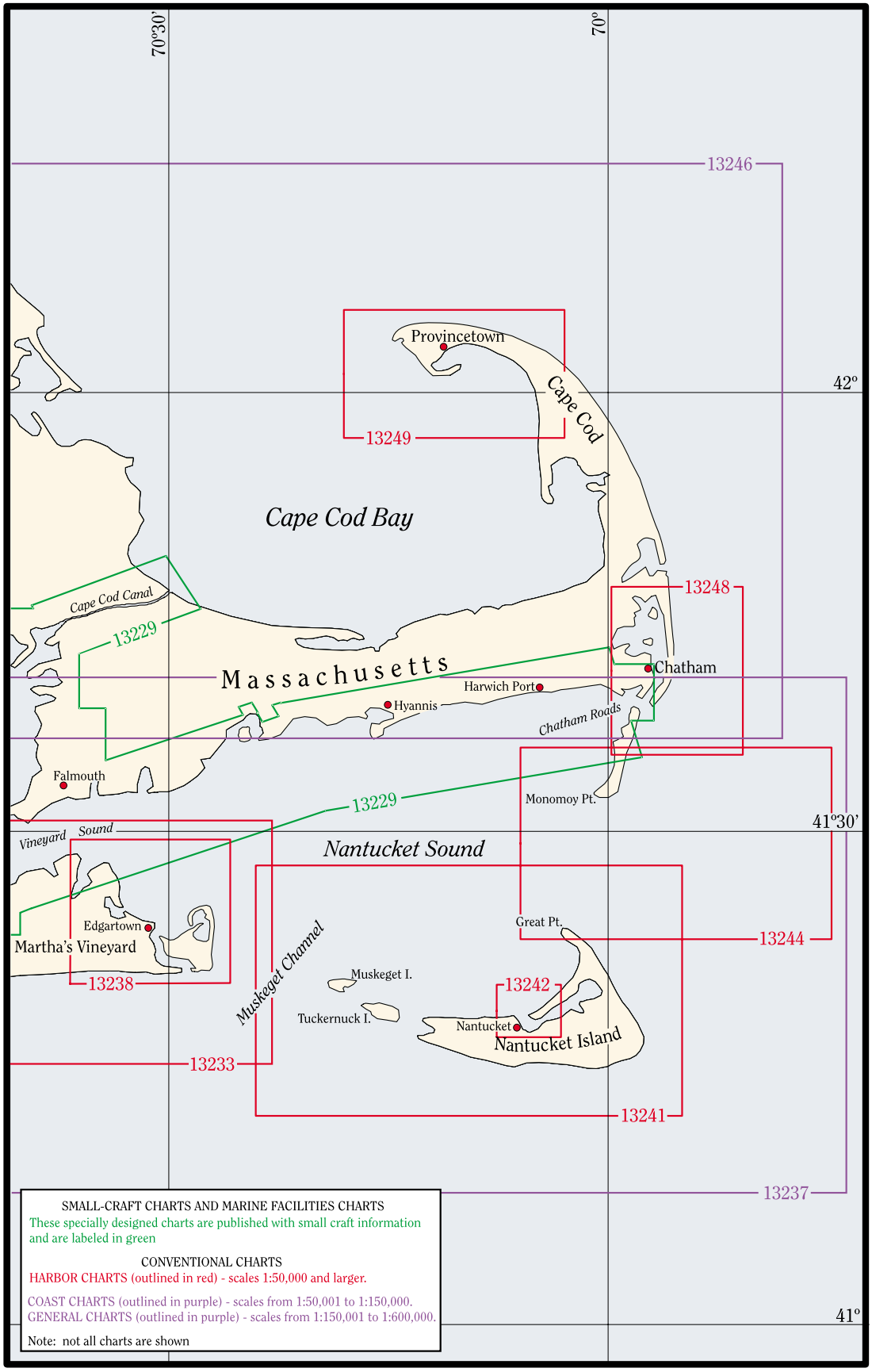
70°30'
70°
13246
42°
Provincetown
Cape Cod
13249
Cape Cod Bay
Cape Cod Canal
13229
13248
Massachusetts
Chatham
Harwich Port
Hyannis
Chatham Roads
Falmouth
Monomoy Pt.
13229
41°30'
Vineyard Sound
Nantucket Sound
Edgartown
Martha's Vineyard
Great Pt.
13244
Muskeget Channel
Muskeget I.
13238
13242
Tuckernuck I.
Nantucket
Nantucket Island
13233
13241
13237
41°
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

Outer Cape Cod and Nantucket Sound

(1) This chapter describes the outer shore of Cape Cod and Nantucket Sound including Nantucket Island and the southern and eastern shores of Martha's Vineyard. Also described are Nantucket Harbor, Edgartown Harbor, and the other numerous fishing and yachting centers along the southern shore of Cape Cod bordering Nantucket Sound.

COLREGS Demarcation Lines

(2) The lines established for this part of the coast are described in **80.135** and **80.145,** chapter 2.

Chart 13246

(3) **Cape Cod** is a long peninsula forming the easterly extremity of Massachusetts. It makes out from the mainland in an easterly direction for 31 miles, then extends northward for over 20 miles. This cape forms the southern and eastern shores of Cape Cod Bay, the northern shore of Nantucket Sound, and the eastern shore of Buzzards Bay. The northern trend of Cape Cod, forming what is sometimes called the **Hook of the Cape**, is known as the Lower Cape. This section is well settled and composed almost entirely of sandy lands, with high bare sand dunes and low nearly level plains. The portion of Cape Cod between Chatham and Cape Cod Canal is known as the Upper Cape. This region is wooded and is well settled by numerous towns and villages.

(4) The tidal current velocities between Race Point and Highland Light are very strong, but diminish to less than 1 knot between Highland Light and Chatham Light. Strengths of flood and ebb set northward and southward, respectively, along the coast. The time of current changes rapidly, the strength of flood or ebb occurring about 2 hours later off Nauset Beach Light than off Chatham Light.

Chart 13249

(5) **Provincetown Harbor**, formed by a turn in the northern end of the hook of Cape Cod, has a diameter of about 2 miles. It is one of the best harbors on the Atlantic Coast, having a sizable anchorage area in depths of 12 to 57 feet with excellent holding ground. Coasters and fishermen find protection here in gales from any direction.

(6) The historical town of **Provincetown**, on the northwestern side of the harbor, is at the site of the first landing of the MAYFLOWER in the new world. Supplies and hull repair facilities are available in Provincetown. Engine repairs are available by arrangement.

(7) The approach and entrance to the harbor are free of dangers and are marked by three lights and by Pilgrim Monument, a slim stone structure 348 feet above the water; two standpipes are about 0.2 mile westward and a steel tank is 1.5 miles northeastward of the monument. A 2,500-foot stone breakwater is about 300 yards southeastward of the end of the town pier (MacMillan Wharf). The breakwater extends northeastward from a point in 42°02'45"N., 70°10'55"W., approximately parallel to the shoreline. The east and west ends of the breakwater are each marked by a light. Strangers should exercise caution when operating in the area. In September 1981, an 8-foot shoal spot was reported in the approach to the town pier in about 42°02'50"N., 70°10'56"W. Numerous fishing vessels work out of Provincetown during the year. During the summer, floats are set out that are capable of mooring vessels up to 40 feet. Larger vessels must tie up at permanent piers. Anchorage inside the breakwater is reported to be fair to poor, mud bottom with much debris. The marina close southwest of MacMillan Wharf maintains 40 mooring buoys on the west side of the harbor.

(8) All moorings and berthing in the harbor are under the control of the **harbormaster,** who has an office at the end of the town pier. The harbormaster monitors VHF-FM channel 16 24 hours.

(9) The Captain of the Port, Boston, has established a fairway 100 yards wide extending from 42°02'00"N., 70°09'35"W. to 42°02'43"N., 70°11'01"W., and in the area extending about 100 yards around the piers in Provincetown Harbor. Anchorage is prohibited in this fairway.

(10) **Provincetown Coast Guard Station** is about 0.4 mile southwest of the town pier.

(11) The finger pier northeastward of the Coast Guard pier is in ruins. Mariners should exercise caution while navigating in the area.

(12) **Cape Cod Canal is described in chapter 5. Complete information about the harbors and ports in Cape Cod Bay is contained in United States Coast Pilot 1, Atlantic Coast, Eastport to Cape Cod.**

Charts 13249, 13246

(13) Between **Wood End** (42°01.2'N., 70°11.3'W.) and **Race Point**, the westernmost point of Cape Cod, shoals that rise abruptly from deep water extend a maximum of about 0.6 mile from shore. **Race Point Light** (42°03'45"N., 70°14'35"W.), 41 feet above the water, is shown from a white tower on the northwest point of Cape Cod.

(14) **Peaked Hill Bar** includes shoals with a least depth of 10 feet about 3.5 miles northeast of Race Point Light.

(15) The bar is about 0.6 mile offshore and extends for about 4 miles paralleling the coastline. This area should be given a berth of at least 2 miles. A lighted whistle buoy is about 2.5 miles off the bar and about 5 miles northwestward of Highland Light. Keeping in a depth of 20 fathoms will ensure passing 2.5 to 3 miles off the eastern side of Cape Cod.

Chart 13246

(16) From Race Point, the shore of Cape Cod curves northeastward, eastward, and then southeastward for about 9 miles to the **Highlands**, and is composed of bare sand dunes of various heights. The sand dunes begin to be covered with a brownish-looking growth of grass, and the land is higher as the Highlands are approached. The water shoals somewhat abruptly within 0.5 mile of the shore and care must be taken not to go inside the 10-fathom curve.

(17) **Highland Light** (42°02'22"N., 70°03'39"W.), 170 feet above the water, is shown from a 66-foot white tower with covered way to the dwelling on a high bluff of the Highlands.

Prominent objects

(18) Prominent objects include a stone crenellated tower, a red brick stack, and three spherical radar domes on the summit of a ridge, 0.5 mile south of Highland Light.

(19) The shore southward from the Highlands for 12 miles to Nauset Beach Light has a slight curve. The terrain continues hilly with narrow valleys at intervals. From Highland Light to near the Chatham entrance the water continues to shoal abruptly within 0.5 mile of the shore.

(20) Two spires at **Truro**, 2.5 miles south of Highland Light, are prominent. A tank stands out near the shore about 9 miles south-southeastward of Highland Light in **South Wellfleet**.

(21) **Nauset Beach Light** (41°51'36"N., 69°57'12"W.), 114 feet above the water, is shown from a 48-foot conical tower, the upper part red and the lower part white, on the beach at **Eastham**. The buildings of a former Coast Guard station, about 1 mile south of the light, are conspicuous.

(22) The coast from Nauset Beach Light turns gradually southward to Chatham, a distance of 11 miles, and becomes lower and less steep. The terrain slopes gently back from the beach and is covered with a scanty growth of grass.

(23) **Nauset Harbor**, 3.3 miles south of Nauset Beach Light, is used by small local craft. The area offshore of the harbor is a chain of shifting sandbars. Breakers are present in this vicinity at all stages of the tide and even during the calmest weather. The area is extremely dangerous for any vessel larger than a runabout or for anyone without local knowledge. Strangers should never attempt to enter. A cluster of houses is on Nauset Heights south of the entrance, where the ground is somewhat higher than the land just northward.

(24) The harbor has three arms extending northward into **Nauset Bay**, northwestward into **Salt Pond Bay** and **Salt Pond**, and westward into **Town Cove** which is about 2 miles long in a southwesterly direction. Private seasonal buoys mark the channel from the entrance to Town Cove. A marina is on the west bank about 0.5 mile from the head of the cove. Gasoline, water, moorings, berths, marine supplies, and a concrete ramp are available. Craft to 25 feet can be handled for hull or engine repairs, or dry open or covered storage. In August 1981, depths of 4 feet were reported alongside the service dock.

(25) The outer coast is eroding from east of **North Chatham** northward for about 3 miles. Waves wash across the beach barrier into the sound in several places at high water. A conspicuous standpipe with a red and white checkered band around the top is about 0.6 mile southward of **Chatham Port**.

Charts 13248, 13246

(26) **Chatham**, about 11.5 miles southward of Nauset Beach Light, is on fairly high ground on the west side of **Chatham Harbor. Chatham Light** (41°40'17"N., 69°57'01"W.), 80 feet above the water, is shown from a

white conical tower on the west side of the harbor. **Chatham Coast Guard Station** is near Chatham Light.

(27) Several spires and a tall stack at Chatham are prominent.

(28) In January 1987, a break occurred in **Nauset Beach**, the barrier beach protecting Chatham Harbor, creating a new inlet into the harbor east of Chatham Light. This break is now the only entrance into Chatham Harbor. The break is used by small local fishing and pleasure craft with a smooth sea. The break is unmarked, extremely dangerous, and should be avoided by those without local knowledge. The Coast Guard has established a **rough bar advisory light**, 62 feet above the water, on a skeleton tower near Chatham Light in about 41°40'17.4"N., 69°57'00.1"W. to promote safety for small-boat operators. The light has a dayboard which is diamond-shaped, painted white with an international orange border, and with the words "Rough Bar" in black letters. The light, when activated, is flashing yellow. The light will be activated when the seas exceed 2 feet in height and are considered hazardous for small boats. Small-boat operators are cautioned, however, that if the light is not flashing it is no guarantee that sea conditions are favorable. Currents are extremely strong and dangerous surf can build up quickly on the outer bar with an ebb current. Shoals are constantly shifting near the break and extreme caution is advised. Ocean waves carry into the harbor and reportedly break as far north as Tern Island. Anchoring and even mooring in much of Chatham Harbor is not recommended. Mariners unfamiliar with the area are advised to stay east of Chatham Beach Lighted Whistle Buoy C (41°39'12"N., 69°55'30"W.).

(29) About 2.7 miles south of Chatham Light, at what used to be the end of Nauset Beach, is a large area of shoals which extends southwestward to Monomoy Island. There is no marked channel through the shoals. Small vessels with local knowledge use the area with a smooth sea; strangers should avoid the area. These shoals are dangerous in thick weather and vessels in the vicinity should stay in depths of 8 fathoms or more.

(30) The passage inside the barrier beach from Chatham Light to the head of navigation in **Orleans**, on the west side of Meeting House Pond, is about 7.9 miles long and used by small-craft. The passage, marked by private, seasonal buoys, leads northerly from the break through Chatham Harbor, Pleasant Bay, The Narrows, Little Pleasant Bay, and The River to Meeting House Pond. The channel requires local knowledge.

(31) A small-craft facility is in a protected basin in the cove between **Morris Island** and the mainland, about 0.5 mile south of Chatham Light. In 1992 it was reported this facility could not be reached from Chatham Harbor due to severe shoaling south of Chatham Light. The facility can reportedly be reached from Chatham Roads by way of a channel south of Morris Island (see chart 13229). Berths, gasoline, water, ice, marine supplies, launching ramp, and storage facilities are available. A hydraulic trailer can handle craft to 45 feet for hull and engine repairs. In June 1992, depths to 2 feet were reported in the basin.

(32) A boat basin is in **Aunt Lydias Cove** between **Tern Island** and Chatham. In March-June 1995, the controlling depth of the channel was 6 feet, thence in June 2002, 2.1 to 6 feet in the basin. Conditions are rapidly changing. A fish pier is in the basin. Commercial fishing boats operate from the cove. The **harbormaster** can be contacted on VHF-FM channel 16.

(33) **Bassing Harbor**, at the north end of Chatham Harbor, is the entrance to **Ryder Cove** and **Crows Pond**. A small-craft facility is on the south side of Ryder Cove, about 0.5 mile inside the entrance. A town launching ramp is close westward of the facility. Private seasonal aids mark the channel from Chatham Harbor to the town ramp. A 5 mph **speed limit** is enforced in the cove. A forklift at the facility can haul out craft to 25 feet. Gasoline, water, ice, marine supplies, moorings, and storage facilities are available; hull and engine repairs can be made. In August 1981, a reported depth of 3 feet could be carried to the small-craft facility.

(34) **Nickersons Neck**, on the north side of Crows Pond and the south side of Pleasant Bay, has a country club on the north side.

(35) **Round Cove**, at the southwest end of Pleasant Bay has a town wharf and launching ramp. A combination antenna and flagpole on the west bank of the cove is conspicuous.

(36) **The Narrows** is a passage between Sipson Island and the mainland and connects Pleasant Bay with Little Pleasant Bay. The passage is marked by private seasonal buoys.

(37) **Little Pleasant Bay** extends about 1.5 miles northward to Barley Neck. A launching ramp is on the west bank of the entrance to **Paw Wah Pond** on the south side of **Namequoit Point**.

(38) **Namequoit River** leads westward from the head of Little Pleasant Bay to **Areys Pond**. In August 1981, depths of 2 feet were reported in Namequoit River, and the channel into the pond had depths of 3 feet. A small-craft facility on the north side of the pond has a 50-foot marine railway, a 2-ton crane, moorings, water, marine supplies, a launching ramp, and storage facilities; hull, rigging, and sail repairs can be made.

(39) An arm, known as **The River**, extends northward from the entrance to Namequoit River for about 1 mile to **Meeting House Pond**. Private seasonal buoys partially mark the channel from The River to the pond. A town landing and launching ramp are on the north side

of the channel leading to the pond. A small-craft facility is on the north side of the pond. In August 1981, depths of 4 feet were reported in the channel to the pond. A hydraulic trailer at the facility can handle craft to 50 feet. Berths and moorings in depths of 6 to 10 feet, gasoline, water, ice, a launching ramp, and storage facilities are available; hull and engine repairs can be made. A town ramp is on the east side of the pond southeastward of the small-craft facility.

Chart 13237

(40) **Nantucket Sound** is between the south coast of Cape Cod on the north, Nantucket Island and part of Martha's Vineyard on the south, and joins Vineyard Sound on the west to provide an inside passage. Nantucket Sound has a length of about 23 miles in an east-west direction and a width of 6 to 22 miles. At the eastern entrance and within the sound are numerous shoals. Between these shoals are well-marked channels making the navigation of these waters comparatively easy for powered vessels and also sailing vessels with a fair wind. The shoals at the eastern entrance are subject to considerable shifting while those inside are somewhat stable. Boulders are along the shores.

(41) The channel through Nantucket Sound and Vineyard Sound has a controlling depth of about 30 feet and provides an inside passage for vessels of medium draft to avoid Nantucket Shoals. This route is used principally by coastwise vessels and pleasure craft. The navigational aids are colored and numbered for passing through the sound from the eastward.

(42) Monomoy and Nantucket Shoals are eastward and southeastward of the eastern entrance to Nantucket Sound. Owing to the great extent and distance offshore of some parts of these shoals, and the strong and baffling tidal currents which set over them, their navigation in thick or foggy weather is hazardous. In clear weather the lights and buoys render navigation of the two principal channels, Pollock Rip and Great Round Shoal, comparatively easy. For the purpose of description Great Round Shoal Channel will be considered as the dividing line between Monomoy and Nantucket Shoals.

(43) Numerous **fishtraps** are located in Nantucket Sound, particularly along the southern shore of Cape Cod. These areas may be marked by private lights.

Chart 13244

(44) **Monomoy Shoals** consist of numerous detached shoals extending about 5.5 miles in an easterly direction and 9.5 miles in a southeasterly direction from **Monomoy Point**, the northeast entrance point of Nantucket Sound. Narrow sloughs separate the many parts of the shoals. It should be remembered that the shoals are shifting in character and are subject to change in location and depth.

(45) A dangerous wreck, reported covered 15 feet, is off Monomy Island in about 41°35'07"N., 69°57'41"W. Mariners are advised to exercise extreme caution while navigating in the area.

(46) **Bearse Shoal** and **Pollock Rip**, extending about 5 miles eastward of Monomoy Point, are a series of sand shoals and ridges with little water over them in places. Pollock Rip Channel is between the shoals.

(47) **Broken Part of Pollock Rip**, covered 10 to 18 feet, is eastward of Pollock Rip.

(48) **Stone Horse Shoal, Little Round Shoal**, and **Great Round Shoal** are portions of a continuous series of sand shoals and ridges covered 4 to 18 feet. These shoals are directly eastward of the entrance to Nantucket Sound and between the two main channels. Southward and eastward of these shoals are numerous shoal spots, including **Orion Shoal**, covered 16 to 19 feet.

(49) **Handkerchief Shoal**, extending for 5 miles southwestward from Monomoy Point, is covered 2 to 18 feet. A spot that uncovers 2 feet is about 2.7 miles southwest of the point. On the northwest side the water shoals gradually and soundings will indicate an approach to danger, but on the southeast side the shoal rises abruptly from the deeper water. Handkerchief Shoal is uneven and shifting in character. Vessels should not attempt to pass northward of the buoys marking the southern end and southeast side of the shoal.

Chart 13237

(50) **Nantucket Shoals** is the general name of the numerous broken shoals which extend 23 miles eastward and 39 miles southeastward of Nantucket Island. These extremely dangerous shoals are described in chapter 3; caution must be exercised in this area.

(51) **Halfmoon Shoal**, near the center of Nantucket Sound, is covered 9 feet. Its southern end is marked by a lighted bell buoy. Depths of 17 and 22 feet are 2.5 and 1.5 miles, respectively, southeastward of the shoal. Deep-draft vessels should use care to avoid them. A lighted gong buoy is 1.3 miles east-northeast of the 22-foot spot.

(52) **Cross Rip Shoal**, about 2.5 miles west-southwestward of Halfmoon Shoal, has a least depth of 11 feet. Its northern edge is marked by a lighted gong buoy. A shoal, covered 26 feet, extends 1.2 miles eastward of the buoy. Caution must be exercised in passing between

this shoal and the shoal making out southwestward from Halfmoon Shoal.

(53) **Horseshoe Shoal**, about 7.5 miles long, bares in places at extreme low water. Its western side is marked by two buoys and its northern and southeastern sides by lighted buoys. The main channel passes between the southeastern lighted buoy and the lighted gong buoy marking Cross Rip Shoal.

(54) **L'Hommedieu Shoal**, covered 3 feet, and **Hedge Fence**, covered 5 feet, lie in an east-west direction in the western end of Nantucket Sound and the eastern end of Vineyard Sound. The water deepens abruptly at the edge of these shoals, and soundings will give little warning of approaching dangers. The main channel passes southward of Hedge Fence Shoal. L'Hommedieu Shoal is marked by buoys at its north, east, and west ends. Hedge Fence is marked by a lighted gong buoy on its southeastern side, and a buoy on its western end.

(55) The numerous other shoals in Nantucket Sound are discussed with the land features near them.

Channels

(56) Two principal channels lead from the eastward into Nantucket Sound. The northerly one is through Pollock Rip Channel and Butler Hole, and the southerly one through Great Round Shoal Channel. Between the numerous shoals in Nantucket Sound are two well-marked channels leading to the eastern end of Vineyard Sound. Muskeget Channel, discussed later in this chapter, leads into the sound from the southward, eastward of Chappaquiddick Island.

Chart 13244

(57) **Pollock Rip Channel** and **Butler Hole** form the most direct channel leading from points northward of Cape Cod to Nantucket Sound. The channel leads between Bearse Shoal and Pollock Rip, thence eastward of Handkerchief Shoal. Since large-vessel traffic may be encountered in this channel, fishing vessels and small craft should avoid the area during thick or foggy weather. The channel is well marked by navigational aids. Mariners should consult the chart and seek local knowledge before entering Pollock Rip Channel and Butler Hole because numerous shoals exist in this channel. Caution is advised when transiting the area.

(58) Submerged piling, the remains of the former Monomoy Point Light structure, may exist about 0.3 mile southward of Monomoy Point. An abandoned lighthouse about 1.2 miles northward of the point is prominent.

(59) **Great Round Shoal Channel**, about 10 miles southward of Pollock Rip Channel, is used by many large fishing vessels transiting Nantucket Sound from New Bedford to Georges Bank and sometimes by sailboats that are headed by the wind so as to prevent their working through Pollock Rip Channel. The buoyed channel has a controlling depth of about 27 feet between Great Round Shoal and Nantucket Shoals.

Chart 13237

(60) The **Main Channel** of Nantucket Sound leads southward of Halfmoon Shoal, through **Cross Rip Channel**, southward of Horseshoe Shoal, through the fairway between Hedge Fence and Squash Meadow, and thence into the eastern end of Vineyard Sound. The channel is used by most of the vessels bound through Nantucket Sound and is well marked by navigational aids. With care a least depth of 30 feet can be carried through the channel, but the draft of the vessels using it seldom exceeds 24 feet.

(61) **Cross Rip Lighted Gong Buoy 21** (41°26'51"N., 70°17'30"W.), marks the northern edge of Cross Rip Shoal.

(62) **North Channel** leads along the north side of Nantucket Sound, on either side of Bishop and Clerks, northward of Horseshoe Shoal, between Wreck Shoal and Eldridge Shoal, northward of L'Hommedieu Shoal, and through one of the openings in the shoals westward of L'Hommedieu Shoal into Vineyard Sound. This channel is used mostly by craft bound to points on the north shore of Nantucket Sound and by vessels bound through the sound during northerly winds or in winter when the prevailing northerly winds keep the north shore of the sound free from drift ice. The least depth in the channel is about 16 feet. Lighted and unlighted buoys mark the channel.

Anchorages

(63) Sailing vessels working through the sound against a head wind usually anchor during the night, or if becalmed and drifting toward the shoals it is best to anchor and wait for a favorable current or change of wind. The only anchorages for vessels of over 10-foot draft that afford shelter from all winds are Nantucket Harbor, Hyannis Harbor, and Edgartown inner harbor. Vineyard Haven, the anchorage most used by coasters, is exposed to northeasterly winds. In northerly winds the best anchorages are off Dennis Port, Hyannis Port, and along the north shore. The anchorage off Falmouth is used in most winds by vessels with good ground tackle. In easterly winds vessels sometimes anchor in smooth water westward of Handkerchief Shoal or inside Great Point. Good shelter from easterly winds can also be found in Chatham Roads and Edgartown outer harbor. In southerly and westerly winds

Edgartown Harbor and Vineyard Haven are the best anchorages. With the aid of the chart and the directions given under the discussion of these harbors, strangers can enter the anchorages.

(64) Several **general anchorages** are in Nantucket Sound and its eastern approaches. (See **110.1 and 110.140(c)(3) through (c)(7) and (d)**, chapter 2, for limits and regulations.)

Routes

(65) Because of the numerous shoals, strong tidal currents, thick fog at certain seasons, and vessels which may be encountered in the narrow parts of the channel through Nantucket Sound, the navigator must use more than ordinary care when in these waters.

(66) In clear weather, day or night, the aids are readily distinguished and sufficiently numerous to enable a stranger to follow the channel without difficulty. The strongest currents will be encountered in Pollock Rip Channel, between Pollock Rip Channel Lighted Buoy 8 and Handkerchief Shoal Buoy 14, and off East and West Chop. In some places the current sets directly on the shoals and in a calm, sailing vessels are sometimes obliged to anchor to prevent going aground. Most of the shoals rise abruptly from deep water and the bottom is very irregular, so soundings alone cannot be depended upon to keep clear of danger. Sailing vessels with a favorable current and with some local knowledge beat through the sound against a head wind in clear weather. If they find they are losing ground, they come to anchor within the prescribed anchorages under the lee of one of the shoals, or in one of the harbors until the wind or current changes.

(67) In thick weather or fog when the aids cannot be seen, vessels in the vicinity of Pollock Rip Channel are cautioned against anchoring in the channel or near any of the aids. Steamers and tows passing through the channel in thick weather depend almost entirely on radar navigation and the sound signals of the aids, making it necessary for them to pass close to the aids.

(68) Vessels off Pollock Rip Channel entrance desiring to anchor, wind and sea permitting, should stand westward and anchor west of a line joining Pollock Rip Channel Buoy 2A and Chatham Bar Lighted Gong Buoy 1. Anchorage may also be had in depths of 5 to 10 fathoms about 3 miles south-southwestward of Pollock Rip Entrance Lighted Horn Buoy PR and northeastward of Broken Part of Pollock Rip.

(69) In Great Round Shoal Channel, the tidal currents are not as strong as in Pollock Rip Channel. Easterly winds make high tides and strong westerly currents. Westerly winds make low tides and strong easterly currents.

(70) Pollock Rip Channel and Great Round Shoal Channel are subject to change; vessels of deep draft should wait for a favorable tide.

(71) The Main Channel through Nantucket Sound is well marked, and strangers should experience little difficulty in navigating it. Vessels must take care to avoid the 24-foot shoal extending 1.2 miles eastward of the buoy marking Cross Rip Shoal and the 17- to 22-foot shoals 2.5 and 1.5 miles, respectively, southeastward of Halfmoon Shoal.

(72) The North Channel through Nantucket Sound has broken ground with depths of 16 to 17 feet in some places. Strangers should not attempt this channel at night.

Currents

(73) The Tidal Current Tables and the Narragansett Bay to Nantucket Sound Tidal Current Charts contain detailed current information for many locations in this area.

(74) At the eastern entrance to Pollock Rip Channel the flood current sets about 053° and the ebb 212°.

(75) Daily predictions for Butlers Hole at the western end of Pollock Rip Channel are published in the Tidal Current Tables.

(76) In the vicinity of **Great Round Shoal Channel Entrance Lighted Whistle Buoy GRS,** off the south end of Great Round Shoal, the tidal current is rotary, turning clockwise. The average velocity at strength is 1.3 knots, and the average minimum velocity is 0.3 knot. Tide rips and water surface agitation caused by upwelling may be observed across the 10-fathom contour east of Buoy GRS. (See Tidal Current Tables for predictions.)

(77) From the eastern entrance of Nantucket Sound to the lighted gong buoy off Hedge Fence, the time of current becomes gradually later; the average velocity at strength varies from about 1 to 2 knots.

Weather, Nantucket Sound and Vicinity

(78) Winter winds and waves along with spring and early summer fogs provide weather hazards in these waters. From October through March gales can be expected about 3 to 6 percent of the time and are frequently out of the west and northwest. Some wind and current interactions can also create problems. The most severe of these is found at the west entrance to the Cape Cod Canal. Rough seas can develop here when the tide ebbing out of the canal opposes a brisk southwest wind. Another well known “rough spot” is the West Chop off the north corner of Martha’s Vineyard. At a maximum ebb or flood the current runs 3.5 knots here and when it is opposed by the wind a nasty chop is set up.

(79) In general, over open waters, waves of 12 feet (3.7 m) or more can be expected 5 to 15 percent of the time from November through February. In the shallow portions of Nantucket Sound these frequencies drop, but waves may break before reaching these heights.

(80) The characteristic advection fog, formed by warm air over cool water, is most frequent from April through August. At this time visibilities drop below 2 miles 10 to 18 percent of the time; May, June and July are the worst and caution is advised, particularly near the numerous shoal areas in these waters. In addition to affecting visibility, fog also distorts sound so the direction of warning bells and horns may be difficult to discern accurately.

(81) Thunderstorms can occur in any season but are most likely in spring and summer. Sometimes they appear as squall lines with strong, gusty winds preceding the rain. Occasionally winds can gust to 60 knots.

Pilotage

(82) Pilotage is not compulsory for vessels passing through Nantucket Sound; it is only compulsory for foreign and U.S. vessels under register entering or clearing ports. Pilots for the sound or Monomoy and Nantucket Shoals may be obtained at Boston by vessels coming from northward, or at New York by vessels coming from westward.

(83) Vessels requiring a tow usually take a tug from the port of their departure.

(84) **Monomoy Island**, a national wildlife refuge on the northeastern side of Nantucket Sound, is a low, narrow spit covered with sand dunes. Vessels sometimes anchor off the east shore of the island in depths of 4 to 6 fathoms to await a favorable current for entering the sound. Off Monomoy Point, the south end of the island, shoals make off up to 5 miles eastward.

(85) **Tidal currents** average about 2 knots at strength in the channel 0.2 mile west of Monomoy Point. The flood current sets 170°, and the ebb 346°.

(86) The large bight formed by Monomoy Island and the north shore of Nantucket Sound, eastward of Point Gammon, has extensive shoals scattered throughout and bordering the shores. Not all of the shoals are marked by buoys.

Chart 13229

(87) **Chatham Roads**, at the northeast end of Nantucket Sound, is between the extensive shoals which extend northwestward from the northern end of Monomoy Island and the shoals extending 1.6 miles from the shore of Cape Cod at Harwich Port. The roads is the approach to **Stage Harbor** and the prominent summer resort of **Chatham** on the hilly ground at the northeast shore of Nantucket Sound.

(88) **Stage Harbor Light** (41°39'30"N., 69°59'04"W.), 42 feet above the water, is shown from a modular tower on the northeast side of Chatham Roads on the north side of the entrance to Stage Harbor.

(89) Among the conspicuous landmarks approaching Chatham Roads and Stage Harbor are the domes of the National Weather Service's installation on the eastern side of Morris Island, a radio tower at South Chatham, church spires, Chatham Light, and Stage Harbor Light.

(90) A dredged channel, marked by buoys, leads from Chatham Roads for about 0.69 mile into Stage Harbor. The entrance is in an area of shifting sandbars and is subject to shoaling. In February 2002, the controlling depth in the entrance channel was 6.0 feet.

(91) A narrow channel, marked by private seasonal buoys, leads northerly from Stage Harbor through Mitchell River to Mill Pond and has a depth of about 6 feet. This channel is crossed by a highway bridge that has a bascule span with a clearance of 8½ feet. When in the open position the bascule span will overhang the channel, providing an unobstructed width of 15 feet. (See **117.1 through 117.59 and 117.607**, chapter 2, for drawbridge regulations.)

(92) Good **anchorage** for vessels up to 18-foot draft can be had in Chatham Roads in depths of 21 to 30 feet, good holding ground. This anchorage is insecure for small craft in heavy southwesterly gales. Small craft can find a well-sheltered anchorage in Stage Harbor.

Routes

(93) Vessels approaching Chatham Roads from the southward should pass westward of Handkerchief Shoal and the extensive shoals westward of Monomoy Island. Approaching from the westward pass either side of Bishop and Clerks and thence southward of the seasonal lighted whistle buoy off **Kill Pond Bar**, a shoal covered 4 to 11 feet off the northwest entrance to Chatham Roads. When off the entrance to Chatham Roads, steer **063°** with Stage Harbor and Chatham Lights in range. This course will lead about 500 yards southeastward of Chatham Roads Bell Buoy 3 and north of the buoy marking **Common Flat**, the shoal on the eastern side of the roads, to the Stage Harbor approach buoy about 0.8 mile west-southwestward of Stage Harbor Light. An anchorage may be had northward of the approach buoy in depths of about 28 feet. Boats continuing to Stage Harbor will pick up the channel entrance buoys about 800 yards southwestward of Stage Harbor Light. The channel is well marked.

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

(95) The harbor is closed by **ice** for short periods each winter. Local fishermen will act as pilots for craft desiring one.

(96) The commercial fish piers in Stage Harbor are on **The Neck** at the head of the dredged channel opposite **Stage Island** and on the west bank of Oyster Pond River just above the first bend about 0.7 mile above the entrance to the river.

(97) There are a marina and boatyard on the north side of Stage Harbor adjacent to the fish piers, and a marina on **Mitchell River** just west of the bridge. The marine railway at the boatyard can haul out craft up to 50 feet for hull and engine repairs or dry open or covered storage. Storage is also available at the bridge. Gasoline, diesel fuel, water, ice, marine supplies, and moorings are available at Stage Harbor and at the bridge. The marina at the bridge has a 10-ton lift; berthage in 6 feet of water, gasoline, diesel fuel, water, ice, storage facilities, some marine supplies and a launching ramp are also available. A launching ramp is on **Sears Point**.

(98) **Oyster Pond River** extends from Stage Harbor for about 0.7 mile in a northwesterly direction, thence for 0.8 mile in a northeasterly direction into **Oyster Pond**. Private seasonal aids mark the channel at the bend in the river. Shoaling to 2 feet was reported at the bend in August 1981. On the west bank at the bend there are a town wharf, a launching ramp, and a fish wharf. At 0.3 mile and 0.5 mile above the bend on the west bank are two boatyards and marinas. The largest marine railway at the yards can haul out craft up to 44 feet for hull and engine repairs or dry open or covered storage. Gasoline, diesel fuel, water, ice, marine supplies, launching ramps, berthage, and moorings are available.

(99) **Mill Creek**, 1.6 miles northwestward of Stage Harbor Light, is used only at high water by small local craft. The entrance between the jetties was reported to have 1½ feet in 1964. The tall radio tower of Chatham Radio Station WCC is prominent about 0.4 mile west of the jetties. **Cockle Cove** has been entered by small boats through one of the breakthroughs in the sandbar.

(100) **Saquatucket Harbor**, is entered about 3.5 miles westward of Stage Harbor Light. A dredged channel leads from Chatham Roads to an anchorage basin at the head of the harbor. The entrance is protected by jetties. In June 2002, the controlling depths were 4.2 feet (5.8 feet at midchannel) to Buoy 4, thence 6.0 feet at midchannel to the anchorage basin with depths of 4.8 to 6 feet in the basin, except for lesser depths along the edges. In 1993, a submerged obstruction was reported about 10 yards south of Buoy 4. Buoys mark the channel, and a light marks the outer end of the east jetty. A marina is on the north side of the anchorage basin. Gasoline, diesel fuel, limited berths, water, electricity, ice, a pump-out station, some supplies and a launching ramp are available. In February 2002, a depth of 8.0 feet was reported at the marina berths. The marina monitors VHF-FM channel 68. The **harbormaster** here also supervises Wychmere Harbor, Allen Harbor, Herring River, and Round Cove in Pleasant Bay. A 5 mph **speed limit** is enforced in these areas. The harbormaster can be contacted by telephone (508-430-7532).

(101) **Wychmere Harbor**, 3.7 miles westward of Stage Harbor Light, is a circular basin with a bulkheaded entrance protected by two jetties. The west jetty is hook-shaped and marked on the end by a light. The east jetty is short. The harbor is used by fishing and pleasure craft. The village of **Harwich Port** is west of the harbor. A church spire about 0.5 mile westward of the harbor and a hotel on the west bank of the entrance are conspicuous.

(102) In August 1994, the reported controlling depth across the bar was 8 feet. Inside the jetties, the channel has a depth of 6 feet to the harbor. The channel is subject to shoaling. The outer anchorage basin, known locally as Harwich Port Harbor, has a depth of about 8 feet with good holding ground.

(103) There is a large summer club-hotel and wharf on the west side of the jettied entrance. A town wharf is on the east side. A boatyard is at the inner end of the channel. Berthage, gasoline, diesel fuel, water, ice, a pump-out station, marine supplies, and storage facilities are available; hull and engine repairs can be made. A patrol boat enforces a **speed limit** of 5 mph; the patrol boat is equipped with VHF-FM channels 16, 22, and 68. The **harbormaster** who supervises Wychmere Harbor has his office at Saquatucket Harbor. He can be reached by telephone (508-430-7532) for advice on moorings or local conditions.

(104) **Allen Harbor**, about 4.8 miles west of Stage Harbor Light, has a narrow entrance between two jetties into **Doanes Creek**. Allen Harbor is at the head of the creek. The west jetty is marked by a private seasonal light. An elevated water tank north of the harbor is a good landmark.

(105) In April 1979, the controlling depth in the entrance channel was 5 feet. Private seasonal buoys mark the channel. The harbor affords good shelter for small craft.

(106) A town landing and launching ramp at the west end of the bridge were reported to have about 6 feet alongside. A marina and boatyard on the west side at the head of the harbor has a 15-ton forklift and a hydraulic trailer that can handle craft to 42 feet for hull, engine and electronic repairs. Open and covered storage, gasoline, diesel fuel, water, ice, a pump-out station, marine supplies and a launching ramp are available. In March 2002, the reported alongside depth was 6 feet. The **harbormaster** who supervises Allen Harbor has his

Courtesy of Cape Cod Power Squadron

ALLEN HARBOR, MA

office at Saquatucket Harbor. He can be reached by telephone (508-430-7532) for local information.

(107) **Herring River**, 6 miles west of Stage Harbor Light, has a large prominent hotel on the west side and windmill on the east side of the entrance. The entrance, between two small jetties, is subject to shoaling. The approach is marked by private seasonal buoys, and the outer end of the west jetty is marked by a private seasonal light. In 1973, the midchannel controlling depth was 6 feet in the entrance channel. A basin dredged in the river just below the bridge has moorings for craft drawing up to 3 feet. The fixed bridge, about 0.3 mile above the mouth, has a 14-foot fixed span with a clearance of 10 feet. State Route 28 highway bridge about 0.8 mile above the mouth has a 20-foot fixed span with a clearance of 7 feet. Limited supplies may be obtained at **Dennis Port** about 0.7 mile westward of the river.

(108) **Swan Pond River**, about 1.9 miles west of Herring River, is a narrow shallow creek bordered by marsh, which drains **Swan Pond**. Fishermen and pleasure craft enter at high water. Fish wharves are on the east bank just above the bridge about 0.3 mile above the mouth.

(109) **Bass River,** 9.6 miles westward of Stage Harbor Light, is entered between two jetties. A light is on the west jetty. A seasonal lighted bell buoy, 1.1 miles southward of the jetty light, marks the approach. A channel marked by private seasonal buoys leads over the bar from about 0.4 mile southward of the jetty light through the jetties to an anchorage basin in the lower part of the river, and thence to the highway bridge at South Dennis, 3.1 miles above the mouth. The bridge has a 25-foot fixed span with a clearance of 10 feet. The entrance to the anchorage basin and the channel over the bar are subject to shoaling. In June 2001, the dredged entrance channel had a reported controlling depth of 4.6 feet to the river mouth, just inside the jetties; thence in 1981, the river channel had a reported depth of 5 feet to South Yarmouth, thence 2 feet to the bridge at **South Dennis**. In December 1992, severe shoaling was reported across the mouth of the river. Private seasonal buoys mark the channel to Follins Pond, about 6.1 miles above the mouth.

(110) State Route 28 highway bridge crossing the river between **West Dennis** and **South Yarmouth**, about 1.5

Courtesy of Cape Cod Power Squadron

BASS RIVER, MA

miles above the mouth, has a 30-foot fixed span with a clearance of 15 feet.

(111) A 5 mph **speed limit** is enforced on the river.

(112) About 0.8 mile above the mouth, a channel leads eastward to a lagoon; a dredged depth of 10 feet was reported in the channel and lagoon. West Dennis Yacht Club is at the head of the lagoon.

(113) A marina and boatyard, about 0.4 mile below the first highway bridge, has a lift that can haul out craft up to 45 feet for hull and engine repairs or dry open and covered storage. Gasoline, diesel fuel, water, ice, a pump-out station, and a launching ramp are available. In May 2002, 6 feet was reported alongside the dock. The marina monitors VHF-FM channels 66 and 79. Town landings and launching ramps are on both sides of the river at and below the bridge.

(114) Rental boats, gasoline, bait, and tackle can be obtained at a fishing pier just north of the east end of the bridge. A marina, above the pier, has berths, gasoline, diesel fuel, water, ice a pump-out station, a 35-ton lift, and storage facilities; hull and engine repairs can be made.

(115) Two fixed bridges, railroad and highway, cross the river about 0.7 mile above the highway bridge at South Dennis. Least clearances are: 25 feet horizontal, and 8 feet vertical.

(116) In August 1981, it was reported that about 4 feet could be carried at high water to a marina and boatyard on **Kellys Bay**, about 0.3 mile above the railroad and highway bridges. A mobile lift at the yard can haul out craft to 28 feet for hull and engine repairs or dry open or covered storage. Gasoline, water, moorings, and berths are available. In August 1981, depths of 5 to 6 feet were reported at the boatyard.

(117) **Dogfish Bar**, an extensive shoal area off Bass River entrance, is covered 1 to 6 feet. A small breakwater, formerly used as a shelter for small craft, is on the easterly end of the bar, about 1 mile southeastward of Bass River West Jetty Light. The area around the breakwater and northeasterly of it has shoaled. Rocks awash at low water are about 0.4 mile northwestward of the breakwater. These rocks are marked by a private seasonal buoy. A fish haven, marked by a private buoy, is about 2 miles south of the breakwater, and a fishtrap marked by a

private seasonal light is 1.8 miles southwest of the breakwater.

(118) **Parkers River**, about 1.2 miles west of Bass River, is entered between two jetties and extends 1.3 miles northward to **Seine Pond**. A motel on the east side of the entrance is prominent. Local knowledge should be obtained before entering the river. In December 2000, the entrance channel had a reported controlling depth of 4.1 feet. The entrance is reported to shoal quickly after dredging. A fixed highway bridge crosses the river about 1 mile above the entrance.

(119) Local fishermen and pleasure craft enter and moor in dredged slips on the east side of the river. An unnamed creek, about 0.2 mile above the mouth, leads westward 0.5 mile to **Lewis Pond**. Small craft can enter the creek only at high water. Small craft may enter the pond but there are no moorings or services available. A marina is on the east side of the river just below the highway bridge; berths are available.

(120) **Point Gammon**, 12 miles west-northwestward of Monomoy Point, is the eastern entrance point to Hyannis Harbor. The point, prominent and wooded, is marked by an abandoned lighthouse tower. A reef, partly bare at low water, extends about 0.3 mile south of the point. Extensive flats with rocks awash at low water extend 1 mile northwestward of the point. **Gazelle Rock**, covered 5 feet and marked by a seasonal lighted buoy, is about 0.5 mile south-southeastward of the point. **Senator Shoal**, covered 11 feet and unmarked, is about 1 mile southeastward of the point. **Hallets Rock**, covered 17 feet, is about 1 mile south of the point and another rock, covered 13 feet, is about 1.2 miles south-southeast of the point in the vicinity of Hallets Rock. There are several submerged rocks in the this area which extends in a general line running northwest and southeast between Hallets Rock and Gazelle Rock to a private seasonal light 0.5 west of the point; the light marks a fishtrap. In 1990, a sunken wreck was reported about 0.2 mile southward of Hallets Rock in about 41°35.3'N., 70°15.7'W.

(121) **Bishop and Clerks**, about 2.2 miles southward of Point Gammon, is an extensive shoal area. The center of the shoal is marked by a daybeacon on a group of rocks where a lighthouse tower was formerly located. Several rocks awash at low water are on the arm of the shoal that extends about 0.9 mile south of the daybeacon. A rock, covered 5 feet, is 0.7 mile south-southeastward of the daybeacon. The rest of the shoal is covered 8 to 18 feet. A lighted gong buoy, about 1.15 miles southward; an unlighted buoy, about 0.75 mile westward; and a lighted bell buoy, about 0.7 mile northeastward of the daybeacon, mark the limits of the shoal area. Caution should be exercised when in the vicinity of this shoal.

(122) **Broken Ground**, a shoal area westward of the south end of Bishop and Clerks, has depths of 14 to 18 feet. **West Southwest Ledge**, 1.6 miles southwest of Point Gammon and northwest of Bishop and Clerks, has depths of 13 to 18 feet. A lighted bell buoy is northward of the ledge and marks the approach to Hyannis Harbor. A group of dangerous rocks and obstructions are on the edge of the flat that extends northwestward from Point Gammon and into the approach to Hyannis Harbor. An rock, covered 11 feet in about 41°37'02.9"N., 70°17'21.1"W., is the westernmost and marked close W by Hyannis Harbor Lighted Buoy 4.

(123) **Hyannis Harbor**, protected by a breakwater, is used as a harbor of refuge by coasting vessels and pleasure craft of less than 14-foot draft. A light is on the end of the breakwater. The harbor is the approach to Hyannis Port, on the west side of the harbor, Lewis Bay, and Hyannis at the head of the northwest arm of Lewis Bay.

(124) The most prominent objects when approaching the harbor are: the daybeacon on **Great Rock**, two red and white checkered standpipes, a light blue tank, the breakwater light, the abandoned lighthouse tower on Point Gammon, and the square gray stone church belfry on the hill overlooking Hyannis Port to the westward.

(125) Depths of 13 to 16 feet are in the approach channel, but it is somewhat obstructed by the flats extending westward from Point Gammon and an extensive shoal with numerous rocks extending southeastward from Hyannis Point. In October-November 1983, depths of 7 to 15 feet were available in the protected basin northward of the breakwater light.

Routes

(126) Vessels approaching Hyannis Harbor from the eastward should shape a course to pass about 1,000 yards south of Hallets Rock, exercising caution to avoid the reported wreck mentioned earlier, thence about **317°** to a point about 0.6 mile southwestward of Great Rock Daybeacon 4A, and thence about **012°** to pass about 100 yards or more eastward of the breakwater light. Anchor 300 yards northeastward or northward of the east end of the breakwater in depths of 15 to 20 feet, soft bottom. Small craft can anchor in the northern portion of the harbor in depths of 6 to 12 feet, but care must be taken to keep clear of a charted, visible wreck and the area around a former wharf as submerged pilings may be encountered.

(127) Approaching from the westward, from a position about midway between Horseshoe Shoal Buoy 7 and Wreck Shoal Bell Buoy 8 (chart 13237), steer about **054°** to pass about 1400 yards east of Hodges Rock Buoy 2, and thence about **012°** to pass about 100 yards eastward of the breakwater light in entering the harbor.

Ice seldom interferes with the movement of vessels in Hyannis Harbor during normal winters; the prevailing northerly winds keep the harbor clear. However, during severe winters or persistent southwesterly winds, the harbor may be temporarily closed to navigation. During particularly severe winters, the harbor has been closed by ice for up to 3 months. **Hyannis Port** is a summer resort with many prominent homes. A privately dredged channel, with reported depths of 6 feet in August 1981, leads to the Hyannis Port Yacht Club landing on the west shore of the harbor. A private seasonal buoy marks the channel.

(128) **Lewis Bay**, with depths of 2 to 11 feet, extends northeastward from Hyannis Harbor. In the northwest corner of the bay is the channel to the summer resort of **Hyannis**. The town has a hospital. Hyannis Yacht Club is on the west of the bay. A channel, marked by private seasonal buoys, leads westward to Hyannis Yacht Club. The club has a launching ramp and can accommodate craft to 140 feet; a reported dockside depth of 8 feet is available.

(129) A dredged channel leads from Hyannis Harbor into Lewis Bay, thence to an anchorage basin north of **Harbor Bluff**, thence to the town wharf at Hyannis, at the westernmost end. In February 2004, the controlling depths were 10.5 feet (11.2 feet at midchannel) to the anchorage basin, thence 9.6 to 13 feet in the basin, thence 10.5 feet to the town wharf. The channel is well marked but is subject to shoaling, especially in the vicinity of Lewis Bay Approach Channel Buoy 9. Heavy vessel traffic should be expected during summer months. A riprap jetty extends 1,000 feet southerly from **Dunbar Point**.

(130) Vessels entering Lewis Bay must be guided by the buoys marking the dredged channel and by the color of the water, deepest where it is darkest.

Anchorages

(131) Vessels with drafts up to 13 feet may anchor in the anchorage northeast of Hyannis Breakwater. Small craft can anchor in Lewis Bay west of the channel, off Hyannis Yacht Club and north of Dunbar Point. Limited anchorage is reported available in the basin north of Harbor Bluff.

(132) Several small-craft facilities and launching ramps are along the northwestern arm of Lewis Bay northward of Harbor Bluff. (See the small-craft facilities tabulation on chart 13229 for services and supplies available.) Limited berths are also available at the town landing at the bulkhead on the west side at the head of the arm. A **dockmaster** is usually in attendance at this landing from 0900 to 1700 hours and can be reached by telephone (508-775-1120) for local information on moorings and berthings. The **harbormaster** can be contacted by telephone (508-790-6273), through the Barnstable police department (508-775-0387), or VHF-FM channels 16 and 9. A police boat from the town of Barnstable and a Yarmouth Harbor Patrol boat patrol Hyannis Harbor during the summer. A 6 mph **speed limit** is enforced in Lewis Bay north of Harbor Bluff and in Hyannis Harbor in the channel leading to the yacht club.

(133) Seasonal ferries to Nantucket and Martha's Vineyard berth in the harbor at Hyannis. Barnstable Municipal Airport is just north of the town.

(134) Westward of Hyannis Harbor breakwater the water is shoal with numerous rocks extending well offshore. **Eddie Woods Rock**, covered 5 feet and unmarked, is 0.6 mile southwestward of the breakwater light. A fishtrap marked by a private seasonal light is about 0.4 mile south of the rock.

(135) **Squaw Island**, 1 mile westward of Hyannis Harbor Breakwater Light 5, is marked by a tower. **Hyannis Point**, the southerly tip of the island, is on the eastern side of Centerville Harbor.

(136) Southward of Hyannis Point and Centerville Harbor are numerous shoals and rocks. **Southwest Ground**, the area about 1.5 miles south of Hyannis Point, has numerous rocks and shoal spots necessitating extreme caution for vessels navigating the area. **Southwest Rock**, about 1.1 miles south of Hyannis Point, is marked by a buoy. Unmarked rocks, some awash at low water and others covered 2 to 6 feet, are between the buoy and Hyannis Point.

(137) **Hodges Rock**, covered 5 feet and marked by a buoy, is 1 mile southward of Southwest Rock Daybeacon. An unmarked rock covered 8 feet is 300 yards east of Hodges Rock. **Bearse Rock**, covered 5 feet and marked by a buoy, is 0.5 mile southwestward of Southwest Rock Daybeacon. **Channel Rock**, covered 5 feet and marked by a buoy, is 0.4 mile west of Bearse Rock. **Gallatin Rock**, covered 4 feet and marked by a buoy, is 0.4 mile southwestward of Bearse Rock. **Collier Ledge**, 1.5 miles west-southwestward of Southwest Rock Daybeacon, is awash at low water. It is marked by a lighted buoy in the summer and an unlighted buoy in the winter.

(138) **Gannet Ledge**, covered 5 feet and marked by a buoy, is 1.1 miles southwest of Hyannis Point. **Gannet Rocks**, 0.3 mile north of Gannet Ledge, include two unmarked rocks 7 and 3 feet high and a rock covered 4 feet. **Spindle Rock**, awash at low water and marked by a buoy, is near the head of Centerville Harbor. A rock awash at low water and a rock covered 2 feet are 200 yards north of the buoy. Two unmarked rocks covered 6 feet are 1.7 miles southwestward of Hyannis Point.

(139) **Centerville Harbor** is a bight 2 miles wide in the north shore of Nantucket Sound westward of Hyannis Point. A church spire and an elevated tank in **Centerville**, the village inland from the head of the harbor, are used as guides for entering the harbor. **Craigville Beach**, on the north side of the harbor, is a popular bathing beach. The approach to Centerville Harbor is obstructed by the previously mentioned rocks and shoals. The natural channel with depths of 9 to 10 feet leads to the anchorage. Anchorage with good holding ground may be had in depths of 15 to 21 feet; however, vessels seldom anchor here for shelter as the harbor is exposed to southerly winds. The shoals off the entrance somewhat break the force of the seas from southward, but not sufficiently to make it a safe anchorage. Strangers should not enter except in the daytime with clear weather. Ice closes the harbor in the winter.

(140) **East Bay**, on the west side of Centerville Harbor, has depths of 1 to 4 feet. Small pleasure boats enter the bay en route to Centerville River. The entrance to East Bay, protected by a jetty on the southwestern side, had a reported controlling depth of about 5 feet in August 1981, but is subject to shoaling. **Centerville River**, which enters the northeast side of the bay, has been privately dredged to a depth of 5 feet for a width of 40 feet practically to the head of navigation. In August 1981, a reported depth of about 3 feet could be taken over the bar into Centerville River. The pier ruins of a former footbridge are on either side of the river about 0.3 mile above East Bay. Small boats moor in the river off Centerville or tie up to private piers. A 6 mph **speed limit** is enforced in the river.

(141) A conspicuous stone tower with a mushroom-shaped top is on the north side of the river about 0.5 mile above the former footbridge. A town landing is on the north side just above the tower. A launching ramp is on the west shore of East Bay. A conspicuous wooden tower with a balcony on top is 0.3 mile southwestward of the jetty.

(142) **Cotuit Anchorage**, 6.5 miles west of Point Gammon, is an anchorage for small craft between the shoals which make off the shore. The anchorage is exposed to southerly winds and is seldom used except by local craft. The channel to the anchorage is marked by buoys, and vessels of less than 6-foot draft should experience no difficulty in keeping in the best water. **Lone Rock**, covered 4 feet and marked by a buoy, is near the southern side of the anchorage. A long shoal, covered 4 feet and marked by a buoy at its southeast end, is 0.5 mile northeastward of Lone Rock.

(143) **West Bay**, on the north side of Cotuit Anchorage and 19 miles west of Stage Harbor, has a jettied entrance about 150 feet wide and is the approach to the village of **Osterville**, on the east side of the bay. A private seasonal light marks the end of the east jetty. A seasonal lighted buoy about 1 mile southeastward of the entrance marks the approach, and an unlighted buoy marks a 4-foot shoal about 0.7 mile south of the entrance. Private seasonal buoys mark the channel through West Bay. An elevated water tank, about 0.7 mile northward of the bridge at Osterville, is conspicuous. In 1981-January 2001, a reported depth of 3.3 feet was available in the channel, thence 6 feet to the highway bridge. The channel is subject to shoaling, and strangers should obtain local information before entering the bay.

(144) Anchorage in depths of about 6 feet may be found in the bay just northward of the highway bridge. **Ice** closes the bay for about 2 months each year. The wharves at Osterville have reported depths of 6 to 10 feet alongside.

(145) Small-craft facilities are on either side of the channel north of the highway bridge. Gasoline, diesel fuel, marine railways up to 40 feet, lifts up to 50 tons, berths, moorings, water, ice, marine supplies, storage facilities are available; hull and engine repairs can be made. The Wianno Yacht Club is on the east side of the channel at the highway bridge. Berths are available on **Baxter Neck**, on the channel at the head of North Bay leading to **Prince Cove**.

(146) **Little Island**, about 1 mile northward of the entrance to West Bay, separates West Bay from **North Bay** to the northward. In August 1981, a reported depth of 5 feet was available in the narrow channel eastward of Little Island into North Bay. Strangers should obtain local information before navigating in North Bay, which has depths of about 6 to 17 feet. The **harbormaster** at Osterville can be contacted for local information on moorings and berthing; telephone (508-428-2017). A 6 mph **speed limit** is enforced in Cotuit, North, and West Bays by the police boat from the town of Barnstable.

(147) The highway bridge across the channel between Osterville and Little Island has a 31-foot bascule span with a clearance of 15 feet. (See **117.1 through 117.49 and 117.622**, chapter 2, for drawbridge regulations.) Advance arrangements for bridge openings can be made through the Department of Public Works.

(148) **Cotuit Bay**, northwestward of Cotuit Anchorage, is separated from West Bay by **Osterville Grand Island**. **Cotuit** is a village on the west side of the bay. A church spire and two elevated water tanks are prominent. A town wharf, with a depth of about 5 feet at its face, and a small-craft launching ramp are at the village. In 1981-October 2001, a privately dredged channel, with a reported controlling depth of 4 feet, leads from Cotuit Anchorage to off **Cotuit Highlands**; thence in July

2001, a winding channel, with a depth of 6 feet, curves between **Sampsons Island** and **Bluff Point** into Cotuit Bay. The approach is marked by a seasonal lighted bell buoy. The channels into Cotuit Bay and North Bay are marked by private seasonal buoys. A reported depth of about 8 feet was in the channel from Cotuit Bay to North Bay in August 1981. **Seapuit River**, south of Osterville Grand Island, connects Cotuit Bay and West Bay. The privately dredged channel in the river had a reported controlling depth of 5 feet in August 1981. Cotuit Bay is usually closed by **ice** each winter.

(149) **Popponesset Bay**, west of Cotuit Anchorage, is shoal with depths of 1 to 4 feet in the greater part of the bay. In October 2001, a controlling depth of 3.3 feet was reported in the narrow entrance channel north-northwest of **Thatch Island**.

(150) A small marina is on **Daniels Island** near the bridge to **Popponesset Island**. A launching ramp, a pump-out station, gasoline, diesel fuel, water, ice, some marine supplies, and some services are available. A privately marked channel with a reported depth of about 3 feet leads to a marina on **Mashpee Neck**. Gasoline, water, and engine repairs are available. A flatbed trailer at the marina can haul out craft to 30 feet.

(151) **Wreck Shoal**, about 3 miles south of Cotuit Anchorage, is about 1.4 miles long in an east-west direction and about 0.3 mile wide. Depths on the shoal range from 4 to 13 feet. A lighted bell buoy marks the east end of the shoal and another lighted bell buoy southwestward of the shoal marks the channel between Wreck Shoal and Eldridge Shoal. An unmarked shoal covered 8 to 15 feet is about 1.5 miles northeast of Wreck Shoal and southward of Cotuit Anchorage approach. Broken ground with a least known depth of 13 feet is between this shoal and Wreck Shoal.

(152) **Eldridge Shoal**, about 0.9 mile south of Wreck Shoal, is about 1 mile long in a northeasterly direction and about 0.2 mile wide. Depths on the shoal range from 5 to 14 feet. A buoy marks the northern side. A channel between Eldridge and Wreck Shoals has depths of 23 to 41 feet. A channel between Eldridge and Horseshoe Shoals has depths of 21 feet or more.

(153) **Succonnesset Shoal** extends about 2.4 miles westward from Wreck Shoal to the shoal area off the shore southwestward of **Succonnesset Point**. Depths of 1 to 5 feet are on the shoal. A lighted buoy is off the west end. Between Succonnesset and Wreck Shoals is a narrow unmarked channel. Between Succonnesset and L'Hommedieu Shoals, a shoal area with a least depth of 9 feet is marked by a buoy.

(154) **Waquoit Bay**, 5 miles southwestward of Cotuit Anchorage, has depths of 1 to 8 feet. The entrance, about 250 feet wide, is between two stone jetties. A private seasonal light marks the end of the easterly jetty. In 1971, the controlling depth in the entrance channel was reported to be 4 feet. A seasonal lighted bell buoy, about 0.6 mile west-southwestward of the jetties, marks the approach, and buoys mark a 5-foot channel for about 0.8 mile through the bay. The Waquoit Yacht Club is on the west side at the head of the bay.

(155) **Great River** and **Little River** empty into the southeasterly side of Waquoit Bay. A marina is on the west side of Little River, about 0.5 mile above its junction with Great River. Gasoline, water, ice, a launching ramp, limited marine supplies, and storage facilities are available. Hull, engine, and electrical repairs can be made; lift to 11 tons. A reported depth of about 3 feet can be carried to the marina.

(156) Between Waquoit Bay and Falmouth Inner Harbor about 3.6 miles to the westward, are several ponds formed by the barrier beach, some of which have outlets. Many jetties or groins are built out from the shore for beach erosion control.

(157) **Eel Pond**, about 0.8 mile westward of the entrance to Waquoit Bay, is entered through a narrow jettied entrance. A private seasonal light on the west jetty and a midchannel buoy about 500 yards southeastward of the light mark the approach. The privately marked channel into the pond had a reported controlling depth of 5.1 feet in April 2000. The channel is subject to shoaling; extreme caution and local knowledge is advised.

(158) A boatyard is on the west side of the northeasterly arm of Eel Pond at the mouth of **Childs River**. In 2002, a reported approach depth of 3.5 feet was available. Gasoline, diesel fuel, water, ice, berths with electricity, 40-foot marine railway, pump-out station, launching ramp, storage facilities and some marine supplies are available at the boatyard; hull, engine and electrical repairs can be made.

(159) **Seapit River**, about 0.8 mile southward of the mouth of Childs River, connects the northeasterly arm of Eel Pond with the upper part of Waquoit Bay. A reported depth of about 3 feet can be carried in Seapit River. The river is marked by private seasonal buoys.

(160) **Menauhant** is a summer resort on the west side of Eel Pond and the east side of **Bournes Pond**. Menauhant Yacht Club is on the west side of Eel Pond. A bridge, crossing the entrance to Bournes Pond, has a 45-foot fixed span with a clearance 5 feet.

(161) **Green Pond**, about 1 mile westward of Eel Pond and 4.2 miles eastward of Nobska Point, has a narrow jettied entrance, which in April 2000, had a reported controlling depth of 4.7 feet (6.2 feet at midchannel). The entrance is reported to shoal rapidly after dredging; local knowledge is advised. A private seasonal light marks the west jetty. A seasonal lighted buoy marks the approach, and private seasonal buoys mark the channel above the jetties.

(162) The village of **Davisville**, on the east side of Green Pond, and the village of **Acapesket**, on the west side of the pond, are principally summer resorts.

(163) Menauhant Road highway bridge crossing Green Pond about 0.3 mile inside the entrance has a 33-foot span with a clearance of 6 feet. In August 2002, a reported depth of 3 feet was in the approach to, and inside the marina on the west side of Green Pond just north of the bridge. Berths, diesel fuel, water, ice, repairs, and marine supplies are available at this facility.

(164) Chapter 5 describes other ports on the south side of Cape Cod westward of Green Pond.

Chart 13241

(165) **Nantucket Island**, on the southeast side of Nantucket Sound, is about 13 miles long, hilly, partly wooded, and covered with vegetation that flourishes in sandy soil. The highest part of the island, about 100 feet high, is in the eastern part; the eastern and southern sides have steep and sand bluffs. The northern shore is fringed with shoals for a distance of about 1 mile. The island was for more than a century a principal seat of the whaling industry and since has become a famous summer resort.

(166) **Great Point**, the northeastern end of Nantucket Island, is a long, low, sandy point marked by **Nantucket (Great Point) Light** (41°23'25"N., 70°02'54"W.), 71 feet above the water and shown from a white tower.

(167) **Point Rip** is a shoal extending 3.8 miles east-northeastward of Great Point. For 2 miles from the point, the shoal has little water over it; farther eastward the depths range from 12 to 18 feet. Buoys mark the northeasterly and easterly sides of the shoal. Shoal water with depths of 16 to 22 feet extends about 1 mile northward from these buoys; a lighted bell buoy marks the northern side of the shoal water. A rock, covered 11 feet, is 2.2 miles southeastward of Nantucket Light.

(168) **Squam Head** is a summer resort on the east side of Nantucket Island, about 5 miles south of Great Point. Several large houses show prominently from seaward.

(169) **Sesachacha Pond**, 6.3 miles southeastward of Great Point, has a nonnavigable cut into it through the shore. From seaward, breakers mark the cut. In the winter the entrance fills in, and each spring it is cut through for drainage purposes.

(170) **Sankaty Head Light** (41°17'01"N., 69°57'54"W.), 158 feet above the water, is shown from a 70-foot white tower, with a red band in the middle, on a high bluff on the east side of the island.

(171) **Siasconset**, a village on the southeast end of the island, is marked by a prominent standpipe. The village has seasonal bus service with Nantucket.

(172) The south shore of Nantucket Island has no harbors and is frequented only by local fishermen. A loran tower about 0.6 mile southward of Siasconset and a tank and several towers along the south coast are prominent from offshore.

(173) The thorofare between the western point of Esther Island and Tuckernuck Island is full of shifting unmarked shoals. The passage is used only by small fishing vessels and a few pleasure craft. Private seasonal aids mark the channel.

(174) **Tuckernuck Island, Esther Island**, and **Muskeget Island** are low sandy islands extending westward from Nantucket Island. They are separated by sandbars, some bare at low water, which are constantly shifting.

(175) **Madaket Harbor** and **Hither Creek**, immediately to the southward, are on the western side of Nantucket Island. Madaket Harbor is shoal with depths of 2 to 10 feet. The northerly approach to the harbor and creek is marked by a seasonal lighted bell buoy. The channel that leads southward from over the bar in Nantucket Sound is marked by private seasonal buoys, floats, and markers. With local knowledge, a depth of about 3½ feet can be carried over the bar and channel to Hither Creek. Local knowledge is also required to enter the harbor from the southwest. A public boat landing and a boatyard are in Hither Creek. Gasoline, berths, a 10-ton mobile hoist, a pump-out station, storage facilities, ice, provisions, water, and marine supplies are available at the boatyard; hull and engine repairs can be made.

Chart 13242

(176) **Nantucket Harbor** is near the middle of the north shore of Nantucket Island. A shallow lagoon about 5 miles long extends northeastward from the harbor. The harbor is the approach to the town of **Nantucket** on the western shore. The principal industry is fishing. Small coastal tankers carry fuel to Nantucket. Year-round passenger, vehicle, and cargo ferry service is maintained between Nantucket and the mainland, to either Woods Hole or Hyannis. A passenger ferry also operates from Falmouth and Oak Bluffs during the summer.

(177) Prominent from offshore are: a radio tower about 1.2 miles east of Madaket Harbor; a standpipe (chart 13241) about 1.5 miles west of Nantucket; a gilded cupola atop a church clock tower, and a church belfry about 500 yards northwestward of it; the spire of a large white church in the town; and the navigational lights at the entrance to Nantucket Harbor.

(178) **Brant Point Light** (41°17'24"N., 70°05'25"W.), 26 feet above the water, is shown from a white cylindrical tower connected to the shore by a footbridge on the west side of the entrance near to the harbor. A fog

signal is at the light. **Brant Point Coast Guard Station** is on the point.

Channels

(179) A dredged channel leads from Nantucket Sound to deep water in Nantucket Harbor off Brant Point. In February 1998, the controlling depths were 12 feet (14 feet at midchannel) to Buoy 9, thence 10 feet to Brant Point.

(180) Shoal water extends about 1 mile offshore on both sides of the entrance, which is protected by two breakwaters. The breakwaters are partially submerged at half tide. The east breakwater is submerged for almost all its length. An opening for small craft is in the east breakwater about 300 yards off **Coatue Point**. A light and fog signal mark the outer end of the east breakwater, and a buoy marks the outer end of the west breakwater.

(181) A lighted bell buoy about 900 yards off the breakwater light marks the approach, and the channel is marked by a **162°** lighted range and buoys.

(182) A 6 mph **speed limit** is enforced in the harbor.

Anchorages

(183) Anchorage in Nantucket Harbor may be had in depths of 6 to 17 feet off the south and southwest sides of Brant Point or in depths of 12 to 17 feet in the general anchorage south of Brant Point. (See **110.1 and 110.142**, chapter 2, for limits and regulations.) In general, the bottom is sticky. Although shelter is afforded to vessels it is advisable for small craft to use heavy tackle as the harbor becomes choppy with easterly winds. Caution should be exercised to avoid anchoring in the fairway and maneuvering area to the ferry wharf or the cable area northeast of Brant Point.

(184) The long sweep of strong northeast winds down the harbor makes anchorage for small craft off the wharves dangerous and uncomfortable. Small craft may find more sheltered anchorage under these conditions in Head of the Harbor (chart 13241) or, with local knowledge, in Polpis Harbor (chart 13241).

(185) Launch service is available to craft at moorings or at anchor in the harbor.

Routes (chart 13237)

(186) Vessels approaching Nantucket Harbor from Pollock Rip Channel can set a direct course from Handkerchief Shoal Buoy 14 (41°29.2'N., 70°05.1'W.) to the lighted bell buoy off the entrance. Approaching from the channel northward of Cross Rip Lighted Horn Buoy 21 (41°26.9'N., 70°17.5'W.), pass to the eastward of Tuckernuck Shoal Lighted Bell Buoy 1, and then head for the lighted bell buoy off the entrance to Nantucket Harbor.

Tides and currents

(187) The mean range of tide at Nantucket Harbor is 3 feet. The tidal current off the entrance has a velocity of 0.3 knot; the flood setting eastward and the ebb westward. The tidal current in the entrance channel sets into the harbor at a velocity of 1.2 knots and outward on the ebb at a velocity of 1.5 knots.

Weather, Nantucket and vicinity

(188) The climate of Nantucket is influenced directly by the proximity of the ocean and is characterized by cool summers and comparatively mild winters. Extremes of either maximum or minimum temperatures are very rare. The mild temperatures of the winter season are neutralized to a degree by sustained periods of high wind. The summers, though cool, are very humid. Heavy fogs are frequent, particularly during the spring and summer. There is a marked lag in the seasons as compared with inland areas.

(189) July and August are relatively cool with average maximum temperatures around 75°F (23.9°C) and average minimums about 61°F (16.1°C). The average temperature for the island is about 50°F (10°C). January and February are the coldest months, having normal mean temperatures near freezing, that is, average maximum of 38°F (3.3°C) and average minimum of 25°F (-3.9°C). The extreme maximum temperature for Nantucket is 100°F (37.8°C) recorded in August 1975 while the extreme minimum is -3°F (-19.4°C) recorded in December 1962. An average year sees 100 days with temperatures below 32°F (0°C) and only one day with a temperature below 5°F (-15°C). Seldom do temperatures exceed 90°F (32.2°C), a fact which has occurred only during June, July, and August.

(190) The average wind velocity is about 11 knots with the highest monthly averages during December through April. Gales have occurred during every month except June and July. Coast storms are frequent during the winter with winds of 40 knots or more. Hurricanes, during the late summer and fall, may cause high winds. Since 1871, forty tropical storms or hurricanes have passed within 50 nautical miles of Nantucket. There have been ten direct hits. The latest was tropical storm Esther in 1961. Esther had been a 125-knot hurricane earlier, but was dissipating at the time it crossed the island.

(191) Precipitation is fairly evenly distributed throughout the year averaging about 41 inches (1041 mm) in any given year. An average of 180 days each year records precipitation with 28 days having greater than 0.50 inches (13 mm). The wettest month is December averaging 4.35 inches (111 mm) and the driest month is June averaging only 2.2 inches (56 mm). Total snowfall for the winter season averages about 30 inches (762

mm); however, melting is usually rapid and snow cover rarely lasts more than a very few days. The greatest snowfall in a 24-hour period was 14.9 inches (397) in February 1952. February is the snowiest month averaging nearly nine inches (229 mm). Snow is absent from May through September. An average five days each year records greater than 1.5 inches (38 mm) of snowfall. An average of 18 thunderstorms effect the island in a given year with the greatest frequency occurring during July and August. Fog is present about 200 days each year.

(192) Except in severe winter, the harbor is seldom closed by local formation of ice. However, the harbor is frequently closed by drift ice from the sound which packs and remains across the entrance during northerly winds.

(193) (See page T-1 for **Nantucket climatological table.**)

(194) Nantucket Boat Basin, on the west side of Nantucket Harbor, is entered about 0.4 mile south-southwestward of Brant Point Light. The basin is enclosed on the north and south sides by Straight Wharf and Commercial Wharf, respectively, and its entrance is protected by two long bulkheads on the east and southeast sides. Depths in the basin range from 3 to 10 feet. About 180 slips are available in the basin, and yachts 100 feet long and larger can be accommodated. The outer end of the north side of Straight Wharf is used by excursion boats. A private seasonal light is shown off the end of the wharf and is operated only when tour boats are approaching the wharf in fog. Gasoline, diesel fuel, and ice can be obtained on the south side of Commercial Wharf. Water and electricity are available at each slip. The basin's dockmaster has his office on the outer end of Commercial Wharf. The dockmaster can be contacted on VHF-FM channel 16.

(195) The Woods Hole-Martha's Vineyard and Nantucket Steamship Authority Wharf is about 0.1 mile northward of the boat basin. A private light is shown from the roof of a shed on the northeast end of the wharf, and is operated only when Authority vessels are approaching the wharf in fog. The submerged ruins of a pier which uncover at low water are between the boat basin and the Steamship Authority Wharf. A buoy marks the ruins. Unpainted pile dolphins mark the former pierhead. Mariners are advised to exercise caution in this area.

(196) A boatyard, about 0.2 mile southward of Nantucket Boat Basin, has moorings, gasoline, a 23-ton mobile hoist, storage facilities, water, and marine supplies; hull and engine repairs can be made. The channel leading to the boatyard, marked by private seasonal buoys, had a reported controlling depth of 6 feet in August 1981.

(197) Nantucket maintains ferry service with the mainland and daily airline service with New York and Boston. Seasonal bus and taxi service is also available.

Chart 13241

(198) A narrow unmarked channel leads through the lagoon northeast of Nantucket Harbor to **Head of the Harbor**. In September 1981, a reported depth of about 3 feet could be carried with local knowledge as far as the village of **Wauwinet** on the southeast shore of Head of the Harbor. Unmarked shoals and foul areas extend off the several points.

(199) **Polpis Harbor** is at the east end of the harbor just south of Head of the Harbor. The entrance channel, marked by private seasonal buoys, had a reported controlling depth of 6 feet in March-April 1994.

Charts 13238, 13233, 13241, 13237

(200) **Muskeget Channel** is an opening 6 miles wide on the south side of Nantucket Sound between Muskeget and Chappaquiddick Islands. The opening is full of shifting shoals. The best water is found close to the eastward of Wasque Shoal and about 1.5 miles eastward of the eastern shore of Chappaquiddick Island. Although this channel is partly buoyed, strangers should never attempt it as tidal currents with velocities of 2 to 5 knots make navigation dangerous. The currents through the channel are strong, having a velocity of 3.8 knots on the flood and 3.3 knots on the ebb about 1.5 miles east of Wasque Point. The flood sets north-northeastward and ebbs south-southwestward.

(201) **Wasque Shoal** extends southward of **Wasque Point**, the southeastern extremity of Chappaquiddick Island. The shoal, which dries about 2 miles south of Wasque Point, rises abruptly from the deep water of Muskeget Channel.

(202) **Mutton Shoal**, 0.6 mile east of Wasque Shoal, has a least depth of 5 feet and is marked on its southwestern side by a lighted bell buoy. The best water in Muskeget Channel is between Mutton and Wasque Shoals. Eastward of Mutton Shoal are numerous shoals covered 2 to 6 feet.

(203) Between Muskeget Channel and the main channel north of Cross Rip Shoal are numerous shoals, some of which are separated by unmarked channels. **Tuckernuck Shoal**, northeast of Muskeget Channel, has a least depth of 2 feet; it is marked on the northeastern end by a lighted bell buoy and a buoy on the northern side. **Shovelful Shoal**, westward of Tuckernuck Shoal, is covered 3 to 17 feet. **Long Shoal**, northwestward of Shovelful Shoal, is covered 3 to 16 feet. **Edwards Shoal**,

south of Cross Rip Shoal, has a least known depth of 10 feet. **Norton Shoal**, southwestward of Cross Rip Shoal and covered 8 feet, is marked by a buoy on its north side. **Hawes Shoal**, westward of Norton Shoal, has a least depth of 1 foot; buoys mark its northwestern and southwestern ends.

Charts 13238, 13233

(204) **Martha's Vineyard** and **Chappaquiddick Island** have a combined length of 18 miles; the two islands are separated by Edgartown Harbor, Katama Bay, and the narrow slough connecting them. The northern extremity of Martha's Vineyard is about 3 miles southeastward of the western end of Cape Cod. Martha's Vineyard is well settled, especially along its northern shore, and is popular as a summer resort. Along the northern shore the island presents a generally rugged appearance. The southern shore is low and fringed with ponds, none of which has navigable outlets to the sea. Approaching from the south, the principal landmarks are a standpipe at Edgartown, an aerolight near the center of the island, a church spire near **Chilmark** in the western part, a tall radar tower north of Chilmark, and Gay Head on the west side.

(205) Communication with the mainland is by ferry, airline, cable, and telephone. The principal towns are Edgartown, Oak Bluffs, and Vineyard Haven.

(206) **Cape Poge**, the northeastern point of Chappaquiddick Island, is a bare, bluff, precipitous head, which may appear from a distance to be a small island. **Cape Poge Light** (41°25'10"N., 70°27'08"W.), 65 feet above the water, is shown from a white conical tower on the cape.

(207) **Cape Poge Flats**, extending about 1.5 miles northeastward from Cape Poge, are marked at the northeast end by a bell buoy. The southerly edge of the white sector of West Chop Light is about 0.9 mile north of the buoy. Shoal water extends about 0.4 mile offshore westward and northwestward of Cape Poge. A buoy, 1 mile west-northwestward of Cape Poge Light, marks the western side of the shoal water.

(208) **Cape Poge Bay**, a lagoon of considerable size in the northern part of Chappaquiddick Island, is entered from Edgartown Harbor. The unmarked entrance is used mostly by local pleasure and fishing craft. In September 1981, it was reported that 4 feet could be carried through the entrance channel with local knowledge.

(209) **Edgartown Harbor**, on the eastern side of Martha's Vineyard and westward of Cape Poge, is divided into an outer and an inner harbor. The outer harbor is used principally as a harbor of refuge in southerly and easterly winds and as a night anchorage. At the head of the outer harbor, a narrow arm makes southward into Katama Bay, forming the inner harbor. The inner harbor affords good anchorage and is the approach to **Edgartown**, a fishing and resort town on the western shore. Many yachts and pleasure craft use the harbor during the summer.

(210) **Katama Bay**, used by local fishermen and small pleasure craft, is large and shallow. Extensive shoaling has been reported in the southerly end of the bay. A 4 mph **speed limit** is enforced in the bay.

Prominent features

(211) **Edgartown Harbor Light** (41°23'27"N., 70°30'11"W.), 45 feet above the water, is shown from a white conical tower on the west side of the head of Edgartown outer harbor. Also prominent are: a wooden tower and several flagpoles about 0.2 mile northwestward of the light, a church belfry in the town and a microwave tower 1.3 miles to the southwestward, a standpipe about 1 mile southwestward of the light, and the numerous beach cabanas on Chappaquiddick Point.

Channels

(212) The buoyed channel through the outer harbor is free from dangers and has depths of 20 to 37 feet until nearly up to Edgartown Light. Near the light the channel narrows and makes a sharp bend westward, leading to the wharves at the town. In October 1986, depths of 16 feet could be carried from the outer harbor to off the town. Abreast the town, the channel narrows and has depths of 13 to 31 feet. The channel then curves southward to Katama Bay. It is bordered on the eastern side by Middle Ground. Depths of 15 to 31 feet are found for about 1.2 miles south of the town. The southern half of Katama Bay is full of shoals, and is subject to frequent changes. Also subject to change is the shoreline between the southern part of Katama Bay and the ocean.

Anchorages

(213) Anchorage with good shelter from easterly gales is found westward of Cape Poge on the eastern side of the outer harbor. In westerly and southerly gales vessels find shelter in the southern end of the outer harbor about 0.4 mile eastward or east-southeastward from Edgartown Light. In northerly or northeasterly gales vessels usually go to Woods Hole or Tarpaulin Cove for sheltered anchorage. Vessels should not anchor in the channel abreast the town where the bottom is hard sand, the channel narrow, and tidal currents strong. Southeast of the town, anchorage may be found south of Middle Ground in depths of 24 to 30 feet, sticky bottom.

(214) Small craft usually anchor in the **special anchorage** in the vicinity of Middle Ground. (See **110.1** and **110.38**, chapter 2, for limits and regulations.)

Dangers

(215) On the western side of the outer harbor is a shoal area extending 2.8 miles northward of Edgartown Light. A seasonal bell buoy marks two 11-foot spots at the northern edge of the shoal; vessels entering or leaving the harbor pass eastward of this buoy. The depths over the remainder of the shoal are irregular, and there are a rock awash and several rocks covered 3 to 5 feet. Strangers should never attempt to pass across this shoal. The channel into Edgartown Harbor is marked by a lighted buoy and unlighted buoys.

(216) **Sturgeon Flats**, covered 2 to 18 feet, extend about 600 yards off the southeastern shore of the outer harbor between the narrow entrance to Cape Poge Bay and the entrance to the inner harbor.

(217) A sandbar is making off eastward from Edgartown Light. A buoy is on the eastern end of the shoal. Except for this shoal, the entrance to the inner harbor is not difficult to navigate. **Middle Ground**, in the inner harbor south of the town, has a least depth of 10 feet.

Routes (chart 13237)

(218) Vessels approaching Edgartown Harbor from the eastward, from a position about 400 yards north of Cross Rip Lighted Horn Buoy 21, can steer **267°**, heading for the standpipe on Martha's Vineyard southward of Oak Bluffs, passing northward of Muskeget Channel Bell Buoy 7. When Cape Poge Light bears 155°, head south-southwestward into the harbor.

(219) Vessels approaching from the westward and passing northward of Squash Meadow can head on a **180°** course from a position about 0.5 mile southward of Hedge Fence Lighted Gong Buoy 22 to enter the harbor. In the daytime, the channel southward of Squash Meadow is sometimes used. Strangers in sailing vessels seldom enter the inner harbor, as a fair wind is necessary to keep in the channel.

Tides and currents

(220) The mean range of tide is 1.9 feet. The tidal current in the narrow part of the channel inside Edgartown Light and off the town has a double flood and a double ebb, and in general follows the direction of the channel. Near the middle of each flood or ebb period there is an approximate slack preceded and followed by maximum of velocity. The average velocity is about 1 knot. (See the Tidal Current Tables for predictions.)

(221) **Fogs** are prevalent during the summer and at times appear without warning. Drift ice from the sound, driven into the entrance by the wind, obstructs the entrance to sailing vessels during a part of the winter. It is reported that the harbor is normally closed by ice during January and February. The Chappaquiddick ferry channel is usually kept open. The tidal currents keep the inner harbor open except for a few days at a time during severe winters.

(222) There are no pilots for Edgartown Harbor. Tugs are seldom used, and none is available. Fishing craft or the harbormaster's vessel will act as tugs in an emergency.

(223) The **harbormaster** has control of the anchorage of vessels in the harbor. He will usually be found at the Edgartown Yacht Club and can be contacted by radiotelephone on VHF-FM channel 16 or by telephone (508-627-4746). Copies of harbor regulations may be obtained from the harbormaster.

(224) The depth at the Town Wharf is 25 feet. Depths at the other wharves are about 11 feet. A marina, boatyard, and a yacht club are at Edgartown. The boatyard has a marine lift that can handle craft to 9 tons for hull and engine repairs and dry open or covered storage. Gasoline, diesel fuel, water, ice, marine supplies, and moorings are available. Launch service to moored craft is available.

(225) A small ferry operates between Edgartown and Chappaquiddick Island. No schedule is maintained, but the ferry runs on call. There is seasonal bus service to Oak Bluffs, Vineyard Haven, and other island points. Ferries connect Oak Bluffs and Vineyard Haven with Woods Hole, Falmouth, Hyannis, and Nantucket.

(226) **Sengekontacket Pond**, about midway between Edgartown and Oak Bluffs, has two entrances which are subject to shoaling. The southerly entrance is the main entrance and had a reported controlling depth of 10 feet in August 1981. There are no public landings in the pond, and it is used by local and fishing craft only. The south entrance is crossed by a fixed highway bridge with a 13-foot span and a clearance of 5 feet. The fixed highway bridge over the north entrance also has a clearance of 5 feet.

(227) **Squash Meadow** is a shoal south of the main channel through Nantucket Sound and about 4 miles northwest of Cape Poge. The hard sand shoal has depths of 5 to 16 feet and is marked on its southeastern end by a bell buoy and on its western end by a buoy.

(228) **Harthaven** is a small pond northward of Sengekontacket Pond. The entrance is through a privately dredged channel between two short jetties. In August 2000, a depth of 4 feet were reported in the entrance. The pond has depths of 2 to 6 feet. There are no services or landings in the pond.

(229) **Lone Rock**, covered 4 feet and marked by a buoy, is 350 yards offshore about 750 yards southeastward of Oak Bluffs wharf.

(230) **Rhode Island Rock**, covered 9 feet, is about 700 yards northward of the breakwater light.

(231) **Oak Bluffs Harbor**, 4.8 miles northwestward of Edgartown Harbor Light, is a landlocked basin frequented by pleasure craft and some fishing vessels. The entrance is protected by two breakwaters. A light is on the end of the north breakwater. **Oak Bluffs** is a summer resort and fishing village on the harbor. Prominent are a church dome and a cupola in the village and the bluff north of the entrance.

(232) In September 1981, the entrance channel had a reported controlling depth of 9 feet, thence depths of 11 feet were reported in the harbor. Numerous submerged rocks, covered 10 to 15 feet, are in the harbor approach, in an area within 0.4 mile of shore bounded on the north by a line extending northeasterly from the breakwaters and on the south by Lone Rock. A submerged obstruction, covered 9 feet, is reported in this area in about 41°27'37"N., 70°33'04"W. A buoy is about 75 yards southwest of the obstruction. The chart is the best guide for approaching the harbor, however, it is advised that mariners transiting the area exercise extreme caution as other uncharted rocks may exist.

(233) East Chop Yacht Club is on the north side of the harbor, and several private piers are on the west side. The town wharf extends along the bulkhead on the south and east sides of the harbor. The town maintains berths with electricity, a launching ramp, a pump-out station, and guest moorings. Gasoline, diesel fuel, water, ice, and some marine supplies are available.

(234) Martha's Vineyard hospital is on the beach road close westward of the town. The **harbormaster** is at the town wharf; telephone (508-693-0920 or 508-693-0737).

(235) A no-wake **speed limit** is enforced in the harbor.

(236) Oak Bluffs Wharf, about 0.2 mile southward of the breakwater light, is reported to have a depth of 13 feet at the head. Several obstructions with lesser depths have been reported about 400 yards northeast of the wharf face. A private seasonal light and fog signal are operated from the seaward end of the wharf when ferry vessels are approaching the wharf in fog. There is seasonal ferry service from the wharf to Woods Hole and Nantucket. Seasonal ferry service is also maintained between Falmouth and Hyannis. The ferries from Falmouth and Hyannis berth alongside the bulkhead on the east side of the harbor. Seasonal bus service connects most places on the island. There is air service from Martha's Vineyard Airport about 4.5 miles southwestward of the town.

(237) A 530-foot groin, marked at its outer end by a daybeacon and partially submerged at high water, is about 650 yards south of the ferry wharf; caution is advised.

(238) Other ports on the north side of Martha's Vineyard, westward of Oak Bluffs Harbor, are described in chapter 5.