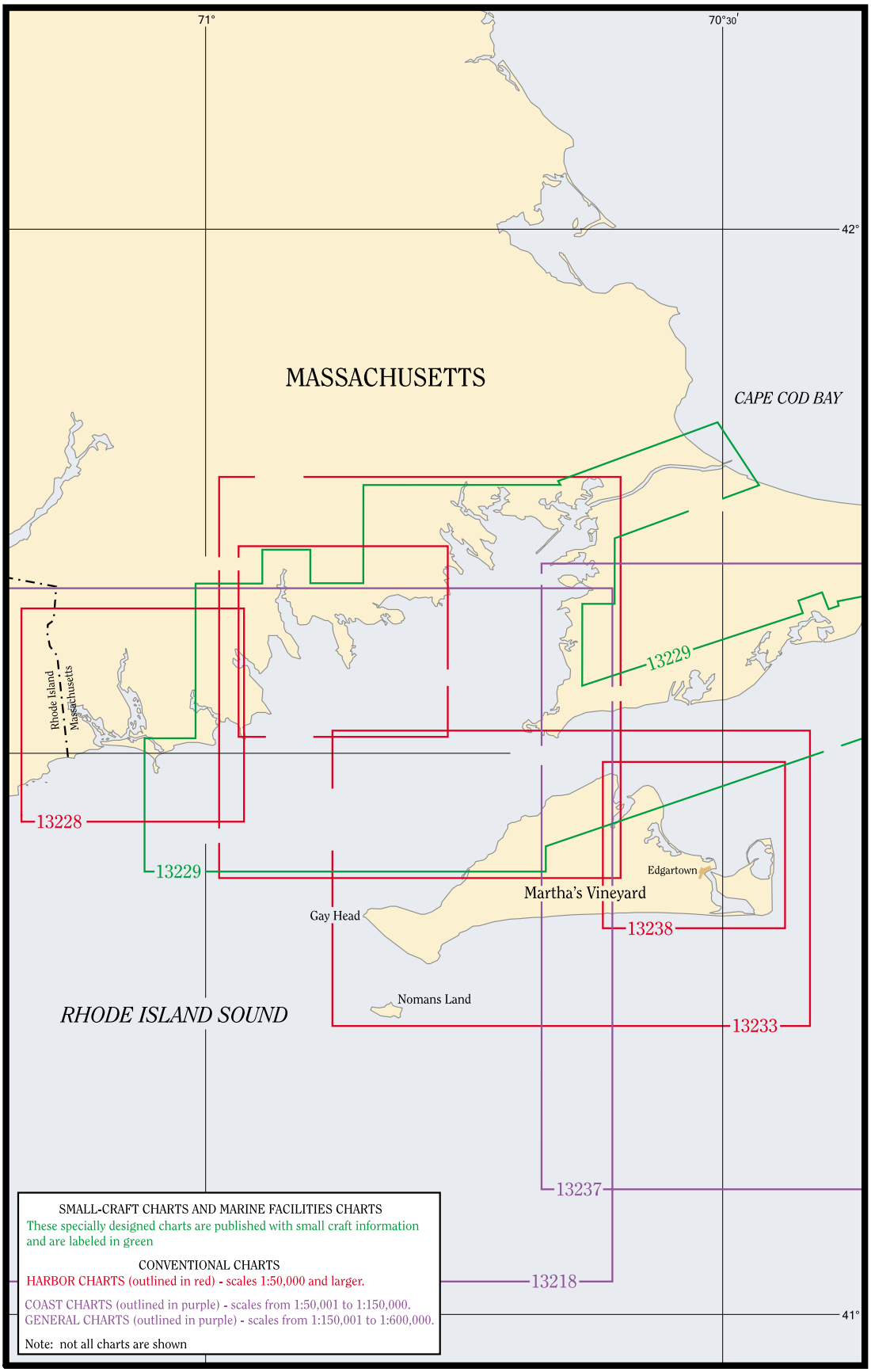
71°
70°30′
42°
41°
MASSACHUSETTS
CAPE COD BAY
Rhode Island
Massachusetts
13228
13229
13229
13238
13233
13237
13218
Edgartown
Martha's Vineyard
Gay Head
Nomans Land
RHODE ISLAND SOUND
SMALL-CRAFT CHARTS AND MARINE FACILITIES CHARTS
These specially designed charts are published with small craft information 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

Vineyard Sound and Buzzards Bay

(1) This chapter describes Vineyard Sound and Buzzards Bay following the Massachusetts coast of Vineyard Sound, the northwestern shore of Martha's Vineyard, the eastern shore of Buzzards Bay, the Cape Cod Canal, and the western shore of Buzzards Bay. Also described are Woods Hole, Cuttyhunk, Onset, Wareham, and the port of New Bedford, as well as the numerous fishing and yachting centers along the sound and bay.

COLREGS Demarcation Lines

(2) The lines established for this part of the coast are described in **80.145**, chapter 2.

Charts 13230, 13237, 13218

(3) **Vineyard Sound and Buzzards Bay** are deep and easily navigated day or night. Vineyard Sound, together with Nantucket Sound, provides an inside route from New York to Boston which avoids Nantucket Shoals. Buzzards Bay, together with Cape Cod Canal and Cape Cod Bay, provides the shortest deep-draft route between New York and Boston.

(4) **Vineyard Sound** is bounded on the north by the southwestern part of Cape Cod and the Elizabeth Islands, and on the south by part of Martha's Vineyard, which presents a rugged and generally inaccessible shoreline. To the west, it joins Rhode Island Sound on a line between Cuttyhunk Island and Gay Head. To the east, it joins Nantucket Sound on a line between Nobska Point and West Chop and provides an inside passage clear of Nantucket Shoals. The navigational aids are colored and numbered for passing through the sound from the eastward. The channel through the sound is well marked and generally free of dangers.

(5) Deep-draft vessels entering or leaving Vineyard Sound should stay at least 3.5 miles southward of the southwest end of Cuttyhunk Island and pass southeast of "NA" buoy.

Anchorages

(6) Woods Hole is the only anchorage providing shelter from all winds for vessels drawing more than 10 feet. In northerly and westerly winds, good anchorage may be had in Tarpaulin Cove. In southerly winds, shelter can be had in Menemsha Bight, although Vineyard Haven is generally used. Several general anchorages are in Vineyard Sound. (See **110.1 and 110.140 (c) (1), (c) (2), and (d)**, chapter 2, for limits and regulations.)

Tides and currents

(7) The mean range of tide in Vineyard Sound varies from 1.4 feet at West Chop to 2.9 feet at Gay Head. The time of current becomes somewhat earlier from Hedge Fence westward through Vineyard Sound. The current velocity increases from 1.4 knots at Hedge Fence Lighted Gong Buoy 22 to about 3 knots off West Chop Light, and then gradually diminishes to 1.2 knots off Gay Head Light. (See "Current Diagram-Vineyard and Nantucket Sounds" in the Tidal Current Tables, and the Tidal Current Charts, Narragansett Bay to Nantucket Sound, for the hourly velocities and directions of the current.)

(8) At the western entrance to Vineyard Sound, west-northwestward of Gay Head Light, the tidal current is rotary, turning clockwise. The velocity is only 0.2 to 0.5 knot. Since the tidal current is weak, winds greatly affect it and the current frequently sets approximately with the winds.

Weather: Vineyard Sound, Buzzards Bay and vicinity

(9) Buzzards Bay is open to winds out of the south and southwest, which are common from spring through fall. Winds increase as they move from the surrounding land out over the Bay. Its northeast-southwest orientation causes southwesterlies to strengthen as they funnel up from the mouth of the Bay to its head. The result is that speeds are often double those at nearby land stations and southwesterlies may prevail even when land stations are reporting west or northwest winds. However, as a general rule southwesterlies blow harder

close to the Elizabeth Islands than in the middle of the Bay. The relatively shallow water of the Bay increases the steepness of waves and their closeness to one another; this can cause a stiff chop. With southerly or westerly gales there is a heavy sea in the westerly entrance to Vineyard Sound and heavy seas occur at times off the entrance to Quicks Hole.

Pilotage: Vineyard Sound and Buzzards Bay

(10) Pilotage is compulsory for foreign vessels of 350 gross tons or more, U.S. vessels under register of 350 gross tons or more, and tank barge towing vessels carrying 6,000 barrels or more of petroleum cargoes. Pilotage is available from Northeast Marine Pilots, Inc., Newport, RI, 02840; telephone 401-847-9050 (24 hours), 800-274-1216; FAX 401-847-9052; email: dispatch@nemarinepilots.com.

Charts 13238, 13233, 13229

(11) **East Chop** and **West Chop** are prominent points on the north side of Martha's Vineyard and on the east and west side of the entrance to Vineyard Haven. Both points terminate in high wooded bluffs which show prominently from the sounds; each is marked by a light.

(12) **West Chop Light** (41°28'51"N., 70°35'59"W.), 84 feet above the water, is shown from a white conical tower at the summit of West Chop. A fog signal is sounded from the light station.

(13) A lighted gong buoy, 0.5 mile northeastward of the light, and a buoy, 0.5 mile eastward of the light, mark shoal water and rocks awash to the eastward of West Chop. It has been reported that during strong tidal currents, the buoy may be submerged.

(14) **East Chop Light** (41°28'13"N., 70°34'03"W.), 79 feet above the water, is shown from a white tower on the east side of the entrance to Vineyard Haven. **East Chop Flats**, covered 5 to 18 feet, extend 0.2 mile northward and 0.5 mile eastward of East Chop. A lighted bell buoy, about 0.5 mile east-northeastward, and a buoy, about 350 yards northward of the light, mark the flats.

(15) **Vineyard Haven Harbor** is a funnel-shaped bight in the northern side of Martha's Vineyard between East Chop and West Chop, about 1.4 miles long in a southwest direction and about 1.3 miles wide at the entrance. This haven, easy of access, is the most important harbor of refuge for coasters between Provincetown and Narragansett Bay. The depths range from 46 feet at the entrance to 15 feet near the head of the harbor.

(16) Although Vineyard Haven Harbor is exposed to northeasterly winds, vessels with good ground tackle can ride out most blows. The greatest danger encountered by vessels at anchor in a northeast gale is from vessels with poor ground tackle, which are likely to drift, foul other vessels, and then go ashore.

(17) The harbor is the approach to the village of **Vineyard Haven**. A detached breakwater, marked on its southeastern end by a light, is on the flats on the western side of the harbor near the head; a privately maintained fog signal is at the light. The fog signal and a private light, on the southeast corner of the ferry wharf at the head of the harbor, are activated when a ferry approaches the slip in a fog.

Channels

(18) The natural channel is clear; soundings are the best guide for finding anchorage. When well inside the entrance, the water shoals gradually toward the western shore, but the eastern shore is steep and should be given a berth of about 0.2 mile. Channel depths of 16 feet or more are available to the ferry wharf at Vineyard Haven.

Anchorage

(19) Vessels anchor according to draft, anywhere from the points at the entrance to the head of the harbor. Shallow-draft vessels favor the western shore.

(20) Vessels entering the harbor with a head wind or light breeze, at the end of a favorable current through the sound, should continue on in the channel until the harbor is well opened before standing in for the anchorage. This will help clear the entrance points. Approaching from the eastward, vessels will keep clear of Squash Meadow and East Chop Flats by keeping in the white sector of West Chop Light. Good anchorage is northeastward of the breakwater buoy in 20 to 23 feet. The anchorage basin behind the breakwater has depths of 5 to 12 feet and is usually filled to capacity during the summer. When anchoring in the harbor, care must be taken to avoid obstructing the approach to the ferry slip and the approach to the oil wharves on the southerly side of the harbor.

Dangers

(21) Flats, partly bare at low water and marked by a buoy, make off 300 yards from the eastern shore of the harbor about 1 mile inside East Chop Light. A rock, covered 9 feet and marked by a buoy, is 0.3 mile northward of the breakwater light.

Tides and currents

(22) The mean range of tide is 1.7 feet. The tidal currents have little velocity in the harbor; however, care should be taken on the ebb, which sets westward, not to approach too closely to West Chop as the current in

that vicinity sets on the ledges eastward and northward of the point.

(23) The **harbormaster** has control of the anchoring of vessels in the inner harbor; he will usually be found at the town dock on the west side of the harbor and can be contacted by radiotelephone on VHF-FM channel 16, or by telephone (508-693-1368). A 4 mph **speed limit** is enforced inside the breakwater and within 150 feet of moored craft.

(24) Pilots are not available at Vineyard Haven. A twin-screw, 500-hp tug, also equipped for salvage work, is based in the harbor.

(25) The ferry wharf at the head of the channel has a depth of 24 feet reported at the outer face. The ferry slip is on the north side and inshore end of the wharf. A private light is on the northeast corner of the wharf. The light and a private fog signal, on the southeastern end of the breakwater, are activated when a ferry is approaching the slip in a fog. Several other wharves, two marinas, and a boatyard are in the harbor. A yacht club is on the west side of the harbor, about 0.3 mile northward of the breakwater. (See the small-craft facilities tabulation on chart 13229 for services and supplies available.)

(26) Guest moorings, maintained by the town, are available off the municipal wharf, 200 yards northward of the ferry wharf; other moorings can be hired from the boatyard and marinas.

(27) The Martha's Vineyard Hospital is on the beach road near Oak Bluffs.

(28) The Woods Hole-Martha's Vineyard and Nantucket Steamship Authority maintains year-round ferry service from Woods Hole. Air service is available from Martha's Vineyard Airport, about 4 miles south of the town.

(29) **Lagoon Pond**, eastward of the town of Vineyard Haven, has its entrance about 0.5 mile northeastward of Vineyard Haven Breakwater Light. A short jetty, marked by a light, extends from the northwestern end of the jutting point on the northerly side of the entrance. In April 2004, the controlling depth through the entrance was 6.3 feet (7.9 feet at midchannel). The channel is marked by private buoys. The pond, used by local and fishing craft, has depths of 5 to 25 feet with shoaler depths near the shore. **Robbins Rock** is off the west shore, about 1 mile above the bridge. The highway bridge across the entrance has a 30-foot bascule span with a clearance of 15 feet. (See **117.1 through 117.49**, chapter 2, for drawbridge regulations.) Advance arrangements for bridge openings can be made by contacting the harbormaster or drawtender (telephone: 617-693-1212).

Charts 13230, 13229

(30) **Falmouth Harbor**, the open roadstead off the south shore of Cape Cod eastward of Nobska Point Light, affords an anchorage for vessels in 24 to 36 feet about 0.8 mile from shore. Smaller vessels can anchor closer to the shore in 15 to 18 feet. The bottom is generally sticky and good holding ground; the depths shoal gradually toward the shore. The anchorage affords a lee in northerly winds; in southerly winds the sea is somewhat broken by L'Hommedieu Shoal and the shoals westward of it so that a vessel with good ground tackle can ride out a gale in comparative safety. (See **110.1 and 110.140 (c) (5), and (d)** chapter 2, for limits and regulations of the anchorage area.)

(31) Falmouth Harbor is frequently used by vessels with good ground tackle that prefer this anchorage to the anchorage in Vineyard Haven Harbor, which may be crowded in bad weather. Vessels approaching the anchorage are cautioned to stay clear of the two shoal areas with depths of 10 to 16 feet marked by buoys which extend westward of L'Hommedieu Shoal.

(32) Vessels can enter Falmouth Harbor from the southward on a course of **344°** with West Chop Light astern, and pass about 0.1 mile westward of Falmouth Harbor East Shoal Buoy 17. Vessels in the vicinity of Nobska Point Light can pass 0.4 mile eastward of the light on a north-northeasterly course, and when Tarpaulin Cove and Nobska Point Lights are nearly in range, stand eastward to an anchorage.

(33) **Falmouth Heights**, about 3 miles east-northeast of Nobska Point Light and east of the town of **Falmouth**, is a prominent yellow bluff on the summit of which are numerous homes and a large hotel.

(34) **Falmouth Inner Harbor**, westward of Falmouth Heights, is a dredged basin about 0.7 mile long and less than 0.1 mile wide, on the north side of Falmouth Harbor. A tall green standpipe, about 1.5 miles westward of Falmouth, is one of the most prominent landmarks in this vicinity. The yacht club dock and flagpole, just inside the entrance on the east side of the harbor, are conspicuous from close inshore. The harbor is entered through a dredged channel between two jetties; a light marks the end of the west jetty. In March 2004, the controlling depth was 7.1 feet in the entrance channel to the inner harbor; thence 6.2 feet in the inner harbor, except for shoaling to 3.7 feet at the upper end of the harbor along the NW side.

Tides and currents

(35) The mean range of tide at Falmouth Heights is 1.3 feet. The tidal current in the sound about 1.5 miles south of the harbor sets east-northeastward on the

Courtesy of Cape Cod Power Squadron

flood at a velocity of 2.3 knots, and west-southwestward on the ebb at 1.7 knots.

Small-craft facilities

(36) There are several small-craft facilities in Falmouth Inner Harbor. (See the small-craft facilities tabulation on chart 13229 for services and supplies available.)

(37) The **harbormaster** is at the town-operated Falmouth Marina, on the west side halfway up the harbor; telephone 508-548-9796. The harbormaster monitors VHF-FM channels 16, 12, and 9. A ferry operates in the summer to Oak Bluffs from the wharf at the head of the harbor.

(38) **Nobska Point**, about 29 miles westward of Monomoy Point, is a bluff with **Nobska Point Light** (41°30'57"N., 70°39'18"W.), 87 feet above the water, shown from a white tower, at the south end. A fog signal is at the light. **Nobska Point Ledges**, partly bare at low water, extends 150 yards eastward and southwestward from the point.

Charts 13233, 13229

(39) **Middle Ground**, covered 6 to 18 feet, is the easterly half of a narrow, somewhat shifting ridge that extends for about 9 miles westward from a point about 0.5 mile northwestward of West Chop Light. A buoy is at the northeast end, and a lighted bell buoy off the southwestern end.

(40) **Lucas Shoal**, covered 17 to 30 feet, is the southwestern end of the ridge. It is separated from the Middle Ground by a natural channel with a depth of 31 feet. A buoy marks the southwestern end of the shoal.

(41) **Lake Tashmoo**, a landlocked pond on the northwest side of Martha's Vineyard, is entered through a narrow jettied entrance which had a reported controlling depth of 2½ feet in September 1981. The lake, only used by local craft, has general depths of 3 to 10 feet. A private seasonal light marks the east jetty and private seasonal buoys mark the channel through a shoal area just inside the entrance.

(42) A 4 mph **speed limit** is enforced in the pond. Anchoring is prohibited in the entrance channel.

(43) A small boatyard is on the easterly side of the lake; a flatbed trailer can handle craft up to 30 feet for hull and engine repairs. Guest moorings and limited supplies are available.

(44) **Norton Point** and **Cape Higgon** are prominent bluffs on the northwest side of Martha's Vineyard about 3 and 8 miles, respectively, southwestward of West Chop Light.

(45) **Menemsha Bight**, on the northerly side of the western end of Martha's Vineyard 2.5 miles east of Gay

Head, affords shelter from southerly and easterly winds in depths of 25 to 60 feet, sticky bottom. (See **110.1 and 110.140 (c) (1) and (d)**, chapter 2, for limits and regulations for the anchorage area.) There are no dangers in the bight if the shore is given a berth of 0.3 mile.

(46) **Menemsha Creek**, on the northwestern shore of Martha's Vineyard and about 3 miles eastward of Gay Head Light, is entered from Menemsha Bight through a dredged channel that leads southeastward to **Menemsha Basin**, on the north shore just inside the entrance. From the basin, the dredged channel continues southward through the creek to Menemsha Pond, about 1 mile above the entrance. The entrance to the creek is protected by jetties. The east jetty is marked by a light. A bell buoy, about 300 yards northwestward of the light, marks the channel approach, and buoys and daybeacons mark the channel.

(47) In October 1991-March 1992, the controlling depth was 10 feet at midchannel to Menemsha Basin, thence 1½ feet could be carried to Menemsha Pond; thence 5½ to 10 feet was available in the larger northwestern part of Menemsha Basin and 3½ to 5 feet in the smaller southeastern part, except for shoaling to 1 foot in the southeastern corner. The channel south of Menemsha Basin is reported to shoal rapidly after dredging; mariners are advised to seek local knowledge before attempting to go beyond Menemsha Basin.

(48) **Menemsha** is a small fishing village on Menemsha Basin. **Menemsha Pond**, a rectangular basin about 1 mile long and 0.7 mile wide, has general depths of 2 to 18 feet, with the deepest water in the southern half of the pond.

Tides and currents

(49) The mean range of tide in Menemsha Bight is 2.7 feet. The tidal currents through the entrance have an estimated velocity of 3 knots or more. Slacks are reported to occur 45 minutes after local high and low waters.

(50) Guest moorings are available in Menemsha Basin, and anchoring is permitted in the pond. Berths are also available at the public facilities at Dutcher Dock, on the northeast side of the basin. Commercial fishing and charter boats berth at the dock or at the private piers on the west side of the basin. **Menemsha Coast Guard Station** is on the south side of the basin. The **harbormaster** controls all berthing and mooring in the basin. The harbormaster has an office at Dutcher Dock and can be contacted by radiotelephone on VHF-FM channel 16 or by telephone (508-645-2846).

(51) A marina is on the east side of Menemsha Basin. Repairs and hauling of craft to 45 feet can be arranged. Gasoline, diesel fuel, water, ice, a launching ramp, and marine supplies are available.

(52) Seasonal bus service is available from Menemsha to Vineyard Haven and other points on the island.

(53) **Gay Head**, the westerly end of Martha's Vineyard, is a prominent high bluff. It is marked by **Gay Head Light** (41°20'54"N., 70°50'06"W.), 170 feet above the water, shown from a 51-foot red brick tower on the head. A lighted gong buoy is 1.6 miles northwestward of the light.

(54) **Devils Bridge** is a reef making off 0.8 mile northwestward of Gay Head. The reef has a depth of 2 feet about 0.4 mile offshore and 17 feet at its end.

(55) **Nomans Land**, about 5.5 miles southward of Gay Head, is a prominent, high, and rocky island. Except for a small section on its northwestern side, the shore consists of clay and gravel cliffs 10 to 18 feet high with boulders lining the shores. In the interior of the island are many hills, the highest over 100 feet high, with considerable marshy area between the hills. A **danger zone** surrounds Nomans Land. (See **334.70**, chapter 2, for limits and regulations.)

(56) Several sunken rocks and ledges are in the passage between Nomans Land and Martha's Vineyard. **Lone Rock**, covered 8 feet, and **Old Man**, a ledge covered 4 feet, are marked by buoys. A buoyed channel about 0.7 mile wide between the islands may be used by small vessels in the daytime. Shoal water extends 0.5 mile southward of **Squibnocket Point**, the southernmost point of Martha's Vineyard.

Charts 13230, 13229

(57) **Elizabeth Islands**, including Nonamesset, Uncatena, Weepecket, Naushon, Pasque, Nashawena, Penikese, and Cuttyhunk Islands, extend about 14 miles west-southwest from the southwest end of Cape Cod. The islands, forming part of the northern shore of Vineyard Sound, separate the sound from Buzzards Bay. They are hilly and partly wooded; the shores are, in general, low bluffs. Westward of Woods Hole are several buoyed channels between the islands, but Quicks Hole is the only one recommended for strangers.

Charts 13235, 13229

(58) **Woods Hole** is that water area lying between the southwest tip of Cape Cod and Uncatena and **Nonamesset Island**, the easternmost of the Elizabeth Islands, with Buzzards Bay on the northwest and Vineyard Sound on the southeast; it includes Great and Little Harbors in the eastern part, and Hadley Harbor in the western part. Woods Hole is also the approach to

the town of **Woods Hole** on the northeastern shore of Great Harbor. The town is a busy commercial center and a transshipping point for passengers and freight to and from Nantucket and Martha's Vineyard. During the summer it is an active resort and frequently a port of call by yachts passing through to Vineyard Sound or Buzzards Bay. The deepest draft entering Great Harbor in 1981 was 14 feet. There is considerable waterborne commerce in seafood products and general cargo.

Prominent features

(59) The most prominent landmark approaching Woods Hole is Nobska Point and light. A light marks the south end of **Juniper Point**, the finger of land separating Little and Great Harbors. Also prominent is the house high on Juniper Point, a standpipe 2.2 miles northward of Nobska Point, a water tower and stacks in the town, the dome of the Woods Hole Oceanographic Institution, and the buildings of the National Marine Fisheries Service and the Marine Biological Laboratory.

Channels

(60) Woods Hole Passage, a dredged section through the northern part of Woods Hole, connects Vineyard Sound and Great Harbor with Buzzards Bay, and consists of **The Strait** and a spur channel known as the **Branch** at the western end of The Strait, and **Broadway**, the southerly entrance to The Strait from Vineyard Sound. In August 1989, the controlling depths were 13 feet in The Strait, except for shoaling to 11 feet near the north edge of the channel between Buoys 2 and 6, 12 feet (13 feet at midchannel) in the Branch, and 11 feet in Broadway. The northerly entrance from Great Harbor into The Strait is preferred over Broadway with its sharp turn, which is difficult in strong currents, especially for low-powered vessels and vessels under sail.

(61) The passage through Woods Hole, between numerous ledges and shoals, is marked by navigational aids. However, tidal currents are so strong that the passage is difficult and dangerous without some local knowledge. Buoys in the narrowest part of the channel sometimes are towed under, and a stranger should attempt passage only at slack water.

(62) The entrance to **Great Harbor** from Vineyard Sound, between Great Ledge and Nonamesset Shoal, has depths of over 18 feet. A **344°** lighted entrance range leads into the harbor from Vineyard Sound to the wharves at Woods Hole in Great Harbor. A lighted bell buoy marks the entrance and lighted and unlighted buoys mark the channel. When entering on the range, mariners should guard against the current from Buzzards Bay, which has a tendency to set vessels eastward.

(63) The deepest draft using the passage is 11 feet. These channels are marked by buoys and lights, but extreme caution and slack water are required to safely navigate them with drafts greater than 8 feet. Mariners entering from Buzzards Bay should keep in mind that the buoys are colored and marked for passage from Vineyard Sound to Buzzards Bay.

Anchorages

(64) (See **110.1 and 110.140 (c) and (d)**, chapter 2, for limits and regulations of the deepwater anchorages in the vicinity of Woods Hole.) An anchorage about 0.2 mile square, with poor holding ground and irregular depths ranging from 19 to 62 feet, is at the head of Great Harbor. Shoals covered 5 to 9 feet are northwest of the anchorage. Good anchorage in depths of 29 to 36 feet is also available about 200 yards northwest of the National Marine Fisheries Service's wharf. Small craft can find good anchorage in Little Harbor and Hadley Harbor.

Dangers

(65) Numerous ledges and shoals border the channel through Woods Hole. **Great Ledge**, an extensive rocky shoal awash at low water with a full northwest gale, lies between the entrances to Little and Great Harbors; it is marked by a buoy. **Coffin Rock**, eastward of Great Ledge and covered 5 feet, is marked by a lighted buoy 120 yards eastward of the rock. **Nonamesset Shoal**, covered 10 feet, extends about 0.2 mile eastward from Nonamesset Island, at the entrance to Great Harbor. **Parker Flats** extend as much as 200 yards off the eastern shore of Great Harbor northward of Juniper Point. Most of these dangers are marked by buoys.

(66) Fringing the passage westward of Great Harbor are many other ledges and shoals. **Red Ledge,** grassy, and **Grassy Island**, with its surrounding ledge marked by a light, are on the western side of Great Harbor Channel. **Middle Ledge**, which uncovers 1 foot in places and is marked by buoys, is on the south side of The Strait. A ledge, awash at low water and marked by a light, is about 250 yards westward of Middle Ledge. **Hadley Rock**, covered 5 feet, is some 500 yards west-southwestward of the light west of Middle Ledge. A rocky shoal area extends more than 0.3 mile westward of **Penzance Point**, the southern extremity of **Penzance**, which is the curving peninsula sheltering the west and northwest sides of Great Harbor. Most of the dangers adjoining the passage channel are marked by navigational aids.

Tides and currents

(67) The mean range of tide is 1.4 feet off Little Harbor, about 1.8 feet off Woods Hole Oceanographic Institution, and 3.6 feet off Hadley Harbor. Strong

northwesterly winds may lower the water in the passage as much as 2 feet.

(68) The velocity of the current is about 3.5 knots in The Strait southward of Penzance Point. (See the Tidal Current Tables for predictions, and the Tidal Current Charts, Narragansett Bay to Nantucket Sound, for the hourly velocities and directions of the current.) Both the velocity of the current and time of slack water are affected by strong winds. At the north entrance to Woods Hole in Buzzards Bay, the velocity of the tidal current is 0.8 knot, whereas at the eastern entrance to The Strait in Great Harbor, it is about 1.3 knots. In the upper part of Great Harbor, near the National Marine Fisheries Service's wharf, the currents are barely perceptible, and vessels at anchor lie head to wind.

(69) Drift **ice** is brought through from Buzzards Bay, but seldom interferes with navigation except in unusually severe winters, when it may close the entrance from the bay. Small craft may experience difficulty in severe winters, but powered vessels usually proceed through the ice. The strong tidal currents usually keep Great Harbor open.

Pilotage: Woods Hole

(70) Pilotage service is available for the harbor. (See Pilotage, Vineyard Sound, this chapter.)

Routes

(71) The following directions are good for medium-draft vessels entering Woods Hole at slack water. Approaching from the eastward, pass about 0.3 mile southward of Nobska Point on a west-southwesterly course until on Great Harbor Lighted Range, or from a point close to Nobska Point Lighted Bell Buoy 26, steer 279° until on the entrance range. Approaching from the westward in Vineyard Sound, give the south side of the Elizabeth Islands a berth of about 0.5 mile and steer for Nobska Point Light on any bearing between 045° and 051° until on the entrance range.

Towage

(72) A 200 hp tug is available at Woods Hole.

Wharves

(73) The ferry pier of the Woods Hole-Martha's Vineyard and Nantucket Steamship Authority is on the eastern side of Great Harbor. When a ferry is approaching in fog, a private fog signal is sounded, a private quick flashing white light is shown from the southwest corner of the pier, and a private quick flashing yellow light is shown from the southwest corner of the ferry slip. The ferry to Naushon Island lands at the service wharf about 60 yards north of the ferry pier. The buildings and wharf of the Woods Hole Oceanographic Institution are northwestward of the ferry pier. Northwestward of the Oceanographic Institution are the wharves of the Marine Biological Laboratory; the wharf, basin, and buildings of the National Marine Fisheries Service; the town pier; and several private buildings.

(74) Depths at the principal piers vary from 11 to 30 feet. A breakwater extends about 90 yards southwestward from the south end of the National Marine Fisheries Service wharf. The front entrance range light is near the end of the breakwater. Foul ground extends about 50 yards northwestward of the outer end of the breakwater.

(75) **Eel Pond**, an extension of Great Harbor to the northeastward, is a basin with depths of 10 to 20 feet. In September 2001, the narrow entrance to the pond had a reported controlling depth of 6 feet. A highway bridge over the entrance channel has a 31-foot bascule span with a clearance of 5 feet. (See **117.1 through 117.59 and 117.598,** chapter 2, for drawbridge regulations.) The piers of the Marine Biological Laboratory are along the southwest side of the pond. A boatyard in Eel Pond has water, some marine supplies, limited berths with electricity, and can do engine repairs. The **harbormaster** has an office in Falmouth.

(76) Seasonal ferry service is available from Woods Hole to Nantucket and Oak Bluffs, Martha's Vineyard. Year-round ferry service is available to Vineyard Haven, Martha's Vineyard.

(77) **Woods Hole Coast Guard Station** is on the west side of **Little Harbor** about 450 yards northward of Juniper Point. A dredged buoyed channel leads from Vineyard Sound to a turning basin off the Coast Guard wharf on the west shore. In 2001, the controlling depth was 16 feet for a width of 150 feet in the channel with 15 feet available in the basin. The east side of the harbor is used as a mooring area for local craft. A depth of 15 feet is available in the mooring area. Numerous rocks awash are in this part of the harbor; extreme caution is advised. A 6 mph **speed limit** is enforced in the harbor by the Falmouth Harbormaster.

(78) **Hadley Harbor**, in the western portion of Woods Hole at the northwest end of Nonamesset Island, is suitable only for small craft. It is reached by a narrow, crooked channel. The deeper entrance, marked by buoys, is between ledges on both sides; the northern ledge is marked by a private daybeacon. The inner harbor forms a well-sheltered anchorage for small craft.

(79) Two wharves, with depths of about 9 feet at their ends, are on the western side of Hadley Harbor. A private wharf, with a depth of about 7 feet at its end, is at the western end of Nonamesset Island.

Charts 13233, 13230, 13229

(80) **Naushon Island**, the largest of the Elizabeth Islands, extends west-southwestward from Uncatena and Nonamesset Islands.

(81) **Weepecket Islands**, in Buzzards Bay off the northeastern part of Naushon Island, are bare and rocky.

(82) **Weepecket Rock**, on a rocky ledge about 0.7 mile northeastward of the northernmost of the Weepecket Islands, is covered 8 feet, and is marked by a lighted gong buoy.

(83) **Lackeys Bay**, between Nonamesset Island and **Jobs Neck**, the southeastern extremity of Naushon Island, is shoal with numerous bare rocks.

Note

(84) In November 1990, an unexploded World War II ordnance was reported about 0.5 mile southeastward of Lackeys Bay in about 41°29'34.5"N., 70°41'15.0"W.

(85) **Tarpaulin Cove**, about 5 miles west-southwest of Nobska Point, is a bight about 0.5 mile in diameter, in the south shore of Naushon Island. The cove affords shelter from northerly and westerly winds, and is frequently used. A light is on the southwest side of the cove. Anchorage in depths of 14 to 18 feet, good holding ground, is in the cove with the light bearing between 212° and 189°. Deep-draft vessels should anchor farther out in depths of 36 feet or more. The eastern and northern shores should be given a berth of 200 yards. Rocks are near the western shore and should be given a berth of over 300 yards; buoys mark the dangers.

Charts 13233, 13230, 13229

(86) **Robinsons Hole** is a narrow buoyed passage from Vineyard Sound to Buzzards Bay between the western end of Naushon Island and the eastern end of Pasque Island. It has numerous rocks and ledges, and strong tidal currents. The buoys often tow under, and the passage should never be attempted by strangers; it is used occasionally by local fishermen. It has been reported that currents sometimes reach a velocity of 5 knots in the passage. The velocity in the narrow part is about 3 knots. The flood sets southeastward and the ebb northwestward into Buzzards Bay. (See the Tidal Current Tables for predictions, and the Tidal Current Charts, Narragansett Bay to Nantucket Island, for the hourly velocities and directions of the current.)

(87) **Quicks Hole**, between Pasque Island and **Nashawena Island,** is the only passage between Vineyard Sound and Buzzards Bay eastward of Cuttyhunk available for vessels of over 10-foot draft. The clearly defined entrance from Vineyard Sound, about 0.6 mile wide, is about 4 miles southwestward of Tarpaulin Cove and about 5 miles north of Gay Head. The passage is used considerably by tows, especially during westerly or southerly winds, to avoid the very heavy sea in the entrance to Vineyard Sound, and also because a secure anchorage from these winds can be had, if necessary, on the north side of Nashawena Island. The passage is considered unsafe for a long tow at night, but otherwise it may be used by steamers either night or day.

(88) Vessels should follow a midchannel course through the passage. The channel is nearly straight with a width of about 0.2 mile. General depths are 30 feet or more, but there are several spots of 16 to 18 feet and others of 21 to 27 feet. Because of the broken nature of the bottom, the passage is not recommended for a stranger drawing more than 21 feet. Buoys mark the channel.

(89) The aids in Quicks Hole are colored and numbered for passage from Vineyard Sound to Buzzards Bay.

(90) The eastern side of Quicks Hole is foul, and no attempt should be made to pass eastward of the lighted buoy. **Felix Ledge**, 0.2 mile off the eastern shore of Nashawena Island, is covered 16 feet and marked by a buoy.

(91) In November 1985, a sunken wreck was reported on the west side of the passage in about 41°26.5'N., 70°51.0'W.

(92) **Lone Rock**, covered 3 feet and marked by a lighted buoy, is off the northern entrance, about 0.7 mile northward of **North Point**, the northeastern extremity of Nashawena Island. Tide rips have been observed between North Point and Lone Rock during spring tides.

Tides and currents

(93) The mean range of tide is 2.5 feet at the south end and 3.5 feet at the north end of Quicks Hole. The tidal currents have considerable velocity in Quicks Hole, about 2 to 2.5 knots, and a sailing vessel should not attempt to pass through unless with a strong favorable wind on a favorable current. Deep-draft vessels should be careful not to be set off their courses. With a strong westward current through Vineyard Sound, there is a northward current through Quicks Hole; with a strong eastward current in Vineyard Sound, the current sets southward through Quicks Hole. Strong winds affect the regularity of the currents. (See the Tidal Current Tables for predictions, and the Tidal Current Charts, Narragansett Bay to Nantucket Sound, for the hourly velocities and directions of the current.)

(94) **Penikese Island**, grassy and hilly, is about 1.3 miles northwestward of **Knox Point**, the northwestern extremity of Nashawena Island. Shoal water extends from Penikese Island to **Gull Island**, a small islet 0.5 mile southeastward. No attempt should be made to pass

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between them. Rocky ledges extend southward and westward from Gull Island; buoys are on the southern edge of this area. The channels to Cuttyhunk Harbor from Buzzards Bay are southward of the ledges.

(95) **Cuttyhunk Harbor** is formed by the bight between Nashawena Island and **Cuttyhunk Island**, the westernmost of the Elizabeth Islands. Northward of the harbor are Penikese and Gull Islands and several ledges, which shelter the harbor from winds from that direction. The harbor is exposed to winds from the northeastward. Weather-bound coasting vessels and fishermen sometimes use the anchorage in the harbor. The harbor is the approach to the village of **Cuttyhunk** and to **Cuttyhunk Pond;** the latter is entered through a dredged cut in the eastern end of Cuttyhunk Island. **Copicut Neck** forms the northerly side of Cuttyhunk Pond.

(96) Prominent from offshore is a 50-foot-high monument on an island in **Westend Pond** on the western end of Cuttyhunk Island.

(97) Vessels bound for Cuttyhunk Harbor generally approach from Buzzards Bay. The principal dangers are marked by buoys. Strangers should not enter except in the daytime with clear weather. If entering from the northwestward, a greater draft than 10 feet should not be taken in. The approach from northeastward is deeper.

(98) **Canapitsit Channel**, between the east end of Cuttyhunk Island and Nashawena Island, is used by small boats and is partially marked by buoys. In November 1980, the channel had a controlling depth of 5½ feet. The buoys at this entrance are often dragged off station by strong currents and heavy seas. The channel should never be used during a heavy ground swell. With southerly winds, heavy seas will break across the entrance.

Channels

(99) A dredged channel leads from Cuttyhunk Harbor into Cuttyhunk Pond to a turning basin at the western terminal in the pond and an anchorage basin in the eastern part of the pond north of the channel. In April 2003, the entrance channel into the pond had a controlling depth of 7.3 feet with lesser depths along the southern edge of the channel; thence 9 feet in the pond channel to the turning basin, with 7 to 10 feet in the turning basin. The anchorage basin had depths of 8 to 10 feet. The jettied entrance is marked by a light on the north jetty and by a buoy off the end of the submerged south jetty. A bell buoy marks the entrance to the channel.

Anchorage

(100) Limited anchorage with reported poor holding ground may be found in depths of 10 to 24 feet in

Cuttyhunk Harbor. The shores on both sides of the harbor are foul, and the anchorage is in the middle.

Dangers

(101) Shoals extend 0.6 mile northeastward of Cuttyhunk Island. **Whale Rock** and **Pease Ledge** uncover at low water. **Middle Ground**, covered 9 feet, is 0.5 mile north of **Copicut Neck** in the northwestern approach to the harbor. **Middle Ledge**, covered 15 feet, is about 0.4 mile east of Middle Ground. **Edwards Rock**, covered 7 feet, is 250 yards northeastward of Whale Rock. These dangers, except for Middle Ledge, are buoyed. An unmarked rocky shoal, covered 12 feet, is in the middle of the northwestern approach about 0.2 mile southeastward of Middle Ledge. Numerous other rocks and ledges covered 4 to 12 feet are between Cuttyhunk Island and the ledges southwestward of Penikese and Gull Islands. The eastern point at the entrance and the eastern shore of the harbor should be given a berth of over 300 yards.

Routes

(102) In approaching Cuttyhunk Harbor from eastward in Buzzards Bay, take care to avoid Lone Rock, 0.7 mile northward of the northeastern end of Nashawena Island. Thence pass northwestward of Cuttyhunk East Entrance Lighted Bell Buoy CH (41°26.6'N., 70°53.4'W), and thence to anchorage according to draft in the harbor.

(103) In approaching from westward, from a position about midway between Ribbon Reef and the Cuttyhunk Island monument (41°24.8'N., 70°56.8'W.), steer 051° until abeam of Middle Ground Buoy MG, distance 600 yards. Pass midway between Middle Ground and Penikese Island, passing northward of Middle Ledge and the 12-foot spot southeastward of it, and then swinging southeasterly to the harbor anchorage, or southward to the entrance to Cuttyhunk Pond.

Tides and currents

(104) The mean range of tide at Cuttyhunk Pond entrance is 3.4 feet. The current velocity in Canapitsit Channel is 2.6 knots on the flood which sets south-southeastward, and 1.7 knots on the ebb which sets northwestward. In the channel southward of Penikese Island, the flood sets eastward and the ebb westward at about 0.8 knot. (See Tide Tables and Tidal Current Tables for predictions, and the Tidal Current Charts, Narragansett Bay to Nantucket Sound, for the hourly velocities and directions of the current.)

(105) Drift **ice** is carried into Cuttyhunk Harbor with northerly winds and closes the harbor during severe winters.

Small-craft facilities

(106) There is a service wharf on the south side of the channel at the entrance to the pond and a marina on the south side of the basin at the head of the channel in the pond. A yacht club and a fishing club are on the island. Gasoline, diesel fuel, water, ice, berths with electricity, and some marine supplies are available. Limited lodging in cottages is available on the island. The **harbormaster** can be reached by telephone (508-966-9295). There is daily launch service with New Bedford in the summer and twice weekly in the winter; seaplane service is also available.

Charts 13218, 13228, 13230, 13229

(107) **Buzzards Bay** is the approach to New Bedford, many small towns and villages, and the entrance of Cape Cod Canal. The bay indents the south shore of Massachusetts, extending in a northeasterly direction from **Rhode Island Sound**. The bay is enclosed on the south side, and separated from Vineyard Sound, by the Elizabeth Islands.

(108) The shores are irregular, rocky in character, and broken by many bays and rivers. Large boulders are common, in places extending a considerable distance from shore, thus making close approach to the shore dangerous.

(109) The bottom in the main part of the bay and approach is very broken with boulder reefs in places. Vessels should proceed with caution when crossing shoal areas in the tributaries of the bay where the depths are not more than about 6 feet greater than the draft. Caution must also be exercised in the vicinity of the wrecks shown on the chart. Deep water prevails as far as Wings Neck, above which the bay is full of shoals.

(110) **Cape Cod South Closure Area**, a Marine Managed Area (MMA), includes the inshore waters of Buzzards Bay and offshore Federal waters of the south coast of Massachusetts. (See **MMA 5-1**, Appendix C, for additional information.)

(111) **Traffic Separation Scheme (Buzzards Bay)** has been established in the approach to Buzzards Bay through Rhode Island Sound. (See charts 13218 and 12300.)

(112) The Scheme is composed basically of **directed traffic lanes,** each with one-way inbound and outbound traffic lanes separated by a **defined traffic separation zone** and a **precautionary area.** The Scheme is recommended for use by vessels approaching or departing from Buzzards Bay, but is not necessarily intended for tugs, tows, or other small vessels which traditionally operate outside of the usual steamer lanes or close inshore.

(113) **The Traffic Separation Scheme has been designed to aid in the prevention of collisions at the approaches to the major harbors, but is not intended in any way to supersede or alter the applicable Navigation Rules. Separation zones are intended to separate inbound and outbound traffic lanes and be free of ship traffic, and should not be used except for crossing purposes. Mariners should use extreme caution when crossing traffic lanes and separation zones.** (See Traffic Separation Schemes, chapter 1, for additional information.)

(114) The **precautionary area** in the southwest part of Rhode Island Sound has a radius of 5.4 miles centered on 41°06'06"N., 71°23'22"W., excluding those areas of the circle bounded by imaginary lines extended between the outer limits of the inbound and outbound traffic lanes. (Note that this precautionary area is common to the Traffic Separation Schemes for the approaches to both Buzzards Bay and Narragansett Bay. The Traffic Separation Scheme for the approach to Narragansett Bay is described in chapter 6.)

(115) The **separation zone** is a 1-mile-wide zone centered in the following positions:

(116) (i) 41°10'09"N., 71°19'09"W.,

(117) (ii) 41°21'48"N., 71°07'06"W.

(118) The **inbound traffic lane** is a 1-mile-wide lane with a length of about 14.8 miles. Entering the traffic lane at a point in about 41°09'36"N., 71°18'00"W., a course of **038°** follows the centerline of the traffic lane to its end, thence steer usual courses to destination.

(119) The **outbound traffic lane** is a 1-mile-wide lane with a length of about 14.8 miles. Entering the traffic lane at a point in about 41°22'25"N., 71°08'06"W., a course of **218°** follows the centerline of the traffic lane to a junction with the precautionary area.

(120) The Traffic Separation Scheme is not buoyed.

(121) Buzzards Bay has six entrances, but two of these are so narrow and dangerous as to exclude their use except by small craft with local knowledge. The four major entrances are the main channel, from westward, passing north of Cuttyhunk Island; Cape Cod Canal from northeastward; and Quicks Hole and Woods Hole from the southward. The two hazardous entrances are Canapitsit Channel, between Cuttyhunk and Nashawena Islands, and Robinsons Hole, between Pasque and Naushon Islands.

(122) The western entrance has a clear width of 4.3 miles between Sow and Pigs Reef and Hen and Chickens. The bottom in this entrance is irregular and rocky, and there are spots with depths of 17 to 34 feet. Because these shoal areas are surrounded by deeper water, vessels of 16-foot draft or more must exercise extra caution when entering the bay. In heavy southwest gales the sea breaks over some of these spots.

(123) The best guides for entering the bay from westward are Buzzards Bay Entrance Light and the lighted buoys in the entrance. Gay Head Light and Buzzards Bay Entrance Light are the guides for vessels approaching from the southward.

(124) **Buzzards Bay Entrance Light** (41°23'48"N., 71°02'01"W.), 63 feet above the water, is shown from a tower on a red square superstructure on red piles about 4 miles 255° from the southwest corner of Cuttyhunk Island. The name BUZZARDS is painted in white on the sides. A fog signal and racon are at the light.

(125) **Recommended Vessel Route (Buzzards Bay)** has been established in the approach to Buzzards Bay through Rhode Island Sound.

(126) The U.S. Coast Guard Captain of the Port, Providence, in cooperation with the Southeastern Massachusetts and Rhode Island Port Safety and Security Committees, has established a Recommended Vessel Route for deep draft vessels and tugs/barges transiting Rhode Island Sound, Narragansett Bay, and Buzzards Bay. Deep draft vessels and tugs/barges are requested to follow the designated routes. These routes were designed to provide safe, established routes for these vessels, to reduce the potential for conflict with recreational boaters, fishing gear, and other small craft, and to reduce the potential for grounding or collision. Vessels are responsible for their own safety and are not required to remain inside the route nor are fisherman required to keep fishing gear outside the route. Small vessels should exercise caution in and around the Recommended Vessel Routes and monitor VHF channels 16 or 13 for information concerning deep draft vessels and tugs/barges transiting these routes.

Anchorages

(127) New Bedford Inner Harbor affords anchorage for vessels of 25-foot draft. Cuttyhunk Harbor affords anchorage in depths of 10 to 24 feet; except for the small-craft inner harbor, it is exposed to northerly winds. A good anchorage sheltered from all southerly winds may be had off the north shore of Nashawena Island eastward of Penikese and Gull Islands in depths of 40 to 48 feet. This anchorage, frequently used by tows, is available for vessels of any draft; however, care must be taken to stay clear of the fishtrap area in the vicinity. Two general anchorages are off the western entrance to Cape Cod Canal. (See **110.1 and 110.140 (b) (1), (b) (2), and (d),** chapter 2, for limits and regulations.)

No-Discharge Zone

(128) The State of Massachusetts, with the approval of the Environmental Protection Agency, has established

a No-Discharge Zone (NDZ) in Buzzards Bay. The area covered is bounded by the points

(129) 41°29'48"N., 71°07'13"W.
(130) 41°25'05"N., 71°05'46"W.
(131) 41°25'25"N., 71°03'32"W.
(132) 41°22'30"N., 70°59'52"W.
(133) 41°24'33"N., 70°56'57"W.
(134) 41°25'17"N., 70°54'30"W.
(135) 41°25'17"N., 70°54'12"W.
(136) 41°26'24"N., 70°51'20"W.
(137) 41°26'45"N., 70°50'23"W.
(138) 41°26'57"N., 70°48'29"W
(139) 41°26'59"N., 70°48'18"W.
(140) 41°30'35"N., 70°42'06"W.
(141) 41°30'38"N., 70°41'58"W.
(142) 41°30'55"N., 70°40'52"W.
(143) 41°31'14"N., 70°40'58"W.
(144) 41°44'15"N., 70°37'27"W. (west canal entrance), and
(145) 41°44'11"N., 70°37'21"W. (east canal entrance), and includes all waters of Buzzards Bay (see chart 13218 for limits).

(146) 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).

Dangers

(147) **Hen and Chickens**, extending 1.4 miles southward of Gooseberry Neck, is a reef consisting of many large boulders, most of them baring a foot or less. The reef is in two large groups; the southerly group is the larger. Numerous covered rocks are well away from the visible part of the danger. A narrow ledge covered 5 to 14 feet extends about 0.4 mile northward from the visible part of Hen and Chickens. A buoy is north of the ledge. **Old Cock,** a rock awash, and **The Wildcat,** covered 5 feet and unmarked, are in the southern shoal area. The south edge of the shoal is marked by a buoy. Strangers are advised to stay outside the 5-fathom curve in this vicinity.

(148) **Sow and Pigs Reef**, much of which is dry or awash, extends about 1.5 miles west-southwestward from Cuttyhunk Island. Its outer end is marked by a lighted bell buoy. An unmarked rocky shoal, covered 20 feet, is 0.9 mile westward of Cuttyhunk Island. Numerous obstructions and rocks with a least depth of 27 feet were reported to extend as much as 3 miles southward of Sow and Pigs Reef.

(149) **Ribbon Reef**, a detached ledge covered 18 feet, is about 1.5 miles northwestward of Cuttyhunk Island. **Coxens Ledge**, covered 28 feet and marked by a lighted bell buoy, is 1.2 miles northward of Ribbon Reef.

(150) **Mishaum Ledge**, a group of several rocky spots with a least depth of 8 feet, extends about 1.7 miles southward of Mishaum Point. It is marked by a lighted gong buoy off its southeast end. A lighted bell buoy marks a rocky shoal covered 22 feet about 1 mile north-northwestward of the north end of Penikese Island. An unmarked rocky shoal covered 18 feet is 0.5 mile north of the island.

Tides and currents

(151) The mean range of tide varies from 3.0 feet at Westport Harbor to 4.2 feet at Bird Island near the head of the bay. The tidal currents in the passages between Buzzards Bay and Vineyard Sound have considerable velocity and require special attention. At Hen and Chickens Lighted Gong Buoy 3, the tidal current is rotary, turning clockwise. Tide rips occur when a sea is running against the current. Maximum velocities are about 0.5 knot. Minimum velocities average about 0.2 knot. (See the Tide Tables and Tidal Current Tables for predictions, and the Tidal Current Charts, Narragansett Bay to Nantucket Sound, for the hourly velocities and directions of the current.)

Ice

(152) The head of Buzzards Bay and the harbors in that vicinity are generally closed to navigation during the winter. The approaches to the harbors on the eastern shore are rendered dangerous by drift ice. In severe winters the drift ice extends across the bay and joins the local formations on the western shore, forming an impassable barrier for short periods. Ice forms more rapidly in the bay with winds from north to west as the western shore forms a shelter from such winds. When the field ice extends sufficiently out toward the channel as to be affected by the winds from north to west, the outer edges are broken up and carried off to the eastern or southern shore where they form drift ice. Under ordinary circumstances a northeast wind, if continued for 48 hours, will clear the bay of ice. Southerly winds, especially southeastern, diminish the extent and weaken the strength of the pack. Some of the lighted buoys are removed from station or replaced by unlighted buoys when endangered by ice.

(153) The southern side of Buzzards Bay from Cuttyhunk to Woods Hole has been discussed previously in this chapter.

Charts 13230, 13229

(154) **Quissett Harbor**, 1.7 miles northeastward of the western entrance to Woods Hole, is used by small

pleasure craft. **The Knob**, a small hillock on the north point of the entrance, and the homes on the eastern shore of the harbor are prominent. A standpipe, 1.2 miles northeastward of the entrance, is conspicuous.

(155) A seasonal lighted buoy marks the entrance, and buoys mark the entrance channel, thence private seasonal aids mark the best water to the northeast end of the harbor. In August 1981, a depth of about 8 feet was reported available in the channel. Mariners are advised to steer a midchannel course through the entire entrance channel to avoid numerous rocks on both sides of the channel.

(156) Anchorage can be found in the middle of the harbor in depths of 11 to 18 feet, sticky bottom. Local craft generally moor in the northeastern part of the harbor off the boatyard at the town of **Quissett**. The boatyard has an L-shaped pier and a float which was reported to have about 15 feet alongside. Water, ice, moorings, some marine supplies, storage facilities, and marine railways up to 40 feet are available; hull and engine repairs can be made. The **harbormaster** can be contacted through the boatyard.

(157) **Hamlin Point**, 2 miles north-northeastward of Quissett Harbor, is marked by a prominent hotel with twin cupolas. A shoal, covered 10 feet near its outer end, extends about 1 mile westward of the point. **Gifford Ledge**, covered 9 feet, is 1.4 miles north-northwestward of Hamlin Point. **Great Sippewisset Rock**, awash and marked by a private seasonal daybeacon, is 0.4 mile offshore about 1.1 miles northward of Hamlin Point. A shoal area, foul with rocks awash and covered, extends 0.3 mile offshore eastward of the daybeacon.

(158) **West Falmouth Harbor**, 5 miles northward of Woods Hole, has depths of 1 to 6 feet and bares in places at low water. The entrance is protected by a breakwater extending about 700 feet southward of **Little Island**, the north point of the entrance, and by a short jetty on the northwest end of **Chappaquoit Point**. A tower and the summer homes on Chappaquoit Point are prominent. The entrance is marked by a seasonal lighted bell buoy and an unlighted buoy on the south side and by an unlighted buoy on the north side; these buoys mark reefs that extend westward from both entrance points. Seasonal private buoys mark the channel in the harbor.

(159) In 1981, it was reported that 4 feet could be taken through the narrow, privately marked channel in the harbor to the anchorage basin off the town wharf at the village of **West Falmouth** on the east shore of the harbor. Depths of 5 feet were reported alongside the wharf in 1981. The **harbormaster** has an office at the town wharf. A 6 mph **speed limit** is enforced in the harbor.

Charts 13236, 13229

(160) **Wild Harbor** (41°38.3'N., 70°38.9'W.), 7 miles northward of Woods Hole, is a small cove on the south side of **Nyes Neck** affording anchorage in northerly or easterly winds. A tower on Nyes Neck is prominent. The entrance is clear in midchannel, with depths of 13 to 20 feet inside. A seasonal lighted buoy marks the entrance, and buoys mark the shoals extending from the entrance points. The shores are foul, and the easterly part of the harbor is shoal. The reported depth in the privately dredged channel into **Silver Beach Harbor** to a small basin is about 3 feet, but is subject to shoaling. A stone jetty extends off the south side of the entrance to the basin. The basin is a **special anchorage.** (See **110.1** and **110.40,** chapter 2, for limits and regulations.)

(161) A town wharf and surfaced ramp are in the basin. In August 1981, depths of 4 feet to bare were reported alongside the wharf. Ice and provisions are available.

(162) **Megansett Harbor**, the approach to the towns of **North Falmouth**, **Megansett,** and **Cataumet,** is entered between Nyes Neck on the south and **Scraggy Neck** on the north. The natural channel is buoyed as far as the rock breakwater at Megansett. The breakwater is marked at the end by a light. A yacht club and a town wharf are just inside the breakwater. In August 1981, depths of 4 to 5 feet were reported alongside the wharf; water is available. The harbor has extensive shoals and ledges, but by following the buoyed channel a draft of about 8 feet can be carried to an anchorage in the outer harbor in depths of 10 to 22 feet. Inside the breakwater, anchorage is available in 6 to 12 feet, taking care to avoid the shoals on the north side of the harbor and the rock awash near the center in 41°39'27"N., 70°37'31"W. **Cataumet Rock,** covered 6 feet and marked by a buoy, is on the south side of the entrance; Seal Rocks are on the north side and marked by a seasonal lighted buoy.

(163) **Fiddlers Cove** (41°38.9'N., 70°38.2'W.) is a small-craft harbor on the south shore of Megansett Harbor, about 0.5 mile east-southeastward of Cataumet Rock. A channel, privately dredged to a reported depth of 7 feet, leads southward to a marina and boatyard in a dredged basin on the east side of the cove. A seasonal lighted buoy marks the approach, and private buoys mark the channel. Gasoline, diesel fuel, ice, a pump-out station and wet and dry storage are available; lift capacity, 35 tons. Hull, engine and electronic repairs can be made. In April 2002, the reported approach and alongside depth was 7 feet.

(164) **Halftide Rock**, awash at low water, is about 500 yards southwestward of the end of the Megansett breakwater. **Rands Harbor**, about 0.3 mile east of Fiddlers Cove, is a private boat basin with little or no water.

(165) **Squeteague Harbor**, northward of Megansett, is entered through a narrow channel from the head of Megansett Harbor. The privately marked channel had a reported depth of about 2 feet in 1981, however, depths of 5 to 7 feet are reported to be available in the channel to the harbor; local knowledge is advised. The village of **Cataumet** is on the northerly shore of the harbor.

(166) **Seal Rocks**, about 0.3 mile southwestward of Scraggy Neck, on the north side of Megansett Harbor entrance, are partly bare at half tide and marked by a buoy about 300 yards southwest of their southern end. Part of an old concrete barge is aground on the rocks. **Southwest Ledge**, extending about 0.7 mile westward of Seal Rocks, consists of two patches of shoals covered by 2 to 18 feet and marked by buoys on its northern, western, and southern sides. A rock awash is in the northerly shoal.

(167) **Pocasset Harbor** and Red Brook Harbor share a common entrance between Scraggy Neck and Wings Neck. **Bassetts Island** separates Pocasset Harbor from Red Brook Harbor. Broken ground with depths of 17 to 19 feet in places extends across the entrance. Entering about 250 yards north of buoys marking the north side of Southwest Ledge, vessels of about 14-foot draft can anchor westward of Eustis Rock Buoy in depths of 20 to 30 feet. This anchorage is exposed to westerly winds. **Eustis Rock**, about 0.2 mile north of Scraggy Neck, is covered 5 feet and marked by a buoy. The area eastward of Eustis Rock to Bassetts Island is shoal.

(168) A narrow buoyed channel, with a reported depth of about 8 feet in August 1981, leads north of Bassetts Island to Pocasset Harbor. **Barlows Landing**, at the northeast end of the harbor, has a depth of 1½ feet. A small-craft launching ramp is just south of the landing.

(169) **Hospital Cove**, about 0.2 mile southward of the southern end of Bassetts Island, is entered through a natural buoyed channel that leads southeastward from a point about 0.4 mile east-southeastward of Eustis Rock to a small anchorage in the cove. A depth of about 6 feet can be carried in the channel, and there are depths of 8 to 14 feet in the anchorage. In August 1981, a shoal at the south tip of Bassetts Island was reported to be shifting westward in the vicinity of Buoy 3; caution is advised. A boulder reef extends northeastward from Scraggy Neck in the approach to the cove. Several private piers with depths of 5 to 8 feet alongside are in the cove.

(170) **Red Brook Harbor**, eastward of Bassetts Island, is approached from the northward through the channel that leads through Pocasset Harbor, and from the southward through the channel that leads through Hospital Cove. **Hen Cove** is immediately northward of Red Brook Harbor. The channels are buoyed. In August 1981, reported depths of 8 feet and 6 feet could be carried through the north and south channels, respectively. Because of numerous submerged rocks in and near the edges of the channel, local knowledge is advised.

(171) A marina is on the east shore of Red Brook Harbor about 500 yards southeastward of **Handy Point;** a 60-ton lift is available. A boatyard with a 35-ton mobile lift is on the east side of the small cove, about 300 yards south of the marina. Both facilities have berths, electricity, gasoline, diesel fuel, water, ice, marine supplies, and storage facilities, and can make hull and engine repairs. Electronic repairs can be made at the marina. Depths of 8 feet are reported at the marina berths and at the boatyard berths.

(172) **Wings Neck**, 9 miles northward of Woods Hole, extends about 2 miles in a west-southwest direction into Buzzards Bay. The neck is a prominent peninsula, irregular, and hilly. The anchorage areas southwestward of the neck are discussed with the Cape Cod Canal. A yacht club and private piers are on the east shore of the neck. Traffic signals for the Cape Cod Canal are displayed from a tower on Wings Neck. (See **207.20,** chapter 2, for details.)

(173) **Pocasset River**, between the northeastern end of Wings Neck and **Bennets Neck**, is entered from the north side of Wings Neck through a privately dredged channel that leads southward between two jetties to a highway bridge about 0.4 mile above the entrance. In June 2001, a reported depth of 6 feet could be carried to the bridge. The bridge has a fixed span with a clearance of 7 feet. Only very small boats go above the bridge. A boatyard is on the south side of the river at the bridge. Water, berths with electricity, storage facilities, a 35-foot marine railway, and a 5-ton lift are available; hull and engine repairs can be made. A town wharf and floats are on the north side of the river at the bridge.

(174) **Tobys Island**, just northward of the entrance of Pocasset River and on the south side of Phinneys Harbor, is connected to the mainland by a causeway.

(175) **Phinneys Harbor**, between Tobys Island on the east and **Mashnee Island** on the west, is approached from Buzzards Bay through a buoyed channel that leads along the northerly side of Wings Neck to another buoyed channel into the harbor. A light is at the bend of the approach channel. Depths of about 10 feet can be carried in the inner channel, and greater depths are available in the approach channel. The harbor is used as an anchorage by small boats. Mashnee Island, once an island, is now connected with the mainland by a landfill causeway. A group of rocks awash, marked by a buoy, is 0.2 mile off the east shore of the harbor, and another rock, covered 4 feet, and marked by a buoy, is 0.1 mile north of Tobys Island.

Courtesy of Cape Cod Power Squadron

(176) The village of **Monument Beach** is on the east shore. A marina is at the long town pier in the cove in the southeastern corner of the harbor. Berthage in 5 feet is available at the pier. Gasoline, water, ice, electricity, a pump-out station, and a surfaced ramp are available.

(177) **Back River**, a stream which is nearly bare except near its entrance, empties into the north side of Phinneys Harbor. Small craft sometimes anchor in the entrance. A railroad bridge and a highway bridge crossing the river about 0.2 mile above the mouth have fixed spans with a minimum clearance of 4 feet. A boatyard is on the south bank between the bridges. In August 1981, a depth of about 1½ feet was reported available in the river to the boatyard. A forklift is used to haul out boats up to 26 feet at the yard, while boats up to 37 feet in length can be hauled out on a flatbed trailer at a paved ramp at Barlows Landing and then brought to the yard for hull and engine repairs or dry open or covered storage. A launching ramp and marine supplies are available at the yard.

(178) **Gray Gables** is on the north side of the head of the Back River.

Cape Cod Canal

(179) **Cape Cod Canal** is a deep-draft sea-level waterway connecting Buzzards Bay and Cape Cod Bay. The waterway is 15 miles long from Cleveland East Ledge Light to deep water in Cape Cod Bay. The canal shortens the distance between points north and south of Cape Cod by 50 to 150 miles and provides an inside passage to avoid Nantucket Shoals. The canal is maintained by the Federal Government as a free waterway. (See **207.20,** chapter 2, for the regulations governing the use, administration, and navigation of the Cape Cod Canal.)

(180) **Traffic lights** (red, green, and yellow) are located at the easterly canal entrance at Sandwich; at the Canal Electric Terminal basin on the south side of the canal at Sandwich; and at the westerly entrance of Hog Island Channel at Wings Neck. These signals apply to all vessels over 65 feet in length that desire to transit the canal. (See **207.20 (h),** chapter 2, for detailed information on signals.)

Prominent features

(181) **Cleveland East Ledge Light** (41°37'51"N., 70°41'39"W.), 74 feet above the water, is shown from a white cylindrical tower and dwelling on a red caisson on the east side of the entrance channel approaching Cape Cod Canal from Buzzards Bay. A racon and fog

Courtesy of Cape Cod Power Squadron

signal are at the light station. The railroad bridge over the canal at the village of Buzzards Bay, and the highway bridge at Bourne are also prominent.

(182) **Canal Breakwater Light 6** (41°46'47"N., 70°29'23"W.), 43 feet above the water, is shown from a red cylindrical tower on the end of the north breakwater at the east entrance to Cape Cod Canal from Cape Cod Bay. A fog signal is at the light. The most prominent landmark when approaching from Cape Cod Bay is the tall lighted stack of the powerplant about 1.1 miles west-southwestward of Canal Breakwater Light 6. The high-level highway bridge across the canal at Sagamore, 2.5 miles west of the breakwater light, is also prominent. The breakwaters at the east entrance to the canal should not be confused with the smaller jetties at Sandwich Harbor, 1 mile to the southeastward, nor should the two white church spires back of Sandwich Harbor be mistaken for the range structure marking the entrance to the canal.

Channels

(183) A Federal project provides for a channel 32 feet deep through the Cape Cod Canal. (See Notice to Mariners and latest editions of the chart for controlling depths.) Deep-draft vessels should obtain the latest information as to available depths so as to pass through the canal during maximum stages of high water if the draft of the vessel is near the controlling depth. In 1981, it was reported that the east entrance was being privately maintained to a depth of 40 feet to the New England Petroleum Company wharf about 1.2 miles west of Canal Breakwater Light 6.

(184) The approach channels from both the west and the east are marked with lighted ranges and other navigational aids. The canal itself is lighted at night on both banks by mercury vapor lights, generally 500 feet apart.

Anchorages

(185) General anchorages are on each side of Cleveland Ledge Channel between Cleveland Ledge Light and Wings Neck. (See **110.1 and 110.140 (b)** and **(d),** chapter 2, for limits and regulations.) In 1971, a dangerous submerged rock was reported just inside the easterly edge of Anchorage D in about 41°40'05"N., 70°40'17"W. In January 1984, an obstruction was reported in Anchorage C in about 41°40'00"N., 70°41'35"W.

(186) Mooring basins, with tieup dolphins, are at both ends of the canal. One is on the east side of Hog Island Channel abreast of Hog Island, where shoaling to bare in about 41°43'49"N., 70°37'53"W. was reported in September 1979. The other is just inside the eastern entrance to the canal. A small boat basin is on the south side of the channel just inside the eastern entrance to the canal; depths of 8 to 13 feet were available in the basin in June 1969.

Bridges

(187) The Cape Cod Canal is crossed by three bridges. The railroad bridge at the village of Buzzards Bay, 7.8 miles above Cleveland East Ledge Light, has a vertical-lift span with a clearance of 7 feet down and 135 feet up. The span is normally maintained in the raised position and lowered for the passage of trains. (See **117.1 through 117.59, 117.589, and 207.20(i)**, chapter 2, for drawbridge regulations.) The State Route 25/28 highway bridge at Bourne, 9 miles above Cleveland Ledge Light, has a fixed span with a clearance of 135 feet. The U.S. 6/State Route 3 highway bridge at Sagamore, 11.8 miles above Cleveland East Ledge Light, has a fixed span with a clearance of 135 feet.

(188) The minimum clearance of the overhead power cables across the canal is 160 feet.

Tides and currents

(189) The mean range of tide is 3.5 feet at the railroad bridge near the Buzzards Bay entrance and 8.7 feet at the Cape Cod Bay entrance. The large differences in range and timing of the tide between Buzzards Bay and Cape Cod Bay cause strong currents in the canal. Tides may lower the canal level 2 feet below mean low water or even more if attended by heavy offshore winds.

(190) Daily predictions for the tidal current in Cape Cod Canal at the railroad bridge are given in the Tidal Current Tables. Under ordinary conditions, the tidal current has a velocity of 4.0 knots on the flood, which sets eastward, and 4.5 knots on the ebb, which sets westward.

(191) Due to the strong tidal currents in the canal, especially during spring tides, low-powered vessels should await slack water or favorable current. Navigators are warned to be on the alert for possible "bank suction" and "bank cushion," the effects of which may cause a vessel to take a sudden and decided sheer.

Weather: Buzzards Bay and vicinity

(192) Fog is said to be less dense over Cape Cod Canal than outside, but at times a water vapor rises from the canal to such an extent that traffic has to be suspended. The canal proper never has been closed by ice, but occasionally Buzzards Bay and Cape Cod Bay become so congested with ice that navigation through the canal is prevented.

North Atlantic Right Whales

(193) Endangered North Atlantic right whales have been reported within the Cape Cod Canal and in the vicinity of the Canal's east entrance. The Cape Cod Marine Traffic Controllers provide information regarding North Atlantic right whale sightings and locations. The Northeast Marine Pilots distribute educational material to mariners in an effort to reduce right whale ship strikes. (See North Atlantic Right Whales, indexed as such, chapter 3, for more information on right whales and recommended measures to avoid collisions with whales.)

Pilotage: Cape Cod Canal and Buzzards Bay

(194) At the canal, Canal Traffic Control "WUA21" or "Cape Cod Canal Control" monitors VHF-FM channels 16, 13 and 14; usually works on 14. The Masters of all vessels required by the Coast Guard to carry a pilot are required to notify Canal Traffic Control prior to entering the waterway with information as specified in **Sec. 207.20 (k)**, Management of Vessels (see chapter 2).

(195) Pilotage is compulsory for Buzzards Bay for foreign vessels of 350 gross tons or more, U.S. vessels under register of 350 gross tons or more and tank barge towing vessels carrying 6,000 barrels or more of petroleum cargoes. Pilotage is available from Northeast Marine Pilots, Inc., Newport, RI, 02840; telephone 401-847-9050 (24 hours), 800-274-1216, FAX 401-847-9052; email: dispatch@nemarinepilots.com.

(196) The pilot boats NORTHEAST I and NORTHEAST III serve the canal and are owned and operated by the Northeast Marine Pilots, Inc. NORTHEAST I is a 38-foot boat with a black hull and white superstructure and the word PILOT on both sides and NORTHEAST III is a 33-foot boat with black hull and white superstructure.

(197) The pilot boats NORTHEAST II, NORTHEAST III and NORTHEAST IV serve for boarding eastbound vessels. NORTHEAST II is a 47-foot boat and NORTHEAST IV is a 52 foot boat; both have unpainted aluminum hulls and superstructures with the word PILOT in red on both sides. All Northeast pilot boats monitor VHF-FM channels 16, 13 and 10, and work on 13 or 10.

(198) Pilots meet westbound vessels off the eastern entrance to the Cape Cod Canal in Cape Cod Bay, ½ mile east of Lighted Bell Buoy CC, in approximate position 41°48.6'N., 70°27.0'W.

(199) Pilots meet eastbound vessels at the Brenton Reef Pilots Station, about 1.5 miles eastward of Narragansett Bay Entrance Lighted Whistle Buoy NB within an area bounded by:

(200) 41°23.6'N., 71°22.4'W.,

(201) 41°22.6'N., 71°22.0'W.,

(202) 41°24.2'N., 71°20.0'W.,

(203) 41°22.6'N., 71°20.6'W. This pilot boarding area is southward of a line extending from Point Judith to Sakonnet Point.

(204) Pilots also meet vessels in the vicinity of Point Judith Lighted Whistle Buoy 2, within a 1-mile radius circle centered in 41°17.2'N., 71°30.4'W.

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

Launch service

(206) Launch service is also available; arrange through Northeast Marine Pilots, Inc.

Towage

(207) Tugs to 2,200 hp are based at the village of Buzzards Bay; arrangements for their services are usually made through ships' agents. Tugs monitor VHF-FM channel 13 when expecting a vessel, and use channel 18A as a working frequency.

Coast Guard

(208) Cape Cod Canal Coast Guard Station is on the east side of the entrance to the canal about 1 mile northeastward of Sandwich Harbor.

Wharves

(209) State Pier, site of the **Massachusetts Maritime Academy,** on the north side of Cape Cod Canal, 0.6 mile below the railroad bridge at the village of Buzzards Bay, is 600 feet long with about 25 feet alongside the berthing face. In August 1981, shoaling to 10 feet was reported in the basin off the berthing face in about 41°44'15"N., 70°37'35"W. In August 1981, the reported controlling depth on the channel side of the pier was 25 feet. Permission to berth at the pier must be obtained from the academy. Vessels should not attempt to go alongside or leave the pier except at periods of slack water. Passing vessels are requested to proceed slowly to avoid damage to lines and other equipment at the pier.

(210) The New England Petroleum Company mooring platform, on the south side of Cape Cod Canal, 1.2 miles westward of Canal Breakwater Light 6, provides berthing for tank vessels up to 750 feet long with drafts of 40 feet. Vessels over 50,000 tons or 32-foot draft moor at high water slack during daylight hours only. Vessels under 50,000 tons moor at high water slack, day or night. Petroleum products are pumped to storage tanks ashore.

Supplies

(211) Gasoline, diesel fuel, water, ice, marine supplies, and a paved ramp are available at the boat basin just inside the Cape Cod Bay entrance to the canal. Temporary berthage and anchorage are also available at the basin.

Communications

(212) Information on operating conditions, widths, depths, or other data on the canal is available at all hours, day or night, by calling the canal office at Buzzards Bay (508-759-4431).

(213) Vessels which are to transit the Cape Cod Canal will monitor channel 16 continuously to establish contact with traffic controllers. The vessels will be asked to switch to channel 12 or channel 14 as a working channel to pass information between the traffic controllers and the vessel. However, channel 13 may be used only when the above channels are not available.

(214) The radiotelephone at the Cape Cod Canal Office, Buzzards Bay, Mass., is in continuous operation. Call letters are WUA-21, and the frequencies are channels 13, 16, 12, and 14. Vessels equipped for communication with the Cape Cod Canal Office are requested to keep their radiotelephone tuned to these frequencies.

(215) **Buttermilk Bay**, at the northeast end of Buzzards Bay, has depths of about 1 to 7 feet. A dredged marked channel and **Cohasset Narrows** connect the bay with Cape Cod Canal. In March 2004, the controlling depth was 5 feet to the railroad bridge about 1.1 miles above the channel entrance, except for severe shoaling at midchannel and in the right quarter between Buoy 3 and Buoy 5. In 1992, a rock was reported just below the railroad bridge in about 41°44'46"N., 70°37'22"W. Two bridges cross Cohasset Narrows; the railroad bridge has a bascule span with a clearance of 6 feet, but is kept in a closed position and used as a fixed bridge. The highway bridge, immediately above, has a fixed span with a clearance of 9 feet. Several small piers for shallow-draft boats are the only facilities in Buttermilk Bay. Gasoline is available in the bay.

(216) **Butler Cove**, on the western side of Cohasset Narrows southwesterly of the bridges, has depths of 3 to 5 feet.

(217) **Onset Bay**, between **Sias Point** on the north and **Hog Neck** on the south, is the approach to the village of **Onset**. A dredged marked channel leads westward from Cape Cod Canal along the southerly side of the bay to a turning basin off the village. Two anchorage areas, one on each side of the channel, are at the head of the channel. In October 1995, the midchannel controlling depth was 14 feet to the turning basin, thence depths of 13 to 15 feet were available in the basin; depths of 6 to 8 feet were available in the eastern anchorage basin with 7½ feet available in the western anchorage basin.

(218) **Wickets Island** is a high and wooded islet in the middle of the bay. The buoys in the entrance channel are frequently towed under because of the strong currents. A rock, covered 8 feet, is near the channel entrance about 75 yards northeast of Hog Island Channel Light 21. In 1981, two rocks, covered 4 to 5 feet, were reported on the north edge of the channel between Buoys 2 and 4; caution is advised.

(219) A **special anchorage** is in the northern part of Onset Bay. (See **110.1** and **110.45,** chapter 2, for limits

and regulations.) Additional anchorages are available at the head of the dredged channel.

(220) A 5 mph **speed limit** is enforced above Wickets Island.

(221) The Onset town wharf, on the north side of the turning basin, has depths of about 14 feet at its face. The **harbormaster** has an office at the wharf. The harbormaster monitors VHF-FM channel 16 and uses channel 9 as a working frequency; call sign KYQ-833. Several small-craft facilities are on the north side of the bay along the southwesterly side of Long Neck. (See the small-craft facilities tabulation on chart 13229 for services and supplies available.) Onset has bus service.

(222) **East River** empties into Onset Bay southeast of Onset. A draft of 3 feet can be taken to an anchorage just above the highway bridge which connects Onset and Long Neck. The bridge has a fixed span with a clearance of 11 feet.

(223) **Stony Point Dike**, a sandspit breakwater about 5 feet high, extends about 1.8 miles south-southwesterly from **Cedar Island Point** to Abiels Ledge. The breakwater protects Hog Island Channel. Cleveland Ledge Channel Range Front Light is on the outer end of the breakwater. **Abiels Ledge,** between the channel and the south end of the dike, is covered 3 feet. **Dry Ledge**, 1 mile northwestward of Abiels Ledge, bares at half tide; it is marked by a buoy. **Little Bird Island**, 0.8 mile northward, is surrounded by uneven bottom with depths of 2 to 19 feet between it and the northerly shore of Buzzards Bay.

(224) **Wareham River**, which empties into the northern end of Buzzards Bay, is the approach to the town of **Wareham** on the west bank. **Great Hill**, wooded, 124 feet high, and about 1.5 miles southward of **Long Beach Point**, is prominent when approaching the river. A brick stack and a standpipe in Wareham are conspicuous. The buoyed channel to the town is crooked and twisting; in 1986, the controlling depth was about 4 feet from Wareham River Buoy 13 to the upstream limit of the project. In October 1987, a sunken wreck was reported in the vicinity of Wareham River Entrance Buoy 10. A rock covered 6 feet is in the entrance about 350 yards south-southwest of Dry Ledge in about 41°41'59.9"N., 70°41'41.6"W., and several rocks and shoal spots covered 9 to 14 feet are within 0.75 mile west to southwest of the ledge. A shoal makes off southeasterly from **Cromeset Point**, 0.6 mile southward of Long Beach Point. In August 1981, it was reported that Long Beach Point covers at high water; caution is advised. The section near **Quahaug Bar,** north of Long Beach Point, is subject to shoaling. Depths shoal to 2 and 3 feet close to the buoyed channel. Small craft sometimes anchor just north of Long Beach Point. Highway and railroad bridges over the river above the wharves have 31-foot fixed spans with a clearance of 1 foot.

(225) The mean range of the **tide** at the entrance to Wareham River is about 4.1 feet. The velocity of the current is not great enough to materially interfere with a sailing vessel having a good breeze. During the first half of the ebb the current below the wharves of the town sets across the flats westward of the channel, and during the whole of the ebb it sets across the flats eastward of the channel below Long Beach Point. (See the Tidal Current Tables for predictions.) The river **ices** over for short periods during most winters.

(226) Vessels approaching Wareham River from Buzzards Bay pass 0.8 mile east of Bird Island Light and steer **351°** to the buoyed channel. Strangers should obtain local information regarding channel depths before navigating the river.

(227) The depth at the Wareham town landing was reported to be about 4½ feet in August 1981. The Wareham Harbor Patrol patrols the harbor during the summer boating season and enforces a **speed limit** of 5 knots. A boatyard, on the western side of Wareham Neck about 0.3 mile below the bridges, has a marine railway that can handle craft up to 45 feet for hull and engine repairs or storage. Gasoline, diesel fuel, water, marine supplies, and a 25-ton mobile hoist are available. In August 1981, depths of about 6 feet were reported alongside the boatyard service float. Wareham has bus service.

(228) **Marks Cove**, on the west side of the channel to Wareham River between **Swifts Beach** on the north and **Cromeset Neck** on the south, has depths of 2 to 5 feet. The cove is used by small boats. In 1961, a 6-foot channel was dredged by the State through the cove from the 6-foot contour to **Cedar Island** at the entrance to **Cedar Island Creek**.

(229) **Weweantic River**, entered southward of Cromeset Neck, has a narrow and crooked channel partly obstructed by rocks. A reported depth of about 3 feet can be carried past the rocks and as far as the highway bridge, with local knowledge. The channel is not marked. An overhead power cable crossing the river about 1.4 miles above the mouth has a clearance of 51 feet. The highway bridge, which is 1.7 miles above the mouth, has two fixed spans with a clearance of 5 feet. The channel is through the northeasterly 45-foot span. The river is navigable for 2 miles above the highway bridge by small craft drawing less than 2 feet. A small marina is just above the bridge. Gasoline, water, ice, storage facilities, marine supplies, and hull and engine repairs are available. A flatbed trailer at the marina can haul out boats to 25 feet.

(230) From Wareham River to New Bedford the shore is indented sharply by rocks and ledges extending offshore nearly 2 miles in places.

(231) **Wings Cove**, between **Great Hill Point** southeast of Great Hill and **Piney Point** on the eastern side of **Sippican Neck**, has depths of 8 to 17 feet in its outer section. The cove affords protection from westerly winds; it is used only by small local craft.

(232) **Butler Point** is at the southern tip of Sippican Neck. Shoal water extends about 0.4 mile southward from the point to **Bird Island,** a round, low flat island.

(233) Southward and westward of Bird Island are several buoyed dangers. **Bird Island Reef**, covered 15 to 18 feet, is about 0.4 mile east-southeastward. About 0.5 mile southwestward is **Centerboard Shoal,** covered 12 feet. **The Bow Bells**, isolated shoals covered 11 to 18 feet, are about 0.6 to 1 mile southwest of Centerboard Shoal. An unlighted gong buoy is about 1.15 miles southward of Bird Island.

(234) **Sippican Harbor**, scene of much pleasure-boat activity, makes into the north shore of Buzzards Bay about 3 miles southward of Wareham River. The harbor is the approach to **Marion**, a small town on the western shore. It is entered between Bird Island on the east and **Converse Point** on the west. Prominent features include the abandoned lighthouse on Bird Island and the conspicuous house and flagpole on Converse Point. The standpipe on Sippican Neck can also be seen for a considerable distance.

(235) The town dock at Marion, approached through a channel marked by private seasonal buoys, has reported depths of 4 to 5 feet alongside. Two boatyards at Marion provide limited guest moorings, electricity, gasoline, diesel fuel, water, ice, marine supplies, and a pump-out station. Mobile hoists to 50 tons and dry winter storage are available; hull, engine and electronic repairs can be made. In August 2005, a reported depth of 6 feet could be carried to the boatyard at the head of the harbor. The **harbormaster**, who controls all mooring and anchoring in the harbor, monitors VHF-FM channels 68.

(236) **Mendells Rock** and **Seal Rocks** are shoal, rocky areas, northward of Converse Point extending up to 0.2 mile off the west shore of the harbor. **Planting Island**, a peninsula extending about 0.6 mile northwesterly from Sippican Neck, is on the eastern side of the harbor. At **Ram Island**, off Marion, the passage between the island and the western shore is less than 275 yards wide. The currents in the narrow portion of the channel have considerable velocity at times. **Little Island** lies on the western side of the channel about 0.2 mile northwestward of Ram Island. The buoyed channel has a reported depth of about 12 feet from the entrance to Marion.

(237) **Blankinship Cove** and **Planting Island Cove**, on the eastern side of Sippican Harbor, have a common entrance northward of Ram Island. They have general depths of 3 to 5 feet. **Meadow Island** separates the two coves. **Gibbs Rock**, marked by a private seasonal daybeacon, is 50 yards off the north point of Ram Island. A rock awash is charted 120 yards north of the daybeacon.

(238) **Hammett Cove** in the northeastern part of Sippican Harbor is shallow and used only by small local craft. The approach to the cove is marked by private seasonal buoys. Charted obstructions are close westward of the buoys.

(239) The mean range of **tide** at Marion is 4.0 feet. **Ice** usually closes Sippican Harbor for about a month or more each winter.

(240) **Aucoot Cove**, about 0.8 mile southwestward of Sippican Harbor, has depths of 10 to 19 feet. A 4-foot spot is near the center of the cove in about 41°40'23.2"N., 70°45'23"W., and the head of the cove is foul. The harbor is protected from all winds except southeast. An unmarked channel with depths of less than 1 foot leads to a boatyard west of **Haskell Island.** Local knowledge and a high tide are required to navigate to the boatyard, which can haul out craft up to 40 feet in length. The yard does general repairs and machine work. Gasoline, diesel fuel by truck, and marine supplies are available. The other coves between Sippican and Mattapoisett Harbors are foul and seldom entered.

Chart 13229

(241) **Mattapoisett Harbor**, about 3.5 miles southwest of Sippican Harbor and 5 miles northeastward of New Bedford Harbor, is the approach to the town of **Mattapoisett**. The harbor is used by numerous yachts during the summer. Although exposed to southeasterly winds, the ledges at the entrance somewhat break the sea from that direction. A light on **Ned Point** marks the approach. A standpipe is in the town. Vessels anchor between Ned Point and the wharves in 13 to 17 feet.

(242) The entrance between **Angelica Point** and **Strawberry Point** on the east and **Mattapoisett Neck** on the west is about 1.5 miles wide. A buoyed natural channel leads through the numerous rocks and ledges in the entrance to the anchorage area off the town. The channel has a depth of about 14 feet but because of the broken bottom, vessels should proceed with caution over areas where the charted depths are not more than 6 feet greater than the draft. Strangers should not attempt to enter at night.

(243) There are many shoals and rocks, most of them buoyed, off the points and in the entrance. Off the west side of the entrance, **Mattapoisett Ledge** extends about a mile southeasterly from Mattapoisett Neck. **Nye Ledge**, covered 7 to 17 feet, about 0.4 mile southeastward of Mattapoisett Ledge, is marked by a seasonal lighted bell buoy. In or near the entrance channel are **Gallatin Rock**, covered 10 feet; **Sunken Ledge,** covered 3 feet; **Snow Rock,** covered 5 feet; and **Barstow Rock**, covered 8 feet. Near the town wharf, a rock, covered 3 feet, is marked by a buoy.

(244) A **special anchorage** is in Mattapoisett Harbor. (See **110.1 and 110.45a**, chapter 2, for limits and regulations.)

(245) The mean range of **tide** in the harbor is 3.9 feet. The stone wharf at the town has a reported depth of 6 feet alongside. Diesel fuel, gasoline, oil, water, ice, marine supplies, and a surfaced ramp are available. A boatyard in town can handle craft to 60 feet long and 7 feet in draft at the town ramp. A 5 mph **speed limit** is enforced in the mooring areas.

(246) A boatyard on the east side of the harbor provides limited guest berths, gasoline, diesel fuel, electricity, water, ice, storage facilities, marine supplies, and a 30-ton mobile hoist; hull and engine repairs are available. In August 1981, a reported depth of 5 feet could be carried to the boatyard.

(247) **Ram Island**, about 1.5 miles southwestward of Mattapoisett Harbor, is a low, grassy island connected to Mattapoisett Neck by a narrow shoal. Rocks and shoal water surround the island.

(248) **Cormorant Rock**, 0.9 mile southeastward of Ram Island, bares at half tide and is marked by a daybeacon. Ledges with very little water over them surround the daybeacon at a distance of 150 yards. A rock, covered 12 feet, is about 0.2 mile northeastward of the daybeacon; depths of 18 to 21 feet extend 0.2 mile southward. The channel between the rock and Ram Island has depths of about 15 feet.

(249) **Nasketucket Bay** is entered between Cormorant Rock on the east and **West Island** on the west. Northward and westward of West Island the bay is greatly obstructed by rocks and small islands. Because of these obstructions, only small craft proceed through the bay to **Little Bay**, at the head, or up **Nasketucket River.** The edges of Little Bay are foul, but excellent anchorage in all but strong southerly winds is available in the center of the bay in 3 to 6 feet, sticky mud. The entrance is made treacherous by obstructions and wind and should not be attempted without local knowledge. Numerous rocks, including **Whale Rock**, are on the east side of West Island at the entrance. A causeway connects the western side of West Island with **Long Island**. A fixed span in the causeway has a clearance of 5 feet. The depth at the bridge is 6 feet. The approach from southward to the west side of West Island runs among many sunken rocks and shoals, and is very dangerous. The causeway between Long Island and **Sconticut Neck**, the neck of land forming the east side of New Bedford Harbor, completely blocks passage between the two.

(250) Bare rocks and shoaling extend about 1 mile southerly of West Island, and from there to the New Bedford Harbor entrance are numerous isolated rocks and ledges, the most dangerous of which are buoyed. **Mosher Ledge**, about 1.1 miles south of **Wilbur Point**, has a least depth of 6 feet. Strangers should stay south of the buoys marking these dangers.

(251) **New Bedford Harbor**, a tidal estuary at the mouth of **Acushnet River** on the northwestern side of Buzzards Bay, is the approach to the city of New Bedford and the town of Fairhaven. The harbor is about 166 miles from The Battery at New York via Long Island Sound, and 83 miles from Boston via Cape Cod Canal. The harbor includes all the tidewater lying northerly of a line from Clarks Point at the southern extremity of New Bedford to Wilbur Point at the southern end of Fairhaven and extends to the head of navigation on Acushnet River at Acushnet. The outer harbor consists of the area south of the hurricane barrier at Palmer Island, and the inner harbor consists of the area north of the barrier to a short distance above the New Bedford-Fairhaven Bridge.

(252) **New Bedford** is a manufacturing city on the west side of the Acushnet River. **Fairhaven** is on the east side of the river. Principal shipping includes receipt of general cargo and frozen fish; exports are general cargo. Commercial fishing craft operate from the ports. The deepest draft entering is about 30 feet at high water.

(253) The approach from Buzzards Bay and the entrance to New Bedford Harbor are much obstructed by ledges and shoals, between which are several channels leading to the dredged entrance. The bottom is very broken, characterized by large boulders; vessels should proceed with caution when crossing areas off the general track when the charted depths are not more than 6 to 8 feet greater than the draft.

Prominent features

(254) From the main channel numerous landmarks can be seen on the westerly side. Dumpling Rocks Light 5A off Round Hill Point, about 3 miles west of the channel, is conspicuous. About 0.5 mile westward of the radar dome on Round Hill Point is a radio tower. **Clarks Point**, on the west side of the channel, is marked by a granite fort. About 0.7 mile northeast of the point is Butler Flats Light near the edge of the shoal. A group of three stacks is on the west side of the inner harbor.

Although there are no landmarks on Sconticut Neck, **Fort Phoenix** is a promontory fairly conspicuous just east of the channel, almost opposite Palmer Island. Several church spires are prominent in Fairhaven. A tall radio tower is on **Popes Island** in the inner harbor. A private light is on the northeast point of **Palmer Island,** about 0.2 mile inside the hurricane barrier. The lights marking the eastern and western sides of the hurricane barrier are also prominent.

(255) **Butler Flats Light** (41°36.2'N., 70°53.7'W.), a private aid 53 feet above the water, is shown from a white conical tower on a black cylindrical pier about 0.7 mile north-northeast of Clarks Point.

COLREGS Demarcation Lines

(256) The lines established for Buzzards Bay and Vineyard Sound are described in **80.145,** chapter 2.

Channels

(257) A Federal project provides for a 30-foot deep channel from Buzzards Bay to the turning basin just above the New Bedford-Fairhaven Bridge. (See Notice to Mariners and latest edition of charts for controlling depths.) The 350-foot-wide channel is constricted to 150 feet by a hurricane barrier across the inner harbor, protecting New Bedford Harbor, extending from the western shore over Palmer Island to Fort Phoenix on the east. The 150-foot gated opening will be kept in the open position during fair weather, but is closed during periods of high winds or high tides, or when a hurricane is expected. Lights marking the eastern and western sides of the opening are shown from the top of each of the two gate operations houses, 48 feet above the water. A fog signal is sounded from the west barrier light.

(258) Hurricane barrier traffic lights are displayed on the north side of the smaller, northerly house on the west side of the entrance and adjacent to the old fort at Clarks Point. Green lights are displayed when the gate is open. Red lights are displayed from 20 minutes before the start of closing the gate through reopening. In addition to the traffic lights, three flashing white strobe lights are shown; two from atop the west barrier operating house, one facing toward the harbor and one facing toward the bay, and a third light facing toward the bay adjacent to the old fort at Clarks Point. These synchronized lights flash every 20 seconds, but flash every 2 seconds from 20 minutes before the start of closing the gate through reopening.

(259) The controlling depth above the turning basin to the Coggeshall Street Bridge is about 15 feet. Above that point in Acushnet River there is little traffic except by launches and small craft.

Routes

(260) The main channel to New Bedford Harbor is from Buzzards Bay Midchannel Lighted Bell Buoy BB (41°30'33"N., 70°49'54"W.) through the buoyed channel eastward of **Negro Ledge**.

(261) There are several other passages with least depths of about 21 feet that lead from Buzzards Bay to New Bedford Harbor west of the main channel. However, they are not as well marked as the main channel; unmarked shoals with depths of 9 to 18 feet are near the course lines.

(262) From a position about 0.3 mile south of Mishaum Ledge Lighted Gong Buoy 5 (chart 13230), a course can be set to pass about 500 yards east of Dumpling Rocks Light 5A to about 500 yards northwest of Decatur Rock Buoy 12, thence on a **006°** course to join the main channel near Butler Flats Light.

(263) An alternate approach can be made from a position about 0.3 mile southeastward of Wilkes Ledge Lighted Buoy 7 on a course of **004°** to join the main channel near Butler Flats Light. The high elevated tank at Fairhaven is a good leading mark for this leg.

(264) Strangers should not attempt to enter New Bedford Harbor except in clear weather when the aids are visible. Vessels should proceed with caution where the charted depths are less than 6 to 8 feet greater than the draft, because of the broken character of the bottom.

Anchorages

(265) Before proceeding into New Bedford Harbor, vessels occasionally anchor in depths of 20 to 30 feet about 0.7 mile south of Clarks Point. Two general anchorages are in the outer harbor. (See **110.1 and 110.140 (a) and (d),** chapter 2, for limits and regulations.) In the inner harbor vessels may anchor in the two dredged anchorage areas on either side of the channel in depths of 25 to 30 feet.

Dangers

(266) The entrance to New Bedford Harbor is full of rocks and ledges, some covered 3 feet or less. Obstructions near the entrance passages are marked with buoys. The chart is the best guide.

(267) **Dumpling Rocks**, bare and covered, extend 0.4 mile southeastward from Round Hill Point. A light is on the easterly rock. A buoy marks the southeastern portion of the shoal area around the rocks, and a gong buoy is about 400 yards east of the light.

(268) **Wilkes Ledge**, 1.8 miles southeastward of Round Hill Point, is the southernmost danger at the entrance to the harbor. It is covered 9 feet with a wreck near the easterly part; a lighted buoy is close south-southwestward of the wreck.

Bridges

(269) Four bridges cross Acushnet River at New Bedford. The first, the US6/New Bedford-Fairhaven Bridge, has a swing span with a clearance of 6 feet. (See **117.1 through 117.59 and 117.585**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign WHH-238. About 1 mile above this drawbridge is the Coggeshall Street Bridge, which has a fixed span with a clearance of 8 feet. A highway bridge with a fixed span and a clearance of 8 feet is just below the Coggeshall Street Bridge. About 1.3 miles above the Coggeshall Street Bridge is a fixed bridge with a clearance of 6 feet.

Tides

(270) The mean range of tide is 3.7 feet.

Currents

(271) Tidal currents are weak. From a series of current observations, conducted by the Corps of Engineers over a 2-day period in October 1965 at the center of the navigation opening of the New Bedford Hurricane Barrier, it was revealed that the maximum flooding and ebbing velocities were about 2.4 knots; average flood setting 344° and the ebb 144°. During flooding or ebbing a slight set towards the east barrier abutment may be experienced. During this same period it was further revealed that the time of slack water occurred about 30 minutes before the time of low or high water; that the maximum ebbing velocity occurred about 2 hours after the time of high tide; that the maximum flooding velocity occurred about 4 hours after the time of low tide; and that, generally, the maximum current occurred at about the same time as the most rapid change in the vertical height of the tide was taking place.

Weather, New Bedford Harbor and vicinity

(272) The prevailing winds during the winter are from north to west, and during the summer from south to southwest. Thick fog is reported to close in quickly with little warning in New Bedford Harbor.

Ice

(273) The channels and anchorage area usually are navigable throughout the year, although in prolonged periods of extreme cold weather the harbor as well as all of Buzzards Bay may be closed to navigation because of ice. Such conditions are infrequent and of short duration. Steamers generally can make their way through the ice in the harbor.

Pilotage, New Bedford

(274) Pilotage is compulsory for foreign vessels of 350 gross tons or more and U.S. vessels under register of 350 gross tons or more. Pilotage for New Bedford is available from Northeast Marine Pilots, Inc., Newport, RI 02840; telephone 401-847-9050 (24 hours), 800-274-1216; FAX 401-847-9052; email: dispatch@nemarinepilots.com.

(275) Pilots meet westbound vessels off the eastern entrance to the Cape Cod Canal in Cape Cod Bay, ½ mile east of Lighted Bell Buoy CC, in approximate position 41°48.6'N., 70°27.0'W.

(276) Pilots meet eastbound vessels at the Brenton Reef Pilot Station, about 1.5 miles eastward of Narragansett Bay Entrance Lighted Whistle Buoy NB within an area bounded by

(277) 41°23.6'N., 71°22.4'W.,

(278) 41°22.6'N., 71°22.0'W.,

(279) 41°24.2'N., 71°20.0'W.,

(280) 41°22.6'N., 71°20.6'W. This pilot boarding area is southward of a line extending from Point Judith to Sakonnet Point. Should weather or other conditions prevent pilot boarding in the above location, other arrangements may be made with the pilot office.

(281) The pilot boats NORTHEAST I and NORTHEAST III serve the canal and are owned and operated by Northeast Marine Pilots, Inc. NORTHEAST I is a 38-foot boat with black hull and white superstructure and the word PILOT on the sides; NORTHEAST III is a 33-foot boat with black hull and white superstructure.

(282) The pilot boats NORTHEAST II, NORTHEAST III and NORTHEAST IV serve for boarding eastbound vessels. NORTHEAST II is a 47-foot boat and NORTHEAST IV is a 52 foot boat; both have unpainted aluminum hulls and superstructures with the word PILOT in red on both sides. All Northeast pilot boats monitor VHF-FM channels 16, 13 and 10, and work on 13 or 10.

(283) Pilot services are generally arranged for in advance by ships' agents.

Towage

(284) Oceangoing vessels usually require tug assistance when docking and undocking. Tugs up to 2,200 hp are based at New Bedford, and arrangements for their services are usually made through ships' agents. Tugs monitor VHF-FM channel 13 when expecting a vessel, and use channel 18A as a working frequency.

(285) New Bedford is a **customs port of entry.**

Quarantine, customs, immigration, and agricultural quarantine

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

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

(288) New Bedford has several hospitals.

(289) **Coast Guard** vessels moor at the State Pier.

Harbor regulations

(290) The New Bedford Harbor Development Commission, through the **harbormaster,** enforces the harbor regulations. The State Pier Traffic Manager is the State authority who directs anchoring, berthing, and movement of vessels, and discharging operations at the State Pier. Vessels are expected to proceed slowly in the vicinity of the piers. State laws forbid pollution and dumping of refuse and rocks inside the harbor. The harbormaster has an office just north of the State Pier.

Wharves

(291) The New Bedford waterfront has many piers and wharves. The fishing industry uses most of these facilities. Only the deep-draft facilities are described, and the alongside depths for these facilities are reported; for information on the latest depths contact the operator. All of the facilities described have highway connections, and most have rail connections. Water is available at most piers and wharves. Cargo in the port is usually handled by ship's tackle. A 250-ton floating "A" frame derrick is available for heavy lifts by prior arrangement.

(292) New Bedford South Terminal Wharf: 500 yards westward of Palmer Island; 1,600 feet long; 30 feet alongside; 250,000 cubic feet of refrigerated storage; receipt of seafood products; owned by several seafood companies.

(293) Commonwealth Edison Co. Pier: 300 yards northward of South Terminal Wharf; north side 740 feet long, with dolphins; 30 feet alongside; receipt of petroleum products; vessels usually berth with bow inshore; owned by Commonwealth Electric and operated by New England Petroleum Corp.

(294) State Pier: 500 yards northward of New Bedford Gas and Edison Light Co. Pier; face 450 feet long, north side 600 feet long, south side 775 feet long; 30 feet alongside; 125,000 square feet covered storage; receipt and shipment of general cargo; owned and operated by the Commonwealth of Massachusetts, Division of Waterways.

(295) Maritime Terminal Wharf: westward of Fish Island; 600 feet long; 31 feet alongside; 3 million cubic feet of refrigerated storage; receipt of frozen food, fish, and chilled foodstuffs; shipment of general cargo; owned and operated by Maritime Terminal, Inc.

(296) Bridge Terminal Wharf: northeast side of Fish Island; 450 feet long; 28 feet alongside; 500,000 cubic feet of refrigerated space; receipt of frozen and chilled foodstuffs; owned and operated by Bridge Terminal, Inc.

(297) Frionor Processing and Distribution Center Wharf: 200 yards northwest of Fish Island; 580 feet long; 25 to 28 feet alongside; 63,400 square feet of refrigerated space, 57,500 square feet of freezer space, 34,700 square feet of covered storage space; receipt of frozen fish; owned and operated by Frionor Norwegian Frozen Fish Ltd.

(298) New Bedford North Terminal Wharf: 400 yards northwest of Fish Island; 1,000 feet long; 30 feet alongside; 14 acres of open storage; owned by New Bedford Harbor Development Commission and operated by various tenants.

Supplies

(299) Gasoline, diesel fuel, water, provisions, and marine supplies of all kinds are available. Diesel oil and marine bunker fuels are available by truck. The water is excellent for drinking and boiler use; a water boat services craft at anchor.

Repairs

(300) There are several boatyards at Fairhaven that can make hull, engine, and electronic repairs; storage facilities are also available. The largest marine railway in the area can handle vessels up to 330 feet. Lifts to 150 tons are available. Several repair firms in New Bedford are available for above-the-waterline repairs and engine repairs. Derrick lighters, some with air compressors and diving equipment, are also available.

Communications

(301) There is only rail freight service to Boston and frequent bus service to Providence, Boston, and New York. A mail and passenger boat makes trips to Cuttyhunk twice weekly in the winter and daily in the summer. Seasonal passenger ferry service is also available to Martha's Vineyard. Air service is available to Boston, New York, Martha's Vineyard, Nantucket, and Cape Cod.

(302) The coast between New Bedford Harbor and the entrance of Sakonnet River is fringed with extensive shoals, many of them rocky and a considerable number of them well offshore. The entrances to several inlets are shoal and are used only by local fishing and pleasure boats.

(303) **Clarks Cove**, between New Bedford Harbor and Apponagansett Bay, affords anchorage in depths of 12 to 22 feet. It is exposed to southerly weather and is seldom used. Several small piers can accommodate small craft. Several rocks are off **Moshers Point** on the west side of the cove.

(304) **Apponagansett Bay,** about 2 miles southwestward of Clarks Point, shelters numerous pleasure craft and a few fishermen in the summer, but the bay is insecure in southeasterly gales. **Nonquitt** and **Bayview** are villages on the south side of the entrance and **South**

Dartmouth is on the northerly shore. **Padanaram Breakwater** is marked on the southern end by a light. The approach to the bay is obstructed by numerous ledges and rocks, and strangers should enter only in the daytime with clear weather. Inside the breakwater the channel is marked by buoys. **Dartmouth Rock**, covered 4 feet, is on the northeast side of the channel. Private seasonal anchorage buoys mark the area off South Dartmouth, which is usually very crowded in the summer. A highway bridge at the village has a swing span with a channel width of 31 feet and a clearance of 8 feet. (See **117.1 through 117.59 and 117.587**, chapter 2, for drawbridge regulations.) Above the bridge, small craft anchor in a narrow channel near the eastern shore.

(305) The **harbormaster** controls anchoring and berthing in the harbor and can be contacted through the police department or VHF-FM channel 16. The **speed limit** in the harbor is 5 mph.

(306) Southward of the bridge is a landing at a Yacht Club with reported depth of 10 feet alongside. Diesel fuel, gasoline, water, ice, and some marine supplies are available. Two nearby boatyards and a marina can provide limited guest berths, storage, complete marine supplies, and hull, engine, electronic, rigging, and sail repairs. The largest marine railway can handle craft to 55 feet; mobile hoists to 35 tons are also available. In August 1981, depths of 3 to 11 feet were reported at the slips.

(307) **Round Hill Point**, about 3.5 miles southwestward of Clarks Point, is marked by a prominent round hill on which is a white tower and a radar installation. Care should be taken not to confuse this tower with Dumpling Rocks Light 5A. Westward of the hill is a radio tower.

(308) Between Round Hill Point and **Salters Point**, 1.1 miles southwestward, **Hunts Rock Breakwater** extends 270 yards in a northeast-southwest direction.

(309) **Mishaum Point**, 1.9 miles southwestward of Round Hill Point, is the southern point of **Smith Neck**. Shoal water extends about 0.2 mile off the point.

Chart 13228

(310) **Slocums River**, westward of Mishaum Point, has a bar at the entrance nearly bare at low water. The channel inside is narrow, unmarked, and little used. **Slocums Ledge**, extending 0.6 mile westward of Mishaum Point, covered 2 to 7 feet, is marked by a buoy. **Pawn Rock** uncovers 3 feet and is 0.2 mile easterly of **Barneys Joy Point**, the point on the west side of the river entrance.

(311) **Gooseberry Neck**, about 4 miles southwestward of Mishaum Point, is marked by several prominent towers. The neck, irregular and elongated, extends about 1 mile southward from **Horseneck Beach** to which it is joined by a narrow roadway over rock fill. The water surrounding the neck is very foul.

(312) Hen and Chickens and the dangers southward of it have been previously discussed under the entrance to Buzzards Bay.

(313) In addition to Hen and Chickens, numerous rocks and reefs surround Gooseberry Neck. Shoal water extends 0.6 mile southwestward of the neck to **Lumber Rock**, covered 4 feet and marked by a buoy, and over 0.5 mile westward to **Browing Ledge**, covered 6 feet. **Little Southwest Rock** is about 0.3 mile northeastward of Lumber Rock.

(314) **Westport River** empties into the large bight between Gooseberry Neck and Sakonnet Point (chart 13221). The mouth of the river is between **Horseneck Point**, 2.7 miles northwest of Gooseberry Neck, and **The Knubble**, a protruding mound of granite marked by a light about 0.2 mile south of Horseneck Point. The river is the approach to **Westport Harbor**, the area just inside the entrance; the village of **Westport Point**, on the north shore of the east branch of the river; and the village of **Acoaxet**, westward of The Knubble. Fishing and pleasure boats use the river as far as Westport Point.

(315) The bar and entrance channels are marked by buoys. The entrance channel is narrow and crooked. In June 2000, the bar and entrance channels had controlling depths of 7.1 feet over the bar and 5.5 feet (6.9 feet at midchannel) in the entrance. Depths over the bar are continually changing, and local information should be obtained as to depths and best water. Numerous rocks are in the channel below the bridge at Westport Point; caution is advised.

(316) Boats should not try to enter during strong southerly winds as heavy seas break over the entrance bar. About 1 mile above the entrance the river divides into two branches. The west branch is shallow, with a narrow channel marked by private seasonal buoys, and is used by local craft to opposite **Toms Point,** about 1.6 miles above the entrance. Above the Westport Point bridge, the east branch is marked by private seasonal buoys as far as the Hix Bridge, 4.7 miles above Westport Point. A reported depth of about 4 feet can be carried to this bridge with local knowledge.

(317) A highway bridge with a 49-foot bascule span and a clearance of 21 feet at the center crosses the river at Westport Point, about 2 miles above the mouth. (See **117.1 through 117.59 and 117.620**, chapter 2, for drawbridge regulations.) Hix highway bridge, about 6 miles above the mouth, has a 35-foot fixed span with a

clearance of 3 feet. An overhead power cable on the north side of Hix bridge has a clearance of 37 feet.

(318) Approaching Westport River, boats must take care to pass westward of the dangers off Gooseberry Neck and eastward of the dangers off the river entrance. Numerous rocks and ledges are southward of the entrance to the river. **Twomile Rock**, 1 mile southeastward of Westport Harbor Entrance Light 5 on The Knubble, is marked by a daybeacon. Shoals with depths of 5 to 18 feet are southeasterly of the rock. A buoy is 0.35 mile south-southeast of the rock. **Halfmile Rock,** 3 feet high, is 325 yards southeast of the light on The Knubble. The shoal water surrounding the rock is marked by a buoy. The area south of The Knubble is very foul. Other unmarked dangers include **Twomile Ledge**, extending 1 mile south of The Knubble, and covered 2 to 12 feet; **Joe Burris Ledge** covered 14 feet, midway between Halfmile Rock and Twomile Rock, and **Pinetree Ground**, about 1 mile south of Twomile Rock, covered 25 to 30 feet.

(319) The shore in this vicinity should be given a berth of about 1.3 miles to avoid numerous rocks and ledges extending about 1 mile offshore for 2.5 miles westward of Westport Harbor.

Tides and currents

(320) The mean range of **tide** is 3.0 feet. The tidal current in the entrance has a velocity of 2.5 knots, and caution is recommended when navigating the river. (See the Tidal Current tables for predictions.)

(321) Two piers, used by fishing and pleasure boats, are at Westport Point. These piers have reported depths of about 10 feet at their faces. Berthing at the piers is under the control of the **harbormaster,** who can be contacted through the town hall or police department.

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

(323) A boatyard and a marina are in the harbor. The boatyard is on Horseneck Point about 0.5 mile west of the highway bridge. The marina is on Westport Point about 0.1 mile west of the highway bridge. Berths, moorings, gasoline, diesel fuel, water, ice, launching ramps, and marine supplies are available. The largest marine railway is at the boatyard and can handle craft up to 60 feet for hull and engine repairs and dry open or covered storage.

No-Discharge Zone

(324) The State of Massachusetts, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in the coastal waters of Westport. The NDZ includes Westport Harbor and the East and West Branches of the Westport River (see chart 13228 for limits).

(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) **Quicksand Point** is about 1.5 miles west of The Knubble. The boundary line between Massachusetts and Rhode Island is near the point. **Cutty Wow Rock**, awash at low water, is 1 mile southwestward of the point.

(327) **Briggs Point**, 2 miles southwestward of Quicksand Point, is surrounded by shoals and rocks. **Halfway Rock**, 2 feet high, is 0.4 mile southeastward of the point.