Sound. The average annual temperature at Bridgeport is 52°F (11.1°C). The average high is 60°F (15.6°C) and the average low is 44°F (6.7°C). July is the warmest month with average extremes of 82°F (27.8°C) and 66°F (18.9°C). January is the coolest with average extremes of 37°F (2.8°C) and 23°F (-5°C). The record high temperature is 103°F (39.4°C) set in July 1957 while the all-time low temperature is -7°F (-21.7°C) recorded in January 1984.

(39) Precipitation is slightly heavier than at nearby inland stations the year around since coastal low-pressure systems move quite consistently on a track to the south of Bridgeport. One of the greater hazards along the coastal areas in the vicinity of Bridgeport is the accumulation of water (especially during periods of high tide) with the approach of a slowly moving, deepening, low-pressure system from the south. Severe storms occasionally cause inundation of 4 to 5 feet (1.2 to 1.5 m). The average annual precipitation is 41 inches (1041 mm). Precipitation is evenly distributed throughout the year with the difference between the wettest (March) and driest month (February) averaging only 0.89 inches (23 mm). Snowfall averages 26 inches (660 mm) per year and has fallen from October through May. The greatest 24-hour snowfall on record was 16 inches (406 mm) recorded in February 1969.

(40) Bridgeport has been directly affected by 18 tropical storms since 1871. In recent years, tropical storm Belle passed over the site in August 1976. Highest winds were only 60 knots. One day earlier, Belle was packing winds of 105 knots. In September 1985, Hurricane Gloria passed about five miles west of the Bridgeport weather station placing the site in the roughest sector of the storm. Highest gusts approached 75 knots and highest sustained winds were 64 knots. Two days earlier, Gloria had supported winds of 125 knots.

(41) The National Weather Service maintains an office at the Bridgeport Municipal Airport; **barometers** may be compared here. (See Appendix A for address.) (See page 436 for the **Bridgeport climatological table**.)

Pilotage, Bridgeport

(42) Pilotage is compulsory in Long Island Sound for foreign vessels and U.S. vessels under register. See Pilotage, Long Island Sound (indexed as such), chapter 8. Pilotage for New Haven is available from New Haven Bridgeport Pilots Association (NHBPA), 60 Appletree Lane, Hamden, CT 06518, telephone 203-878-8667.

(43) Pilot boats (rented) utilized by NHBPA pilots are SUSY II, 42-foot, blue hull, white superstructure, word PILOT on side; and GALE, 42-foot, white hull, white superstructure, word PILOT on side. Boat monitors 16, 13 and 77, works on 77 and 09. Pilots board about 1 mile south of Bridgeport Harbor Channel Approach Lighted Whistle Buoy BH.

(44) Pilotage for Bridgeport is also available from Constitution State Pilots Association (CSPA), 500 Waterfront Street, New Haven, CT 06512, telephone 800-229-7456 or 203-783-5991, FAX 516-582-6327. Pilots of CSPA board vessels from a launch or the tug, at Bridgeport Harbor Channel Approach Lighted Whistle Buoy BH.

(45) Pilotage for Bridgeport is also available from Long Island Sound State Pilots Association, Inc. (LISSPA), 1440 Whalley Avenue, Suite 123, New Haven, CT 06515, telephone 203-772-0101, FAX 302-629-9392, Cable LISPILOT, New Haven. The pilot boat OLYMPIC has a white hull, red superstructure, and displays the word PILOT in black letters. The boat monitors channel 16 and works on channel 11. Among other locations, the LISSPA pilot will meet a ship 3 miles south of Watch Hill, RI, in about 41°15'00"N., 71°51'30"W.

(46) Pilotage for Bridgeport is also available from Sound Pilots, Inc. (SPI) (a division of Northeast Marine Pilots, Inc.), 243 Spring Street, Newport, RI 02840, telephone 401-847-9050 (24 hours), 800-274-1216. FAX 401-847-9052, Cable RISPILOT, Newport, RI 02840. The pilot boats are NORTHEAST II, 49-foot, with grey hull and superstructure and the word PILOT on the side; or RHODE ISLAND PILOT, 35-foot, with black hull and white superstructure and the word PILOT on the side; or NORTHEAST I, 49-foot, similarly marked as the RHODE ISLAND PILOT. The SPI pilots meet a ship bound for a Long Island Sound port off Point Judith, but will also meet a ship off Montauk Point by prearrangement. See Pilotage, Narragansett Bay and Other Rhode Island Waters (indexed as such), chapter 6, and Pilotage Pickup Locations Off Montauk Point (indexed as such), chapter 7.

(47) Interport Pilots Agency, Inc., http://www.interportpilots.com, 906 Port Monmouth Road, Port Monmouth, NJ 07758, telephone 732-787-5554 (24 hours), email interport@verizon.net. Pilot boat is CONNECTICUT PILOT, 65-foot, blue hull with white superstructure, and the word PILOT on both sides. The boat monitors VHF-FM channels 16 and 13 two hours prior to the vessel's scheduled ETA, works on channel 11, and is equipped with AIS. Interport Pilots meet ships bound for Bridgeport at the Montauk Point Pilot Station or the Point Judith Pilot Station. Interport

Pilots will also board vessels at Bridgeport Harbor Channel Approach Lighted Whistle Buoy BH or at the Bridgeport Anchorage from a commercial launch or tug.

(48) Pilot services are generally arranged in advance through ships' agents or directly by shipping companies.

Towage

(49) Tug service is available from New Haven, Providence, Brooklyn, or Staten Island on advance notice. Deep-draft vessels usually require tugs for mooring in Bridgeport Harbor.

(50) Launch service is available to vessels at anchor.

(51) Bridgeport is a **customs port of entry.**

Quarantine, customs, immigration, and agricultural quarantine

(52) (See chapter 3, Vessel Arrival Inspections, and Appendix A for addresses.)

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

(54) Bridgeport has several hospitals.

Harbormaster

(55) The control of the port is vested in the harbormaster, who maintains an office at the Bridgeport City Hall and can also be contacted through the Bridgeport Police Department.

Wharves

(56) Bridgeport has three principal privately owned and operated deep-draft facilities; one is on the south side of Tongue Point and the other two are on the east side of the harbor opposite Tongue Point. Facilities for smaller vessels and barges are along the sides of the harbor, and on Johnsons Creek, Yellow Mill Channel, and Pequonnock River. Most of the facilities at Bridgeport are of the marginal-type wharf, particularly those in the constricted tributaries. Only the deep-draft facilities are described. For a complete description of the port facilities refer to Port Series No. 4, published and sold by the U.S. Army Corps of Engineers. (See Appendix A for address.) The alongside depths for the facilities described are reported; for information on the latest depths contact the private operators. All of these facilities have highway connections, and most have water connections.

(57) Cargo in the port is usually handled by ship's tackle; special handling equipment, if available, is mentioned in the description of the particular facility.

(58) United Illuminating Co. Fuel Oil Dock: on the south side of Tongue Point; an offshore wharf with 345-foot breasting face, 900 feet with dolphins; 31 to 37 feet alongside; deck height, 20 feet; receipt of fuel oil; owned and operated by United Illuminating Co.

(59) Shell Oil Co. Dock: on the east side of the harbor opposite Tongue Point; 190-foot face, 700 feet with shore moorings; 35 feet alongside; deck height, 13 feet; vessels usually moor portside-to; receipt and shipment of petroleum products; owned by Shell Oil Co. and operated by Shell Oil Co. and International Petroleum Terminals Co.

(60) Cilco Terminal Co. Wharf: 0.3 mile northwestward of Shell Oil Co. Dock; 930-foot face; 33 feet alongside; deck height, 13 feet; 90,000 square feet covered storage, 16 acres of open storage; receipt and shipment of general cargo; receipt of lumber, steel products, and pumice, and shipment of scrap metal; owned and operated by Cilco Terminal Co., Inc.

(61) The city-owned recreational pier, seldom used for mooring vessels, is on the northwest end of Pleasure Beach; the end of the pier has depths of about 20 feet.

(62) The municipal dock, a marginal-type wharf, is on the west side of Pequonnock River, just below the Connecticut Turnpike Bridge. A ferry to Port Jefferson ties up at the dock.

Supplies

(63) Diesel oil, diesel fuel, gasoline, bunker fuel No. 6, lubricants, water, provisions, and marine supplies can be obtained at Bridgeport.

Repairs

(64) Bridgeport has no facilities for making major repairs or for drydocking deep-draft vessels; the nearest facilities are at the ports of Boston, Mass., and New York, N.Y. Bridgeport, however, does have facilities for making above- and below-the-waterline repairs to fishing boats, tugs, and recreational craft, and excellent hull and engine repair facilities for small craft. The largest marine railway in the area can handle vessels to 120 feet and 400 tons. A 10-ton crane is available. Oil pollution control equipment is also available.

Communications

(65) Bridgeport is served by air, rail, and bus. Ferry service to Port Jefferson is available year round.

(66) **Black Rock Harbor**, part of Bridgeport Harbor, although not connected with it other than by Long Island Sound, is entered through a dredged channel about 2 miles westward of the main harbor entrance to Bridgeport. The channel leads northward through Black Rock Harbor, and thence to the head of **Cedar Creek** where it divides into **East Branch** and **West Branch.** Black Rock Harbor and Cedar Creek are the approach by water to

the large factories of the western part of the city of Bridgeport. The Federal project depth in the dredged channel is 18 feet from the entrance to the head of the project. (See Notice to Mariners and latest edition of the chart for controlling depths.) The channel is marked by buoys and lights for about 1.7 miles above the entrance.

(67) Anchorage in depths of 18 to 22 feet and exposed to southeasterly and northeasterly winds can be found off the entrance, northeast of the bar that makes out from Shoal Point to Black Rock. Small craft drawing less than 6 feet can select anchorage on either side of the dredged channel as far as the yacht club on the east side of Grover Hill.

(68) Depths of 8 to 18 feet are reported alongside some of the wharves in Black Rock Harbor.

(69) To avoid a shoal off the point separating East Branch and West Branch at the head of Cedar Creek, enter East Branch, pass about 100 feet off the wharf on the southeast side below the entrance, and head up the middle. To enter the West Branch, pass 100 feet off the wharves on the southeast side of the branch.

(70) **Fayerweather Island**, on the eastern side of the entrance of Black Rock Harbor, is marked at its south end by the white tower of an abandoned lighthouse. A breakwater and a seawall connect its northern part with the shore eastward.

(71) **Burr Creek**, northward of the town of Black Rock, on the west side of the channel, is the site of a large marina. Berths, gasoline, diesel fuel, electricity, water, ice, a lift, and repair facilities are available. In April 1986, depths of about 4 to 5 feet were reported at the face of the gasoline dock and alongside the boat slips. Burr Creek has many shoals; mariners are advised to seek local knowledge before entering.

(72) Several **small-craft facilities** are in Black Rock Harbor. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(73) **Ash Creek,** about 0.7 mile westward of Fayerweather Island, is entered through a privately dredged channel protected on its southwest side by a jetty. The entrance channel is marked by private buoys and a private seasonal **314°** lighted range. The channel leads northwestward to the Fairfield Municipal Marina. Gasoline, water, and ice are available. In April 1986, depths of 10 feet were reported in the entrance channel, with 4 feet reported alongside the boat slips. A 5 mph **speed limit** is enforced in the creek.

(74) **Penfield Reef**, on which there are rocks bare at low water, is about 1.4 miles south of Black Rock Harbor and 1.3 miles eastward of **Shoal Point**, to which it is joined by a bar that bares at low water. **Black Rock**, marked by a daybeacon, is the outermost danger of this reef. A dangerous submerged rock, reported covered 1 foot, is about 40 yards southward of the daybeacon. **The Little Cows**, about 0.2 mile northward of Black Rock, consist of rocks awash, and is marked by a buoy.

(75) **Penfield Reef Light** (41°07'00"N., 73°13'18"W.), 51 feet above the water, is shown from a white tower on a granite dwelling on a pier, on the south side of the reef, south of the entrance to Black Rock Harbor. A fog signal is sounded at the light.

(76) A reef, partly bare at low water and with little depth over any part of it, extends over 0.5 mile southward from **Pine Creek Point**, 1.1 miles southwest of Shoal Point. A lighted bell buoy is off the south end of the shoal.

(77) **Southport Harbor**, about 1 mile westward of Pine Creek Point, comprises the lower portion of Mill River and is used primarily for recreational boating. A breakwater, marked at its end by a light, is off the east side of the entrance to the harbor. The harbor is entered through a dredged channel that leads from Long Island Sound to a harbor basin and anchorage, about 1.1 miles above the channel entrance. In December 2004-March 2005, the controlling depth in the entrance channel was 7.5 feet (8.9 feet at midchannel) to the anchorage basin, thence 8.8 feet in the anchorage basin except for shoaling to 5 feet near the southwestern edge. The channel is marked on its west side by a light, and by buoys up to the breakwater. Caution is advised to avoid oyster stakes in the area southeastward of the harbor entrance. The mean range of **tide** is about 7 feet. A 5 mph **speed limit** is enforced in the harbor.

(78) **Southport** is a village on the west side of the harbor. A yacht club landing and the town dock are on the west side of the harbor; depths of about 6 feet are alongside the town dock, and about 6 to 8 feet alongside the yacht club landing. Gasoline, diesel fuel, ice, water, and some marine supplies can be obtained. Minor engine repairs can be made. The **harbormaster** can be contacted through the Fairfield Police Department.

(79) **Frost Point**, 1 mile westward of Southport entrance, is marked by many residences and several private piers in disrepair on its southeast side. A reef partly bare at low water extends about 0.4 mile southward from the point.

(80) **Sherwood Point**, a mile westward of Frost Point, is marked by a bare boulder on the reef which extends about 250 yards off the point. A rocky patch, on which the least depth found is 11 feet, is about 0.8 mile southward of the point.

Charts 12368, 12364

(81) **Saugatuck River,** 6 miles westward of Penfield Reef Light and northward of Cockenoe Island, has its

entrance between **Cedar Point** on the east and **Bluff Point** on the west. The river is shallow, full of ledges and boulders, and is used chiefly for receipt of petroleum products, sand and gravel, and for recreational boating. The mean range of **tide** is 7 feet. Freshets do not appreciably affect the height of the water in the navigable part of the river. During the winter, ice usually covers the entire river to its mouth.

(82) Anchorage exposed to southeasterly winds can be had in the entrance to Saugatuck River in 12 to 22 feet, about 0.4 mile southward of **Cedar Point**.

(83) The channel in Saugatuck River is narrow and crooked; vessels should proceed with caution, preferably on a rising tide. In August-September 2001, a reported depth of about 4 feet could be carried in the river from the entrance to about 0.7 mile above the Connecticut Turnpike Bridge at Saugatuck. The 4-foot channel to Westport had a controlling depth of 1 foot, with shoaling to bare in the east branch. The channel is buoyed to **Stony Point,** about 1.9 miles above the entrance. A 5 mph **speed limit** is enforced on the river.

(84) **Compo Yacht Basin** is in the bight about 0.3 mile northwestward of Cedar Point. In April 1995, the privately dredged channel that leads to the basin had a reported depth of 8 feet with 7 feet reported in the basin. The channel is marked by private buoys and a private lighted entrance range. A yacht club with landing and mooring facilities is in the basin. Gasoline, berths, electricity, and water are available at the landing.

(85) A yacht club in a privately dredged basin on the west side of Bluff Point has berths with electricity, gasoline, and ice. In 1982, depths of 7 feet were reported in the approach with 10 feet alongside the berths.

(86) **Duck Creek**, on the west side of the river about 0.6 mile above Bluff Point, is the site of a private yacht club. The reported controlling depth in the creek was about 7 feet in July 1981. The entrance and basin are privately marked.

(87) **Bermuda Lagoon**, southward of Duck Creek, is a large privately owned and maintained basin for the use of the residents in the immediate area.

(88) **Saugatuck**, a village in the town of Westport, is 2.5 miles above the entrance. Commercial traffic consists mostly of barges that call at a sand and gravel company at Saugatuck; depths at the wharf are about 5 feet.

(89) At Saugatuck the river is crossed by railroad bridge having a bascule span with a clearance of 13 feet. Overhead power cables at the bridge have a clearance of 192 feet. The Connecticut Turnpike Bridge, 0.1 mile above, has a fixed span with a clearance of 59 feet. About 0.1 mile farther up is a highway swing bridge with a clearance of 7 feet. (See **117.1 through 117.59 and 117.221**, chapter 2, for drawbridge regulations.)

(90) **Westport** is a town at the head of navigation on the Saugatuck River, about 1.4 miles above Saugatuck.

(91) There are several small-craft facilities on the river in the vicinity of the bridges. Gasoline, water, marine supplies, and a 3-ton lift are available; hull and engine repairs can be made. Depths of 6 feet are reported alongside the facilities.

(92) **Norwalk Islands**, privately owned with the exception of Shea and Grassy Islands, which are owned by the city of Norwalk, and Cockenoe Island, which is owned by the town of Westport, are 1 to nearly 2 miles off the north shore of Long Island Sound and extend from Georges Rock to Greens Ledge Light, a distance of 6 miles. **Cockenoe Harbor** and **Sheffield Island Harbor**, the two approaches to Norwalk River, are good anchorages for drafts of 9 to 12 feet and are easily made. The bottom is very irregular around the islands and rocks in the group; vessels should proceed with caution when crossing shoal areas and avoid all broken ground. In the vicinity are some oyster stakes and spars, which occasionally are towed under or broken off; caution is recommended, especially at night, for small craft.

(93) **Cockenoe Island**, at the eastern end of Norwalk Islands, is marked on its south side by two knolls; the remainder of the island is low and level. A bar, dry in places at low water but with general depths of 1 to 2 feet, connects the island with the mainland at **Seymour Point**.

(94) **Cockenoe Shoal** is an extensive and dangerous area which extends 1.3 miles eastward and east-southeastward from Cockenoe Island. The entire area is exceedingly broken and should be avoided by strangers, even in small craft. **Cockenoe Reef** extends about 0.5 mile eastward from the northern end of Cockenoe Island; rocks that uncover about 3 feet are near the outer end of the reef. **Georges Rock**, awash at lowest tides, is at the eastern end of the shoal; a lighted buoy is off the northeast side of the rock. A lighted bell buoy marks the southeast end of the shoal.

(95) **Channel Rock,** covered 1½ feet, is about 0.2 mile southwestward of Cockenoe Island and is marked by a buoy to the southward. **Peck Ledge**, on the western side of Cockenoe Harbor entrance, is marked by Peck Ledge Light and Norwalk East Approach Gong Buoy 5.

(96) **Cockenoe Harbor**, westward of Cockenoe Island, is marked by Peck Ledge Light. The best anchorage is in depths of 12 to 25 feet, northward and northwestward of the light.

Routes

(97) To enter Cockenoe Harbor from the eastward, pass southward of Cockenoe Island Shoal Lighted Bell Buoy 24, steer **254°** until Peck Ledge Light bears northward of **285°,** then steer for the light until up with Norwalk

East Approach Buoy 4 that marks Channel Rock, and then pass eastward and northward of the light at a distance of 200 to 300 yards.

(98) To enter Cockenoe Harbor from the westward, give the edge of the shoals southward of the Norwalk Islands a good berth until Peck Ledge Light bears westward of **348°**, and then steer **north** and pass 400 yards eastward of the light and midway between Norwalk East Approach Buoy 4 that marks Channel Rock and Norwalk East Approach Gong Buoy 5.

(99) The islands and rocks on the west side of Cockenoe Harbor include **Calf Pasture Island**, with several houses and a few trees; **Sheep Rocks**, which uncover 2 feet; **East White Rock**, high and white; and **Grassy Hammock Rocks**, which uncover and are marked by a light.

(100) The larger islands southwestward are in general hilly and partly settled. **Chimon Island** is marked by several houses; **Copps Island** by large boulders that extend east from it; and **Sheffield Island,** the westernmost of the group, by an abandoned lighthouse tower.

(101) Rocks that uncover extend nearly 0.3 mile southwestward of Sheffield Island.

(102) **Greens Ledge** is a rock and sand ridge that extends 1.1 miles southwestward from Sheffield Island. Depths of 10 to 15 feet extend about 400 yards westward and southwestward from Green Ledge Light. A rocky ledge, on which the least found depth is 21 feet, extends 0.8 mile west-southwestward from the light. Another rocky ledge, with a least depth of 20 feet, is about 0.4 mile south-southeastward from the light.

(103) **Greens Ledge Light** (41°02'30"N., 73°26'38"W.), 62 feet above the water, is shown from a conical tower, the upper half white and lower half brown, on a black cylindrical pier on the north side of the west end of the ledge. A fog signal is sounded at the light.

(104) **Cable and Anchor Reef** covers an area about 0.4 mile in diameter about 2 miles southeastward of Greens Ledge Light. The least found depth is 22 feet. A lighted bell buoy marks the southern side.

(105) **Sheffield Island Harbor**, entered between Greens Ledge and the mainland, is the main approach to Norwalk Harbor and Norwalk River. Anchorage in depths of 12 to 20 feet can be found northwestward of Sheffield Island. The shoal flats on the north side of the harbor have rocks and boulders in places.

(106) **Norwalk River** empties through **Norwalk Harbor** into the north side of Long Island Sound, northward of the Norwalk Islands and about 40 miles east of New York.

Channels

(107) Norwalk Harbor and River are entered through a dredged channel that extends 3 miles northeasterly from Sheffield Island Harbor between **Manresa Island** on the west and **White Rock** and numerous islets and foul ground on the east, to the first highway bridge at South Norwalk, and thence northerly for another 1.3 miles to the basin at the head of navigation at Norwalk. The tall stack on Manresa Island, marked on top by red lights, is very prominent and can be seen for many miles from sea.

(108) A Federal project provides for a depth of 12 feet from Sheffield Island Harbor to the State Route 136 bridge, thence 10 feet to a 10-foot basin at the head of navigation at Norwalk; an anchorage basin opposite Fitch Point has a project depth of 10 feet. (See Notice to Mariners and latest editions of charts for controlling depths.) The channel is marked by buoys and lights to the South Anchorage Basin.

Caution

(109) Chemically contaminated material has been buried in the navigation channel off Oyster Shell Point about 140 yards below Interstate Route 95 bridge. The material is covered with a layer of noncontaminated dredged material not less than 3 feet thick.

Bridges

(110) Three bridges cross Norwalk River between South Norwalk and Norwalk. The first, State Route 136 highway bascule bridge at South Norwalk, has a clearance of 8 feet. The second, the Metro-North railroad swing bridge just above the highway bridge, has a clearance of 16 feet; an overhead power cable with a clearance of 203 feet crosses the river near the railroad bridge. The third, a turnpike highway fixed bridge, about 0.6 mile above the railroad bridge, has a clearance of 60 feet. (See **117.1 through 117.59 and 117.217**, chapter 2, for drawbridge regulations.) The bridgetenders at the State Route 136 bridge and the railroad bridge monitor VHF-FM channel 13; call signs KXJ-707 and KU–6035, respectively.

(111) **Tavern Island**, with several houses and foul ground on all sides, is just northwestward of the dredged channel entrance to Norwalk Harbor.

(112) **Gregory Point**, marked by a clubhouse and wharf, is on the east side of Norwalk Harbor 1.9 miles above the channel entrance. The boat basin immediately eastward of Gregory Point, locally known as **Norwalk Cove**, is entered through a privately maintained channel. In March 1987, the controlling depth was 8 feet in the channel, thence in July 1981, 6 feet in the eastern part

of the basin. A 220-yard-long detached timber breakwater is on the north side of channel entrance.

(113) **East Norwalk Harbor**, at the town of **East Norwalk**, is on the east side of the river about 2 miles above the main channel entrance. The harbor is entered through a dredged channel that leads westward of **Fitch Point** to the head and to North Anchorage Basin on the westerly side of the harbor. A Federal project provides for a depth of 6 feet from Fitch Point Light 1 to and in an anchorage basin at East Norwalk. (See Notice to Mariners and latest editions of charts for controlling depths.) The channel is marked to near the southern end of the basin.

(114) **South Norwalk** is an important commercial and manufacturing city on the west side of Norwalk River, about 3 miles above the channel entrance. The depths at the wharves below the bridges range from 5 to 10 feet. Commercial traffic is mainly in building materials, petroleum products, and shell fishing.

(115) **Norwalk**, 1.3 miles above South Norwalk, is a city on both sides of the river at the head of navigation. The wharves have depths of about 7 feet alongside. The channel from South Norwalk to Norwalk is winding, with extensive flats on both sides, and requires local knowledge to follow it even at high water.

(116) Local regulations provide penalties for exceeding the posted 5 mph **speed limit** or for dumping refuse in the harbor. These regulations are enforced by the Marine Division of the Norwalk Police Department. Police patrol boats operate the year round and are equipped to handle radio traffic on VHF-FM channel 16 (156.80 MHz). The **harbormaster** at Norwalk can be reached through the police department.

Tides

(117) The mean range of **tide** is about 7 feet.

Currents

(118) The tidal currents in Long Island Sound off Norwalk have a velocity of about 1 knot. In Norwalk River, off Gregory Point, the velocity of current is about 0.6 knot. The currents in the harbor follow the direction of the channel, the ebb current being somewhat stronger than the flood. (See the Tidal Current Tables for predictions.)

Ice

(119) The channel up to South Norwalk is navigable throughout the year. The harbor and river above South Norwalk are covered with ice during a part of the winter. A channel is ordinarily kept open to the highway bridge, but the East Norwalk Channel and the channel in the river are usually closed for about 6 weeks each winter.

Pilotage, Norwalk

(120) Pilots which service New London-Groton and/or New Haven service Norwalk. See Pilotage, New London-Groton (indexed as such), chapter 8; and/or Pilotage, New Haven (indexed as such), chapter 8.

Small-craft facilities

(121) There are excellent small-craft facilities at South Norwalk, East Norwalk, and in Norwalk Cove. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

Communications

(122) Rail and bus lines serve the city and area.

(123) **Wilson Cove**, on the north side of Sheffield Island Harbor, is entered about 0.6 mile northwestward of the dredged channel entrance to Norwalk Harbor between **Wilson Point** on the north and Bell Island on the southwest. The ruins of a former oil-receiving pier are on the southwestern extremity of Wilson Point. A yacht club is on the east side of the cove, about 150 yards northward of the wharf ruins, and a marina is at the head of the cove. Gasoline, limited marine supplies, ice, an 18-ton crane, a 20-ton mobile hoist, and engine and hull repair facilities are available at the marina. In 1989, the privately dredged channel leading to the marina had a reported controlling depth of 2½ feet (5 feet at midchannel).

(124) **Noroton Point**, at the southern end of **Bell Island**, is marked by a flagpole and a prominent house with a cupola. Rocks, bare at low water, are about 300 yards northward of the point. **Pine Point**, just westward of Noroton Point, has a wharf in ruins at its southern end. A shoal with depths of 8 to 12 feet extends about 0.3 mile from the shore westward of Noroton Point. The bottom is broken with boulders in places, and small vessels crossing the shoal should proceed with caution. **Ballast Reef**, about 0.2 mile westward of Pine Point and off the southeast side of the entrance to Fivemile River, is almost bare at low water and extends 300 yards off **Roton Point**; a buoy marks the outer end of the reef.

(125) **Fivemile River**, a narrow inlet about 0.6 mile westward of Noroton Point and about 0.9 mile northward of Greens Ledge Light, is entered through a dredged channel that leads northward into the river for about 0.7 mile. The river is shallow except in the dredged channel and rocks exposed 2 feet at low water have been reported on the east side of the channel near the channel edge in about 41°03'37"N., 73°26'47"W. In 1999, the controlling depth was 4.7 feet (6.8 feet at midchannel) to the head of the dredged channel. The channel is marked by buoys at the entrance and by a buoy on the east side about 0.3 mile above the entrance.

(126) In July 1981, depths of 2 to 5 feet were reported alongside the small-craft facility wharves on the east side of the river. The river is used chiefly by pleasure craft. The mean range of **tide** is about 7 feet.

(127) A **special anchorage** is in Fivemile River. (See **110.1 and 110.55a,** chapter 2, for limits and regulations.)

(128) **Rowayton** is a village at the head of Fivemile River. Several **small-craft facilities** are on the east side of the river. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(129) **Scott Cove**, about 0.8 mile westward of Fivemile River and about a mile northwest of Greens Ledge Light, is a rocky shelter with a channel good for about 6 feet to the shallow area northward. There are rocks and broken ground in the entrance. The channel into **Zieglers Cove**, just west of Scott Cove and south of **Great Island,** is good for about 9 feet. A rock, covered 5 feet, is reported to lie almost in mid-entrance to this cove. Local knowledge is required to navigate both coves.

(130) **Long Neck Point**, about 2 miles southwestward of Fivemile River, has many summer residences and boat landings on both of its sides. Shoals extend about 0.3 mile off the point. An unmarked sunken wreck is about 0.5 mile southeastward of Long Neck Point; depth over the wreck is unknown.

(131) From Long Neck Point to Shippan Point, about 2.6 miles to the southwestward, there are many reefs and boulders, and the bottom is very broken, necessitating caution. This area is the approach to several shallow coves, none of which is commercially important.

(132) **Goodwives (Darien) River** is a small and shallow stream on the west side of Long Neck Point. Foul ground with rocks bare at low water extends nearly 200 yards off the west side of Long Neck Point, about 0.3 mile above the south end of the point. A private seasonal, **342°** lighted range and buoys mark the best water to a yacht club and basin on the southeast side of **Noroton Neck**. In April 2002, a depth of 4.5 feet could be carried to the yacht club landing thence in 1981, 3 feet through **The Gut** to the boat club landing just above **Peartree Point**. Above the boat club landing, the river is practically dry at low water. Goodwives River and its entrance is a **special anchorage.** (See **110.1 and 110.56,** chapter 2, for limits and regulations.) A 5 mph **speed limit** is enforced on the river.

(133) **Smith Reef**, about 0.9 mile southwestward of Long Neck Point, consists of two rocks that uncover 2 feet. The south end of the reef is marked by a lighted buoy. **Bold Rock**, which uncovers 4 feet, is on the east edge of the rocky ridge extending northward from the reef. Many oyster stakes are on the ridge.

(134) **Cove Harbor**, northward of Smith Reef and about 1 mile westward of Long Neck Point, has depths of about 5 to 10 feet. Local knowledge is necessary to avoid several rocky areas in the approach to the harbor and to the basin at the northwestern end of the harbor at Cove Mills. A depth of about 1 foot can be carried across the bar at the entrance to the basin; private buoys, one of which is a seasonal speed limit buoy, mark the approach. A municipal marina is in the basin.

(135) **Westcott Cove**, just westward of Cove Harbor, has a dredged channel marked by buoys that leads along its westerly side to a basin 0.5 mile above the channel entrance, thence for 0.2 mile through the south arm of the basin. The east side of the entrance to the basin is protected by a jetty marked on the outer end by a private light. In June 1985, the channel had a midchannel controlling depth of 4 feet. A yacht club is in the northwesterly arm of the basin, and a municipal marina is in the southeasterly arm. Gasoline diesel fuel, and water are available at a marina on the west side of the south arm of the basin.

(136) **Stamford Harbor**, on the north side of Long Island Sound about 33 miles east of New York, comprises the bay north of a line from Shippan Point on the east through Stamford Harbor Ledge Obstruction Light to the west shore north of Greenwich Point. The harbor is shoal, and the approach is obstructed to a large extent by ledges and rocks. **Shippan Point**, the eastern point at the entrance, is surrounded by rocks which show at low water. Barges and small coastal tankers constitute the main waterborne traffic in the harbor. Petroleum products, scrap metal, sand and gravel, and crushed rock are the principal products handled in the harbor.

(137) **Stamford** is a manufacturing city on the peninsula at the head of the harbor.

Prominent features

(138) **Stamford Harbor Ledge Obstruction Light** (41°00.8'N., 73°32.6'W.), 80 feet above the water, shown from a white conical tower on a red cylindrical pier, is a private light visible from a considerable distance offshore. Also prominent are a microwave tower westward of the city and the large brown office buildings locally known as Harbor Plaza on Ware Island. **Stamford Harbor West Breakwater Light 3** (41°00'54"N., 73°32'18'W.), 47 feet above the water, is shown from a tower with a square green daymark at the east end of the west breakwater. **Stamford Harbor East Breakwater Light 4** (41°00.9'N., 73°32.1"W.), 28 feet above the water, is shown from a skeleton tower with a triangular red daymark at the west end of the east breakwater.

Channels

(139) Stamford Harbor is entered through a dredged entrance channel that leads northward from Long Island Sound between two detached breakwaters to a point about 1 mile above the entrance to a junction with the dredged channels leading into **East Branch** and **West Branch**. A Federal project provides for depths of 18 feet to a point about 0.5 mile below the junction of the branches, thence 15 feet to the junction, thence in the West Branch 15 feet to and in the turning basin; thence in the East Branch, 15 feet to Light 1, thence 12 feet to the head of the project about 0.6 mile above the hurricane barrier. (See Notice to Mariners and latest edition of charts for controlling depths.) The 100-foot-wide channel in East Branch is constricted to 90 feet by a hurricane barrier that crosses the channel about 300 yards northward of **Ware Island**. The 90-foot gated opening in the barrier will be kept in the open position during fair weather, but will be closed on the approach of a storm or unusually high tides. A red light marks the channel end of each breakwater. A lighted sign on either side of the barrier is used to indicate whether the barrier is in the open or closed position. A flashing red light is shown from the control tower when the gate is about to be closed. The channels are well marked by navigational aids, and, in addition, the entrance channel is marked by a **358°** lighted range.

Anchorages

(140) A dredged anchorage area with depths of 12 to 18 feet is north of the breakwaters and just westward of the line of the range lights, about 0.1 mile eastward of **Highwater Rock**. Small craft can anchor off the yacht club and southward or southeastward of **Rhode Island Rocks** in depths of 5 to 7 feet. All anchorages in the outer harbor are exposed to southerly and southwesterly winds.

Dangers

(141) **The Cows** comprise a cluster of rocks, almost bare at low water, about 0.8 mile south-southeast of Shippan Point. Between them and the point is an area of foul ground and rocks bare and awash that extends 0.4 mile southward of Shippan Point. A lighted bell buoy is about 0.2 mile south of The Cows. **Harbor Ledge,** about 200 yards south of the west breakwater, consists of rocks and a ledge marked by a private light.

Tides

(142) The range of **tide** is 7.2 feet.

Currents

(143) The flood current at the entrance to the harbor has a velocity of 0.4 knot and sets 329°; the ebb has a velocity of 0.8 knot and sets 134°. Inside the harbor the currents have little velocity and usually set fair with the channel.

Ice

(144) The channel in West Branch is usually navigable throughout the year, but in East Branch it is closed by ice for several weeks during severe winters. Ice forms in the harbor during most winters and usually extends to a point just northward of the breakwaters. The channels are kept open as far as practicable by passing traffic.

(145) Prevailing winds are from the south and southwest in the summer and from northeast during the winter season.

(146) No particular directions are required. The range favors the west side of the channel and does not show plainly until eastward of Stamford Harbor West Breakwater Light. In East Branch, caution is advised when making the turn abreast Ware Island to avoid a rock nearly awash at high water, eastward of the channel line.

(147) The **harbormaster** at Stamford can be contacted through the Stamford Police Department. A police boat makes routine patrols of the harbor during the boating season. A 6 mph **speed limit** is enforced in the harbor.

Wharves

(148) The commercial wharves along East Branch and West Branch are of the bulkhead and apron type, all are privately owned, and some are open to the public. Spur tracks from the railroad serve the facilities in East Branch.

Small-craft facilities

(149) There are excellent facilities for small craft in both East and West Branches. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(150) **Dolphin Cove**, 0.6 mile west of the entrance channel to Stamford Harbor, is a privately owned Lagoon and marine facility. No anchoring is allowed.

Charts 12367, 12364

(151) **Captain Harbor**, on the north shore of Long Island Sound westward of Greenwich Point and northward of Great and Little Captain Islands, affords shelter from all winds for vessels drawing 12 feet or less. The depths at the anchorage in the deeper part of the harbor, about 0.5 mile northward of Great and Little Captain Islands, are 15 to 30 feet. Vessels of less than 7-foot draft anchor

on the flats. The bottom is soft, but the entire harbor and entrances are characterized by boulders. Strangers should proceed with caution, especially on the flats and other shoal areas. The eastern entrance to Captain Harbor, between Flat Neck Point and Little Captain Island, is the clearer and better one for strangers. The western entrance, northwestward of Great Captain Island, is easy of access, but the broken ground there requires caution.

(152) **Greenwich Point**, 1.7 miles southwestward of Stamford Harbor West Breakwater Light, is characterized by a low grassy hill. Reefs extend 0.3 mile southeastward from Greenwich Point. **Woolsey Rock** near the easterly end of the reefs is bare at low water. A buoy marks these dangers.

(153) **Flat Neck Point**, the western end of Greenwich Point, is wooded. A reef with bare and submerged rocks extends nearly 0.3 mile southwestward and westward from Flat Neck Point. About 0.2 mile northwestward of the point, the boiler of a wreck, marked by a private seasonal buoy, shows above high water.

(154) **Greenwich Cove** opens into Captain Harbor from eastward, north of Flat Neck Point. The cove is used for mooring local craft. Depths decrease from 8 feet in the outer cove to less than 3 feet in the eastern part of the cove. **Old Greenwich** is on Greenwich Cove.

(155) **Cos Cob Harbor**, on the northeast side of Captain Harbor, has a dredged channel through it which extends 1.3 miles northward through the Mianus River to the head of navigation at Mianus. In August 2003, the controlling depth was 6 feet at midchannel to the bascule railroad bridge, thence 2.8 feet (4.8 feet at midchannel) to the fixed highway bridge, thence 4.8 feet at midchannel (except for shoaling to 1.1 feet in the lat 300 feet of the dredged channel) to the head of navigation at Mianus. Shoaling is reported to be abrupt along both edges of the channel. The channel is buoyed to the first bridge; above this point the channel may be followed by steering a midchannel course between the marsh banks. **Special anchorages** are in Cos Cob Harbor. (See **110.1 and 110.58,** chapter 2, for limits and regulations.)

(156) There are several dangers off the entrance of Cos Cob Harbor that must be avoided; most are buoyed. These include **Newfoundland Reef**, covered 4 feet, a mile northeastward of Little Captain Island; **Red Rock**, which uncovers 7 feet, 0.5 mile west of Newfoundland Reef; **Hitchcock Rock**, awash at low water, 0.3 mile northwestward of Newfoundland Reef; and **Pecks Rock**, bare at low water, 0.2 mile north of Hitchcock Rock.

(157) The Riverside Yacht Club, on the east side of Cos Cob Harbor and about 0.5 mile below the first bridge, is prominent.

(158) **Mianus River** is crossed by the Metro-North railroad bascule bridge with a clearance of 20 feet, and by a highway fixed bridge with a clearance of 45 feet, about 0.4 mile to the northward. (See **117.1 through 117.59 and 117.209**, chapter 2, for drawbridge regulations.)

(159) Several marinas and boatyards are along the west side of the river from above the railroad bridge to the head of navigation. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(160) **Mianus**, at the head of navigation on the river, is the site of an abandoned sand and gravel wharf.

(161) **Indian Harbor** is a narrow inlet on the north side of Captain Harbor, about 1 mile west of Cos Cob Harbor. A channel with a depth of about 7 feet passes about 200 feet westward of Tweed Island and follows the west bank to the bulkhead on the west side of the cove 300 yards above the entrance. Small craft can anchor in the channel just above this point, favoring the bulkhead. A large prominent white residence with red roof and adjacent white clock tower is on the point separating **Smith Cove** and Indian Harbor. A 5 mph **speed limit** is enforced in the harbor.

(162) Depths of 6 feet or less extend 250 yards southward from the point separating Smith Cove and Greenwich Harbor. Bare ledges extend 200 feet southward of the point. The yacht club on the point usually maintains lights on a flagstaff during the summer. The depth is about 7 feet at the landing of the Indian Harbor Yacht Club.

(163) **Greenwich Harbor**, on the north side of Captain Harbor and northeastward of Field Point, is entered through a dredged channel that leads northward 1.2 miles to the head. The channel is buoyed for about 0.8 mile. In December 1981, the controlling depth was 8 feet. Two anchorage basins are off the west side of the channel. In December 1981, the northerly basin had depths of 2 to 4½ feet except for shoaling to bare along the northern edge, and the southerly basin had depths of 4 to 6 feet except for shoaling to bare along the west edge.

(164) A 5 mph **speed limit** is enforced in the harbor.

(165) **Greenwich** is a city on the railroad at the head of the harbor. The wharves are along the point on the east side of Greenwich Harbor. The **harbormaster** at Greenwich can be contacted through the Greenwich Police Department. A police boat patrols the harbor during the summer season.

(166) Several private yacht and boat clubs are in Greenwich Harbor. Gasoline and diesel fuel are available at a small-craft facility on the west side of the harbor at Grass Island. During the summer, a ferry operates from the town landing at the head of the harbor to Little Captain Island, Great Captain Island, and Calf Islands.

Airphoto - Jim Wark

(167) **Byram Harbor**, a bight used by small craft, is at the northwest end of Captain Harbor, just northward of **Calf Islands**. **Wilson Head**, 2 feet high, on a reef that uncovers, is in the middle of the entrance of the bight and is marked by a buoy off the eastern end. The entrance to Byram Harbor from eastward lies between Otter Rocks and Bowers Island. **Otter Rocks**, which uncover 3 feet, are marked by a lighted buoy about 150 yards to the southward; a submerged rock is close northward of the buoy. **Bowers Island**, just eastward of Calf Islands, is marked by a clump of trees and surrounded by a drying reef; a buoy marks the north end of the reef. A rocky ledge makes out from the point 300 yards northwestward of Otter Rocks, and is marked by a buoy. Private small-craft facilities are on the west side of the harbor.

(168) The southeastward approach to Byram Harbor is buoyed. A narrow channel also leads to the harbor from southwestward, passing southward of Huckleberry Islands and between the northwest one of the Calf Islands and the two nearest rocks, which are sometimes marked by a private daybeacon. The rocks 90 yards off the southwest end of Huckleberry Islands are bare at low water.

(169) **Grassy Rocks**, 0.3 mile westward of the southerly tip of Calf Islands, uncover 7 feet. The four large ledges northwestward and westward of Grassy Rocks generally show at low water.

(170) **Jones Rocks**, partly bare at high water, are at the southeast end of the foul ground that extends over 0.2 mile southeastward from the south end of Calf Islands. The rocks are marked by a light.

(171) **Cormorant Reef**, northward of Great Captain Island, partly bare at high water, has a rock 4 feet high on the eastern end. A buoy is off the southern end of the reef.

(172) **Great Captain Island**, 2.6 miles southwestward of Greenwich Point, is 0.4 mile long, fringed with reefs, and marked near its southeast end by a light. A municipal bathing beach and ferry landing are on the island. The landing has reported depths of about 3 feet. A buoy marks the reef making off 0.3 mile from the southwestern end. The passage between Great and Little Captain Islands is foul and not recommended.

(173) **Great Captain Island Light** (40°58'57"N., 73°37'23"W.), 62 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the southeast part of the island. A fog signal is sounded at the light.

(174) **Little Captain Island**, a summer resort about 0.6 mile northeast of Great Captain Island, has a municipal bathing beach and ferry landing. The landing has reported depths of about 8 feet. A reef extends about 250 yards northeasterly to **Wee Captain Island**. An area of boulders and broken ground extends 0.4 mile eastward and northeastward from the island and is marked by a

lighted gong buoy. **Hen and Chickens**, a group of rocks and boulders about 0.4 mile northeastward of Little Captain Island, is marked by a buoy on the north side.

Tides

(175) The mean range of **tide** is 7.3 feet.

Currents

(176) The tidal current in the entrance between Little Captain Island and Flat Neck Point has a velocity of about 0.7 knot. Between Jones Rocks and Cormorant Reef the estimated velocity is 1 knot.

Ice

(177) **Ice** forms in the winter in all the coves and over the greater part of Captain Harbor. It sometimes extends out of the line of Little and Great Captain Islands.

Routes

(178) From eastward, a course of about **298°** midway between the buoys marking the shoals off Flat Neck Point on the east and Wee Captain Island on the west will bring a vessel to a point 0.2 mile north of Hen and Chickens Buoy 1A. From here a heading of **250°**, with the southerly tip of Calf Islands ahead, will lead to anchorage off the entrance of Greenwich Harbor.

(179) From westward, a course of **014°** for Jones Rocks Light 3 will lead into the Captain Harbor anchorage. Proceed with caution when crossing the broken rocky area on which the least found depth is 12 feet, extending 0.4 mile westward from the western end of Great Captain Island. Vessels should pass 100 yards southeastward of Jones Rocks Light, and over 100 yards northward of the buoy northwestward of Cormorant Reef, and steer **070°** in the harbor.

(180) **Port Chester Harbor**, about 1.2 miles westward of Great Captain Island, is the entrance to Byram River which leads to the city of **Port Chester** and the town of **Byram (East Port Chester)**. The harbor entrance is between the breakwater that extends southward from **Byram Point** on the north and **North Manursing Island** on the south; a light is on the outer end of the breakwater. The lower section of the river forms the boundary between New York and Connecticut.

(181) The harbor is entered from Long Island Sound through a dredged channel that leads northward for 1.2 miles to a turning basin in **Byram River**, and thence for another 0.15 mile to just below the Mill Street fixed bridge, the head of practical navigation on the river. In August-September 2005, the controlling depths were 8.8 feet at midchannel to the first fixed bridge about 0.8 mile above the entrance, thence 6.1 feet at midchannel to the basin, thence 8.2 feet in the basin, thence in 1993, 3 feet at midchannel to just below the head of navigation about 30 yards below the second fixed bridge (Mill Street fixed bridge). The channel is marked to a point about 0.3 mile above the entrance.

(182) The New England Thruway fixed bridge, with a clearance of 60 feet, crosses the river about 0.8 mile above the channel entrance.

Routes

(183) The approach to Port Chester is obstructed by rocks, but is not difficult with the aid of the chart. From southward it is safer to pass eastward of **Bluefish Shoal**. **Fourfoot Rocks** may be passed on either side, remembering that the buoy is at the south end of the rocks. Entering the harbor, pass westward of Great Captain Rocks, eastward of **Manursing Island Reef**, and 150 feet southward of Port Chester Light 4 on the end of the breakwater. The channel in Byram River is fairly well defined at low water, but requires local knowledge for the best water; strangers should take it on a rising tide and proceed with caution.

Tides

(184) The mean range of **tide** is 7.2 feet.

(185) Principal commerce is in building materials, fuel oil, and petroleum products, carried in vessels drawing 5 to 14 feet. Barges discharge oil cargoes at a terminal with reported depths of 12 feet alongside.

Small-craft facilities

(186) There are several small-craft facilities in Port Chester Harbor, and on the Byram River at Port Chester and Byram. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(187) The area from Great Captain Island southwestward is fringed with rocks, bare and submerged, and foul ground. **Great Captain Rocks**, part of a reef 0.3 mile southeastward of Port Chester Light, uncover 5 to 6 feet; a buoy marks the southern end of the reef. **Transport Rock**, about 0.3 mile south-southwestward of Manursing Island, is part of several ledges generally bare at high water which extend some 0.3 mile offshore. An opening suitable for small craft leads to Rye Beach; it is buoyed.

(188) **Playland**, a recreational center at **Rye Beach**, about 2.4 miles southwest of Great Captain Island, has prominent twin towers at the entrance which are conspicuous from a southeasterly direction. Westward and close to the north breakwater is a former ferry landing in disrepair. A breakwater extends eastward from the south end of Rye Beach. The area between the former ferry

landing and the south breakwater is reserved for swimming.

(189) **Forbes Rocks**, about 0.4 mile south of the Rye Beach breakwater, are partly bare at low water, on a reef with depths of 4 to 11 feet that extends 250 yards to the southward and eastward. A buoy marks the east end of the reef. A channel good for a depth of 9 feet leads southward of buoyed **Forlies Rocks** to the ruins of a wharf at **Oakland Beach**. Another channel with a least depth of 8 feet leads southward from Oakland Beach to the sound.

(190) **Porgy Shoal**, about 0.8 mile south of the Rye Beach breakwater, has a least found depth of 5 feet; it is marked by a lighted buoy.

(191) **Scotch Caps** are three rocky islets 1.4 miles southwestward from Porgy Shoal and on the northwest side of the extensive reefs which make out 0.9 mile southwestward of **Milton Point**. The southerly end of the reefs is marked by a lighted bell buoy about 0.6 mile southward of Scotch Caps. The entire area of the reef northward and northeastward of the lighted bell buoy is very broken and should be avoided even by small craft in the absence of local knowledge.

(192) **West Rock**, just south of the south end of Scotch Caps, is marked by a buoy.

(193) **Milton Harbor**, between **Peningo Neck** and Hen Island, is used as a summer anchorage by small pleasure craft. It is protected from all but southwesterly winds. The harbor depths decrease from 8 feet between Scotch Caps and the southwest end of Hen Island to 6 feet abreast Milton Point.

(194) Foul ground is on the northwest side near **Hen Island**; otherwise the principal danger in the harbor is a rock bare at low water and marked by a buoy a little northward of midway between Milton Point and the northeast end of Hen Island. The best entrance is between the buoys 0.4 mile southwestward of Scotch Caps.

(195) A yacht club and landing are near the southwest end of Milton Point. Near the clubhouse is a prominent white flagstaff from which lights are exhibited from sunset to sunrise during the summer.

(196) A dredged channel, marked by buoys, leads through the harbor from about 400 yards northward of Milton Point to the city boat basin and marina below **Mill Pond.** In August 2005, the midchannel controlling depth was 2.3 feet to the boat basin, thence 2.5 feet at midchannel in the basin's north channel and 5.1 feet at midchannel in the basin's south channel; in 1980-1981, depths of 2 to 6 feet were available in the center of the basin. Two boatyards are in the harbor. The largest marine railway can handle craft up to 40 feet in length; gasoline, water, ice, marine supplies, and complete engine and hull repairs are available. The city **harbormaster** is at the boat basin.

(197) **Mamaroneck Harbor**, an open bight between Hen Island and **Delancey Point**, is exposed to southerly winds, but affords shelter against northerly weather. Depths in the outer harbor range from 7 to 12 feet. Important dangers are buoyed; these include **Outer Steamboat Rock**, near the dredged channel entrance, and **Ship Rock**, about 0.5 mile southeastward of Outer Steamboat Rock.

(198) About 1 mile northwest of Outer Steamboat Rock is the incinerator tower, a red brick building with a large glass tower, which is a prominent landmark.

(199) The harbor is entered through a dredged channel that leads about 0.5 mile west-northwestward to the intersection with two dredged branch channels leading to basins northward and westward of the junction. The entrance channel and the branch channel to the northern basin are marked by lighted and unlighted buoys.

(200) In August 2005, the controlling depths in the dredged channels were 9.8 feet in the entrance channel to the junction with the branch channels, thence 8.7 feet in the channel leading northward to the east basin, thence 7.9 to 10 feet in the smaller anchorage at the southwest side of the basin with 6 feet in the larger basin northeastward, thence 6 feet from the junction to the western basin with 6 feet in the basin. The basins are usually filled with moorings of local craft.

Caution

(201) A pipeline covered about 6 feet crosses the western branch channel about 50 yards above the junction. Mariners are advised to exercise caution and reduce speed while transiting this area.

Tides

(202) The mean range of tide is 7.3 feet.

(203) The **harbormaster** has an office on the south side of Harbor Island. The harbormaster controls all moorings and can be contacted on VHF-FM channel 16; call sign WZX-8038. A **speed limit** of 5 mph is enforced in the harbor. A village police boat patrols the harbor during the summer season.

(204) The town of **Mamaroneck** extends from both sides of the harbor. Petroleum products, carried by barges, are the main commerce in the harbor.

No-Discharge Zone

(205) The State of New York, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Mamaroneck Harbor. The NDZ includes waters north of a line drawn in a northeasterly direction from the southern tip of the sea wall

Airphoto - Jim Wark

at Orienta Point to a point on the mainland immediately north of Spike Island (see chart 12364 for limits).

(206) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

Supplies and repairs

(207) There are numerous boatyards and marinas in Mamaroneck Harbor. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(208) Foul ground extends southwesterly from eastward of Delancey Point to the Larchmont Harbor breakwater off **Edgewater Point**, on the east side of the harbor entrance; a light is on the end of the breakwater. **Hen and Chickens**, a reef bare at low water in places, lies off the harbor entrance; surrounding depths are 8 to 17 feet on the outer parts of the reef. About 0.3 mile westward of the breakwater light is **Dauntless Rock**, covered 8 feet, and surrounded by depths of 14 to 16 feet. These dangers are buoyed.

(209) **Larchmont Harbor** is between Edgewater Point and **Umbrella Point** and about 2.5 miles northward of Execution Rocks Light. The harbor is the headquarters of the Larchmont Yacht Club. Anchorage depths range from about 12 feet in the entrance to 5 feet near **Great Knob**, an islet in the north central part of the harbor. In summer the harbor is full of mooring buoys for small yachts. The rocks on the west side are marked, whereas unmarked shoals extend 200 yards from the eastern shore. The anchorage for larger vessels is westward of the breakwater.

(210) **Umbrella Rock**, marked by a buoy, is 250 yards eastward of Umbrella Point. A few rocks of a breakwater, which was started on Umbrella Rock, are awash at high water. **North Ledge**, bare at half tide, is near the western shore southeastward of the yacht club; it is marked by a private daybeacon. The principal landing, with a reported depth of about 6 feet alongside, is on the southeast side of the yacht club and is lighted from sunset to sunrise.

(211) Larchmont Harbor may be entered on either side of Hen and Chickens. The easterly entrance, about 100 yards southwestward of the end of the breakwater, is about 300 yards wide and has a depth of about 15 feet.

(212) **Horseshoe Harbor** is a small cove just westward of Larchmont Harbor. A prominent gray building is at the head. The cove is used as a small-boat anchorage.

(213) **Echo Bay**, about 1 mile southwestward of Umbrella Point and 2 miles northwestward of Execution Rocks Light, is the principal approach to New Rochelle. The bay is entered between **Premium Point** on the northeast and **Davenport Neck** on the southwest. **Hicks Ledge**, about 0.5 mile off the entrance, is covered 6 feet and marked on the south side by a buoy.

(214) **Middle Ground**, an extensive shoal with a reef that uncovers 6 feet, lies about 0.5 mile south-southwestward of Hicks Ledge. **Emerald Rock**, covered 9 feet, is off the west side of the shoal and marked by a buoy. A buoy marks the north end of the shoal.

(215) **Bailey Rock**, which uncovers 4 feet, is near the end of a reef that extends about 200 yards off the point of Davenport Neck. The rock is marked by a lighted buoy.

(216) The bay is an anchorage for small craft and generally is fully occupied during the summer. Depths range from 4 to 15 feet. Small craft can anchor in the shallow cove on the northeast side of the harbor, entering between **Harrison Island** and the rocky, grassy islet off the northwest side of **Echo Island**. Vessels can anchor in the **general anchorages** on either side of the entrance, in depths of 20 to 24 feet. (See **110.1 and 110.155 (a) (2), (a) (3), and (1),** chapter 2, for limits and regulations.) Vessels should not anchor near the sewer outlet in the middle of the bay. A **special anchorage** is in Echo Bay. (See **110.1 and 110.60 (b-1),** chapter 2, for limits and regulations.)

(217) A 4 mph **speed limit** is enforced in Echo Bay.

(218) A dredged channel, on the northwest side of Echo Bay, leads to a municipal wharf and turning basin at Beaufort Point. The channel is marked by buoys to the turning basin. In October 1985, the controlling depth was 8½ feet at midchannel to the basin, with 6½ to 7 feet in the basin.

(219) The area northward of the turning basin, locally known as Ferris Creek, is shoal with extensive mud flats that bare at low water. Southwesterly of the turning basin, the depth varies from 9 feet to bare at the head of the harbor.

(220) **New Rochelle** is a city on the western shore of Echo Bay.

(221) The municipal wharf is on the northeast side of **Beaufort Point.** The city police patrol boats usually moor alongside the wharf. A small-craft facility and a municipal marina are in the northern part of Echo Bay. Berths, electricity, gasoline, diesel fuel, water, ice, and lifts to 25 tons are available; hull and engine repairs can be made. The municipal marina monitors VHF-FM channel 16.

(222) **Pine Island**, between Davenport Neck and Middle Ground, is rocky, covered with brush, and occupied by several cottages. A small private landing is on the west side of the island. Two bare rocks and a long bare ledge are southwestward of the island.

Charts 12366, 12364

(223) **Davids Island**, southward of Davenport Neck, is the site of ruins of **Fort Slocum,** an inactive U.S. Government reservation now owned by the city of New Rochelle. The island is marked by a tank on its north end and a square chimney on its southeast end. A ferry landing on the west side of the island was in disrepair in 1987. Reefs partly bare at low water, marked by a lighted buoy, extend about 0.2 mile northward of Davids Island.

(224) Davids Island is surrounded on its east and south sides by a foul area of islands and rocks, the passages between which should not be used by strangers, even in small craft. **Huckleberry Island**, at the eastern end of the group, is wooded. **Pea Island**, about 0.3 mile southeastward of Davids Island, is grass covered, and rocks bare at low water are southeastward of it. **Columbia Island** has been improved by a seawall, making it about 150 feet square, with a pier 150 feet long on the west side.

(225) An obstruction, covered 17 feet, has been reported in about 40°52.4'N., 073°45.4'W. about 0.3 mile south-southeastward of Pea Island. Mariners are advised to exercise caution while navigating in this area.

(226) **Execution Rocks,** about 1.4 miles eastward of Davids Island, consist of many boulders and shoals of considerable extent, marked by a light and buoys. Broken bottom, covered 5 to 19 feet, extends about 0.7 mile northward from the light.

(227) **Execution Rocks Light** (40°52'41"N., 73°44'16"W.), 62 feet above the water, is shown from a white stone tower with a brown band midway of its height, attached to a granite dwelling. A fog signal is at the light.

(228) **Middle Reef**, 0.5 mile southward of Davids Island, has some boulders which show at high water. **East Nonations** and **South Nonations** are rocks that uncover 4 feet between Middle Reef and Hart Island. South Nonations is marked on its south side by a lighted bell buoy.

(229) **Aunt Phebe Rock**, 300 yards west of Davids Island, is bare at half tide and marked by a light. In May 1976, an obstruction covered 4 feet was reported about 400 yards northwestward of the light. Mariners are advised to exercise caution while navigating in this area.

(230) **Goose Island**, between Davids Island and Glen Island, is almost completely surrounded by a rock breakwater, and has several bare rocks to the westward and

southward. A house on pilings is prominent on the island.

(231) **Glen Island,** 0.4 mile west of Davids Island, is a public park used as a pleasure resort. Special permits are required prior to using the launching ramp on the island. A light is on the north end of the island. A beach protected by two jetties is on the southeast end of the island. The channel on the northwest side of Glen Island is much used as an anchorage by small craft, particularly those bound to the club on Travers Island to the westward. The channel has a depth of about 7 feet. A **no wake** speed limit is enforced. Glen Island Channel, marked by buoys, is on the south-southwest side of the island. The channel entrance is between Hog Island and Glen Island and runs along the southwest edge of Glen Island to the channel between Travers Islands and Glen Island. In 1990, the controlling depth in the channel was 6½ feet except for a 2½ foot shoal spot in the west side of the channel about 100 yards northwest of Glen Island Channel Buoy 6.

(232) **New Rochelle Harbor** lies between the mainland, and westward of Davenport Neck, and Glen Island; it is off the southerly part of the city of New Rochelle. However, the main access of New Rochelle is through Echo Bay, previously discussed.

(233) New Rochelle Harbor is entered between Glen Island and Davenport Neck. An approach channel, with a depth of about 13 feet, leads from south-southwest of Davids Island northward to a point abreast the former ferry wharf on the island, thence through deeper natural water between Aunt Phebe Rock and Corning Rock northward to the entrance to the harbor. A reef, bare at low water, makes off the west side of Davids Island opposite the buoy marking Corning Rock. Another approach channel, through deeper water, leads from the northeast between Davids Island and Davenport Neck to the entrance. Both channels are well marked. In 1990, the narrow dredged channel in the harbor had a controlling depth of 5½ feet (6½ feet at midchannel) to within 100 yards of the dam at the head.

Anchorage

(234) Anchorage is not recommended in the harbor because of its congestion. **General** and **special anchorages** are in adjacent waters southerly, extending as far as City Island and Locust Point. (See **110.1, 110.60 (b), (c), (c-1), and (d) through (f), and 110.155 (a) (1), (a) (4), and (1),** chapter 2, for limits and regulations.)

(235) Several yacht clubs, marinas, and boatyards are in New Rochelle Harbor. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(236) A bascule bridge connecting Glen Island with **Neptune Island** has a clearance of 13 feet. (See **117.1 through 117.49**, chapter 2, for drawbridge regulations.) Just south of the bridge is a yacht club on the east side of Neptune Island.

(237) **Orchard Beach**, about 1 mile southwestward of Davids Island, is a park developed by the State of New York on the filled-in area between Hunter Island, to the north, and Rodman Neck, to the south. The inshore water areas off the crescent beach are a swimming area and are closed to general navigation. The swimming area is marked by private buoys. A bathing pavilion and a flagstaff are prominent. **Chimney Sweeps**, two prominent bare rocks, are about 0.4 mile east of the beach.

(238) **Hart Island**, about 1.8 miles southwest of Execution Rocks Light, is the site of a New York Department of Correction facility. A stack on the southern part of the island and the buildings on the island are prominent. A reef extends about 200 yards southeastward from the south end of the island and is marked by a light. Caution is advised to avoid the 9-foot obstruction and the wreck with 13 feet over it which are 0.3 mile west of the light.

(239) **Rat Island** is a high bare rock about 0.4 mile west of Hart Island. **The Blauzes**, 13 feet high, are a part of the reef which extends 0.3 mile northwestward from the north end of Hart Island.

(240) The channel between City Island and Rodman Neck is used extensively as an anchorage by small pleasure craft during the summer. A **no wake** speed limit is enforced. Boat clubs and railways for small craft are on the northwest side of City Island. The shores are generally fringed with boulders and should be approached with caution. The north shores of High Island and City Island northeastward of the bridge are very foul, and boats should avoid the shoals with depths less than 12 feet on that side.

(241) City Island is connected with Rodman Neck by a highway swing bridge, kept in the closed position, with a clearance of 12 feet. (See **117.779,** chapter 2, for drawbridge regulations.) Currents at the bridge are variable and at times exceed 1.5 knots. (See the Tidal Current Tables.)

(242) **City Island Harbor**, also called **Hart Island Roads**, is between Hart Island and City Island. It is well sheltered from easterly and westerly winds and is an important anchorage for coasting vessels in the western end of Long Island Sound. Besides serving as a harbor of refuge, it is often used by vessels desiring pilots or towboats, or awaiting orders. A spire in the center of City Island and a steeple in the northerly part of the island are conspicuous objects.

(243) In September 1993, a submerged wreck was reported in about 40°50'36"N., 73°46'30"W.

(244) **City Island**, on the northeast side of Eastchester Bay, is narrow and over 1 mile in length. It is thickly settled and has a commercialized appearance. The west side is residential, and the east side is industrialized with several shipyards and other marine-related facilities.

Pilotage, City Island

(245) A pilot boat of United New York New Jersey Sandy Hook Pilot Association moors at City Island. See Pilotage, New York Harbor from Long Island Sound (indexed as such), chapter 11.

(246) **High Island** is 200 yards northeastward of the north end of City Island to which it is connected by a fixed footbridge with a clearance of 11 feet. The ground under the bridge is reported to bare about 1 foot at low water. A 528-foot-high radio tower, marked on top by red lights, is prominent on High Island.

Anchorages

(247) The usual anchorage for deep-draft vessels is southeastward of City Island, southward of a line joining the south ends of Hart and City Islands. When anchoring, avoid **Deep Reef**, a small rocky patch covered 25 feet. Other **general** and **special anchorages** are in the vicinity. (See **110.1, 110.60, and 110.155,** chapter 2, for limits and regulations.)

(248) A long pier in ruins and a wide stone pier, the top of which is used as a parking area, are at the south end of City Island at **Belden Point**. The western shore of Hart Island and the wharves on City Island should be given a berth of about 150 yards.

Tides

(249) The mean range of tide is 7.2 feet.

Currents

(250) The tidal current has a velocity of about 0.3 knot.

(251) **Ice** seldom interferes with navigation of powered vessels.

Supplies

(252) Gasoline, lubricants, and marine supplies of all kinds are available at City Island. Water is piped to some of the wharves; ice, electrical connections, guest moorings, and dry and wet storage are readily available.

Small-craft facilities

(253) Many boatyards are on the east and northwest sides of City Island. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

Communications

(254) Buses serve the subway system of New York City.

(255) **Eastchester Bay**, between City Island and Throgs Neck, has general depths of 7 to 10 feet in the lower part and 3 to 5 feet in the upper part. The shores of the bay are fringed with boulders, and there are many shoals and several wrecks. Caution is essential, especially where the depths are not more than 3 feet greater than the drafts. **Hutchinson River** empties into the north end of the bay.

(256) A channel marked by buoys leads through Eastchester Bay from 1.1 miles west of Belden Point to the mouth of Hutchinson River. A dredged channel marked by buoys leads from the mouth for about 2.8 miles to the head of navigation at the city of Pelham.

(257) In September 2005, the midchannel controlling depths were 6.4 feet from Eastchester Bay Channel Lighted Buoy 7 to the Hutchinson River Parkway Bridge, thence 1.3 feet to the junction with East Y and West Y at Pelham, thence 3.4 feet in the entrance to East Y with shoaling to bare at the northern end and shoaling to bare in West Y; mariners are cautioned that depths along the sides of the channel are considerably less than midchannel.

(258) **Special anchorages** are in Eastchester Bay. (See **110.1** and **110.60 (d), (e), and (f),** chapter 2, for limits and regulations.)

(259) The dangers in Eastchester Bay are few: **Big Tom**, on the east side near the entrance, is bare at low water, and other rocks around it show at extreme low tides; these are buoyed. **Cuban Ledge**, covered at half tide, is marked by a daybeacon and Cuban Ledge Lighted Buoy 2 close southwestward. Numerous rocks and shoals are on both sides of the channel near the entrance to Hutchinson River.

(260) Bridges and overhead cables crossing Hutchinson River are listed by type, distance above the dredged channel entrance, and clearance as follows: bascule, 0.35 mile, 13 feet; rolling lift, 0.5 mile, 8 feet; overhead power cable at bridge, 130 feet; bascule, 0.9 mile, 30 feet; fixed, 1.9 miles, 50 feet; fixed, 2.1 miles, 50 feet; overhead pipeline, 2.5 miles, 130 feet; bascule, 2.6 miles, 6 feet. (See **117.1 through 117.59 and 117.793**, chapter 2, for drawbridge regulations.)

(261) The Pelham Parkway bascule bridge, 0.35 mile above the entrance and the Amtrak lift bridge, 0.5 mile above the entrance, are equipped with radiotelephones. The bridgetenders monitor VHF-FM channel 13; call signs KU–9758, KU–6095, and KXS–298, respectively.

(262) **Eastchester** is a village on the west side of the Hutchinson River about 1.5 miles above Pelham Highway Bridge. Commerce on the river to Eastchester is in building materials, fuel oil, and petroleum products.

Pelham is on the east side of the river above Eastchester.

(263) **Weir Creek** is a bight on the west side of the bay near the entrance.

Small-craft facilities

(264) There are numerous small-craft facilities in Eastchester Bay. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(265) **Locust Point** is about 0.8 mile southeastward of Weir Creek. A cove just southwestward of the point provides small-boat shelter. Rocks, bare at low water, are on the north side of the approach. The entrance has a depth of about 5 feet. Inside the cove, depths range from 20 feet at the south end to about 4 feet at the north end. A yacht club and marina are in the cove. A marina at the head of the cove has a mobile hoist that can handle craft to 30 tons for engine and hull repairs. Gasoline, water, ice, and marine supplies are available at the marina; depths of about 7 to 10 feet are reported at the wharf.

(266) The northern approach viaduct of the Throgs Neck Bridge crosses the cove from Locust Point to Throgs Neck. The fixed spans of the viaduct have a minimum clearance of 30 feet.

Tides and currents

(267) The mean range of tide is about 7 feet. Tidal currents have a velocity of 0.4 knot in the vicinity of Big Tom, and 0.8 knot at Pelham Bridge.

Charts 12363, 12364

(268) **Old Field Point**, about 5 miles southward of Stratford Shoal (Middle Ground) Light, is a low bluff with a light and an abandoned tower on its summit. Boulders extend a short distance off the point, and the light should be given a berth of about 0.3 mile, even by small craft. A gong buoy is 0.6 mile northward of the point. Depths of 14 to 18 feet are found about 0.4 mile northward of the light.

(269) **Crane Neck Point**, 2 miles westward of Old Field Point, is a bare conspicuous bluff about 90 feet high and covered on top with brush.

(270) **Smithtown Bay**, a broad open bight on the south side of the sound, extends 7 miles westward from Crane Neck Point. Rocky shoals extend 1 mile in places from the shore, the water shoaling abruptly from 51 feet in places. A good summer anchorage in 30 to 50 feet sheltered from easterly winds is found about 1 mile southward of Crane Neck Point.

(271) **Stony Brook Harbor** is a narrow shallow bay in the southeastern part of Smithtown Bay. The approach to the harbor from the bay is over a bar which extends 0.8 mile off the entrance; the outer end of the bar is marked by a seasonal lighted buoy and the approach to the harbor is marked by private lighted buoys. In June 1981, 3½ feet was reported over the bar. A private seasonal daybeacon is on the east side of the entrance to the harbor. Two branch channels lead from the entrance into the harbor; one leads southwestward to a steel bulkheaded yacht club wharf and pavilion at the village of **Stony Brook**, 0.5 mile inside the entrance, and the other, **Porpoise Channel**, leads westward to a yacht club at the northwestern end of the harbor; gasoline is available at both clubs. In 1994, a depth of 6 feet was reported in both the southwesterly channel and Porpoise Channel. The channels are marked by private seasonal lighted and unlighted buoys and a private seasonal daybeacon. The buoys are periodically moved to mark the best water.

(272) A **speed limit** of 5 mph is enforced in Stony Brook Harbor and Porpoise Channel.

Small-craft facilities

(273) Small-craft facilities are in the harbor. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(274) The railroad station is about 1 mile from the wharf at Stony Brook.

(275) A high bluff is between Stony Brook Harbor and Nissequogue River, another between Nissequogue River and **Sunken Meadow Creek**, and bluffs in places between Sunken Meadow Creek and Northport Bay.

(276) **Nissequogue River**, a shallow crooked stream about 4 miles westward of the entrance to Stony Brook Harbor, is entered through a privately dredged channel that leads southward from Smithtown Bay for about 1.4 miles into the river. In 1995, the channel had a reported controlling depth of 8 feet. Rocks and shoals, bare at low water, are on the bar outside the entrance. Private seasonal lighted buoys mark the channel. Strong tidal currents are reported in the channel. A **speed limit** of 5 mph is enforced on the river. Guest moorings, gasoline, water, and limited supplies are available at a marina on the west side of the river, about 0.9 mile above the channel entrance. In 1995, a depth of 3 feet was reported alongside the marina. A State hospital, a group of buildings with green roofs, and two large red brick chimneys are prominent about 0.5 mile southwestward of the river entrance. Farther westward, a brick building and a stack are also prominent. The railroad station is at **Kings Park**.

Charts 12365, 12364

(277) **Northport Basin**, about 10.5 miles westward of Old Field Point Light and 2.7 miles southeastward of Eatons Neck Point, is a small privately maintained basin with general depths of 7 to 20 feet, and formed by gravel dredges working into the high bank; greater depths are available. In 1977, the privately dredged entrance channel had a controlling depth of 12 feet. The channel is marked by a private lighted buoy and unlighted buoys; submerged jetties extend northward from the east and west sides of the entrance. A dangerous rock is close northward of the seaward end of the west jetty. The four stacks of a power and light company on the east side of the basin are prominent. A town launching ramp is in the basin.

(278) An aquaculture site, marked by a private buoy, is about 1.2 miles northwestward of the entrance to Northport Basin.

Offshore Terminal, Northport

(279) An offshore platform for the receipt of oil, is off Northport. The terminal is owned and operated by Long Island Lighting Company (LILCO), Northport, NY. The platform, with off-lying mooring buoys, is about 1.6 miles northward of the entrance to Northport Basin and about 2.4 miles eastward of Eatons Neck Light. Submerged pipelines extend from the shore to the platform. The platform is marked at its eastern end by a private light, and at the western end by a private light and fog signal.

(280) Upon the scheduled approach of an incoming vessel, the platform, voice call “LILCO Northport Power Station” or “LILCO Dock at Northport”, monitors VHF-FM channel 19.

Pilotage, Offshore Terminal, Northport

(281) Pilotage is compulsory in Long Island Sound for foreign vessels and U.S. vessels under register. For these vessels, pilotage to this terminal is available from:

(282) Sound Pilots, Inc. (a division of Northeast Marine Pilots, Inc.).

(283) Connecticut State Pilots (a division of Interport Pilots Agency, Inc.).

(284) For U.S. enrolled vessels in the coastwise trade, pilotage to this terminal is available from

(285) Connecticut State Pilots (a division of Interport Pilots Agency, Inc.),

(286) Constitution State Pilots Association,

(287) Long Island Sound State Pilots Association, Inc., and

(288) Sound Pilots, Inc. (a division of Northeast Marine Pilots, Inc.).

(289) See Pilotage, Long Island Sound (indexed as such), chapter 8, and Pilotage, New York Harbor and Approaches (indexed as such), chapter 11.

(290) The pilot serves as docking master and remains on board on standby while the vessel is moored at the platform. Pilot services are arranged in advance through ships’ agents or directly by shipping companies.

Tugs

(291) Tug service is available from New Haven, Providence, Brooklyn, or Staten Island on advance notice.

(292) **Eatons Neck** is a prominent wooded headland with elevations of 100 feet or more, and marked at its north end by a light and tower of **Eatons Neck Coast Guard Station**.

(293) **Eatons Neck Light** (40°57'14"N., 73°23'43"W.), 144 feet above the water, is shown from a 73-foot white stone tower; a fog signal is at the light.

(294) The northwest end of the neck is a spit in the form of a hook which encloses **Eatons Neck Basin**. Eatons Neck Coast Guard Station is at the head of the basin. The basin is entered through a privately dredged cut between two small riprap jetties about 0.5 mile southwestward of the light; the jetties are covered at half tide. The channel between the jetties is buoyed, and there are buoys farther inside the basin. The basin is subject to frequent changes and the buoys in the basin are not charted because they are frequently shifted in position. In March-April 1994, depths of 10 feet could be carried through the entrance. In July 1987, shoaling to an unknown depth was reported in the entrance channel.

Caution

(295) Eatons Neck Basin Channel is maintained expressly to enhance the Eatons Neck Coast Guard Station’s rescue response. Further, Eatons Neck Basin has become one of the most congested small-boat anchorages in the area in the summer. Mariners are cautioned that heavy wakes from rescue craft departing the station may be experienced by small craft anchoring in this area.

(296) Shoals with depths of 4 to 18 feet extend about 0.9 mile northward of Eatons Neck, and broken ridges extend northward for another 1.8 miles. The northern end of each area is marked by a buoy.

(297) **Huntington Bay**, just westward of Eatons Neck, is the approach to Northport Bay and Harbor, Centerport Harbor, Huntington Harbor, and Lloyd Harbor. The bay, protected against all but northerly winds, is an excellent anchorage for large vessels. Depths range from 36 to 25 feet, fairly close to its southern end, and

anchorage can be selected according to draft and wind direction.

(298) An obstruction covered by 23 feet is about 0.8 mile southwestward of Eatons Neck Light.

(299) A **017°56'–197°56' measured half nautical mile** is on the west side of Eatons Neck. Triangular orange shore ranges mark the ends of the course.

(300) Anchorage with shelter from northwesterly winds can be had for small vessels at the southwesterly end of Huntington Bay, 0.4 mile northeastward of Huntington Harbor Light, in 18 to 36 feet. The arms of the bay provide secure harbors; Northport Bay is used generally by the larger vessels.

Tides

(301) The mean range of tide is 7.4 feet.

Currents

(302) In Huntington Bay the velocity of the tidal current is 0.5 knot off East Fort Point and 0.4 knot in the entrance to Northport Bay. (See the Tidal Current Tables for predictions.)

(303) **Duck Island Harbor** is a shallow cove on the north side of Northport Bay westward of **Duck Island Bluff**. Depths range from 6 to 9 feet in the entrance. The south side of Duck Island Bluff and the southeast side of **Winkle Point** should be given berths of 300 and 400 yards, respectively, to avoid shoal water and inshore rocks.

(304) A 5 mph **speed limit** is enforced in Duck Island Harbor.

(305) **Northport Bay**, which opens off the southeast end of Huntington Bay, provides good anchorage in 20 to 50 feet in its western part, and in 8 to 11 feet in the eastern half. The entrance to the bay is marked by a lighted buoy, and the entrance channel, privately dredged to about 12 feet, is buoyed.

(306) An amber light, maintained at the public landing by the town of Northport, is a conspicuous mark at night for vessels making the wharves at Northport.

(307) A privately dredged channel at the eastern end of Northport Bay leads to a dredge basin formerly used by a sand and gravel company on the north side of **Bluff Point.** Several private landings and moorings are in the basin. In 1994, the channel had a reported controlling depth of 8 feet.

(308) **Northport Harbor** is at the southeastern end of Northport Bay and is entered by a dredged channel that leads along the waterfront of Northport and an anchorage basin west of the village. The channel is marked by private seasonal buoys. In 1994, the controlling depth was 5 feet in the channel with 5 to 6 feet available in the anchorage basin. A channel leads from the town landing to a boatyard and marina at the southeast end of the harbor and is marked by private seasonal buoys. In 1995, reported depths of 5 feet were available in the channel. The boatyard channel is marked by buoys and by a lighted buoy at the entrance; these aids are seasonal and privately maintained. An alternate channel, marked by private buoys, with a reported controlling depth of 2 feet in September 1990, leads from opposite the public landing along the west side of the harbor to the head. A 5 mph **speed limit** marker is in the entrance to the harbor.

(309) **Bird Island**, a bird sanctuary in the southern part of the harbor, is a low, grass-covered, man-made island.

Ice

(310) During severe winters, **ice** may close the harbor for about 2 months.

Anchorage

(311) Vessels select anchorage according to draft in the harbor; bottom is soft.

(312) A **special anchorage** is in Northport Harbor. (See **110.1** and **110.60 (a-2),** chapter 2, for limits and regulations.)

(313) **Northport** is a village with bus communications on the eastern shore of Northport Harbor. Depths at the principal wharves are about 6 to 8 feet. The greatest depth that can be taken to Northport is about 14 feet at high water.

Small-craft facilities

(314) Several small-craft facilities are on the east side and the head of the harbor, and a yacht club is on the west side. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(315) **Centerport Harbor** is a shoal bight on the south shore of Northport Bay just eastward of the entrance. The harbor serves the small-boat interests of the village of Centerport. In June 1981, a reported depth of about 7 feet could be taken through the privately dredged channel to the spit extending southwesterly from Little Neck, thence about 3 feet to a boatyard on the west side of the harbor just below the bridge. The channel is marked by private seasonal buoys. Berths, moorings, electricity, water, storage, marine supplies, and a launching ramp are available. A flatbed trailer can haul out craft to 32 feet; hull and engine repairs can be made.

Anchorage

(316) A **special anchorage** is in Centerport Harbor. (See **110.1** and **110.60 (a-1),** chapter 2, for limits and regulations.)

(317) **Huntington Harbor**, at the southwest end of Huntington Bay, is entered through a marked channel that leads to an anchorage off Huntington Town Dock, about 2 miles above the channel entrance. A depth of about 8 feet can be carried in the channel. **Huntington Harbor Light** (40°54'39"N., 73°25'52"W.), 42 feet above the water and shown from a square concrete tower attached to a dwelling on a rectangular pier, is on the west side of the entrance to Huntington Harbor and on the south side of the entrance to Lloyd Harbor. A fog signal is at the light.

(318) The channel is marked by a light and by lighted, unlighted, and private unlighted buoys. Some of the private buoys are seasonal.

(319) The wharf just southward of Huntington Town Dock South is used by sand and gravel barges. The **bay constable** has an office at the head of the harbor immediately southward of Huntington Town Dock North.

(320) A boulder reef, on the west side of the entrance, extends out to Huntington Harbor Light. An obstruction, reported covered 4½ feet, is 0.35 mile eastward of the light.

(321) In March 1991, a dangerous wreck was reported between Buoys 9 and 11 in about 40°53'54.9"N., 73°25'46.1"W.

Currents

(322) The tidal currents in the entrance channel have an estimated velocity of 2 knots.

Anchorage

(323) A **special anchorage** is in Huntington Harbor. (See **110.1** and **110.60 (a),** chapter 2, for limits and regulations.)

No-Discharge Zone

(324) The State of New York, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in the Greater Huntington-Northport Bay Complex. The water bodies included are Lower Huntington Bay, Northport Bay, Centerport Harbor, Northport Harbor, Duck Island Harbor and Price Bend. The northern boundary line extends from the southernmost point at East Beach (Lloyd Harbor) easterly to the southernmost point at West Beach (Sand City Beach) (see chart 12365).

(325) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(326) A 5-mph **speed limit** is enforced in the harbor.

(327) **Huntington** and **Halesite** are villages at the head of the harbor. The yacht club landing on the east side of the harbor has a depth of about 10 feet alongside. Gasoline, diesel fuel, berths, electricity, water, and ice can be obtained here. Yachts may anchor off the landing, but must keep clear of the channel.

(328) Coindre Hall, a large brick building with a red roof and numerous chimneys at the entrance to the harbor, and Huntington Hospital, well lighted at night, at the head of the harbor are prominent.

(329) There are several marinas, boatyards, and private boat clubs in Huntington Harbor. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(330) **Lloyd Harbor** extends westward from Huntington Bay nearly to Oyster Bay, from which it is separated by a narrow strip of land. Vessels can anchor just inside the entrance, in depths of 7 to 11 feet. The entrance to the harbor is marked by buoys. A **speed limit** of 5 mph is enforced in the harbor.

(331) **Oyster Bay**, on the south side of Long Island Sound about 5 miles westward of Eatons Neck Light, lies between Lloyd Neck and Rocky Point and is the approach to Cold Spring Harbor and Oyster Bay Harbor. The harbor is marked by **Cold Spring Harbor Light** (40°54'48"N., 73°29'36"W.), 37 feet above the water, and shown from a skeleton tower on a caisson with a red triangular daymark. The entrance and harbor are characterized by extensive shoals, boulder reefs, and broken ground making off from the shores. Vessels should proceed with caution if obliged to approach or cross shoal areas. The bay south of Cold Spring Harbor Light is a secure harbor, available for vessels of less than 18-foot draft.

(332) **Lloyd Neck**, between Huntington and Oyster Bays, is high and wooded, and has a high, yellow bluff on its north side 0.8 miles eastward of Lloyd Point. Many patches of boulders having least depths of 2 to 8 feet extend 0.2 to 0.5 mile offshore from **East Fort Point** to Lloyd Point. Small craft skirting this shore should keep well outside the line of buoys.

(333) **Lloyd Point**, the north end of Lloyd Neck, is a low spit. A rocky shoal extends 0.5 mile north-northeastward from Lloyd Point. A seasonal lighted gong buoy about 1 mile northward of Lloyd Point marks the northern limit of the 30-foot curve in this vicinity.

(334) **Morris Rock**, about 0.5 mile eastward of Lloyd Point, is covered by a least depth of 2 feet. The rock is marked by a buoy.

(335) The long jetty, about 0.6 mile southwestward of Lloyd Point, forms the southern entrance point to **The Sand Hole**, a pond that has been dredged into the spit by a sand and gravel company. The pond is State controlled and may be entered by steering a midchannel course through the entrance. It is used considerably by local boats as an anchorage and harbor of refuge. The holding ground is good.

(336) In June 1981, reported depths of about 12 feet were in the entrance channel and about 4 to 22 feet in the basin.

(337) **Rocky Point**, the northern promontory of **Centre Island**, is a small bluff on whose summit is a large prominent house. An extensive foul area with depths of 2 to 17 feet extends about 1 mile northward of Rocky Point. A bell buoy marks the northern end of this foul area. This area is dangerous and should be avoided.

(338) A shoal area with depths of 4 to 11 feet extends eastward from Rocky Point nearly across Oyster Bay and is marked near its eastern end by Cold Spring Harbor Light. Small craft with local knowledge cross the shoal at a distance of about 0.4 mile westward of the light, but strangers should not attempt it.

Tides

(339) The mean range of **tide** is 7.4 feet.

Currents

(340) About 0.4 mile northwest of Cold Spring Harbor Light the velocity is about 0.5 knot; about 0.2 mile north of Cove Point, 1.2 miles southwestward, it is about 0.8 knot. For predictions, the Tidal Current Tables should be consulted.

Ice

(341) During severe winters ice has been known to extend the full length of the bay during part of January and February.

(342) **Plum Point**, the easternmost point of Centre Island, is marked at its south end by a small stone tower; boat landings are on the southwest side of the point. A yacht club with a prominent flagstaff is about 0.3 mile west of Plum Point. The yacht club landing has reported depths of about 9½ feet.

(343) **Cooper Bluff**, at the northeast end of Cove Neck is prominent. A boulder reef extends nearly 0.3 mile northward from **Cove Point** at the northwest end of **Cove Neck**, and is marked by a seasonal lighted buoy.

(344) **Cold Spring Harbor**, the southeasterly end of Oyster Bay, extends about 2.3 miles southward of Cooper Bluff. The tower on top of a dome of a seminary on the hill of **West Neck**, on the east side of the harbor, is prominent. A depth of about 14 feet can be carried to near the head of the harbor by giving the shores a berth of about 0.3 mile.

(345) The village of **Cold Spring Harbor** is on the eastern shore near the head of the harbor. An oil company pier at the village has a depth of about 13 feet alongside. A small-craft facility is on the east side of the cove at the head of Cold Spring Harbor. Gasoline, diesel fuel, water, ice, marine supplies, berthings, and dry storage are available. A reported depth of about 3 feet is available alongside the facility. A town launching ramp is available in the harbor.

(346) A **speed limit** of 5 mph is enforced in the harbor.

Anchorages

(347) **Special anchorages** are in Cold Spring Harbor and Oyster Bay Harbor. (See **110.1 and 110.60 (t), (u), (u-2) and (u-3),** chapter 2, for limits and regulations.)

(348) **Oyster Bay Harbor**, a long, crooked arm in the western side of Oyster Bay, has a channel with a depth over 30 feet leading into the area westward of **Moses Point**. Good anchorage is available southward of Moses Point. West of this point, the channel is narrow and suitable only for vessels drawing less than 10 feet. Vessels of less than 7-foot draft can anchor in the bight between Cove Neck and the wharf at Oyster Bay, and also in **West Harbor**, the large bight on the northwest side of Centre Island.

(349) A **speed limit** of 5 m.p.h. is enforced in the harbor.

(350) The village of **Oyster Bay**, on the shore south of Oyster Bay Harbor, has rail communication. A channel, marked by private seasonal buoys, leads southwestward from deep water in Oyster Bay Harbor to an oyster wharf in about 40°52'37"N., 73°31'32"W., thence west to a boat basin. The oyster wharf has reported depths of about 10 feet along the face and southeast side. Parallel to and about 200 feet off the northwest side of the wharf is a row of sunken barges. An oil receiving wharf is about 125 yards southward of the oyster wharf.

(351) **Oyster Bay National Wildlife Refuge**, a Marine Managed Area (MMA), includes the waters of Oyster Bay and Mill Neck Creek. (See **MMA 9-1**, Appendix C, for additional information.)

Small-craft facility

(352) A small-craft facility is close eastward of the entrance to the boat basin. Gasoline, diesel fuel, berthing with electricity, water, ice, marine supplies, dry and wet storage, and a 10-ton hoist are available; hull, engine, and electronic repairs can be made.

(353) **Brickyard Point**, about 0.5 mile westward of Moses Point, should be given a berth of at least 0.2 mile off its westerly side to avoid several dangerous rocks to the

northwestward of the point. None of these rocks is marked. Extensive privately owned oyster beds, marked by stakes, are in this area.

(354) **Mill Neck Creek**, at the northwest end of Oyster Bay Harbor, is crossed by a highway bridge having a bascule span with a clearance of 9 feet. The area westward of the bridge has depths of 2 to 16 feet.

(355) **Oak Neck Creek**, northwest of Mill Neck Creek, is entered at high water as the creek is practically bare at low water.

Charts 12367, 12364

(356) **Oak Neck Point** (40°54.9'N., 73°34.1'W.), 4 miles west-southwestward of Lloyd Point, is marked by many large residences. Several stone jetties extend a short distance from the shore just westward of the point. A shoal, strewn with boulders and marked by a buoy, extends 0.3 mile from the shore for part of the distance between Oak Neck Point and Matinecock Point to the westward.

(357) **Frost Creek**, locally known as Guthries Creek, 2 miles westward of Oak Neck Point, has a channel at the entrance which is well defined when the water is below half tide. The creek is protected by a stone jetty that extends a short distance from the shore about 50 yards eastward of the channel. The channel has a reported depth of about 1 foot near the entrance. The creek is not recommended without local knowledge.

(358) **Peacock Point** is just west of Frost Creek. A stone jetty to protect a private boat landing extends a short distance from the west side of the point.

(359) **Matinecock Point**, 1.1 miles westward of Frost Creek, is marked on its western side by a stone pier in ruins. A shoal extends about 600 yards off the point and is marked at its end by a lighted gong buoy which is removed if endangered by ice.

Charts 12366, 12364

(360) **Hempstead Harbor**, 4 miles wide at the entrance between Matinecock Point and Prospect Point, is free from dangers if the shores, between the entrance and Mosquito Cove, are given a berth of 0.3 mile. It is much used by vessels seeking shelter in any but strong northerly winds and affords excellent anchorage with good holding ground. Vessels can anchor in any part of the harbor according to draft and direction of wind. A good anchorage for vessels drawing less than 20 feet is just inside a line from Mott Point to the breakwater at Glen Cove Landing. Small vessels can anchor behind the breakwater. Vessels should avoid anchoring in the pipeline area between Glenwood Landing and Bar Beach. On the western shore above and below Bar Beach are large sand and gravel plants. On the eastern shore are several villages. A 5 mph **speed limit** is enforced in the harbor.

(361) Waterborne commerce in the harbor is in sand, gravel, petroleum products, and building material. Vessels engaged in this commerce usually draw from 3 to 12 feet.

Anchorage

(362) A **special anchorage** is in Hempstead Harbor. (See **110.1 and 110.60 (u-1),** chapter 2, for limits and regulations.)

(363) **Weeks Point**, on the eastern side near the entrance, is marked by a breakwater which protects a private boat landing. Nearly 0.5 mile southward of Weeks Point is the entrance to a basin protecting a private wharf which has a reported depth of 8 feet at the end. The basin shoals to the head, and there are rocks bare at low water near the northern end.

(364) **Glen Cove** is a city with rail and bus communication on Glen Cove Creek, about 1 mile back from the eastern shore of the bay. The breakwater extends 500 yards west-southwestward from **Glen Cove Landing** and is marked at its end by a light. The anchorage behind the breakwater is known as **Glen Cove Harbor**, the depths ranging from 18 to 22 feet behind its outer half and 7 to 9 feet near shore.

(365) **Glen Cove Creek**, 0.6 mile southward of the breakwater, has a dredged channel from **Mosquito Cove** to the head. In 1994, the controlling depth was 2½ feet in the right half of the channel with shoaling to less than a foot in the left half for about 0.6 mile above the entrance. The remainder of the project is not being maintained. An overhead power cable near the head has a clearance of 65 feet. The entrance is buoyed.

Small-craft facilities

(366) There are several small-craft facilities in Glen Cove Creek. (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(367) A dredged channel, entered between Bar Beach and Glenwood Landing, leads alongside Glenwood Landing to South Glenwood Landing at Motts Cove. In 1991, the controlling depth in the dredged channel was 7 feet. A natural channel continues south through extensive flats for about 0.5 mile with a depth of about 5 feet. Local knowledge is advised.

(368) **Sea Cliff** is a village on the steep hill on the south side of Glen Cove Creek. From Sea Cliff southerly to the northerly wharves at Glenwood Landing, a shoal extends 300 yards from the east side of the harbor and is

marked by a buoy at the north end and a light at the south end. A dredged entrance channel, marked by two private lights, leads from deep water in the harbor northeastward to a municipal marina just north of Glenwood Landing. In November 1999, the reported controlling depths were 8 feet in the entrance channel, thence 7 feet in the marina basin.

(369) **Glenwood Landing** is a village on the eastern shore abreast Bar Beach. The stacks of a powerplant are prominent. A private light is shown from the outer end of an unloading boom when the boom is in operation. An overhead power cable crossing from the powerplant to Bar Beach has a clearance of 90 feet. Depths of about 8 to 10 feet are available at the Glenwood Landing wharves.

(370) A boatyard, reached only at high water, is at South Glenwood Landing. Craft to 30 tons can be hauled out for minor hull repairs.

Tides

(371) The mean range of **tide** is 7.3 feet.

Currents

(372) In the channel west of the breakwater the tidal currents are weak and variable. At Bar Beach the tidal currents have a velocity of about 0.8 knot through the narrow channel. (See the Tidal Current Tables for predictions.)

Ice

(373) In severe winters **ice** has been known to close navigation for about 6 weeks during January and February.

(374) The shore between Prospect Point and **Mott Point** (40°51.4'N., 73°40.6'W.), to the southeastward, is marked by prominent bluffs. A shoal with boulders extends 0.2 mile from shore between the points and for a short distance south of Mott Point. Buoys mark the limits of the shoal eastward and northeastward of Mott Point. **Picket Rock**, with 2 feet over it, is 350 yards offshore northward of Mott Point. An obstruction covered 16 feet is about 0.7 mile north-northwestward of the point in 40°52'05.5"N., 73°40'59.1"W.

(375) **Prospect Point**, marked by prominent houses on the bluff, has a rocky shoal making out nearly 0.4 mile northward from it. The shoal rises abruptly from a depth of 60 feet. The north end of the shoal is marked by a lighted gong buoy that is 0.8 mile eastward of Execution Rocks Light. About 0.2 mile eastward of the buoy are rocky patches with depths of 17 to 18 feet. An obstruction with 23 feet over it is east-northeastward from the buoy.

(376) **Sands Point**, 0.7 mile west of Prospect Point, is marked by a daybeacon. A boulder reef extends about 0.3 mile off the point and is marked by a lighted buoy. The boulders show at low water for a distance of about 300 yards from shore. A stone tower is a prominent object on this point.

(377) **Barker Point**, about 1 mile south-southwest of Sands Point, is a high bluff on the northeast side of the entrance of Manhasset Bay. **Gangway Rock**, marked by a light and gong buoy, is at the northwesterly end of a broken line of rocks and shoal water which extends 0.6 mile northwestward from Barker Point. **Success Rock**, awash at low water and marked by a buoy, is about 0.2 mile southeastward of the light.

(378) **Manhasset Bay**, between Barker Point and Hewlett Point, affords excellent shelter for vessels of about 12 feet or less draft, and is much frequented by yachts in the summer. The depths in the outer part of the bay range from 12 to 17 feet, and 7 to 12 feet in the inner part inside Plum Point. The extreme south end of the bay is shallow with extensive mudflats. Depths of about 6 to 2 feet can be taken through a natural channel almost to the head of the bay. A 5 mph **speed limit** is enforced.

(379) Waterborne commerce is in petroleum products, carried in vessels drawing 6 to 10 feet.

Anchorages

(380) **General** and **special anchorages** are in Manhasset Bay. (See **110.1, 110.60 (g) through (j), and 110.155 (a) (6) and (l),** chapter 2, for limits and regulations.) The bottom is soft and affords good holding ground.

(381) A seaplane **restricted area** is off Manorhaven. (See **162.15,** chapter 2, for limits and regulations.)

(382) The mean range of **tide** is 7.3 feet.

(383) **Plum Point** is a low spit extending southward from the eastern shore about 0.6 mile southward of Barker Point. A seasonal lighted entrance buoy is about 150 yards southward of Plum Point. The bight eastward of Plum Point is shoal.

(384) **Port Washington** is a village with rail communication on the south side of a shoal bight about 1.2 miles southeastward of Plum Point. An apartment complex on **Tom Point**, 0.9 mile east of Plum Point, is prominent. Depths of about 8 feet can be carried in the buoyed approach from the lighted buoy off Plum Point to the docks at Port Washington, thence through the unmarked channel along the east side of the bight to its north end northeastward of Tom Point. In 1979, shoaling to 1½ feet was reported in the approach to the wharves east of Tom Point in about 40°50'04"N., 73°42'17"W. In June 1981, depths of 5 feet were reported on the north side of the town dock with 2 and 4 feet on the west and south sides, respectively. Depths at

the other wharves are reported to range from 4 to 9 feet.

Small-craft facilities

(385) There are extensive small-craft facilities at Port Washington and to the eastward and westward of Tom Point at **Manorhaven.** (See the small-craft facilities tabulation on chart 12364 for services and supplies available.)

(386) **Hewlett Point** (40°50.3'N., 73°45.2'W.) is on the west side of the entrance to Manhasset Bay. A boulder reef, mostly bare at low water and marked by a lighted buoy at its northern end, extends about 0.2 mile northward from the point.

Anchorages

(387) **General** and **special anchorages** are between Hewlett Point and Elm Point, about 1.3 miles southeastward of Stepping Stones Light. (See **110.1, 110.60 (j)(1), and 110.155 (a)(6) and (l),** chapter 2, for limits and regulations.)

(388) **Stepping Stones Light** (40°49'28"N., 73°46'29"W.), 46 feet above the water, is shown from a red brick structure on a granite pier, with a white horizontal band on the southwest face, 1.3 miles southwest of Hewlett Point. The **Stepping Stones**, a dangerous boulder reef which dries in places, extend 0.8 mile southeastward from the light to the Long Island shore. In August 1976, a submerged rock, covered 18 feet, was reported 100 yards west-northwestward of Stepping Stones Light.

(389) **Kings Point**, marked by a private light, is 1.6 miles south-southwestward of Hewlett Point and is the site of the **U.S. Merchant Marine Academy**. The 172-foot unguyed steel flagpole at the academy is said to be the country's tallest; the top of the pole is 216 feet above the water. A boat basin, partially enclosed by an L-shaped pier, is at the point. In 1991, the basin had reported depths of 12 to 14 feet.

(390) **Little Neck Bay** is entered between Kings Point and Willets Point, 1.2 miles to the south-southwestward. Depths are 10 to 12 feet in the entrance, decreasing gradually to the head, about 2 miles inland, where the bay divides into two branches which almost dry; there are boulders in places close to the shores.

(391) The shores of Little Neck Bay are thickly settled, and there are many private boat landings. A much used anchorage, in depths of 2½ to 7 feet, is in the cove midway along the east side of the bay.

Small-craft facility

(392) A small-craft facility is on the west side of the bay. Water, ice, and limited marine supplies are available. In June 1981, the facility had a reported depth of 4 feet alongside.

Anchorages

(393) **General** and **special anchorages** are in Little Neck Bay. (See **110.1, and 110.60 (k), and 110.155 (a)(7) and (l),** chapter 2, for limits and regulations.)

Charts 12366, 12339, 12335

(394) **East River** is a 14-mile-long tidal strait that connects Long Island Sound with New York Upper Bay and separates the western end of Long Island from the New York mainland. The Sound entrance is between Throgs Neck and Willets Point; the Upper Bay entrance is between The Battery and Governors Island. Hell Gate, about halfway between Throgs Neck and The Battery, is noted for its strong tidal currents. Harlem River extends northward from Hell Gate to the Hudson River. Both sides of the East River, from The Battery to Port Morris, a distance of 9 miles, present an almost continuous line of wharves except where shoals or currents prevent access.

Channels

(395) A Federal project provides for main-channel depths of 35 feet from Throgs Neck to the inactive New York Naval Shipyard, about 2 miles from the western entrance, and thence 40 feet to deep water in New York Upper Bay.

Caution

(396) Mariners transiting East River in the vicinity of Rikers Island and/or South Brother Island Channel are advised of the following:

(397) East River Main Channel Lighted Buoy 5 has been established northeast of Rikers Island in 40°47'47"N., 73°51'59"W. to assure that no vessel penetration of air space exists over that portion of the East River which coincides with the glide path of the northeast-southwest runway of La Guardia Airport. Vessels with mast heights in excess of 125 feet shall pass 100 yards to the north of this buoy so as to avoid interference with the glide path.

(398) Vessels transiting South Brother Island Channel and using the turning basin at its southern terminus shall ballast prior to entry, and are cautioned that mast heights in excess of 125 feet may penetrate the glide path to the northwest-southeast runway to La Guardia Airport. If mast heights cannot be lowered below 125

Airphoto - Jim Wark

feet, La Guardia Air Traffic Control Tower shall be notified by telephone (212-779-0242) prior to terminal departure or channel entry.

Anchorages

(399) Several **general** and **special anchorages** are in East River. (See **110.1, 110.60, and 110.155,** chapter 2, for limits and regulations.)

Tides

(400) The mean range of tide in East River is 7.1 feet at Willets Point, 5.1 feet in Hell Gate, and 4.6 feet at The Battery. (See the Tide Tables for daily predictions for The Battery.)

Currents

(401) In East River the flood current sets eastward and the ebb sets westward. **Note**: this is the direct opposite of conditions in Long Island Sound where the flood is generally westward and the ebb eastward.

(402) The velocity of current is 0.7 knot at Throgs Neck, 1.6 knots at Port Morris, 4 knots in Hell Gate, 3 knots at Brooklyn Bridge, and 1.5 knots north of Governors Island. In Hell Gate (off Mill Rock) the velocity is 3.4 knots for the eastward current and 4.6 knots for the westward current.

(403) The direction and velocity of the currents are affected by strong winds which may increase or diminish the periods of flood or ebb. The currents generally set with the channel, but heavy swirls are found in Hell Gate.

Tides and currents

(404) (See the Tidal Current Tables for the daily predictions of slack water and times and velocities of strengths of currents in Hell Gate and at other places on the East River.)

(405) Mariners should exercise caution and discretion in the use of published tidal current predictions. Also, previously available Tidal Current Charts for New York Harbor have been withdrawn.

Pilotage, East River

(406) See Pilotage, New York Harbor from Long Island Sound (indexed as such), chapter 11.

Towage

(407) Vessels intending to employ a tug should arrange to do so before proceeding westward of Rikers Island.

Charts 12366, 12364

(408) **Throgs Neck**, on the northwest side of the entrance to East River, is marked by a light. **Throgs Neck Light** (40°48'16"N., 73°47'26"W.), 60 feet above the water, is

shown from a skeleton tower with a black and white diamond-shaped daymark on the outer end of the neck. The shoal ground which extends 0.1 mile southward and eastward from the light is marked by a lighted bell buoy.

(409) **Fort Schuyler**, on the outer end of Throgs Neck, is used as a base for the **State University of New York Maritime College**. The 550-foot-long wharf, on the southwest side of the fort, is used to moor the school's training ship. Depths of about 25 feet are reported alongside the face.

(410) **Throgs Neck Bridge**, a highway suspension bridge with a channel clearance of 138 feet and 152 feet at the center, crosses East River from Throgs Neck to the Long Island Shore.

(411) **Willets Point**, 0.7 mile southeastward across the entrance to East River from Throgs Neck, is marked by **Fort Totten**, the granite walls of which are prominent. **Little Bay**, westward of Willets Point, has general depths of 6 to 10 feet and is used by local small craft. Depths of about 9 feet can be taken in the buoyed channel to the piers on the Little Bay side of Willets Point. **Fort Totten Coast Guard Station** is on the east side of Little Bay at Fort Totten.

Anchorage

(412) A **general anchorage** is in Little Bay. (See **110.1 and 110.155 (b)(2) and (1),** chapter 2, for limits and regulations.)

(413) The southern approach viaduct of the Throgs Neck Bridge crosses the west part of Little Bay. The fixed spans of the viaduct have a minimum clearance of 30 feet.

(414) In March 1996, a sunken wreck was west of Throgs Neck in 40°48'32"N., 73°48'40"W.

(415) **Whitestone Point**, 2 miles westward of Willets Point, is a small bluff marked by a light. The town of **Whitestone** is between Little Bay and Whitestone Point. Several private boat clubs are at Whitestone. In June 1981, reported depths alongside the boat club docks ranged from ½ to 6 feet.

(416) The **Bronx-Whitestone Bridge** is a suspension structure that crosses East River from Old Ferry Point on the Bronx side to a Long Island landing 0.4 mile southwestward of Whitestone Point; the channel clearance is 135 feet.

(417) In March 1989, a submerged obstruction was reported in the East River just west of the Bronx-Whitestone Bridge in about 40°48.1'N., 73°50.1'W.

(418) **Powell Cove**, between the Long Island end of the Bronx-Whitestone Bridge and Tallman Island, 0.6 mile to the westward, has general depths of 2 to 5 feet. Pier ruins are on the east side of the cove entrance. **Tallman Island**, now joined to the Long Island shore, is marked by the prominent tanks of a sewage-disposal plant.

(419) **Old Ferry Point** is on the north side of East River 2 miles westward of Throgs Neck. The bight between Throgs Neck and Old Ferry Point affords anchorage, with good holding ground, in depths of 15 to 35 feet; the water shoals abruptly from 18 feet, 0.3 mile from shore, to depths of 4 to 5 feet. Several private landings are on the north side of this bight.

(420) **Westchester Creek**, on the north side of East River, is entered through a dredged channel that leads northward through a shallow bight between Old Ferry Point and Clason Point (chart 12339), 0.7 mile to the westward, to the head of navigation at **Westchester**, about 2.3 miles above the channel entrance. In June-July 2003, the controlling depths were 1.5 feet (5.4 feet at midchannel) from the entrance to the Bruckner Expressway bascule bridge, thence in 1991, 5½ feet (11 feet at midchannel) through the bascule and fixed bridges, thence 9½ feet (11 feet at midchannel) to just below the head of the project. The channel is buoyed to a point about 1 mile above the entrance. Waterborne traffic on the creek consists chiefly of petroleum products, sand and gravel, and crushed rock.

(421) Several highway bridges, three fixed and one bascule, cross Westchester Creek at **Unionport,** 1.5 miles above the channel entrance. The Bruckner Expressway bascule bridge has a clearance of 14 feet, and the fixed bridges have a least clearance of 52 feet. (See **117.1 through 117.59 and 117.815**, chapter 2, for drawbridge regulations.) The bridgetender at the Bruckner Expressway bridge monitors VHF-FM channel 13; call sign KX-8289.

Small-craft facilities

(422) There are small-craft facilities on the west side of the creek above Castle Hill Point and at Unionport. Water, limited marine supplies, and storage facilities are available; hull and engine repairs can be made.

Chart 12339

(423) **Clason Point** (40°48.3'N., 73°50.9'W.) is on the north side of East River about 3 miles west of Throgs Neck. **Pugsley Creek**, which empties into Westchester Creek and East River along the east side of Clason Point, is very shallow and should not be entered without local knowledge. Small boats anchor on the flats west of Clason Point. A flagstaff at the yacht club on Clason Point is prominent.

(424) **College Point** is on the Long Island side of East River opposite Clason Point. **College Point Reef** ,

covered 6 feet and marked by a light, is 0.2 mile north-northeastward of the point.

(425) The town of **College Point** is south of the point and on the east side of the entrance to Flushing Bay. The wharves on the west side of the town have depths alongside ranging from ½ to 10 feet. The shallow bight north of the town has depths of 2 to 5 feet and is used as a small-boat anchorage.

Small-craft facilities

(426) Several small-craft facilities are at College Point. Marine railways to 45 feet, mobile cranes to 35 tons, water, ice, marine supplies, storage, and hull and engine repairs are available.

Tides

(427) The mean range of **tide** at College Point is 6.5 feet.

(428) **Flushing Bay** extends southeast between the town of College Point and La Guardia Airport, 0.6 mile to the southwest. **Flushing Creek** flows into the east side of the head of the bay. A dredged channel, marked by buoys and lights, extends from East River through the bay to the mouth of the creek and thence upstream for about 0.8 mile to the I.R.T. (Roosevelt Ave.) railroad bridge. A turning basin is on the west side of the dredged channel west of the entrance to Flushing Creek. A small-craft anchorage area extends northwest from the turning basin. In March 2005, the controlling depths were 9.8 feet (14.3 feet at midchannel) through the bay channel to the turning basin, thence 8.3 to 15 feet in the turning basin and 3.4 to 6 feet in the anchorage area, thence 10.2 feet at midchannel to the Northern Boulevard bridge, thence shoaling to bare to the I.R.T. railroad bridge. There is shoaling northwest of Buoy 2, in the eastern part of the anchorage area. Flushing Bay is mostly shallow, with depths of less than 6 feet outside the channel.

(429) Depths of 8 to 14 feet are between the east side of the channel and the town of College Point. Small craft anchor south of College Point in depths of 4 to 8 feet.

Anchorages

(430) **General** and **special anchorages** are in Flushing Bay. (See **110.1, 110.60 (1) through (1–2), (m) through (m–2), and 110.155 (b–5),** chapter 2, for limits and regulations.)

(431) A **restricted area** is in a portion of the southern part of the channel through Flushing Bay. (See **162.20,** chapter 2, for limits and regulations.)

(432) A 0.6-mile-long dike, covered at high water and marked at either end by a light, runs close along the west side of the channel to within 0.3 mile of the head of the bay.

(433) The L-shaped pier at the head of Flushing Bay partially encloses a small-boat basin. In July 2004, depths of 9 to 12 feet, with shoaling near the western edge, were available in the turning basin just west of the small-boat basin. Inside the small-boat basin, depths of about 7 feet were reported in June 1981. The marina to the westward has a reported depth of about 5 feet inside. Gasoline, diesel fuel, berths, electricity, water, ice, storage, and a 30-ton hoist are available; limited electronic and engine repairs can be made.

Ice

(434) **Ice** generally obstructs navigation in Flushing Bay and Flushing Creek during a part of January and February.

(435) The twin fixed Whitestone Expressway highway bridges over Flushing Creek, 0.2 mile above the mouth, have a clearance of 34 feet. The Northern Boulevard Bridge, 0.4 mile above the mouth, has a bascule span with a clearance of 25 feet. In September 1979, the Northern Boulevard Bridge was being converted to a fixed bridge; when completed the bridge will have a clearance of 35 feet. (See **117.783,** chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 13; call sign KX–8192.

(436) **Flushing** is on the east side of Flushing Creek. Waterborne traffic consists chiefly of sand, gravel, crushed rock, and petroleum products. Drafts of inbound and outbound vessels seldom exceed 12 feet. Vessels must go directly to the marginal wharves because the creek has no room for anchorage.

(437) The east entrance to **Rikers Island Channel**, between Rikers Island and the mainland, is obstructed by a lighted runway approach to **La Guardia Airport**. The approach to Bowery Bay is from westward of Rikers Island.

(438) **Bronx River**, on the north side of East River, is entered through a dredged channel that leads north-northwestward through a shallow bight between Clason Point and Hunts Point, 1.1 miles to the westward, to the head of river navigation at East 172nd Street, about 2.3 miles above the channel entrance. (See Notice to Mariners and latest editions of charts for controlling depths.)

(439) Waterborne traffic on the Bronx River consists chiefly of sand, gravel, and crushed rock.

Tides

(440) The mean range of **tide** is 6.9 feet at Hunts Point and at Westchester Avenue Bridge.

(441) Bronx River is crossed by four bridges to East 172nd Street. Bruckner Expressway Bridge, 1.7 miles above the entrance, has a bascule span with a clearance of 27 feet. (See **117.1 through 117.59 and 117.771**, chapter 2, for drawbridge regulations.) Westchester Avenue Bridge, 2 miles above the entrance, has a fixed span with a clearance of 18 feet. The elevated railway structure over Westchester Avenue Bridge has a fixed span with a clearance of 61 feet. The railroad bridge, 2.1 miles above the entrance, has a rolling-lift span with a clearance of 8 feet, but the draw is no longer opened. (See **117.771(b),** chapter 2, for drawbridge regulations.) The Bruckner Expressway Bridge is equipped with radiotelephone. The bridgetender can be contacted on VHF-FM channel 13; call sign KX–8189.

(442) **Hunts Point** is on the north side of East River about 4 miles west of Throgs Neck. A marginal wharf extends 0.3 mile northeastward from the point; depths of 17 to 24 feet are reported alongside. Small craft anchor in depths of 9 to 17 feet on the flats east of the wharf.

(443) **Rikers Island**, in the middle of East River between Hunts Point and La Guardia Airport, is partly occupied by buildings of the Department of Correction of New York. The island is about a mile long, southeast to northwest, and 0.6 mile wide. The larger part of the island, southeast of the buildings, is used as a trash dump.

(444) **East River main channel,** project depth 35 feet, leads northward of Rikers Island. A much-used **general anchorage,** with depths of 21 to 30 feet, is between the south side of the channel and the flats off the north side of the island. (See **110.1 and 110.155 (b) (6) and (1),** chapter 2, for limits and regulations.)

Caution

(445) East River Main Channel Lighted Buoy 5 has been established northeast of Rikers Island in 40°47'47"N., 73°51'59"W. to assure that no vessel penetration of air space exists over that portion of the East River which coincides with the glide path of the northeast-southwest runway of La Guardia Airport. Vessels with mast heights in excess of 125 feet shall pass 100 yards to the north of this buoy so as to avoid interference with the glide path.

(446) **North Brother Island**, 0.3 mile northwest of Rikers Island, is occupied by the ruins of former municipal buildings. East River main channel leads northward and westward of the island; a light marks the main channel side of the island.

(447) The buoyed channel between North Brother Island and **South Brother Island**, 0.1 mile to the southward, has a controlling depth of about 25 feet. Shoaling to 16 feet exists on the south side of the channel in about 40°47'54"N., 73°53'47"W. The channel is marked by a light off the north side of South Brother Island. The channel is narrow and subject to strong currents and should not be used by vessels of limited maneuverability.

(448) A ledge, partly bare at low water, extends 0.2 mile southward from South Brother Island; the outer part of the ledge is marked by a light.

(449) **Port Morris**, 0.2 mile westward across East River main channel from North Brother Island, has rail terminals to and from which car floats are taken through East River.

(450) **South Brother Island Channel**, marked by lighted and unlighted buoys, leads from deep water east of North Brother Island and along the west side of Rikers Island to a turning basin on the west side of Bowery Bay. In March 2001, the controlling depth was 25.3 feet in the entrance channel to the turning basin, thence 33 feet in the turning basin.

Caution

(451) Vessels transiting South Brother Island Channel and using the turning basin at its southern terminus shall ballast prior to entry, and are cautioned that mast heights in excess of 125 feet may penetrate the glide path of the northwest-southeast runway of La Guardia Airport. If mast heights cannot be lowered below 125 feet, La Guardia Air Traffic Control Tower shall be notified by telephone (212-779-0242) prior to terminal departure or channel entry.

(452) **Bowery Bay**, across Rikers Island Channel from Rikers Island, has depths of about 10 feet. A **special anchorage** is in the west part of the bay. (See **110.1, 110.60 (n) and 110.155 (b) (5) and (1),** chapter 2, for limits and regulations.) A pipeline area is in the southeast part of the anchorage area. A fixed highway bridge crosses Rikers Island Channel and Bowery Bay and connects Rikers Island with the Borough of Queens, New York; clearance over the channel is 52 feet for a width of 125 feet.

(453) Bowery Bay may be approached from the East River main channel from the northward through South Brother Island Channel and from the northwestward through a 100-yard-wide channel which leads between the ledges that make off from Lawrence Point on the southwest and South Brother Island on the northeast. The controlling depth in the 100-yard-wide channel is about 19 feet. Caution is advised in the northwestern approach as the channel is narrow, the bottom is rocky and uneven, and tidal currents are strong.

(454) **Lawrence Point**, on the southeast side of East River 0.7 mile westward of Rikers Island, is occupied by an

extensive gas and electric plant. A light marks the outer part of the ledge, partly bare at low water, which extends 0.3 mile northeastward from the point.

(455) **Randalls Island** and Wards Island are on the northwestern side of East River between Port Morris and Hell Gate, separating that river from Harlem River, which is described later. The islands provide recreational facilities for the residents of the city of New York.

(456) **Bronx Kill**, which separates Randalls Island from Port Morris, is a narrow passage that extends westward from the East River to the Harlem River. A fixed railroad bridge with a clearance of 68 feet and a fixed highway bridge with a clearance of 51 feet cross the passage. Bronx Kill is navigable but not recommended as a route of travel. It is shoal and osbtructed throughout.

(457) **Sunken Meadow** is the reclaimed area now joined to the northeast end of Wards Island and southeast end of Randalls Island.

(458) **Little Hell Gate,** which formerly separated Wards Island from Randalls Island and formed a passage from East River to Harlem River, has been mostly filled in and together with Sunken Meadow joins Wards Island with Randalls Island.

(459) **Hell Gate Bridge**, which crosses East River from Wards Island to Long Island 7.1 miles from The Battery, has a fixed railroad span with a clearance of 134 feet.

(460) **Negro Point** is the southernmost point of Wards Island. **Triborough Bridge**, which crosses East River from Negro Point to Long Island 6.8 miles from The Battery, has a highway suspension span with a clearance of 138 feet. In June 2002, the bridge was under reconstruction; fixed workmen scaffolding has temporarily reduced the vertical clearance about 3 feet.

(461) **Holmes Rock** and **Hog Back** are two bare rocks, which are on the eastern and northern parts, respectively, of a reef in the bight on the south side of Wards Island westward of Negro Point. The western extremity of this reef is marked by a light.

(462) **Hallets Point**, on the Long Island side of East River about 0.3 mile southwestward of Negro Point, is marked by a light. There are main-channel depths close to the point.

(463) **Hell Gate** is the part of East River between Wards Island and Roosevelt Island, 0.7 mile to the southwest. The crooked channel, the strong tidal currents, and the heavy traffic in Hell Gate require extra caution on the part of the navigator to avoid accident or collision. Vessels navigating Hell Gate on a rising tide sometimes find it necessary to pass starboard-to-starboard because of the strong currents between Negro Point and Hallets Point. This situation may arise when one of the vessels does not maneuver readily or is handling a tow. Northeastward of Negro Point and southwestward of Hallets Point, the customary port passings are made.

(464) **Mill Rock**, on the northwestern side of the main channel through Hell Gate, is 0.2 mile southwest of Wards Island and the same distance northwest of Hallets Point. The islet is marked by lights on its north and south ends.

Charts 12339, 12342

(465) **Harlem River**, which joins East River in Hell Gate between Wards Island and Manhattan Island, extends northward about 7 miles and connects with Hudson River through Spuyten Duyvil Creek. The channel through Harlem River is narrow, tortuous, and navigable only for powered vessels. By taking care to avoid several isolated 11- to 13-foot spots, a depth of about 14 feet can be carried to the Hudson River; the chart is the guide.

(466) Traffic is heavy in Harlem River. Vessels with heights too great to pass under the closed drawbridges should make the passage against the current.

Bridges

(467) There are more than a dozen draw and fixed bridges over Harlem River. The minimum clearance under closed drawspans is 24 feet except at the railroad bridge over the entrance from Hudson River where it is only 5 feet. Clearance under raised vertical-lift spans exceed 100 feet. (See **117.1 through 117.59 and 117.789**, chapter 2, for drawbridge regulations.) Minimum clearances under fixed bridges exceeds 100 feet at the center of the spans.

(468) Four bridges over the Harlem River, the 103rd Street lift bridge, the Triborough lift bridge, the Park Avenue lift bridge, and the Conrail swing bridge at Spuyten Duyvil, at 0.1 mile, 1 mile, and 1.7 miles, and 6.7 miles, respectively, above the entrance, are equipped with radiotelephones. The bridgetenders monitor VHF-FM channel 13; call signs KIL-820, KGW-326, and KA-5059, and KU-9797, respectively. The Conrail bridge is maintained in the open position except for the passage of trains or for maintenance.

Tides

(469) The mean range of tide in Harlem River is 5.1 feet in Hell Gate and 3.6 feet at the entrance from Hudson River.

Currents

(470) The tidal currents in Harlem River run southward from Hudson River to East River while the east-going current is running in Hell Gate; and the reverse. The south-going current in Harlem River is considered the flood. The times of slack water are subject to variations

depending upon freshet conditions in Hudson River. The velocity of the current is 2 knots or more in the narrower parts of the channel. (See the Tidal Current Tables for predictions.)

Chart 12339

(471) **Roosevelt Island (Welfare Island),** 1.6 miles long and 0.1 mile wide, is in the middle of East River southwest of Hell Gate. A gray stone tower is on the north end of the island, and a fountain, illuminated at night during the summer, is on the south end of the island.

(472) **East River main channel**, with project depth of 35 feet, is on the west side of Roosevelt Island. The channel east of the island is narrower and has a controlling depth of about 19 feet.

(473) The currents in both channels off Roosevelt Island are strong, and caution is advised while navigating in these areas.

(474) The 36th Avenue highway bridge which crosses the eastern channel from Roosevelt Island to Long Island 5.6 miles from The Battery has a vertical-lift span with clearances of 40 feet down and 99 feet up. (See **117.1 through 117.59 and 117.781**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 13; call sign KX–8184.

(475) **Queensboro Bridge**, which crosses from Manhattan Island to Roosevelt Island and thence to Long Island 5.0 miles from The Battery, has fixed spans with clearances of 131 feet over the main channel and 133 feet over the eastern channel. An overhead cable car with overhead power cables crosses the main channel immediately north of the bridge. The low point of travel of the cabin is not less than 135 feet.

Chart 12335

(476) **Roosevelt Island Reef (Welfare Island Reef),** with bare islets, rocks awash, and submerged rocks, extends 0.3 mile southwestward from the island. **Belmont Island**, near the southwest end of the reef, is marked by a light.

Chart 12338

(477) **Newtown Creek** is entered on the eastern side of East River 3.6 miles from The Battery. The creek extends 3.3 miles eastward and southward and has several short tributaries or basins. Traffic is fairly heavy and consists chiefly of petroleum products, sand, gravel, and crushed rock; drafts of vessels navigating the creek seldom exceed 15 feet.

(478) Tributary basins are **Dutch Kills**, on the north side of Newtown Creek 0.8 mile from East River; **Whale Creek**, on the south side opposite Dutch Kills; **Maspeth Creek**, on the east side 2.2 miles from East River; **East Branch**, on the east side 2.5 miles from the river; and **English Kills**, which extends westward and southward from the East Branch entrance and forms the last 0.8 mile of Newtown Creek.

Channels

(479) A Federal project provides for a 23-foot channel in Newtown Creek from the East River to and in a turning basin about 240 yards above the Kosciusko Memorial Bridge, thence 20 feet in East Branch and in English Kills to the Metropolitan Avenue bridge, and thence 12 feet in English Kills to the head of the project at Montrose Avenue. (See Notice to Mariners and latest edition of chart for controlling depths.)

Tides

(480) The mean range of **tide** in Newtown Creek is 4.1 feet.

Currents

(481) The tidal current is weak and variable.

(482) Pulaski Bridge, which crosses Newtown Creek 0.5 mile above the mouth, has a bascule span with a clearance of 39 feet at the fenders and 46 feet at the center. The bridgetender monitors VHF-FM channel 13; call sign KX–8178.

(483) Dutch Kills, which is about 0.5 mile long, is crossed by the following drawbridges: Long Island Railroad bridge, Borden Avenue bridge, and Hunters Point Avenue bridge. Minimum clearance under the closed drawspans is 2 feet. (See **117.1 through 117.59 and 117.801**, chapter 2, for drawbridge regulations.) In July 2002, Long Island Railroad bridge was reported inoperable as a swing bridge and closed to vessel traffic. Clearance under the fixed bridge is 83 feet.

(484) Greenpoint Avenue Bridge, 1.1 miles above the mouth of Newton Creek, has a bascule span with a clearance of 24 feet at the fenders and 30 feet at the center. Kosciusko Memorial Bridge, 1.8 miles from the mouth, has a fixed span with a clearance of 125 feet. Metropolitan Avenue Bridge, which crosses English Kills 3 miles from the mouth of Newtown Creek, has a bascule span with a clearance of 10 feet at the center. Montrose Avenue Bridge, at the head of English Kills, has a swing span with a clearance of 4 feet. The bridgetenders at the Greenpoint Avenue and Metropolitan Avenue bridges monitor channel 13; call signs KX–8182 and KX–8179, respectively. (See **117.1**

through 117.59 and 117.801, chapter 2, for drawbridge regulations.)

(485) Grand Avenue Bridge, which crosses East Branch, has a swing span with a clearance of 8 feet. (See **117.1 through 117.59 and 117.801**, chapter 2, for drawbridge regulations.) The bridgetender can be contacted on VHF-FM channel 13; call sign KX–8187.

Chart 12335

(486) From abreast the entrance to Newtown Creek, the 35-foot-project main channel of East River crosses from the west side of the river to the east side. Depths of 24 feet extend as much as 0.2 mile from the piers on the west side. **Poorhouse Flats Lighted Range** (Front Light; 40°43.5'N., 73°57.8'W.), bearing **161°,** is on the Brooklyn side of the river and marks the best water in the crossover.

(487) **Williamsburg Bridge**, which crosses East River 2 miles northeast of The Battery, has a suspension span with a clearance of 133 feet.

(488) The site of the inactive **New York Naval Shipyard** is in **Wallabout Bay**, on the Brooklyn side of East River 1.7 miles northeast of The Battery.

(489) **Manhattan Bridge,** which crosses East River 1 mile northeast of The Battery, has a suspension span with a clearance of 134 feet. The clearance under the maintenance platform installed at the west channel edge is 115 feet.

(490) **Brooklyn Bridge**, which crosses East River 0.7 mile northeast of The Battery, has a suspension span with a clearance of 127 feet.

(491) **East River Deepwater Lighted Range** (Front Light; 40°41.9'N., 74°00.1'W.), bearing **078°,** is on the Brooklyn side of the river and marks the best water in the 40-foot-project main channel which leads from deep water in New York Upper Bay to the East River. The range line passes about midway between The Battery and Governors Island, 0.5 mile to the southward.

(492) The channel between The Battery and Governors Island is very congested and subject to strong currents. Caution should be exercised while navigating in the area.