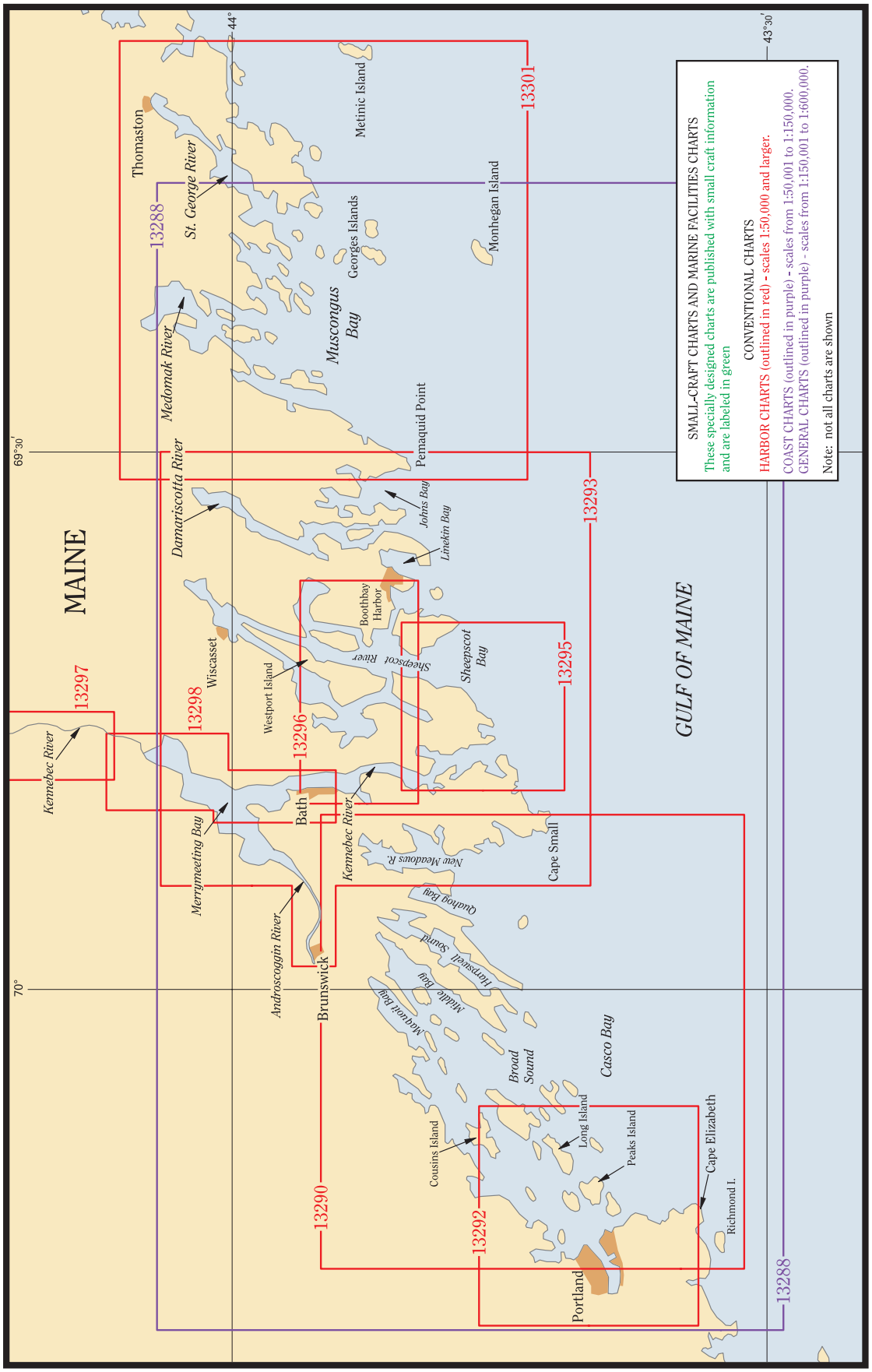
MAINE
GULF OF MAINE
Thomaston
St. George River
Medomak River
Damariscotta River
Muscongus Bay
Georges Islands
Metinic Island
Monhegan Island
Pemaquid Point
Johns Bay
Linekin Bay
Boothbay Harbor
Sheepscot River
Sheepscot Bay
Wiscasset
Westport Island
Kennebec River
Bath
Kennebec River
New Meadows R.
Cape Small
Merrymeeting Bay
Androscoggin River
Brunswick
Quahog Bay
Harpswell Sound
Middle Bay
Maquoit Bay
Broad Sound
Casco Bay
Cousins Island
Long Island
Peaks Island
Cape Elizabeth
Richmond I.
Portland
13288
13297
13298
13296
13295
13293
13301
13290
13292
13288
69°30′
70°
44°
43°30′
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

Muscongus Bay to Cape Elizabeth, Maine

Chart 13288

(1) This chapter describes Muscongus, Booth, Sheepscot, and Casco Bays; Medomak, Damariscotta, Sheepscot, Kennebec, and New Meadows Rivers; and the ports of Portland, Bath, Boothbay Harbor, and Wiscasset. This area has many islands, rocks, and long peninsulas. Many of the islands have been joined by fixed highway bridges; hence, so far as masted vessels are concerned, whole groups become additional peninsulas. In general, the outer islands and rocks rise from deep water and the lower parts of the rivers are deep.

COLREGS Demarcation Lines

(2) The lines established for this part of the coast are described in **80.105,** and **80.110,** chapter 2.

Chart 13301

(3) **Muscongus Bay**, between the Georges Islands on the east and Pemaquid Neck on the west, forms the approach to Meduncook and Medomak Rivers and Muscongus Sound, the villages of Friendship, Round Pond, and Medomak, and the town of Waldoboro. The bay is frequented by small pleasure and fishing craft. It is obstructed by numerous islands and ledges and much foul ground. Many of the dangers are marked by buoys.

(4) **Moser Ledge**, the outermost of the dangers, covered 15 feet and marked by a buoy, lies about in the middle of the entrance to the bay, about on line between the north end of Monhegan Island and Pemaquid Point Light (43°50'12"N., 69°30'21"W.).

(5) **Franklin Island Light** (43°53'32"N., 69°22'29"W.), 57 feet above the water shown from a white tower on the northwestern side of **Franklin Island,** is the principal aid to the approach and passage through the bay.

(6) Access to the eastern side of the bay, between Allen Island and Franklin Island, is obstructed by an area of islands and mostly unmarked shoals and ledges. The area, about 3 miles long north and south and 2 miles east and west, is bounded on the west by **South Ledge,** an unmarked ledge covered 13 feet; **Egg Rock South Ledge,** covered 7 feet; **Eastern Egg Rock,** 23 feet high and bare and marked on its north side by a daybeacon; **Egg Rock North Ledge,** marked on its southeast side by a buoy; **Hough Ledge; Little Franklin Ledge;** and Franklin Island. Its eastern side is bounded by **Shark Island;** unmarked **Little Egg Rock Shoals; Little Egg Rock,** 28 feet high; **Seal Ledges,** marked on their north end by a buoy; and **The Kegs,** marked by a daybeacon. On the north end is **Gangway Ledge,** an unmarked bare rock and ledge area.

(7) Three deep, natural, mostly unmarked channels, narrow in places, lead in a northerly and northeasterly direction past or through the area, and into the St. George River. The eastern channel leads west of Georges Islands. The western channel leads westward of the area of islands, shoals, and ledges near the center of Muscongus Bay, and westward of Eastern Egg Rock and Franklin Island. **Old Hump Channel** leads through the center of the area.

(8) A buoyed channel marked for a westerly crossing, known as **Davis Strait Passage,** is used mostly by small craft proceeding between Pemaquid Point and Port Clyde or Penobscot Bay, via Muscle Ridge Channel. From a fairway bell buoy off its western entrance between Eastern Egg Rock and Egg Rock North Ledge, this passage crosses Old Hump Channel, then passes between **Old Hump Ledge** and Seal Ledges; thence through Davis Strait; thence northeastward past Gig Rock; thence between Old Horse Ledge and The Sisters; thence southward of Hupper Island and northward of Allen Ledge to the entrance to Port Clyde. Craft proceeding farther eastward continue on, passing southward of Marshall Ledge; thence between Gunning Rocks and Mosquito Ledge; and thence southeastward around Mosquito Island and Barter Shoal before rounding up to the northeastward for Muscle Ridge Channel.

(9) A group of islands in the middle of the bay, extending 3 miles southwestward from Friendship Long Island, separates the approaches of the St. George and Meduncook Rivers from the Medomak River. This group includes **Crane Island, Harbor Island, Hall Island, Black Island, Otter Island, Cranberry Island,**

and **Morse Island.** Surrounding and interspersed between these islands are numerous rocks and ledges. **Harbor Island Rock**, **Black Island Ledge**, **Otter Island Ledge** and **Beyer Ship Ledge** are all unmarked. **Morse Ledge** is marked by a daybeacon. The passages between these islands and ledges are mostly shoal, foul, and unmarked, and of interest only to local craft.

(10) In the western part of the bay, islands and ledges extend 3 miles southward from Louds Island. **Bar Island,** close south of Louds Island, is grassy; **Haddock Island** is wooded, and **Ross Island** is grassy. **Haddock Island Kelp Ledge,** covered 8 feet, is marked on its south side by a buoy. **Webber Dry Ledge** uncovers at low water; **Webber Sunken Ledge,** with a rock awash at low water and marked by a buoy, extends 0.3 mile south of it. **Browns Head Ledge,** covered 13 feet, is marked by a buoy. **Bar Island Ledge,** 0.2 mile long and awash at low water, is marked on its south end by a buoy.

(11) The most southerly of these ledges are **New Harbor Sunken Ledges,** awash at low water at the north end and marked at their south end by a buoy. The reef extending 0.3 mile eastward of grass-covered **Western Egg Rock,** the southeasternmost of this group of ledges, is covered 4 feet and marked by a buoy.

(12) **Devils Elbow**, which uncovers 1 foot; **Devils Back,** which uncovers 8 feet; **Devils Limb,** awash; bare **Wreck Island Ledges** and **Garden Island South Ledge,** awash, unmarked and dangerous; 48-foot-high **Wreck Island;** and 23-foot-high **Jones Garden Island** are all on a line about 1.5 miles eastward of Louds Island; Jones Garden Island is the northeasternmost of the group.

(13) **Haddock Island**, **Ross Island**, **Marsh Island**, **Killick Stone Island**, **Thief Island**, and **Indian Island** are all part of the western group and lie southward and eastward of Louds Island.

(14) **Meduncook River** is an estuary making in a general northeasterly direction, just westward of St. George River; the entrance forms one of the approaches to Friendship Harbor, and is a good anchorage with depths of 10 to 30 feet. The approaches to the entrance are the same as for St. George River. In July 1983, the entrance, between Gay Island and Morse Island, was reported to be extremely hazardous because it was obstructed by lobstering equipment. Local knowledge is advised.

(15) The river above the anchorage has a narrow, crooked channel, and is obstructed by numerous unmarked rocks and ledges, so that local knowledge is necessary for its navigation.

(16) **Back River** enters Meduncook River about 0.6 mile above **Crotch Island;** a tidal boatyard is on Back River.

(17) **Friendship Harbor** (43°58.0'N., 69°20.5'W.) is west of Meduncook River, from which it is separated by **Friendship Long Island** and **Garrison Island**; between these two islands a buoyed channel leads from the anchorage in Meduncook River into Friendship Harbor.

(18) A passage, foul and dry at half tide, but used by some local fishermen, leads into the harbor between Garrison Island and the mainland. Overhead power and telephone cables over the passage have a clearance of 20 feet.

(19) Friendship Harbor, about 1 mile long with good anchorage in 21 to 28 feet, is used extensively by fishermen and yachtsmen. It is reported that the harbor may be closed by ice during January and February.

(20) A ledge extends 300 yards southwestward from **Jameson Point** to a rock, uncovered at low water, which is marked by a daybeacon. On the southern side of the entrance, opposite the daybeacon, an unmarked shoal with a cleared depth of 7 feet at its outer end extends about 300 yards into the channel from Friendship Long Island.

(21) Above the wharves the northern and eastern side of the harbor should be given a berth of over 200 yards. The southeast side of the harbor should be given a berth of over 200 yards. **Murphy Ledge** is a rock which uncovers about 4 feet and is marked by a daybeacon, 200 yards from the southeast side of the harbor abreast Jameson Point. A shoal with a cleared depth of 14 feet, about 200 yards northward of the daybeacon on Murphy Ledge, is unmarked. In the eastern part of the harbor a shoal extends 350 yards northeastward from the northeast end of Friendship Long Island; a buoy marks the outer end.

Tides

(22) The mean range of tide is 9.0 feet.

(23) **Friendship** is a town on the north shore of Friendship Harbor. There are numerous wharves and piers with float landings on the north side of the harbor on Jameson Point; depths of 2 to 12 feet are reported alongside. Gasoline, diesel fuel, and water are available at several of the landings, and marine supplies at some. Engine repairs can be made. The town wharf, one of the more northerly facilities, has a float landing on its northerly side with a reported depth of 2 feet alongside. Rocks, some submerged, extend northeasterly from the outer end of the town wharf; mariners are advised to use caution when approaching the town float landing. Provisions and lodging can be obtained in town.

(24) **Hatchet Cove** is a shallow cove making northward at the western end of Friendship Harbor. A narrow unmarked channel with a least depth of 11 feet leads northeastward into the cove near the western point at its entrance. It is unimportant as an anchorage, and the landings bare at low water. A boatyard is on the east side at the head of the cove. Some hull repairs and dry open

winter storage are available. The town-owned small-craft launching ramp, usable at half tide or better, adjoins the boatyard.

(25) **Gull Rock**, in the western entrance to Friendship Harbor, includes two rocks bare at high water. A ledge cleared to 20 feet at its southwestern end is about 0.4 mile eastward of Gull Rock.

(26) **Medomak River** enters the head of Muscongus Bay westward of **Martin Point,** the western point at the entrance to Friendship Harbor. Strangers should take a local pilot because of the many unmarked dangers, narrow and crooked channels, and strong tidal currents which require local knowledge.

(27) The lower part of the river is about 2 miles wide, but is separated by several islands into two approaches; these have three narrow and crooked channels by which entrance is made to the upper river. The approaches to these channels are through Muscongus Bay or Muscongus Sound.

(28) The eastern approach is 0.5 mile wide and comparatively clear of dangers. At its upper end are two passages leading into the river, one through **Back River Cove** and the other through **Flying Passage.** Both of these passages are narrow and unmarked, have shoal rocky areas near the middle and on their edges which, together with the strong tidal currents, make them difficult to navigate.

(29) **Hockomock Channel**, the western approach, has much better water and is the preferred channel despite the fact that it is narrow in places and has strong tidal currents.

(30) There are two fish wharves on **Keene (Hockomock) Neck,** on the west side of the channel, at which gasoline, diesel fuel, and some supplies can be obtained. One of these, behind **Oar Island,** has a lobster pound adjoining it and a float landing with 5 to 6 feet reported alongside. Some protection from east and southeast winds is afforded this landing by the hulk of the five-masted schooner CORA CRESSY, which has been hauled up on the reef between Oar Island and the neck. Provisions and some supplies can be obtained in the village of Medomak.

(31) The channel in Medomak River has ample depth for 5 miles above the entrance. Some of the dangers are marked, but there are unmarked ones close to the channel. For the next 2.5 miles to within 1.6 miles of Waldoboro, the channel leads between flats nearly bare at low water, and shoals gradually to 5 feet.

(32) The controlling depth to Waldoboro is about 3½ feet. In 1979, there was no commercial shipping and only limited fishing and small-boat activity on the river to Waldoboro. The channel can best be followed at low water when the flats are visible, or on a rising tide.

Tides and currents

(33) The mean range of **tide** is 9.1 feet at Jones Neck and 9.5 feet at Waldoboro. Tidal currents in **The Narrows,** between **Locust Island** and **Havener Ledge,** are reported to be very strong.

(34) **Medomak** is a village on the western side of Hockomock Channel. There are a town wharf and float landing with 2 feet alongside and a fish wharf with a depth of 4 feet, about 0.5 mile southward of the village. Gasoline and diesel fuel are piped to the fish wharf.

(35) **Broad Cove**, on the west side of Medomak River, is used by a few fishermen. The channel into the cove is unmarked.

(36) The **Medomak River Closed Area**, a Marine Managed Area (MMA), includes the waters of the Medomak River north of Hardy Island, including Broad Cove, Eastern Branch and Western Branch. (See **MMA 8-1**, Appendix C, for additional information.)

(37) **Waldoboro**, at the head of navigation on Medomak River, is a town on a freight branch of the Maine Central Railroad with markets, restaurants, motels, and a library. There is no commercial waterborne commerce from the town. An old steamer wharf, in disrepair, is on the east side of the river, and a town landing is on the west side. There is little water alongside these wharves. Provisions, ice, and some marine supplies are available in town. Gasoline can be obtained from a filling station and diesel fuel by tank truck.

(38) A lobster wharf with 5 feet reported alongside its float landing is on the east side of Medomak River, about 2.1 miles northward of Martin Point. Gasoline is available at the float landing.

(39) **Pemaquid Neck**, a wooded peninsula, is on the west side of Muscongus Bay. **Pemaquid Point** is the south point of the neck. A radio tower on the point is prominent. Pemaquid Point Light (43°50'12"N., 69°30'21"W.), 79 feet above the water, is shown from a white conical tower on the southeast point of the neck about 0.5 mile northeast of Pemaquid Point. The town of **Pemaquid Point** is on the southern end of the neck. A gong buoy is 500 yards south of the point.

(40) **Pemaquid Ledge**, 1 mile south of the point, has a cleared depth of 10 feet and is marked by a buoy on its east side. An unmarked 23–foot patch is about 550 yards southward of the ledge.

(41) A 1–mile radius naval test area is centered 7.9 miles 169° from Pemaquid Point Light. (See **334.30**, chapter 2, for limits and regulations.) Mariners are cautioned against proceeding through the area while operations are in progress.

(42) An abandoned 1–mile radius naval test area centered 3 miles 162° from Pemaquid Point Light is known to be foul with unexploded ordnance. Caution

should be exercised against dragging operations in the area; any material inadvertently picked up should be discarded immediately with a minimum of handling.

(43) **Pumpkin Cove Ledge**, 1 mile east-northeastward of Pemaquid Point Light, is covered 19 feet and is unmarked. The sea breaks on it in heavy weather.

(44) **New Harbor Dry Ledges**, 2 miles northeastward of Pemaquid Point Light, extend 0.3 mile from the shore. The ledges are 0.3 mile long with a bare rock near each end and no safe passage for strangers between them and the shore. An unmarked rock, covered 3 feet, is 200 yards offshore about 0.3 mile southwestward of the ledge. **Little Island,** showing a clump of trees, is 200 yards from the shore 0.2 mile southward of the entrance to New Harbor. It is the highest part of a ledge about 0.3 mile long.

(45) **New Harbor** is on the western shore of Muscongus Bay, about 2.5 miles northeastward of Pemaquid Point Light. A lighted bell buoy is off the entrance to the harbor. A church spire in the village of **New Harbor** at the head is prominent. The cove offers anchorage to small craft only, and is open eastward. The channel is narrow between a shelving ledge extending northeastward from the south point at the entrance and a ledge just inside it which extends halfway across from the north side and is marked at its end by a buoy. A 100-foot-wide channel then leads northward of a daybeacon between ledges to dredged anchorage basins. In July 2003, the channel had a controlling depth of 9.7 feet to the first anchorage basin, with depths of 7.4 to 12 feet available in the basin; thence 6.0 feet to the second anchorage basin, with lesser depths along the edges and 0.1 to 6 feet available in the basin. Enter about 100 feet north of the daybeacon. The channel and basins are subject to shoaling, particularly along the edges. It is reported that ice does not prevent navigation in the winter.

(46) There are two service wharves with float landings on the north side of the harbor at which gasoline, diesel fuel, water, ice, and marine supplies can be obtained. Depths of 10 feet are reported alongside the service landings. Several fish and lobster wharves are throughout the harbor. A fleet of seiners operates from the harbor, and ground fish are shipped from the port by truck. Markets, provisions, restaurants, and lodging are available in town. There is no marine railway, but local fishermen ground out their boats for repairs.

(47) **Back Cove**, a southwesterly arm of New Harbor, is used by local pleasure and fishing craft. A dredged channel leads to an anchorage basin that extends to near the head of the cove. In July 2003, the controlling depth was 5.0 feet in the channel and 4.5 feet in the basin with severe shoaling along the edges. The channel and basin are subject to shoaling, particularly along the edges. There are a number of private and fish piers, but no facilities.

(48) **Long Cove**, about 0.6 mile northward of New Harbor, is about 0.5 mile long and 250 yards wide at the entrance. It affords good anchorage in from 14 to 53 feet to within 400 yards of its head in all but southerly weather. It is used by local pleasure craft. The approach to the cove from the southward is clear from northward of **Salt Pond Ledge,** an unmarked ledge covered 8 feet about 0.4 mile south of the entrance. There are no facilities in the cove.

(49) **Louds Island** is inhabited mostly by fishermen; there are also some farms on the island. **Loudville** is a village on the cove on the east side of the island northwestward of the northern end of Marsh Island. There is reported to be a wharf in the cove, which dries out at low water.

(50) **Marsh Harbor**, on the southeast side of Louds Island between it and Marsh Island, is seldom used as an anchorage.

(51) **Muscongus Sound** is on the western side of Muscongus Bay, between Louds and Hog Islands on the east and the mainland on the west. It is about 0.5 mile wide and 5 miles long, and has several rocks and ledges near its southern entrance, the most important of which are marked by buoys. Above the Poland Ledges to abreast Muscongus Harbor, the depths in the sound decrease gradually from 48 to 24 feet, and anchorage can be selected by the chart.

(52) Webber Sunken Ledge, Webber Dry Ledge, Browns Head Ledge, Bar Island Ledge, all previously described and **Webber North Ledge,** covered 15 feet and unmarked, are dangers in the southern entrance to Muscongus Sound.

(53) **Poland South Ledge** is covered 9 feet, but **Poland North Ledge** is awash at low water. Both are marked by buoys. The better channel leads eastward of them. An unmarked ledge cleared to 18 feet is about 350 yards southeastward of Poland North Ledge.

(54) **Round Pond** is a small landlocked harbor with 10 to 17 feet in its middle on the west shore of Muscongus Sound, westward of the north end of Louds Island. It affords good anchorage for small vessels. The village of **Round Pond** is at the head of the harbor. The northeast and southwest ends of the harbor should be given a berth of 350 yards, and the west side 200 yards. The best water in entering favors the north side, northward of the buoy marking a 7-foot rock near the end of a reef making northward from the southern point of the entrance.

(55) There is a town landing with 6 feet reported alongside its float in the northwest part of Round Pond. Two lobster piers with float landings are near the town landing; depths of 3 to 6 feet are reported alongside.

Gasoline, diesel fuel, and some marine supplies can be obtained at these landings. A boatyard, close southwestward of the town landing, has a marine railway that can handle craft up to 45 feet or 30 tons for hull and engine repairs. Guest moorings and open dry winter storage are available. There is a general store and restaurant in the village, and ice can sometimes be had. There is a ramp for launching small craft from trailers, and lodging and parking are available.

Tides and currents

(56) The mean range of tide is about 9 feet. Off the entrance to Round Pond there is practically no flood current; the ebb has a velocity of 0.5 knot at strength.

(57) **Muscongus Harbor** is a small cove on the west shore of the sound about 1.5 miles above Round Pond. The village of **Muscongus** is on the north shore of the harbor. A marina on the north shore has 4 feet reported alongside; gasoline, diesel fuel, and limited marine supplies are available. During the summer, fishing and pleasure boats anchor just inside the entrance in 5 to 8 feet of water.

(58) **Greenland Cove** is the extreme northern end of the sound. It is shallow and of no importance. It is reportedly often used by yachts. **Bremen** is a small village at the head of the cove.

(59) **Lower Narrows**, leading into the head of Muscongus Sound north of **Hog Island,** has a depth of about 13 feet. A rock awash on the north side of the narrows is marked by a buoy on its east side. There is a group of boulders, reported to be about 4 feet high, at the northwest end of Hog Island on the south side of Lower Narrows. Mariners should not attempt passage between the rocks and Hog Island. Local knowledge is necessary to carry the best water.

(60) The Audubon Society of America maintains a camp on the northeast point of Hog Island, at which there are several buildings and a float landing.

Chart 13293

(61) **Johns Bay** (43°50.0'N., 69°32.0'W.) is westward of Pemaquid Neck, between it and **Rutherford Island.** Its entrance is about 1.4 miles wide, and the length of the bay is 2 miles to Johns Island, above which Pemaquid River empties into the northeastern end. Johns River flows into the northwestern part. Depths in the bay are very irregular, and there are several ledges and rocks. A high square observatory tower on Rutherford Island is prominent.

(62) Though not commercially important, the bay has summer resorts on its shores and is used as an anchorage by fishermen and yachtsmen. The holding ground is poor except in a few spots near the head of the bay and in the coves. Port Clyde, eastward, and Boothbay Harbor, westward, are preferable at all times.

(63) **Pemaquid Harbor** (43°52.5'N., 69°32.0'W.) is at the entrance to Pemaquid River, northeastward of Johns Island. The bottom is rocky and irregular, but there is a fair anchorage for small vessels in 36 feet in the eastern part of the harbor between **Fish Point** and the entrance of Pemaquid River. The preferred anchorage for small craft, although crowded, is said to be north of the fort where the bottom is soft in places. The village of **Pemaquid Harbor** is on the north side of the entrance to the harbor. There are a number of private float landings and boatsheds.

(64) **Pemaquid River** extends northeastward about 2 miles to the village of **Pemaquid.** The river is dry at low water near its head, and has a narrow, crooked channel marked by private buoys. On the point marking the southern entrance to Pemaquid River there is a prominent stone tower marking the position of the former **Fort William Henry.**

(65) The pier and float landing of a lobster wharf are on the north side of Pemaquid River about 0.5 mile northeastward of the old fort. Depths of 3 feet are reported alongside the float; gasoline, diesel fuel, and some marine supplies are available.

(66) **Pemaquid Beach** is a village on the south side of Pemaquid River at the entrance. There is a private wharf with a float at the old fort. A pier and float landing are at a State park, close northeastward of the private wharf. Depths of 10 feet are reported alongside the float. Parking, restaurant, and a small-craft launching ramp are available at the State park. Groceries and lodging can be obtained in the village nearby.

(67) A reef almost bare in places at low water extends offshore between the private wharf and the State park pier. Several small fish wharves are to the eastward on the south side of the river.

(68) A ledge, partly bare at half tide, extends 225 yards north-northeastward from the north end of Johns Island, where it is marked by a spindle, and another shoal cleared to 13 feet is about 0.3 mile south of the island.

(69) **Thurston Ledges** are mostly bare rocks extending 300 yards southward from **Thurston Point** on the north side at the entrance of Pemaquid Harbor, their south edge being 300 yards northward of Beaver Island.

Routes

(70) Pemaquid Harbor can be entered from westward by passing midchannel between **Beaver Island,** the high rounded islet with some trees, 300 yards northward of Johns Island, and Thurston Ledges. From the southward, when 0.5 mile or more southward of Johns

Island, steer so as to pass 150 yards eastward of Johns Island, being careful to avoid the 13-foot shoal southward of the island, and then westward of the western bare rocks of **Knowles Rocks.**

(71) **McFarlands Cove** is on the western side of Johns Bay, northward and westward of **Witch Island.** A steep 150-foot hill is on the west shore of the cove. There is good anchorage in 24 to 36 feet in the cove for a small vessel about 300 yards northward of Witch Island.

(72) **McFarlands Ledges**, about 450 to 800 yards north-northeastward of Witch Island, have a rock which uncovers 6 feet near the north end, and one uncovers at low water near the south end. A buoy marks the south end of the ledges. **Corvette Ledge,** about 200 yards northeastward of Witch Island, is covered 3 feet; a buoy marks its north end. When entering the cove from eastward between the buoys marking these two ledges, take care to avoid the rock awash off the northwestern point of Witch Island.

(73) The Gut, a thorofare connecting McFarlands Cove with Damariscotta River, is described under the description of that river.

(74) **Johns River** extends northward about 2 miles above McFarlands Cove and separates into two branches. **Eastern Branch** is the eastern, and **North Branch** is the western. **Poorhouse Cove** makes into the western shore of Johns River above High Island. Good anchorage is available in depths of 18 to 24 feet southeastward and eastward of **Sproul Point.** The river is little used. Two boatyards which haul out and store yachts up to 35 feet in length are on Johns River, one on Sproul Point and the other at the head of **Bradstreet Cove,** a western arm of Poorhouse Cove.

Routes, Johns Bay

(75) Stand up the middle of the bay, heading for the eastern shoulder of High Island, pass 400 yards westward of Johns Island, avoiding unmarked **Pollock Rock** and an unmarked 11-foot spot 350 yards southwest of Thurston Point, and pass about 300 yards off the eastern shore northward of Pemaquid Harbor. Then keep in midchannel until abreast of High Island, and then pass about 50 yards westward of the buoy marking a rock covered 10 feet, about 350 yards northeastward of High Island; anchor near midriver, about 400 yards northward of the buoy, in 18 to 24 feet.

(76) **Thread of Life** is a narrow deep channel, lying between Thread of Life Ledges and Crow Island on the east, and the southern part of Rutherford Island and Turnip Island on the west. It is used by small local vessels entering Johns Bay from westward or from Damariscotta River. **Thrumcap Island** is partly wooded in its northern part and has a prominent house on it. **Thread of Life Ledges** are bare or grassy islets; **Turnip Island,** partly wooded, has a house on it. **Crow Island** is wooded. A shelving ledge awash at low water and marked by a buoy extends 300 yards southward from **Hay Island,** which is wooded. The channel westward of **Birch Island,** northward of Hay Island, has been dammed off to form lobster pounds. The hulk of an old tug, aground, rests against the southernmost dam; a fish pier with float landing is at the northernmost dam.

(77) To pass through Thread of Life from westward, after clearing Fisherman Island Passage, steer for the north end of Thrumcap Island with Ram Island Light astern. Pass 400 yards southward of The Bulldog, which uncovers 3 feet, and then 500 yards southward of the two rocks which uncover 6 feet about 350 yards eastward of Inner Heron Island. When about 400 yards from the north end of Thrumcap Island, round up to the northward keeping 200 yards off Thread of Life Ledges, and pass midway between them and Turnip Island. Continuing in midchannel to the north end of the passage, pass into Johns Bay between the buoy south of Hay Island and the buoy marking the ledge extending 200 yards northward of Crow Island.

(78) **Damariscotta River** extends about 14 miles northward to the twin towns of Damariscotta and Newcastle, thence another 2 miles to **Damariscotta Mills** at the mouth of **Damariscotta Lake.**

(79) The entrance to Damariscotta River is about 3.2 miles west-southwestward of Pemaquid Point Light and 1.3 miles northeastward of Ram Island Light. The tidal current is strong. Although some of the dangers are marked by buoys, strangers in anything but small craft should not pass through or above The Narrows at Fort Island without a pilot.

(80) The channel of the river is crooked. In many places it is very narrow because of the constricting islands and ledges. For a distance of 11 miles above the mouth of the river a least depth of 20 feet may be carried in the channel, although there are many unmarked 16- to 18-foot spots on each side of the channel. Above this point the water shoals to 10 feet just below the town of Damariscotta.

(81) The channel had a controlling depth of 9 feet in 1958 and for 2 miles south of the Damariscotta-Newcastle Bridge is bordered with mudflats on both sides; care should be exercised in piloting. Above the bridge, navigation is impossible except at high-water slack and with local knowledge due to the rapids and falls at Damariscotta Mills.

(82) The **Damariscotta River Closed Areas,** Marine Managed Areas (MMAs), include the waters of the Damariscotta River north of Fort Island. (See **MMAs**

8-3, 8-4, 8-5, 8-6, 8-7 and **8-8**, Appendix C, for additional information.)

(83) The **White Islands,** about 1.5 miles south of the entrance to Damariscotta River, are prominent. The northern island is grassy with conspicuous standing trunks of dead trees. The southern island is partly wooded on the northern two-thirds and is bare rock on the southern third. There is a house on the island. Give the south and west side of the island a berth of at least 300 yards to avoid a rock covered 2 or 3 feet reported about 150 yards off the southern tip and the ledges and rocks making out from the west side. A ledge extends about 100 yards north at the northern point of the island.

(84) Southward and southwestward of the White Islands, **Outer Heron Island**, wooded, and **Pumpkin Island**, together with their off-lying ledges, extend about 2.5 miles. **Outer Heron Island Ledge**, covered 6 feet, about 0.9 mile east-southeastward of Outer Heron Island, is marked on its east side by a buoy. **Southeast Breaker**, covered 19 feet, about 0.7 mile southeastward of Pumpkin Island, and **Pinkham Shoal**, covered 8 feet, about 0.5 mile southwestward of Pumpkin Island, are unmarked. An unmarked rocky area cleared to 10 feet is about 0.5 mile eastward of the southern tip of the island.

Anchorages

(85) Vessels bound into the river usually go as far as Meadow Cove, just above East Boothbay, where good anchorage is available in 30 to 48 feet, keeping 150 yards offshore. This is as far as a stranger should attempt to go, without local knowledge. Above The Narrows vessels can anchor anywhere in the channel where the bottom and depth are suitable.

Routes

(86) Extreme caution is necessary in this region where there are many rocks and ledges and very broken bottom.

(87) With the aid of the chart, enter the river midway between the gong buoy off Little River and the buoy marking Inner Heron Ledge, keeping in midchannel for about 1.5 miles above Inner Heron Island.

(88) There are unmarked 16-, 18-, and 23-foot spots in the channel between **Farnum Point** and Rutherford Island, and an 8-foot shoal marked by a buoy about 0.3 mile southeastward of the point. Favor **Jones Point** when passing the shoals eastward of **Montgomery Point** and, when clear, round up to the northwestward for the anchorage off **Meadow Cove.**

(89) Small craft should have no trouble in going to the head of navigation with the aid of the chart. The best time is on a rising tide. It is reported that the buoy at the entrance to The Narrows tows under during strength of the current.

Tides and currents

(90) The mean range of tide is 8.9 feet at East Boothbay and 9.3 feet at Newcastle.

(91) The tidal current in the constricted sections attains an estimated velocity of 5 knots. The ebb lasts about 2 hours after low water in the upper part of the river, and is usually stronger than the flood. The currents follow the general direction of the channel. Off Cavis Point the velocity at strength of current is about 1 knot. See Tidal Current Tables for predictions.

(92) **Ice** closes the river for a distance of 4 miles below Damariscotta during January, February, and March.

Pilotage

(93) Pilotage is compulsory for all foreign vessels, and for U.S. vessels under registry with a draft of 9 feet or more. Pilotage is optional for fishing vessels and vessels powered predominantly by sail.

(94) **Little River**, a long narrow inlet in Linekin Neck on the west side of the entrance of Damariscotta River, has a number of private float landings and fish wharves. A junction gong buoy about 350 yards south of **Reeds Island** marks the entrance. The channel is narrow and constricted at the entrance, but secure anchorage can be found in 5 to 12 feet in the outer section and 13 to 18 feet in the inner section of the inlet above the fish wharves on the east side. Small craft anchor near the head of the inlet above the narrows.

(95) A ledge, locally known as **The Bull,** is in the middle of the entrance; local knowledge is required to carry the best water.

(96) **Treasure Island**, with a house on it and connected to the shore by a fixed trestle bridge, is on the northeast side of the entrance to the inner harbor.

(97) There is a good holding ground in 13 to 18 feet, mud bottom, in midchannel from abreast the first fish wharf on the east side to the private pier with float landing just above the fish wharf on the west side, about 0.6 mile above the daybeacon. Above that point the harbor shoals rapidly. Local knowledge is advised. Gasoline may be obtained at the first fish wharf on the east side.

(98) **Inner Heron Island** (43°49.8'N., 69°34.0'W.), on the eastern side of the entrance to Damariscotta River, is thickly wooded. Two private float landings are on the northeast side; depths of about 12 feet are at their ends. Boats going to the landing must avoid the reef that uncovers about 5 feet extending northward from the island; it is marked by a buoy.

(99) **Inner Heron Island Ledge**, 0.2 mile southwestward of the south end of Inner Heron Island, is covered 2 feet

and marked on the southwest side by a buoy. **The Bulldog,** 300 yards southward of the island, uncovers 3 feet. The rock 350 yards eastward of the south end of the island uncovers 6 feet.

(100) Other unmarked dangers exist between Inner Heron Island and the shore of Rutherford Island; this passage should not be used by strangers.

(101) **Christmas Cove** (43°50.8'N., 69°33.3'W.), 0.7 mile north-northeastward of Inner Heron Island, offers good protection for small craft. The narrow entrance to the cove proper is midway between two bare rocks, the one on the southeast side being marked by Middle Ledge Daybeacon 2. Daybeacon 3 marks the north side of the channel, and Steamboat Wharf Daybeacon 4 marks the point of a ledge near the south side close westward of the town landing.

(102) A high square observatory tower, about a mile northeastward of the cove, is conspicuous.

(103) The summer resort of **Christmas Cove** is on the eastern side. The village residents maintain a private sport, social, and yachting club. The town landings with reported depths of 4 to 12 feet alongside are on the southeast side of the cove. There are several private float landings and moorings in the cove. **Anchoring** is reported to be difficult due to the densely-packed moorings and numerous lobster pot buoys and is not recommended.

(104) A small boatyard is on the northeast side of Christmas Cove. The marine railways at the yard can handle craft up to 25 feet for minor hull and engine repairs; limited storage and moorings are available.

(105) The **harbormaster** for the town of Christmas Cove is at the yard; telephone (207-644-8342).

(106) A marina-motel with 12 feet reported alongside its float landing is on the west side of the cove opposite the boatyard. Berthing, gasoline, diesel fuel, water, ice, marine supplies, and a small-craft launch are available.

(107) **The Gut** (43°51.7'N., 69°33.4'W.) is a thorofare connecting Damariscotta River at South Bristol with McFarlands Cove and Johns Bay. In July-November 2001, the controlling depth in the approaches to the bridge was 4.1 feet, except for shoaling to less than one foot on the south side of the channel, west of the bridge. A submerged rock ledge is reported on the south side of The Gut, about 300 yards eastward of the bridge. Route 129 highway bridge over The Gut has a swing span with a channel width of 26 feet and a clearance of 3 feet. (See **117.1 through 117.49**, chapter 2, for drawbridge regulations.) Overhead power and telephone cables at the bridge have a least clearance of 55 feet. Daybeacons mark ledges on the south side of the western entrance and on the north side just west of the bridge. The Gut east of the bridge is thickly congested with moorings and lobster pot buoys, but the harbormaster keeps a 100-foot channel clear.

(108) A shipyard is on the north side of The Gut, west of the bridge. The yard, mainly engaged in construction, makes some hull repairs, has a 60-foot marine railway, and can build vessels up to 150 feet in length. The 500-foot shipyard pier has depths of 5 to 12 feet reported alongside. Water is available.

(109) **South Bristol** is a village on The Gut. There are a number of wharves with float landings. Four on the north shore east of the bridge are lobster wharves with depths of 4 to 12 feet reported alongside their floats; gasoline and diesel fuel are available. A general store is on the wharf by the bridge. Some marine supplies, ice, and provisions may be obtained. The town wharf on the south shore close west of the bridge has a reported depth of 3 feet alongside. The town **harbormaster** may be contacted through the town office.

Tides

(110) The mean range of tide is about 9 feet.

(111) **East Boothbay** is a village on the west bank of Damariscotta River, about 3 miles above the mouth. A church spire, lighted at night, and the large buildings of three boatyards are prominent. Three wharves are in general use and have float landings and berthing space with water and electricity and 10 feet reported alongside. The yards maintain guest moorings in the anchorage off the wharves; the controlling depth is about 7 feet in the anchorage.

(112) The yards can build craft up to 200 feet in length and 1,000 tons, and are equipped with complete facilities for hull and engine repairs. Machine, carpenter, and pipe shops, a sail loft, and two marine railways are available. The larger of the railways can handle craft up to 100 feet. Gasoline, diesel fuel, water, ice, provisions, marine supplies, and open, covered, wet and dry winter storage are available at the yards.

(113) Taxi service is available at East Boothbay.

(114) **Kelp Ledge**, just south of the approach to the boatyards, and 150 feet from the shore, is awash at low water and is marked by a buoy north of the ledge.

(115) At **The Narrows,** 1.3 miles above East Boothbay, the channel is contracted to a width of 100 yards, and the tidal currents are strong with swirls. **Western Ledge,** with a rock awash at low water 550 yards south of Fort Point, in midchannel, is marked by a buoy to the southeast; the buoy tows under at full current strength.

(116) **Eastern Ledge**, extending 100 yards from the eastern shore, is a rock covered 2 feet. A buoy marks its southwest side. This buoy almost tows under during full strength of the current. On the west side of The

Narrows is a ledge, mostly covered and with rocks awash on it, extending 250 yards southwestward and 75 yards eastward from Fort Point. There are other ledges, one covered 4 feet, in this vicinity.

(117) At the **Back Narrows** leading westward of Fort Island the channel is foul with rocks. Fish wharves and private float landings are in the two coves westward of Fort Island.

(118) **Seal Cove** and **Long Cove,** on the east side just above The Narrows, have many unmarked dangers and are seldom entered.

(119) **Carlisle Island** is a low island close off the east side of Carlisle Point about 2 miles above The Narrows. The channel between the island and the point is not recommended because of an unmarked 2-foot spot at its southern end.

(120) **Miller Island**, a low wooded island in midchannel east of Carlisle Point, divides the river into two channels. The western channel is the more direct, but has an 18-foot spot at its northern end. The eastern channel is deep and passes close to Clark Cove.

(121) **Clark Cove**, on the east side, 2.5 miles above The Narrows, is a broad bight, shoal near the shores.

(122) **Pleasant Cove** is on the western shore of the river opposite Clark Cove, and makes in nearly 1.5 miles southwestward. Good anchorage can be had in the mouth of this cove just northwestward of **Carlisle Point,** in 15 to 30 feet, soft bottom. **Pleasant Cove Ledges,** extending northward of the cove, uncover 8 feet and are marked by a buoy at the north end. There is a private float landing in the cove.

(123) **Lowes Cove** indents the east shore for about 800 yards between **McGuire Point** and **Wentworth Point,** but dries out for most of its length. It is only about 100 yards wide. Anchorage in 15 feet can be had in the entrance.

(124) Anchorage can also be had behind Pleasant Cove Ledges on the west side in Wadsworth Cove.

(125) **Kelsey Point**, about 1 mile north of Wentworth Point, is low, but the land behind it rises abruptly to about 160 feet. A rock off Kelsey Point is covered 2 feet and is marked by a buoy.

(126) **Salt Marsh Cove**, on the west side southwest of Kelsey Point, dries out. **Merry Island,** off the western shore northwestward of Kelsey Point, is wooded. A daybeacon is on a bare rock off the island.

(127) **Mears Cove**, eastward of Merry Island and between Kelsey Point and **Lower Fitch Point,** affords excellent anchorage in 20 to 25 feet.

(128) **Fitch Point** is a low point making out from the east shore about 5.5 miles above The Narrows. Small **Baker Islet** is on **Glidden Ledge,** which extends about 350 yards from Fitch Point. A daybeacon is on the outer end of the ledge. The river channel is only about 100 yards wide at the point, and strong tidal currents are reported to sweep across the ledge and through the channel on the ebb.

(129) **Dodge Point** is a high bluff headland 1.2 miles above Fitch Point. **Perkins Point,** 100 feet high and cleared, is on the west shore about 1 mile above Dodge Point. A buoy marks the channel off the point, and a daybeacon marks the shoal water 0.4 mile northward of the point.

(130) About 0.8 mile above Perkins Point, the river is again narrowed to about 100 yards by **Goose Ledge,** which extends 0.3 mile southward of Hall Point on the east shore. **Hog Island,** a small wooded island, is in the entrance to **Huston Cove,** eastward of **Hall Point.** The cove dries out.

(131) Between Hall Point and **Little Point** on the west bank, the river is only about 250 yards wide and the channel less than 100 yards wide. A strong ebb tidal current is reported to run between the two points.

(132) A midchannel drying bank is northeastward of Little Point. The channel leads eastward of the shoal and is marked on the western edge. The channel then trends northward to **Jacks Point** and to the anchorage off the towns of Damariscotta and Newcastle.

(133) **Damariscotta** on the east bank and **Newcastle** on the west bank, about 14 miles above the mouth of the river, are connected by U.S. Route 1 highway bridge. The bridge has a fixed span with a clearance of 5 feet; a center pier in the bridge obstructs the channel. Old Indian shell mounds are on the west bank on **Glidden Point** 1 mile above the bridge. U.S. Bypass Route 1 highway bridge crosses the river at Glidden Point. The fixed span has a clearance of 31 feet. The river between the bridges is obstructed by rapids, and passage is possible at high water slack. Newcastle is on a freight branch of the Maine Central Railroad. The towns have banks, a hospital, motels, hotels, inns, restaurants, markets, laundromats, and shops of all kinds. Taxi and through coastal bus services are available.

(134) There is little traffic by water except for yachts and small fishing boats.

(135) A small-craft launching ramp is on the east bank just below the bridge. The town landing and municipal parking lot are adjacent to the launching ramp.

(136) Small craft can pass under U.S. Route 1 highway bridge at high water slack. A marina on the east side of the river just above the bridge has moorings and marine supplies, and can repair outboard engines.

(137) A boatyard, on the west bank in the cove below Jacks Point, builds craft up to 35 feet long. The yard has a marine railway that can haul out craft up to 35 feet in length at high water for hull and engine repairs, or dry open or covered winter storage. Marine supplies are available; gasoline and diesel fuel can be obtained by

truck. The float and the marine railway dry at low water.

Anchorage

(138) Anchorage in 11 feet, soft bottom, is available off the landings.

(139) **Booth Bay** and **Linekin Bay** are between Linekin Neck and Fisherman Island on the east and **Southport Island** on the west. They form the approach to the town of Boothbay Harbor and many summer resorts. They are frequented by many vessels and by a large number of fishing and pleasure craft in summer.

(140) Islands and rocks extend about 5 miles southward from the south end of Linekin Neck. The ground is very broken, rocks rising abruptly from deep water.

(141) **Bantam Rock**, awash at low water, the most southerly visible danger, is 1.3 miles southward of Damariscove Island. The wreck of the SS HARTWELSON, broken in two parts on Bantam Rock is no longer visible. It is marked by a lighted bell buoy.

(142) **Damariscove Island**, on the southeast side of the entrance to Booth Bay, is 1.7 miles long, bare, and nearly divided in the middle. **Damariscove Harbor,** at the south end, is used as a small-boat harbor by local fishermen. Conspicuous objects are two lookout towers and the buildings of a former Coast Guard station on the highest parts of the southerly section of the island.

(143) A fairway gong buoy is 0.5 mile south of the entrance to the harbor. **The Motions,** a ledge extending 0.3 mile south-southwestward of the southwest end of Damariscove Island, is awash at low water. An unmarked shoal cleared 32 feet is 0.8 mile southward of the southeast end of the island.

(144) **Poor Shoal**, covered 33 feet and unmarked, is 1.7 miles south of the island.

(145) **Fisherman Island**, northeastward of Damariscove Island, is bare. A large stone house on the highest part of the north section of the island is prominent.

(146) **Ram Island**, on the south side of Fisherman Island Passage, is a grassy island marked on the northwest side by **Ram Island Light** (43°48'14"N., 69°35'57"W.), 36 feet above the water, shown from a gray tower with a white top; a fog signal is at the light. The light has two white sectors which cover two approaches to Fisherman Island Passage; the eastern from 258° to 261°, and the southwestern from 030° to 046°.

(147) **The Hypocrites** is a long ledge with two low bare rocks eastward of Fisherman Island. A buoy marks the north end, and a daybeacon is at the south end. There is an unmarked channel between The Hypocrites and the ledges which extend 500 yards eastward of Fisherman Island. The southerly part of The Hypocrites was formerly known as **Smedrick Ledge.**

(148) **The Cuckolds** are two bare islets off **Cape Newagen,** the southern extremity of Southport Island, on the west side of the entrance to Booth Bay. The westerly islet is 12 feet high and the easterly 10 feet high. The easterly islet is marked by **The Cuckolds Light** (43°46.8'N., 69°39.0'W.), 59 feet above the water, shown from a 48-foot white octagonal tower on a dwelling; a fog signal is at the light. When approaching The Cuckolds, the easterly islet is more prominent and appears to be the larger and higher of the two.

(149) **Cape Harbor**, between Cape Island and Cape Newagen, accommodates small craft; yachts and fishermen use it mostly. **Cape Island** is wooded in the center. **Newagen** is a village on the harbor. There are two entrances to the harbor. The easterly one, leading between **The Ark** and Cape Newagen, reported to have a depth of 3 feet, is used by fishermen in good weather, but should not be attempted by strangers without local knowledge.

(150) The main entrance, from the westward between Hunting Island Daybeacon 4 and the shore, has a depth of about 10 feet. Pass north of Hunting Island Daybeacon 4 because the passage between **Hunting Island** and Cape Island is foul. A buoy marks the west side of the ledge that extends southwest from Hunting Island.

(151) Depths in the harbor are from 6 to 16 feet. There are a town wharf and float landing with 2 feet alongside, and a service pier with gasoline available that has 3 to 6 feet alongside. There is a large summer inn in the village, and there are also many summer homes. The inn also maintains a float landing to which water is piped in summer on the southwest side of the harbor.

(152) **Squirrel Island**, in the middle of Booth Bay, is an important summer resort. It is wooded and has many large homes. Water pipelines, submarine power cables, and telephone cables extend to the north end of the island from the southern tip of Spruce Point. The ferry from Boothbay Harbor lands passengers, mail, and freight at a float in the northerly of the two coves on the west side of the island. A ledge extending northwestward from the island is marked by a lighted buoy.

(153) **Squirrel Cove**, the southerly of the two coves on the west side, is sometimes used as an anchorage by small craft. A float landing in the cove has 8 to 10 feet alongside. A daybeacon marks the ledge at the south side of the entrance.

(154) **Linekin Bay**, the northeasterly arm of Booth Bay, is northeastward of Squirrel Island and between Linekin Neck and Spruce Point. The principal dangers are buoyed. Good anchorage can be found, the depths being 40 to 75 feet in the lower part of the bay and 30 to 36

feet in the upper portion. There are several private float landings.

(155) **Spruce Point Ledges**, awash at low water, are in the middle of the entrance; they are marked by two buoys at the south and north ends. The better and deeper entrance is between the southern buoy and **Negro Island.**

(156) In the narrow channel between the northern buoy and Spruce Point, give the point a berth of over 150 yards. A **028**° course with the southeast point of Squirrel Island astern will lead through the southern channel, thence **024**° to the head of the bay.

(157) **Ocean Point**, the point and village at the southern entrance to Linekin Bay, is marked by many summer homes and hotels. A depth of 3 feet is reported 275 yards westward of the point. A public wharf and float landing with 10 feet reported alongside is maintained in **Card Cove,** 700 yards north of the point. A ledge, which partially uncovers at low water, extends about 150 yards from shore just southward of the wharf; mariners are advised to use caution when approaching the wharf.

(158) South and southwest of Ocean Point, **Card Ledge, Dictator Ledge,** and **Gangway Ledge,** the main dangers in Fisherman Island Passage, are buoyed. Passage through the area between the buoys and Ocean Point should not be attempted because of the numerous dangers with little water over them. Broken bottom extends southwestward of Dictator Ledge to **Wylie Rock.**

(159) The principal dangers in Linekin Bay above Spruce Point Ledges, from south to north, include **Tibbits Ledge,** covered 8 feet and marked on its southwestern side by a buoy; **Cabbage Island,** wooded and with a house in the center, and the buoyed ledge that extends south from it; **Holbrook Ledge,** which uncovers 3 feet and is marked on its northwest side by a buoy; a rock covered 12 feet 200 yards westward of the south end of Holbrook Ledge; **Seal Rock,** awash at low water and marked off the southeast side by a buoy; a depth of 19 feet about 150 yards east of the buoy; a rock awash at low water reported 120 yards northward of Seal Rock, which several boats have reported striking; and a ledge on the east side surrounding **Perch Island** marked by a buoy at the southwest end.

(160) **Fish Hawk Island**, about 0.4 mile northward of Seal Rock, has several trees and a ledge which uncovers about 4 feet extends southward of it. The narrow unmarked channel westward of Seal Rock should be used with caution. There are numerous unmarked rocks at the head of the bay. **Spruce Point,** the north entrance point to Linekin Bay, is wooded.

(161) East of Tibbits Ledge is a yacht yard which builds craft up to 65 feet in length and manufactures marine hardware. The yard has a marine railway and a machine shop but does not solicit repair work. There is a depth of 7 feet at its float landing; the yard maintains guest moorings.

(162) **Capitol Island** (43°49.4'N., 69°39.0'W.), on the west side of Booth Bay, is connected at its northern end by a footbridge to Southport Island. There is a private float landing at the bridge. Capitol Island, a summer colony, is on the island. Daybeacons mark the ledges off the south and east sides of the island.

(163) **Pig Cove**, between the island and Southport Island, has anchorage in 11 to 63 feet for three-fourths of its length, but is shoal and foul at its northern end above the narrows. Fish wharves, a lobster pound, and a number of private float landings are in the cove. There are no facilities.

Charts 13296, 13293

(164) **Boothbay Harbor**, the western arm of Booth Bay, is one of the best anchorages on the Maine coast. The harbor is spacious and well sheltered, and has good holding ground. The town of **Boothbay Harbor,** at the head of the harbor, is an important summer resort and yachting center, with a hospital, hotels, and motels. Fishing, boatbuilding, and summer tourists are its main industries. A number of excursion, sightseeing, charter, and party fishing boats operate from the harbor to the outlying islands and surrounding waters in the summer.

Prominent features

(165) **Burnt Island**, partly wooded, is marked on the southeast side by **Burnt Island Light** (43°49.5'N., 69°38.4'W.), 61 feet above the water, shown from a white conical tower with covered way to a dwelling; a fog signal is at the light. White sectors in the light from 307° to 316° cover the fairway in the approach eastward of Squirrel Island from Fisherman Island Passage, and from 355° to 008°, the approach westward of the island from the south and westward.

(166) **Mouse Island**, northward of Burnt Island, is wooded; it has a private float landing on the north side with a depth of about 12 feet, and a pier and float landing on the east side. A flagstaff on the east side of the island and several homes are prominent.

(167) The tower and buildings of the Maine Department of Marine Resources fish hatchery and laboratory on **McKown Point** and the footbridge across the head of the harbor are conspicuous. A tower with a flashing red light above the harbor was also reported to be very prominent.

Channels

(168) Two deep natural channels lead into the harbor. The easterly and widest leads between Spruce Point on the east, and Squirrel, Burnt, and Mouse Islands on the west. The westerly one leads between those islands and Southport Island on the west, but is narrow in places. Most of the dangers are marked and have been described. The chart and the aids if carefully followed should be sufficient guidance for strangers to enter at any time.

Anchorage

(169) Anchorage can be found in 24 to 42 feet for large vessels in the outer harbor northward of Tumbler Island and off McKown Point. The inner harbor has depths of 6 to 24 feet. The anchorage most used by small craft is on the northwest side of the inner harbor, northeastward of McFarland Island, where there are general depths of 10 to 12 feet, when clear of the ledge around the island.

(170) Most craft anchor off the wharves, but there are numerous private moorings, guest moorings maintained by the yacht clubs, and those for hire by the various service facilities. However, it is sometimes difficult to secure adequate swinging room.

Dangers

(171) The approaches to the harbor are generally deep and clear with most of the dangers marked. **Tumbler Island Ledge,** off the west side of Spruce Point, covered 9 feet, is marked on its west side by a buoy. A lighted buoy, about 225 yards west-northwestward of **Tumbler Island,** marks the ledges extending westward and northwestward of the island. The wooded island has a house and a prominent flagpole on it, and a pier with float landing extends from its northeastern end.

(172) The passage between Tumbler Island and Spruce Point should not be attempted by strangers as it is shoal and foul; strangers should not anchor there.

(173) **Clam Rock**, about 700 yards northeastward of Tumbler Island, close to shore, is unmarked, as are 10- and 12-foot rocky ledges, 250 yards southwestward, and 150 yards westward, respectively, of the rock. A 14-foot rocky ledge, about 300 yards southwestward of **McFarland Island** is unmarked, but the ledges surrounding the island are marked on the south side by a lighted buoy.

Caution

(174) In summer the inner harbor is nearly filled with all types of fishing and pleasure craft. At night, many of these are often unlighted, and great care should be exercised in approaching the anchorage to avoid fouling them or any of the numerous unoccupied moorings, which also are often unlighted. The footbridge across the head of the harbor has a small drawspan with a clearance of 4 feet.

Tides and currents

(175) The mean range of tide is 8.8 feet. Tidal currents have little velocity in the harbor.

Ice

(176) In severe winters, ice occasionally obstructs navigation above Tumbler Island during February and March. In normal winters the harbor is free of ice to the footbridge.

Pilotage, Boothbay Harbor

(177) Pilotage is compulsory for all foreign vessels and U.S. vessels under registry with a draft of 9 feet or more. Pilotage is optional for fishing vessels and vessels powered predominantly by sail. Pilots are available to take all vessels through restricted or difficult passages such as the inside passage through Townsend Gut and Sasanoa River to the Kennebec River. The pilots address is Shipping Services Inc., P.O. Box 104, Southport, ME 04576-0104; telephone, 207-633-3666; FAX 207-633-5641, e-mail: knnbcshpplt@clinic.net; radiotelephone, VHF-FM channels 16 and 13. The pilots also serve vessels transiting through Kennebec River to Bath, Sheepscot River to Wiscasset, and Boothbay Harbor. The pilot station monitors radiotelephone VHF-FM channel 13 when expecting traffic. The pilot boat monitors VHF-FM channels 13 and 16, and works channels 11, 13, 16, and 80A. The pilot boat description varies; mariners should ask the pilot before arrival. The pilot boat will display the standard running lights; sometimes an escort tug, if needed, is used. The pilot boarding location varies according to the sea condition. When needed, the ship's pilot ladder should be rigged one meter above the water. A 48-hour and a 24-hour advance notice of arrival is requested from the vessel's agent. Kennebec and Sheepscot Rivers are normally daylight pilotage only. In the Kennebec River, depending on the vessel's size, night transits are sometimes made by radar. Boothbay Harbor pilotage is available anytime.

(178) Portland Pilots, Inc. serves Kennebec River: telephone 207-774-5623, FAX 207-774-5683. Bath Iron Works Pilot is at the telephone and Fax numbers mentioned earlier for Shipping Services, Inc.

Towage

(179) Tugs are stationed at Bath and Southport. Contact the pilots for tug service.

(180) A **hospital** with pier and float landing is about 0.4 mile north-northeast of McKown Point.

(181) A **Boothbay Harbor Coast Guard Station** is on McKown Point.

Harbor regulations

(182) Harbor regulations and moorings in the harbor are under the supervision of the **harbormaster,** who can be reached through the town office, through any of the service facilities along the waterfront, or on VHF-FM channel 6 or 16. A **speed limit** of 5 knots in the harbor is enforced.

Wharves

(183) There are service wharves and marinas, almost all with float landings, which have reported depths of 4 to 15 feet alongside. A town float landing with a reported depth of 6 feet alongside is at the draw of the swing footbridge at the northeastern end of the harbor; another town landing is on the west side of the harbor. Piers and buildings of several seafood processing plants are along the easterly shore of the harbor.

(184) The Boothbay Harbor Yacht Club operates from float landings on the south shore of the village of West Boothbay Harbor, northward of McKown Point; depths of 12 feet are reported alongside the landings. The club maintains several guest moorings.

Small-craft facilities

(185) There are excellent shipbuilding, boatbuilding, and small-craft repair facilities along the entire town waterfront in the eastern part of the harbor.

Communications

(186) Taxi service, both local and to coastal bus service at Wiscasset, is available. Ferry service to the islands is maintained throughout the year.

(187) The Inside Passage from Boothbay Harbor to Bath is about 11 miles long and leads between the islands located between Boothbay Harbor and Kennebec River. The protected route is used by excursion boats, yachts, and fishing boats.

(188) The aids are colored and numbered for passage westward. In the vicinity of Cameron Point Light 7, on the north end of Southport Island, is one of the most difficult places to make in the thorofare; craft entering from the westward at this point should be careful to pass southward of the buoy marking the ledge extending southward from Indiantown Island.

(189) The channel is very narrow in places, has strong tidal currents, and is much obstructed by rocks and shoals. Though most dangers are marked, strangers drawing 7 feet or more should not attempt it at low water. The passage leads through Townsend Gut, across Sheepscot River, and through Goose Rock Passage and Knubble Bay into Sasanoa River.

(190) Goose Rock Passage is marked by a directional light, buoys, and a daybeacon. About midway through Sasanoa River the channel crosses the southern part of Hockomock Bay and then continues through Sasanoa River, coming out in the Kennebec River opposite the city of Bath. In 1958, the least depth in Sasanoa River was 7 feet at the southern end of **Hanson Bay** and near the northern entrance to the river. In the spring logs and driftwood may be present.

(191) Two highway bridges cross the thorofare. State Route 27 highway bridge at Townsend Gut has a swing span with a clearance of 10 feet. (See **117.1 through 117.59 and 117.537,** chapter 2, for drawbridge regulations.) State Route 127 highway bridge over Sasanoa River near its junction with Kennebec River has a fixed span with a clearance of 51 feet. An overhead power cable at the bridge has a clearance of 75 feet.

Routes

(192) This passage is narrow and crooked, has strong tidal currents, and requires local knowledge to carry the best water. Strangers on larger vessels or yachts should pick up a pilot at Boothbay Harbor or Bath. With the aid of chart 13296, strangers in small craft drawing 7 feet or less should be able to go through. The best time is on a rising tide. The channel is well marked but careful navigation is required.

Caution

(193) At strength of current in the narrow places, the buoys are often run under for short periods.

(194) The thorofare is usually closed by ice for about 2 months, but in mild winters it has been known to remain open all winter. Several summer resorts and other landings are along the route.

(195) **Townsend Gut** is a narrow, crooked thorofare connecting Boothbay Harbor with Sheepscot River. The shores of Townsend Gut are lined with private docks and floats. Mariners are advised to use prudent speed to avoid wake damage. A **speed limit** of 5 knots is enforced through the State Route 27 highway swing bridge at Townsend Gut. There are unmarked rocks with little depth close to the channel. A rock, covered 5 feet and marked by a buoy, is about 100 yards southeastward of the swing bridge. This rock can be cleared by keeping lined up with the center island, but avoid being set to the eastward while waiting for the bridge to open.

(196) **Deckers Cove**, on the west side of Townsend Gut about 0.4 mile above the southern entrance, is crossed by State Route 27 highway bridge which has a 15-foot

fixed span with a clearance of 7 feet. East of the north end of the bridge is a former fish wharf with a depth of 17 feet alongside, at which large yachts are moored for winter storage. There are several boatsheds and float landings in the cove.

(197) **Southport** is a village and summer resort on the west side of the gut near the western end. There are numerous float landings on both sides.

(198) **Hodgdon Cove**, on the northeast side of the Gut opposite Southport, is shoal and foul at the head and around the edges with numerous sunken rocks, but affords good sheltered anchorage in from 12 to 27 feet, mud bottom, in the middle of the outer part of the cove.

(199) **Moffat Cove** is just northwestward of Hodgdon Cove on the east side of the Gut. Good anchorage in 10 to 22 feet with a mud bottom is available.

(200) **Cameron Point Light 7** (43°51'05"N., 69°40'06"W.), 24 feet above the water, shown from a white skeleton tower with a green square daymark, marks the ledge extending northward from **Cameron Point**, the northern extremity of Southport Island. A ledge which uncovers 1 foot extends southward from **Indiantown Island** and is marked at the south end by a buoy.

(201) **Isle of Springs**, 0.6 mile northwest of Cameron Point, is a summer resort at the north end of Townsend Gut. The island is wooded and has an elevated tank at its summit. The ledge extending off the north end of the island is marked by a daybeacon. There is a wharf with float landing, with 10 feet alongside, on the northeastern side of the island from which, in summer, a private motorboat ferry runs north to Clam Cove, at the southwest end of Sawyer Island.

(202) **Sawyer Island**, northward of Isle of Springs, is connected to the mainland by a highway bridge at its southeast corner which has a fixed span with a clearance of about 2 feet. The current is strong in this locality. It is also connected at the northeast end to the south end of Hodgdon Island by a fixed highway bridge which has a 35-foot fixed span with a clearance of 6 feet.

(203) **Goose Rock Passage** leads from Sheepscot River into Sasanoa River northward of MacMahan Island, and forms a part of the inside route. It has ample depth, but is narrow in places; principal dangers are marked.

(204) At the western end of the passage, **Goose Rock Passage Light 5** (43°50'56"N., 69°43'15"W.), 16 feet above the water and shown from a white triangular tower with a green square daymark on a caisson, marks the best water through the passage and into Knubble Bay. **MacMahan Island Ledge,** a drying reef off **Northeast Point** on **MacMahan Island,** is marked by a daybeacon. **Sixfoot Rock,** off the northwest corner of the island, is marked by a buoy on its north side.

(205) **Boiler Rock**, covered 3 feet and marked by a buoy on its southeast side, is at the western end of the passage. This buoy is reported to tow under during the strength of the current. **Goose Rock,** a bare rock on a ledge which uncovers and gives the passage its name, is about 150 yards northwestward of Boiler Rock. Intensified beams of Goose Rock Passage Light 5 mark the best water through the passage and northwestward into Knubble Bay and Sasanoa River.

(206) **Little Sheepscot River** is a narrow passage westward of MacMahan Island leading from Sheepscot River into Sasanoa River. The channel is narrow, being less than 50 yards wide at its narrowest part. The best entrance from the southward is west of **Turnip Island.** Craft of more than 4-foot draft should avoid passing through the channel between Turnip Island and the southern end of MacMahan Island at low water.

(207) Little Sheepscot River is marked by a buoy about midway through the passage, west of **MacMahan Ledge.** Another buoy at the northern end, marking Sixfoot Rock, should be passed well to westward when entering Goose Rock Passage from Little Sheepscot River. There is an unmarked drying ledge, with two rocks which uncover 4 feet, on the west side of the channel, about 200 yards south-southwest of the buoy marking MacMahan Ledge. Two float landings are on MacMahan Island eastward of it.

(208) **MacMahan** is a summer resort on the west side of MacMahan Island.

(209) **Sasanoa River**, part of the Inside Passage from Booth Bay to Bath, is an estuary leading from Sheepscot River to Kennebec River, north of Georgetown and Arrowsic Islands. It has numerous coves and bays, none of which are of commercial importance, making off northward and southward. The general trend of this river is northwest and southeast.

(210) The principal coves and bays making southward are **Robinhood Cove, Riggs Cove,** and **Hall Bay.** Northward are **Heal Cove** and **Hockomock Bay. Montsweag Bay** and **Brookings Bay** lead northward from Hockomock Bay. Montsweag Bay separates Westport Island from the mainland and joins the Sheepscot River at Wiscasset through Back River.

(211) **Knubble Bay** is the broadest part of the river after passing Robinhood Cove and the **Knubble,** before entering Hockomock Bay when coming from eastward.

(212) **Lower Hell Gate** is the crooked passage from Knubble Bay into Hockomock Bay. **Upper Hell Gate,** about 2 miles from the western entrance to the river, is the narrowest part, about 60 yards wide. A daybeacon marks a rock on the southwest side of Upper Hell Gate.

(213) **Halftide Ledge,** about 400 yards southeastward of Upper Hell Gate, is marked by a daybeacon. In 1958, shoaling to 4 feet was reported about 50 yards south of the daybeacon. A rock awash at low water was also reported on the southern side of the channel about 150

yards 190° from the daybeacon. **Extreme caution** should be exercised in this area.

(214) The Sasanoa River is a Marine Managed Area (MMA). (See **MMA 8-9,** Appendix C, for additional information.)

Tides and currents in Sasanoa River

(215) The mean range of tide is 8.8 feet at Robinhood and Mill Point, and 7.0 feet at Upper Hell Gate. The velocity of the tidal current at strength is 1.8 knots off Lowe Point; 3.0 knots on the flood and 3.5 knots on the ebb at Lower Hell Gate; and about 1.0 knot at Upper Hell Gate. Velocities up to 9.0 knots have been observed in the vicinity of **The Boilers** at Lower Hell Gate causing dangerous eddies and whirlpools; navigation through this area should be attempted only at or near slack water. The current floods to the northwestward and ebbs southeastward generally. For predictions, see the Tidal Current Tables. It has been reported that the ebb current sometimes runs for 8 or 9 hours at Upper Hell Gate.

(216) **Robinhood** is a village on the western side of the entrance to Robinhood Cove. There is a marina and yacht yard with a wharf and floats on the south side of Riggs Cove at the village. The yard has a 40-ton mobile lift and a 5-ton hoist, and can make hull, engine, and electrical repairs. Gasoline, diesel fuel, water, ice, berthing, marine supplies, and storage facilities are available. Depths of about 10 feet are reported alongside the wharf and floats.

(217) There is good anchorage in 20 to 70 feet, blue clay bottom, northeastward of the wharf. The harbor is reported to be free of ice.

(218) **Blacksmithshop Ledge**, eastward of Robinhood on the west side of the entrance to Robinhood Cove, uncovers 2 feet and is marked by a daybeacon. **Back River,** which also connects Sheepscot River to Kennebec River, crosses Sasanoa River at Hockomock Bay. This river has a general north-south direction. South of Hockomock Bay the river separates **Arrowsic Island** and **Georgetown Island,** is unmarked, and is crossed by a fixed highway bridge with a clearance of 6 feet. The river shoals between the bridge and Hockomock Bay.

(219) North of Hockomock Bay a natural channel, marked by private buoys, leads through Montsweag Bay, the upper part of the river, and Cowseagan Narrows, separating Westport Island from the mainland, and joins Sheepscot River just below Wiscasset.

(220) It is reported that the incoming tide up Montsweag Bay meets the tide of Back River in the vicinity of **Young Point** (43°56.3'N., 69°42.6'W.).

(221) Currents are strong and erratic through Back River and in the vicinity of the fixed Cowseagan Narrows Bridge, clearance 48 feet, that crosses **Cowseagan Narrows** about 2 miles south of Wiscasset. The ledges and shoals in the narrows make the channel quite narrow at this point. Mariners are advised that passage through the narrows should not be attempted without local knowledge, and then only by small boats at slack water.

(222) **Westport Island** is 9 miles long, about 1.7 miles wide, and wooded. It has little commercial importance. There are a number of summer homes and camps on the island. A general store is on the main road about 1.5 miles south of the bridge across Cowseagan Narrows. Gasoline, provisions, and some supplies can be obtained there.

(223) Abandoned ferry landing ramps remain on both sides of Back River about 1 mile south of the bridge.

Chart 13293

(224) **Sheepscot River** is the approach to several small villages in the lower end and to the city of Wiscasset, 14 miles above the entrance. The entrance is about 5 miles northeastward of Seguin Island, between The Cuckolds and Griffith Head (43°47.0'N., 69°43.4'W.).

Recommended minimum under-keel clearances for Sheepscot River

(225) The U.S. Coast Guard, in cooperation with the Maine and New Hampshire Port Safety Forum, has established recommended minimum under-keel clearances for Sheepscot River, in order to prevent groundings and to promote safety and environmental security of the waterway resources of Sheepscot River. The group recommends that all entities responsible for safe movement of vessels in and through the waters of Sheepscot River operate vessels in such a manner as to maintain a minimum under-keel clearance of 2 feet between the deepest draft of their vessel and the channel bottom when transiting the river inside Entrance Lighted Bell Buoy 2SR, and a minimum under-keel clearance of 1 foot at all berthing areas.

Recommended Vessel Route

(226) The U.S. Coast Guard Captain of the Port, Portland, Maine, in cooperation with the Maine and New Hampshire Port Safety Forum, has established a Recommended Vessel Route for vessels entering and departing the Sheepscot River. Vessels are requested to follow the designated route. Local fisherman in this area normally standby on VHF-FM channels 7 (156.350 MHz) and 10 (156.500 MHz). This route was designed to provide a safe, established route for increased vessel traffic, to prevent the loss of fishing gear placed in the waters of, and approaches to, the Sheepscot River, and

to reduce the potential for conflicts between larger, less maneuverable vessels and all other vessels navigating upon these waters. Vessels are responsible for their own safety and are not required to remain inside the route, nor are fisherman required to keep fishing gear outside of the recommended vessel route.

Channels

(227) The channel in Sheepscot River is deep, and the principal dangers are marked. It is a region of rocks and ledges, many of them rising abruptly from deep water. The channel has a depth of over 30 feet to Wiscasset and is navigable for small craft at high water for about 4 miles above Wiscasset to the village of Sheepscot. There is a 25-foot shoal in midchannel in the bend below Wiscasset, about 270 yards south-southwestward of the tower of old **Fort Edgecomb** on the southwestern end of **Davis Island.**

Anchorages

(228) Ebenecook Harbor is the first anchorage available for vessels drawing up to 20 feet entering the river. Above **Stover Ledge,** about 2 miles north-northeast of Northeast Point on MacMahan Island, anchorage can be had in the channel, the depths being usually 72 feet or less. **Colby Cove,** in the west bank about 2.2 miles above Cross River, affords anchorage in 48 to 60 feet; Merrill Ledge is northeastward of the anchorage. The anchorage at Wiscasset is below the bridge near the town wharves in 28 to 50 feet.

(229) The **Sheepscot River Closed Area**, a Marine Managed Area (MMA), includes the waters of the Sheepscot River north of Wiscasset. (See **MMA 8-10**, Appendix C, for additional information.)

Dangers

(230) There are several unmarked rocky areas with depths of 20 to 30 feet near the middle of the river southward of Bull Ledge. The river should be navigated with extreme caution. With the aid of the chart and by following the aids, little trouble should be experienced in reaching Wiscasset. Detailed information on the dangers in Sheepscot River is given with the description of the river.

Pilotage, Sheepscot River

(231) Pilotage is compulsory for all foreign vessels and U.S. vessels under registry with a draft of 9 feet or greater. Pilotage is optional for fishing vessels and vessels powered predominately by sail. Pilot services are available to all vessels. The pilot boarding location varies according to sea conditions. (See Pilotage, Boothbay Harbor, for additional information concerning arrangements for pilot and tug services, and communications.)

Tides and currents

(232) The mean range of tide varies from about 8.9 feet at the entrance to 9.4 feet at Wiscasset.

(233) The tidal currents in the river generally set in the direction of the channel and have considerable velocity in the narrow parts. At the entrance of Cross River the flood sets onto **Quarry Point.** The ebb sets onto **Clough Point.** On the falling tide a strong set to westward is felt near Bull Ledge, and a strong set to the eastward near Middle Ledge. These sets are not noticeable on a rising tide. There is a strong ebb current near the entrance to Cross River. Off Barter Island the tidal current has an average velocity at strength of about 1 knot. See Tidal Current Tables for predictions.

(234) **Ice** usually does not interfere with navigation below Wiscasset. The river above Wiscasset is usually closed in winter.

Wharves

(235) The only deepwater wharf on the river is at the powerplant at Wiscasset. Wharves for small craft are at the small ports along the river, and information on them is given in the description of the river.

(236) The Cuckolds Light and Cape Harbor, on the east side at the entrance, were described previously. Rocks, bare and covered, extend 0.5 mile westward of the point in this vicinity.

Chart 13295

(237) **Tom Rock**, 2.4 miles northeastward of Seguin Light (43°42.5'N., 69°45.5'W.), awash at low water and marked by a buoy on the southwest side, is the outermost danger in the entrance to Sheepscot River.

(238) **The Sisters**, 0.5 mile northward of Tom Rock and 1.5 miles from the northwestern shore at the entrance to Sheepscot River, are a number of small, bare rocks on an extensive ledge area. A buoy is 0.2 mile northwestward of the ledges.

(239) **The Black Rocks**, 1 mile from the northwestern side of the entrance to Sheepscot Bay, are three groups of bare and covered rocks and ledges that extend over a distance of about 0.7 mile. The highest bare rock in the middle of the group is 15 feet high. The southern part of the ledge is reported to uncover just after the start of the ebb and should be given a wide berth. The islet on the northern group is 10 feet high.

(240) The channel between The Black Rocks and the buoy marking **Sloop Ledge,** 0.4 mile northwestward, which is covered 5 feet, should be used with caution.

The area between the buoy and the northern shore is very broken and should not be crossed because of **Little River Ledges,** which are awash in places.

(241) **Griffith Head,** white and rocky, is on the west side of the entrance to Sheepscot River, about 5 miles northward of Seguin Island Light. **Outer Head,** a bare rocky islet, is 200 yards eastward. A buoy, 0.4 mile east of the islet, marks **Griffith Head Ledge,** which is covered 4 feet. Unmarked shoals, cleared to 35 and 25 feet, are on the western side of the main channel 0.8 mile and 1.3 miles northward of Griffith Head Ledge, respectively.

(242) Griffith Head and a considerable amount of the surrounding area are included in **Reid State Park,** a public picnic area, open in the summer. There are swimming beaches, bath houses, showers, restrooms, and a snack bar. There are no landings. A dam and highway bridge cross the mouth of the creek at the head of the cove on the north side of the head. The cove is foul.

(243) **Lower Mark Island**, on the eastern side just inside the entrance to Sheepscot Bay, is 12 feet high, wooded, and a good landmark. A ledge which uncovers 4 feet extends 400 yards eastward of the island. Broken ground with 19- and 23-foot spots extends about 0.6 mile northwestward of the island. The 23-foot spot is marked by a gong buoy. Unmarked **Cranberry Ledge,** covered 10 feet, is 0.4 mile southeastward of Lower Mark Island.

(244) **Cat Ledges** and **Dry Ledge** are a group of islets and ledges extending 0.5 to 1 mile northward of Lower Mark Island. Dry Ledge, the northwesterly end, is 4 feet high, and the southeasterly end of Cat Ledges uncovers 3 feet. The coves in Southport Island eastward of these ledges are foul and of no importance.

(245) **Harmon Harbor** is a long, narrow cove making northward on the western side of the river about 1.5 miles above Griffith Head. It has good anchorage, except during southerly gales, in 24 to 36 feet, but has a very narrow entrance between a bare ledge near the west shore and a dangerous reef, awash at low water, extending 275 yards southwestward from **Wood Island,** on the eastern side of the entrance, south of **Dry Point.** A buoy marks the southwest end of the reef. There are no public landings in the harbor. There is a prominent hotel on the west side near the middle of the harbor, and a small settlement at the head.

(246) **Five Islands Harbor**, a narrow passage between Five Islands and the western shore north of Dry Point, forms a secure harbor for small craft, with depths of 18 to 30 feet. The main entrance is northward of **Malden Island,** the largest wooded island, which is 30 feet high. A colony of summer homes is on the island, and a private float landing is on its northwestern side. Malden Island is connected to the island close westward of it by a bridge. A rock awash, north of Malden Island in the harbor entrance, is marked by a buoy.

(247) Boats also can enter the harbor from the northwestward, following the western shore and passing inside of all islands and shoals. **Crow Island Ledge,** extending west from Crow Island at the northern entrance, is marked by a daybeacon. Northwestward of the daybeacon, an unmarked ledge makes out from the Georgetown Island shore. Care should be taken to avoid it by favoring the Crow Island side of the channel slightly and passing close westward of the daybeacon. The southern entrance, nearly blocked by rocks and ledges that uncover about 4 feet, should not be used without local knowledge. There is also a clear channel from the eastward south of Malden Island.

(248) **Five Islands** is a village on Georgetown Island on the western side of the harbor. There are several float landings. A marina has depths of 6 to 10 feet reported alongside its float landings. Transient berths, gasoline, and some marine supplies are available. A 10-ton fixed lift can handle craft up to 40 feet for hull and engine repairs or dry open or covered winter storage. The village landing, adjacent southward, has 12 feet alongside. Provisions can be obtained at a store at the landings, and there is a snack bar.

(249) **Gotts Cove**, close northwestward of Five Islands Harbor, has a private wharf and two float landings, one north and one south, along the north shore. The north float has reported depths alongside to 15 feet and the south float has 6 feet. Diesel fuel, moorings, and marine supplies are available at the wharf.

(250) **Cozy Harbor** is a cove on the eastern side of Sheepscot River. The entrance is 0.4 mile southeastward of **Hendricks Head Light** (43°49.4'N., 69°41.4'W.), 43 feet above the water, shown from a 39-foot white square tower on the head.

(251) The harbor is frequented by local pleasure and fishing craft, and in summer by many cruising yachts. The narrow entrance channel, marked by two daybeacons and a buoy, has depths of 15 to 8 feet. The harbor, though small, is secure with depths of 2 to 8 feet in the anchorage. In 1999, the area just northward of Daybeacon 5 was shoal to bare.

(252) The Southport Yacht Club in the harbor has 4 feet alongside its float landing. A service wharf adjacent to the club landing, with 2 feet alongside its float landing, has gasoline and water.

(253) A general store, restaurant, bowling alley, and telephone are on the wharf. Provisions, bottled gas, lobsters, and some marine supplies can be obtained. There is a ramp; parking and picnic areas are in the vicinity.

(254) The village of **West Southport** is at the harbor. There are fish wharves and private landings in the harbor. A causeway and fixed bridge with a clearance of

about 3 feet connects Southport Island with **Pratts Island** at the south end of the harbor.

(255) **Hendricks Harbor**, shoal and foul, is on the east side of Hendricks Head. There are no landings in the harbor.

Chart 13296

(256) About 6 miles of Sheepscot River is shown on this large-scale chart of the inside passage from Boothbay Harbor to Bath. Chart 13293 also shows this section, but its scale is smaller; chart 13296 should be used if going into Ebenecook Harbor or any of the channels except the main river.

(257) **Ebenecook Harbor**, making into the northwest end of Southport Island, is an excellent anchorage for vessels up to 20-foot draft. Its entrance, about 1 mile above Hendricks Head on the eastern side of Sheepscot River, leads between Dogfish Head on the south and the Green Islands on the north. It is the first large anchorage available for craft entering the river. The entrance is narrow.

(258) The southern part of the harbor divides into three arms, the outer sections of which afford good, sheltered anchorage; the inner sections to the heads are shoal and foul, and should be avoided.

(259) **Maddock Cove**, the westerly arm, has a large marina and yacht yard on its eastern shore. The yard has a wharf with float landings that have 8 feet alongside. Gasoline, diesel fuel, and water are available at the floats; ice, provisions, bottled gas, and marine supplies are available. Overnight berthing is permitted, and the yard maintains guest moorings. The yard has a 30-ton mobile hoist that can haul out craft to 60 feet for open or covered dry winter storage. General hull, engine, electric, and electronic repairs can be made, and the yard has machine, paint, and carpentry shops. There is a telephone on the wharf. Anchorage can be had in midchannel off and to the northwestward of the marina in 8 to 16 feet.

(260) When entering Maddock Cove care should be taken to avoid the ledges on the east side of the cove. A buoy marks the north end of a 7-foot spot on the east side of the entrance.

(261) **Pierce Cove**, the middle arm, has several private float landings.

(262) **Love Cove**, the eastern arm, has excellent anchorages in 8 to 9 feet in midchannel southward of the submarine power and telephone cables crossing the entrance to the cove to Little Island, the smaller of the two islands on the western side of the entrance to the cove. Three private float landings are on the cove, and a guest mooring is maintained by the pilot for the area, who resides on the east shore of the cove. The head of the cove is shoal and foul.

Routes

(263) Entering Ebenecook Harbor, vessels should give the eastern shore of Sheepscot River a berth of 300 yards from Hendricks Head Light north for 1 mile to **Dogfish Head,** rocky and grass covered with a prominent domed house on the northwest end. Pass in midchannel between Dogfish Head and the southern extremity of Green Islands, avoiding a 7-foot rock patch marked by a buoy inside the entrance. Small craft may choose anchorage in any of the coves in the southern part of the harbor or, if preferred, anchor in the northern part where desirable. A rocky unmarked ledge, covered 14 feet, is about in the middle of the harbor.

(264) Extending northward from Ebenecook Harbor to Sawyer Island is a channel, affording good anchorage in places, which is used by small pleasure craft in summer. The channel is a part of the Inside Passage used by local vessels between Boothbay Harbor and Bath. Navigation of its northern part, as well as the passages between the islands and ledges on its western side, requires some local knowledge.

(265) The principal islands and rocks are wooded **Green Islands;** a rock which uncovers at low water 200 yards northeastward of them and marked by a buoy southeastward of it; a ledge, with an islet 5 feet high in its middle, between Green Islands and Boston Island; and a rock, covered 6 feet, 250 yards westward of the ledge.

(266) **Boston Island** is high and partly wooded, and has two houses and a boat landing. A ledge extends about 250 yards southeast from the island. **Spectacle Islands** are partly wooded. A ledge awash at low water is 150 yards westward of their southwest end.

(267) Townsend Gut, Isle of Springs, and Sawyer Island, on the eastern side of Sheepscot River, and Little Sheepscot River and Goose Rock Passage on the western side were described previously under the Inside Passage.

(268) **Bull Ledge**, west of Dogfish Head and 1 mile northward of Hendricks Head, uncovers at the north end at low water and is marked at the south end by a buoy.

(269) **Middle Mark Island**, a small, round, bare islet 12 feet high, is in the middle of a ledge 0.3 mile long located 0.3 mile east of MacMahan Island and 1.5 miles above Hendricks Head. **Mark Island Ledge,** covered 7 feet, is 250 yards southwestward of the island. The main channel leads eastward of the island.

(270) **Middle Ledge**, 600 yards eastward of the southern side of the entrance to Goose Rock Passage, is covered 8 feet, but less depth has been reported on this ledge. A buoy marks its northern side.

(271) **Clous Ledge**, 0.2 mile eastward from wooded **Whittum Island,** at the entrance to Goose Rock Passage, uncovers about 4 feet and is marked by a daybeacon on the middle of the ledge and a bell buoy off its northern end.

(272) **Powderhorn Island**, 25 feet high and grassy, is on the eastern side of the river 2 miles above Hendricks Head. **Powderhorn South Ledge,** which uncovers 6 feet, extends 0.3 mile southward from the island and is marked at its south end by a buoy. A narrow channel is between the buoy and the north end of **Harding Ledge,** covered 5 feet and marked at its south end by a buoy.

(273) **Powderhorn Ledge**, covered 3 feet, is 200 to 350 yards northward of Powderhorn Island, and is marked on its western side by a lighted buoy.

(274) **Fourfoot Rock** is on the west side of the channel about 0.2 mile northward of Clous Ledge.

(275) **Long Ledge**, 0.2 mile long and awash at low water, is about 0.2 mile westward of Fourfoot Rock.

(276) **Ram Island Ledge**, which uncovers 5 feet in spots, is on the east side of the channel and extends 0.3 mile in a north-northeasterly direction from **Ram Islands** to the entrance to Back River. A ledge which uncovers 6 feet, marked by a daybeacon and a buoy at its north end, is eastward of Ram Island Ledge. These aids also are guides to the narrow channel leading northward from Ebenecook Harbor.

(277) **Upper Mark Island**, about 0.5 mile northwestward of Ram Islands, is a low grassy islet 8 feet high from which a shoal extends 600 yards northward.

(278) **Jewett Cove** and **Long Cove** are unimportant coves on the west side of Sheepscot River westward of the entrance to Back River.

(279) **Back River** is a shallow, narrow, and unmarked stream between **Barters Island** and the mainland. Its southern entrance is on the eastern side of the Sheepscot about 3 miles northward of Hendricks Head; its northern entrance is from Cross River. Only small craft use it; local knowledge is required for its navigation. The entrance to Back River is marked by a buoy 300 yards westward of the southern end of Barters Island and a buoy 300 yards northeastward of Ram Island Ledge. Buoys and a daybeacon mark the critical points in the channel between Barters Island on the northerly side and Sawyer, Hodgdon, and Merrow Islands on the southerly side.

(280) There are several private float landings on the south end of Barters Island, just inside the entrance. A bridge across the river between Hodgdon Island and the south end of Barters Island has a swing span with a channel width of 40 feet and a clearance of 6 feet; the channel is through the east draw. (See **117.1 through 117.59 and 117.523**, chapter 2, for drawbridge regulations.) Overhead cables at the bridge have a minimum clearance of 38 feet.

(281) **Trevett** is a small village at the Hodgdon Island end of the drawbridge. It has a general store. A highway bridge with a 14-foot fixed span and a clearance of 3 feet connects Hodgdon Island with the mainland.

(282) **Merrow Island**, Miles Island, **Tibbet Island**, and **Gooseberry Island,** all wooded, are on the eastern side of the channel in Back River. Merrow and Tibbet Islands are connected with the mainland by fixed bridges having small clearances. There is no traffic through them as the water is shoal and foul. In April 1980, the bridge to Tibbett Island was reported to be in ruins.

(283) **Tarbox Landing** is a small settlement just north of **Tarbox Cove** on the west side of the Sheepscot River. **Hodgdon Ledge,** 250 yards eastward of Tarbox Cove, uncovers 5 feet and is marked on the southeast end by a buoy.

(284) **Stover Ledge**, on the east side of the river about 0.5 mile northward of the southern end of Barters Island, uncovers 5 feet and is marked by a buoy off its southwestern edge.

(285) A **195**°45'–015°45' measured nautical mile is off the west side of Barters Island. Shore ranges about 1 and 2 miles from the north end of Barters Island mark the ends of the course.

(286) **Greenleaf Ledge**, on the west side of Sheepscot River just south of the entrance to Cross River, uncovers 5 feet and is marked by a buoy. Unmarked shoals are in the bight in the western shore westward of the ledge.

Chart 13293

(287) **Cross River** empties into the east side of Sheepscot River about 6 miles above Hendricks Head. Its entrance is marked by a lighted buoy. It has a deep channel for over 1 mile to Oven Mouth where the river is confined to a narrow channel between high cliffs.

(288) Cross River southeast of **Oven Mouth** requires local knowledge to navigate. In 1979, a rock covered 2 feet was reported on the east side of the river about 0.9 mile above Oven Mouth. Burleigh Hill Yacht Club, a boys' camp on the east side of Cross River about 1 mile above Oven Mouth, has a float landing with 10 feet alongside. There are no facilities.

(289) **Merrill Ledge**, on the east side of Sheepscot River 2.4 miles above the entrance to Cross River, uncovers about 4 feet in the middle. The south end is marked by a daybeacon, and a lighted buoy is on the west side. The channel leads westward of it.

(290) An unmarked rock, covered 13 feet, is about 500 yards southward of **Clough Point,** the north end of Westport Island. The rock is on the west side of the

channel, just eastward of a line connecting the buoy off Clough Point and the buoy just above **Hilton Point.**

(291) There is an unmarked 25-foot shoal in midchannel in the bend at Clough Point, about 270 yards south-southwestward of the tower, or blockhouse, of old Fort Edgecomb, on the southwestern end of Davis Island. **Seal Rock,** 550 yards westward of Clough Point, uncovers 6 feet and is marked on the north by a buoy. During times of strong currents the buoy is reported to tow under.

(292) Montsweag Bay and Back River form a thorofare from Sasanoa River and Hockomock Bay to Sheepscot River near Wiscasset. They have been previously described under the Inside Passage. The thorofare is hazardous because of currents which are reported to reach 5 knots on the ebb and flood. A fixed bridge at Cowseagan Narrows has a vertical clearance of 48 feet. Passage should not be attempted without local knowledge.

(293) **Wiscasset** is a town on the west side of Sheepscot River 14 miles above the entrance. It is on U.S. Highway No. 1 and on a freight branch of the Maine Central Railroad. The wharves are in ruins, and there is virtually no commerce by water.

(294) The town landing and Wiscasset Yacht Club, both with float landings reported to have 15 feet alongside, are at the south end of town below the wharf ruins. Water is available at the yacht club float. Overnight berthing is permitted at both landings, and the yacht club maintains a guest mooring. A small-craft launching ramp is between the two landings.

(295) Gasoline and diesel fuel can be obtained by tank truck at the landing, and ice, provisions, and marine supplies are available in town.

(296) An outboard engine repair shop is on a wharf at the west end of the bridge at Wiscasset; the wharf dries out at low water. Hull and engine repairs can be made at a boatyard on the southeast side of Davis Island, across the bridge from Wiscasset. The marine railway at the yard can handle craft up to 40 feet in length; winter storage is available.

(297) Berthage with electricity and gasoline are available at the float landing of a marina and lodge on the east side of Sheepscot River, about 0.8 mile southward of Davis Island. A small-craft launching ramp is also available here.

(298) Wiscasset has hotels, motels, and restaurants, and bus and taxi service.

(299) The Whites Island Swimming Club with a float landing is about 200 yards southwest of the yacht club.

(300) Anchorage in 25 to 30 feet in muddy bottom can be had south and southwestward of the landings. There are ample parking facilities and picnic areas in the vicinity.

(301) The U.S. Route 1 fixed highway bridge over Sheepscot River at Wiscasset has a clearance of 25 feet. The Main Central railroad bridge 1 mile above Wiscasset has a 40-foot bascule span with a clearance of 8 feet. In 1981, the railroad bridge was being maintained in the closed position. (See **117.533,** chapter 2, for drawbridge regulations.) An overhead power cable 0.2 mile north of the bascule bridge has a clearance of 75 feet.

(302) The depth is reported to be about 10 feet for 4 miles above Wiscasset to rapids in the river. Boats of about 4-foot draft can go through the rapids at high-water slack and for about 3 miles above. **Sheepscot** is a village just above the rapids. A highway bridge crossing the river at Sheepscot has a 48-foot fixed span with a clearance of 10 feet. The channel is unmarked above Wiscasset, and local knowledge is required for its navigation.

(303) **Marsh River**, a tributary, enters the Sheepscot River about 2 miles above Wiscasset. Small craft are reported to go up the river for 3 or 4 miles for salmon fishing. The Maine Central railroad bridge about 2 miles above the mouth has a 33-foot fixed span with a clearance of 22 feet.

Charts 13293, 13295, 13296, 13297, 13298

(304) The mouth of the **Kennebec River** is northward of Seguin Island and 20 miles eastward of the entrance of Portland Harbor. It is the approach to the cities of Bath, Augusta, Richmond, and Gardiner and smaller river towns. In 1979, waterborne commerce on the river consisted of barge traffic to the shipyard at Bath, vessels undergoing repairs at the yard, and fish carriers to the cannery above Bath; beyond Bath, there was little commercial traffic.

(305) With the aid of the charts, small craft should have no trouble reaching Augusta, the head of navigation on the Kennebec River. Vessels with a draft approaching the depth of the channel should employ a pilot. The channel above Bath is reported to be subject to considerable changes annually caused by freshets.

(306) The **Kennebec River Closed Area**, a Marine Managed Area (MMA), includes the waters of the Kennebec River north of Fort Popham. (See **MMAs 8-12, 8-13** and **8-14**, Appendix C, for additional information.)

Prominent features

(307) **Seguin Light** (43°42.5'N., 69°45.5'W.), 180 feet above the water, shown from a 53-foot white cylindrical tower connected to a dwelling, is on the summit of 145-foot, grassy **Seguin Island;** a fog signal is at the

light. This light is the most prominent mark in the vicinity.

(308) **Cape Small** is the wooded point about 4 miles westward of the mouth of the river. The distinguishing marks are an elevated tank 1.4 miles northward from the end and visible from eastward or westward; **Bald Head,** a bare round knob on the west side of the point; and **Bald Head Ledge,** bare at half tide and marked by a bell buoy.

(309) A **danger zone** of a naval aircraft practice mining range is close southeastward of Cape Small and westward of Sequin Island. (See **334.20,** chapter 2, for limits and regulations.)

(310) **Fuller Rock Light** (43°41'45"N., 69°50'01"W.), 39 feet above the water, is shown from a white skeleton tower with a red and white diamond-shaped daymark on a low bare islet of the same name, about 0.3 mile southward of Cape Small.

(311) **Pond Island**, about 30 feet high, is a grassy island on the west side of the entrance to Kennebec River. **Pond Island Light** (43°44.4'N., 69°46.2'W.), 52 feet above the water, is shown from a white tower on the summit of the island; a fog signal is at the light. The light shows a higher intensity beam up and down the river.

(312) **Fort Popham Memorial** is an unfinished and abandoned fort, now a State historical landmark, on Hunnewell Point. **Fort Popham Light** (43°45.3'N., 69°47.0'W.), 27 feet above the water, is shown from a cylindrical iron stand on the parapet of the old fort. The light shows higher intensity beams up and down the river.

Channels

(313) There are two approaches to the entrance. The eastern, east of Seguin Island, which leads between Whaleback Rock and Pond Island, is the main channel. The western, west of Seguin Island, leads between Pond Island Shoal gong buoy and the shoals eastward. The eastern channel has a depth of 29 feet on a small spot easily avoided, and the western has minimum depths of 19 to 29 feet on the sailing lines. Both are used, but vessels drawing more than 18 feet usually enter by the eastern channel. The entrance has strong tidal currents, and if the wind is opposed to the current an ugly chop sea is encountered which is at times dangerous for small craft.

(314) The Federal project for Kennebec River includes three dredged sections above Bath and provides for a channel 27 feet deep from the mouth to a point about 0.6 mile above the bridge at Bath; thence 17 feet to Gardiner, and thence 11 feet to Augusta. Using the chart and care, the project depth could be carried to the bridge at Bath; thence in 1961-1963, controlling depths were 13 feet to Gardiner and 5½ feet to Augusta.

Anchorages

(315) Large vessels awaiting the pilot may anchor safely in the vicinity of White Ledge Lighted Bell Buoy 1 (43°43.8'N., 69°44.9'W.), in 50 to 65 feet. Small craft may find suitable anchorage northwest of Hunnewell Point (43°45'17"N., 69°47'04"W.).

(316) Farther upstream, anchorage is also available on the eastern side of the channel southward of Kennebec River Buoy 12, in 36 to 48 feet. On the eastern edge of the channel at the anchorage, the depths shoal abruptly from 30 feet to a few feet. Drift ice coming down the river generally follows the western shore.

(317) Anchorage for small vessels can be had on the western side of the channel off Parker Flats, about 4 miles above the entrance, in 20 to 36 feet. Above Parker Flats, vessels anchor wherever they find good holding ground and suitable depth, keeping out of the strength of the current.

(318) **General anchorages** are at Bath. (See **110.1 and 110.133,** chapter 2, for limits and regulations.)

Dangers

(319) This is a region of rock and very broken ground; therefore, strangers should proceed with extreme caution and avoid crossing broken ground where the charted depths do not substantially exceed the draft.

(320) The principal dangers in the river are marked, but the channel is narrow in places. The narrowest place below Bath is between North Sugarloaf and Popham Beach, where the deep channel is only about 100 yards wide. Some sections of the dredged channel between the south end of Swan Island and Augusta are not marked well enough to help strangers keep in them.

(321) The entrance to Kennebec River is somewhat obstructed by an area of islands and rocks and very broken ground, extending for a distance of 4.5 miles. The most southerly known danger is **Seguin SSW Ledge,** covered 33 feet; it is 2.6 miles southwest of Seguin Island Light.

(322) During freshets, pulp logs are sometimes washed over the dam above Augusta and present a serious navigational hazard, especially to small craft. Log booms are maintained at Brown Island and on the east side of the river below Shepard Point to facilitate recovery of the drifting logs. The booms are not lighted, but are outside the navigation channel.

(323) The presence of deadheads, known locally as **tide walkers,** are a constant hazard in the river, especially to small craft. These water-logged boom logs, weighted at one end by parts of mooring chains, with one end down and the other end at the surface or just under, shift

position with the tidal or river currents and are hard to detect, especially at night. A sharp lookout for them should be kept.

(324) The dangers outside of Seguin Island are **Mile Ledge,** covered 20 feet and marked by Mile Ledge Lighted Bell Buoy 20 ML, and **Camel Ground,** 1 mile west-southwestward of Seguin Island Light, which has been cleared to 23 feet. Camel Ground is unmarked, and the sea breaks on it in heavy weather.

(325) Westward of Seguin Island, **Buttonmold Ledges,** covered 11 feet, and **Bill Wallace Ground,** covered 19 feet, lie between Fuller Rock and Bald Head Ledge and are unmarked. **Halibut Rocks,** an extensive ledge covered 24 feet about 0.6 mile eastward of Fuller Rock, are unmarked. There are rocks and very broken ground in the vicinity of Cape Small.

(326) **Ellingwood Rock**, 400 yards northward of the north end of Seguin Island, is a bare islet about 6 feet high.

Local magnetic disturbance

(327) Differences of as much as 8° from the normal variation have been observed in an area around Ellingwood Rock for approximately 1 mile in all directions.

(328) **Seguin Ledges**, 0.4 mile northeastward of Ellingwood Rock, have a bare islet about 5 feet high and have covered ledges extending 300 yards northeastward and 400 yards southward from the bare islet, all unmarked.

(329) **White Ledge** is an unmarked 11-foot spot 0.4 mile northward of Seguin Ledges.

(330) **Jackknife Ledge**, covered 8 feet, is about 1.3 miles northwestward of Seguin Light and is marked on the east by a buoy.

(331) **Pond Island Shoal** is the rocky shoal southward and southeastward of Pond Island. It has depths of from 5 to 21 feet over it, and in heavy gales is covered with breakers. A gong buoy 0.7 mile south-southeastward of Pond Island Light marks the southeastern end of the shoal. Vessels should not pass between this buoy and Pond Island. Small craft entering the river from the westward often cut across this shoal, but it is not advisable to do so in southerly weather when a heavy chop is built up by the ebb tidal current from the river; this often causes heavy breakers to form on it.

(332) The dangers eastward of the entrance, including Tom Rock and The Sisters, were included in the description of Sheepscot River. The dangers in Kennebec River are included in the description of the river.

Tides and currents

(333) The mean range of tide is 8.4 feet at Fort Popham in the entrance, 6.4 feet at Bath, 5 feet at Gardiner, and 4.1 feet at Augusta; see the Tide Tables for predictions for these and other places on the river.

(334) Tidal currents between the entrance and Bath have average velocities at strength of 2 to 3 knots. Ebb velocities up to 6 knots have been observed, and considerably larger velocities may be expected during freshets. Above Bath similar velocities are believed to occur, but no definite information is available. The direction of the current at the entrance is influenced by strong winds, especially easterly gales. Current predictions for a number of locations may be obtained from the Tidal Current Tables.

(335) **Freshets** occur in March and April, and also after heavy rains in the fall, but are not dangerous to shipping unless accompanied by ice. A height of 9 feet above high water usually occurs several times a year at Augusta, but the height diminishes rapidly southward.

(336) **Ice** usually closes the river above Bath from December to April. Steamers are rarely delayed by ice below Bath, as the channel is kept clear by ice breakers.

Pilotage, Kennebec River

(337) Pilotage is compulsory for foreign vessels and U.S. vessels under registry. Shipping Services, Inc. offers pilotage for the Kennebec River. See Pilotage, Boothbay Harbor, earlier in this chapter, for contact information for Shipping Services, Inc. and Bath Iron Works Pilot.

(338) Ships bound for the shipyard at Bath usually obtain the services of the yard's pilot. The pilot uses either the yard tug or a lobster boat as a pilot boat. The tug has a black hull and red superstructure, and monitors VHF-FM channels 13 and 16 when working ships. Arrangements for pilot, tug, and boarding place should be made in advance through the shipyard, telephone 207-443-3311, or by calling 207-374-2217.

Towage

(339) Tugs are available at Bath. Bath shipyard tug handles primarily shipyard traffic. If desired, commercial tugs can be obtained from Bath, Southport, Boothbay Harbor, Belfast, or Portland; arrangements for this service should be made in advance through ships' agents.

Quarantine, customs, immigration, and agricultural quarantine

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

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

(342) Bath is a **customs port of entry**

(343) Harbor regulations.–Regulations for the ports along the river are under control of the various harbormasters.

Wharves

(344) In 1979, there were no usable deep-water commercial wharves at Bath, except those at the shipyard. Wharves along the river are included in the description of the river ports.

Supplies

(345) Limited supplies are available at Bath, including marine supplies, fuel, and provisions. Detailed information is given later in the text.

Repairs

(346) The large shipyard at Bath has drydocking facilities. Repair facilities are available at the boatyard at Bath and the few marinas on the river. Detailed information on the facilities is given later in the text.

Communications

(347) Taxi and coastal bus services are available at all the river ports, and the Maine Central Railroad serves the area with freight service.

(348) The following description of the river from the entrance to Augusta affords a means of navigating the river by acquainting the stranger with its various features, anchorages, dangers, important aids to navigation, and the facilities at the river ports.

Chart 13295

(349) **Sprague River** and **Morse River** (chart 13293), between Cape Small and the entrance of Kennebec River, are nearly bare at low water at their entrances, and seldom entered even by local boats. **Heron Islands** and **Fox Islands** are groups of wooded islands off the mouth of Morse River.

(350) **Wood Island**, 0.3 mile westward of Pond Island, is high and wooded. The channel between Wood and Pond Islands should not be used by strangers.

(351) **Whaleback Rock**, 8 feet high and bare, is on the eastern side of the entrance to the river and 0.6 mile eastward of Pond Island. A shoal extends about 100 yards southward from it. **Salter Island,** northward of Whaleback Rock, is wooded. **Stage Island,** 0.5 mile northwestward, is also wooded.

(352) **Stage Island Bay**, **Sagadahoc Bay**, and **Heal Eddy,** on the east side of Kennebec River at the entrance, are shoal inside, have no wharves, and are of little importance.

(353) **North Sugarloaf** and **South Sugarloaf** are high, rounded, bare, and rocky islets in the middle of Kennebec River just inside the entrance. A ledge extends 100 yards southward from South Sugarloaf. **Jack Rock,** near the end of a ledge extending 200 yards northeastward from South Sugarloaf, is awash at low water and is marked by a daybeacon. A rock awash is about 125 yards southeastward of the daybeacon. A ledge extends 250 yards southeastward of North Sugarloaf. Another ledge, covered 17 feet and marked by a buoy, extends 200 yards northwestward from North Sugarloaf; the narrowest part of the channel between the entrance and Bath is westward of this ledge.

(354) **Popham Beach** is a summer resort on the west side of Kennebec River just inside the entrance. An abandoned Coast Guard station is on the beach; its L-shaped wharf is located close westward of Fort Popham and has 9 feet alongside. In 1979, only ruins of some cribbing remained of an old wharf in the bight southwestward of the fort; and the long Government pier extending northward from **Sabino Head** was also in ruins.

(355) Old Fort Popham is now a State park, and Popham Beach is believed to be the site of the first settlement in New England. The ship VIRGINIA was built here in 1608. There is a park service float landing with 2 feet alongside, a ramp west of the Coast Guard wharf, a store, and a restaurant.

(356) **Atkins Bay**, a large bay west of **Hunnewell Point,** dries out for most of its length.

(357) **Bay Point** is a village on the east side of Kennebec River entrance, opposite Fort Popham. A lobster wharf has 4 feet alongside. Another private wharf close southward is in ruins. Water is available from nearby wells. Craft approaching the wharf should avoid getting too far northward, as a bar which bares at half tide extends nearly all the way across the entrance to Long Island Narrows from Gilbert Head.

(358) **Gilbert Head,** the southern extremity of Long Island, is high and wooded except near the south end, where there is a large gray house. The house is very conspicuous and a good mark in hazy weather when surface aids are obscured, or not readily discernible.

(359) **Shag Rock**, on the eastern side of the channel, southeastward of Cox Head, is 3 feet high. It is marked by a lighted buoy about 75 yards west of it. The wreck of a schooner stranded on Long Island, eastward of Shag Rock, is reported visible at low water.

(360) **Cox Head** is about 140 feet high and wooded. **Todd Bay,** on the east side of Kennebec River northeastward of Cox Head, is almost bare at low water.

(361) **Dix Island**, 0.2 mile northward of Cox Head, has a ledge that uncovers, extending northward of it. A buoy is northward of the ledge.

(362) **Perkins Island**, on the east side of the main channel 3 miles above the entrance, is wooded on the north end and bare on the south end. **Perkins Island Light** (43°47.2'N., 69°47.1'W.), 41 feet above the water, is shown from a white octagonal tower on the west side of

the island. A 5-foot shoal, about 350 yards westward of the light, is marked on its southeast side by a buoy. **Perkins Island Ledge,** covered 7 feet, is about 0.3 mile south-southwestward of the island; a buoy is about 200 yards southwestward of the ledge.

(363) **Parker Head** is a village on the west side of the river westward of **Parker Head,** a prominent headland. The approach to the village is by a narrow channel, shoaling gradually from 3 feet to 1 foot. The channel is sometimes marked by bush stakes, and there are several old piling along its sides southeast of the former milldam. A buoy marks the easterly edge of shoal water extending about 0.6 mile north-northeastward of Parker Head.

(364) **Back River** is a narrow, crooked, and unmarked thorofare connecting Kennebec River with Sasanoa River, Hockomock Bay, and Sheepscot River. It is described with the Inside Passage. **West Georgetown** is a village on the east side of Back River, just inside its southern entrance, which is marked by a buoy. A ledge extends about 350 yards southwestward of **Crow Islands,** which are in the middle of the entrance. A buoy is southwest of the ledge.

(365) **Seal Rocks**, on the west side of the channel at the upper end of **Parker Flats,** is a ledge that uncovers 5 feet. A buoy is northeastward of a rock awash at the outer end of the ledge.

(366) **Phippsburg** is a village on the west side of Kennebec River 5.5 miles above the entrance. A conspicuous white church spire in Phippsburg is a good leading mark for the reach from Bald Head to Squirrel Point.

(367) **Squirrel Point**, the southwestern extremity of Arrowsic Island, is marked by **Squirrel Point Light** (43°49.0'N., 69°48.1'W.), 25 feet above the water and shown from a white octagonal tower; a fog signal is at the light.

(368) **Goat Island**, 700 yards northwestward of Squirrel Point, is wooded, and the smaller islands near it are bare and grassy. The ledge extending southward of the island, which uncovers 4 feet, is marked by a buoy on its southeastern side. A ledge that uncovers 4 feet extends 300 yards northward of the island.

(369) **Pettis Rocks**, in the middle of the river 6.5 miles above the entrance, are bare at the highest part and marked at the south end by a light. This is a dangerous part of the river, and vessels inbound, after passing the southern end of Lee Island, should cross over to and favor the east side of the river to avoid the shoals extending from Pettis Rocks and Ram Island.

(370) **Ram Island**, just northward of Pettis Rocks, is low and bushy. Ledges that uncover 5 feet extend nearly 200 yards northward and 75 yards eastward of the island. A light marks the eastern ledge.

(371) **Lee Island**, 128 feet high and wooded, is on the west side of the river westward of Pettis Rocks and Ram Island. A rock awash off the southeastern shore of the island is marked by a buoy.

Chart 13296

(372) **Indian Point** (43°50.6'N., 69°47.9'W.), on the west bank of Kennebec River, about 0.4 mile above Ram Island, is low. A ledge covered 7 feet, about 500 yards northward of Indian Point, is marked on its southeastern side by a buoy. At **Bluff Head,** 1 mile above Ram Island, the river narrows. The upper part of this section is marked by Doubling Point Lighted Range. The lights are shown from white octagonal towers on the bearing **359°**.

(373) This range passes very close to and eastward of **Lithgow Rock** and **Fiddler Ledge,** both of which are covered 27 feet and unmarked. It will be better to steer a little eastward of the range rather than take any chance of the vessel getting to the westward of it. An unmarked 29-foot rock ledge is close eastward of the range about midway between Lithgow Rock and Fiddler Ledge. Care should be taken in deep-draft vessels not to get too far eastward and foul this rock.

(374) Just northward of Fiddler Ledge the channel takes a sharp turn to the west through **Fiddler Reach. Doubling Point** at the right angle turn from Fiddler Reach into **Long Reach** is marked by **Doubling Point Light** (43°53.0'N., 69°48.4'W.), 23 feet above the water, shown from a white octagonal tower on a square gray pier with a footbridge to the shore.

(375) There are reported to be strong back eddies on both ends of this turn, and great care should be taken to keep the vessel well under control. Caution should be exercised by vessels bound downriver on a strong ebb when rounding Doubling Point from Long Reach into Fiddler Reach.

(376) **Winnegance** is a village on **Winnegance Creek,** 0.5 mile from the main channel of Kennebec River. The channel is shoal and navigable only by small craft. Old piling extending across the creek northeast of the highway causeway and dam are partly covered at high water.

(377) **Bath** is a city on the west side of Kennebec River 12 miles above the entrance. There is little waterborne traffic to Bath, except for barge traffic to the shipyard and vessels bound for repairs, and fish carriers to the cannery above Bath. In 1979, the maximum draft carried to the shipyard was 26 feet.

(378) Bath was the most important U.S. shipbuilding center in the 19th century; the HENRY B. HYDE, three-masted full-rigged wooden ship, and the six-masted schooner WYOMING, the largest of their

kind ever built in America, were constructed here. The Bath Marine Museum is close to the waterfront. There are many historical points of interest.

(379) The city has churches, hospitals, a library, banks, hotels, motels, laundry, markets, and stores of all kinds.

(380) The Maine Central Railroad lift bridge crosses the Kennebec River at Bath to Woolwich. The vertical lift span has a clearance of 10 feet down and 135 feet up. (See **117.1 through 117.59 and 117.525**, chapter 2, for drawbridge regulations.) The U.S. Route 1 highway bridge, just north of the railroad bridge, has a fixed span with a clearance of 70 feet.

Wharves

(381) Bath has deep-draft facilities on the west side of the Kennebec River. The alongside depths given for the facilities described are reported depths. (For the latest depths, contact the operator.) The facilities described have highway and, except Stinson Canning Co., have railway connections.

(382) **Bath Iron Works, Outfitting Pier:** 733 yards below U.S. Highway 1 Bridge; 600 feet of berthing space; 26 to 50 feet alongside; deck height, 10 feet; one 94-ton traveling gantry crane, one 30-ton wingwall crane and three additional cranes with capacities of 30 to 50 tons; one 8,400-ton floating drydock; mooring vessels for outfitting and repair; owned and operated by Bath Iron Works.

(383) **Bath Iron Works, South Wharf:** 460 yards below U.S. Highway 1 Bridge; 26 feet alongside; deck height, 9 feet, one 25-ton traveling gantry crane, one fixed 97 to 220-ton crane; three shipbuilding ways; mooring vessels for outfitting; owned and operated by Bath Iron Works.

(384) **Bath Iron Works, North Wharf:** below U.S. Highway 1 Bridge; 32 feet alongside; deck height, 8 feet; one 25-ton traveling gantry crane, one 5-ton crane; mooring vessels for repair; owned and operated by Bath Iron Works.

(385) **Marine Minerals Corp., Coal Pocket Dock:** 0.5 mile above U.S. Highway 1 Bridge; 450 feet of berthing space; 27 feet alongside; deck height, 9 feet; one electric conveyor belt, rate 500 tons per hour; open storage for 50,000 tons of material; receipt of miscellaneous bulk materials including coal and salt; owned and operated by Marine Minerals Corp.

(386) **Stinson Canning Co., Bath Dock:** 1.5 miles above U.S. Highway 1 Bridge; 260 feet of berthing space; 15 feet alongside; deck height, 12 and 14 feet; two 12-inch suction pipelines; receipt of fish; owned and operated by Stinson Canning Co.

(387) A marina with a float landing is on the west side of the river, about 0.1 mile above the bridge at Bath; gasoline, water, a small-craft launching ramp, some marine supplies, and berthage with electricity are available. The town float landing is just northward of the marina. Another marina about 150 yards northward of the town landing, has gasoline, diesel fuel, water, and some marine supplies, and can make engine repairs. Depths of 15 feet are reported alongside these float landings.

Supplies

(388) Provisions, gasoline, diesel fuel, ice, bottled gas, and some marine supplies are available in town.

(389) Bath has bus and taxi service.

Repairs

(390) A shipyard on the east side of the river at Woolwich, about 500 yards north of the bridge, builds steel vessels up to 120 feet long. A boatyard, on the west side of the river about 1.3 miles below the bridge, has a marine railway that can handle craft up to 50 feet in length. Hull, engine, and electrical repairs can be made, and dry open winter storage and some marine supplies are available. Gasoline and water can be obtained at the yard's float landing; depths of 12 feet are reported alongside the float. The yard maintains guest moorings and permits overnight berthing at the float.

(391) The Sasanoa River entering Kennebec River between **Preble Point,** the northern extremity of Arrowsic Island, and **Sasanoa Point,** the southern extremity of **Towesic Neck,** is described under the Inside Passage. See caution note contained in tidal current data for the Kennebec River in this chapter.

(392) **Woolwich** is a village on Towesic Neck, opposite Bath. The asphalt pier there is reported to have 22 feet alongside. Only piling remains of the old coal wharf and ferry slips just below this pier. A marina, about 0.3 mile above the bridge, has a depth of 16 feet reported alongside its float landing. Gasoline, some marine supplies, and a small-craft launching ramp are available; outboard engines can be repaired. Groceries and lodging can be obtained close by.

Chart 13298

(393) About 1 mile above the bridge at Bath, Kennebec River is divided into two channels by an extensive area of rocks awash and covered ledges in midriver; the principal hazards on it are **Winslow Rocks** and **Stetson Rocks,** parts of which are awash at low water. Obstruction buoys mark the northern and southern ends of the area, and the eastern side is marked by channel buoys.

(394) The main or eastern channel is deep and favors the eastern bank of the river. The western channel is not marked and is used only by small craft. Ledges south of **Days Ferry,** on the east bank of the river, north of Stetson Rocks, are marked by a buoy. The channel past **Thorne Head** is deep and clear.

(395) Two miles above Bath, Kennebec River divides into three channels. The eastern, or **Burnt Jacket Channel,** is the most direct and has a depth of 14 feet. It is unmarked and extremely foul and difficult at its northern end, and is used mostly by small craft. Local knowledge is necessary to navigate it safely.

(396) The main channel or **West Branch**, the widest, has a depth of about 22 feet, and is partly buoyed, clear, and easily followed by aid of the chart. **Thorne Island Ledge**, covered 4 feet and marked by a buoy near its southeast edge, **Thorne Island**, and **Lines Island** are all on the northeast side of the channel, and **Woods Island**, **Crawford Island**, and **Ram Island** are on the southwest. A ledge making out from the northeast side of Woods Island is buoyed. A rock bare at low water is 50 yards off the west side of Lines Island, and a rock awash is off the southwestern end of the island. Near the northern end of the channel, **Grace Rock**, covered 2 feet, is marked on its west side by a buoy.

(397) The third channel trends to the southwestward between Woods, Crawford, and Ram Islands, and the mainland. It is unmarked, foul, and little used.

(398) **Chops** is the narrow passage between two headlands, **Chops Point** and **West Chops Point,** about 4.5 miles above Bath. Two high steel transmission towers on the points are very prominent. The overhead power cables have a clearance of 145 feet.

(399) **Trotts Rock**, with a least depth of 3 feet and marked on its west side by a buoy, is about 0.4 mile northward of Chops Point.

Chart 13293

(400) **Merrymeeting Bay** is a shoal bay making westward from Kennebec River 17 miles above the entrance. The bay is the approach to the towns of **Brunswick** and **Topsham** on the **Androscoggin River,** and **Bowdoinham** on the **Cathance River,** 8 and 4 miles, respectively, above Kennebec River. Boats drawing up to 6 feet can go to Brunswick and 12 feet to Bowdoinham at high water, but there was no traffic in 1970. There are no landings. The channels are narrow and unmarked, and local knowledge is necessary. The mean range of tide is 3.8 feet at Brunswick.

(401) A fixed highway bridge, with a clearance of 40 feet, crosses the Androscoggin River about 7.7 miles above the entrance to the bay. The Maine Central Railroad bridge crosses the river just above the highway bridge and has a fixed span with a clearance of 20 feet. The U.S. Route 201 highway bridge at Brunswick is the head of navigation, above which are a dam and falls.

(402) Several overhead power cables about 1.5 miles below the railroad bridge have clearances of 44 feet in the west channel and 45 feet in the east channel. The power cables over Cathance River 0.3 and 0.6 mile above the mouth have clearances of 55 and 65 feet, respectively. The overhead power cable about 2 miles above Bowdoinham has a clearance of 40 feet.

(403) It is reported that heavy storms and winter ice change the shoals and depths in Androscoggin River.

(404) **Brunswick** is the site of Bowdoin College and a manufacturing center of some importance in shoes, textiles, and paper. It has railroad freight and bus connections, and taxi service.

(405) The **Kennebec River Closed Area**, a Marine Managed Area (MMA), includes the waters of Merrymeeting Bay and Androscoggin River. (See **MMA 8-17**, Appendix C, for additional information.)

Weather, Brunswick and vicinity

(406) Brunswick, on the Androscoggin River near the junction with the Kennebec River in "downeast" Maine, averages about three days each year with maximum temperatures in excess of 90°F (32.2°C). July is the warmest month with an average high of 78°F (25.6°C) and an average minimum of 59°F (15°C). January is the coolest month with an average high of 30°F (-1.1°C) and an average minimum of 11°F (-11.7°C). The highest temperature on record for Brunswick is 104°F (40°C) recorded in August 1975 and the lowest temperature on record is -30°F (-34.4°C) recorded in January 1981. About 147 days each year see temperatures below 32°F (0°C) and an average 24 days each year record temperatures below 5°F (-15°C). Every month except July has seen temperatures below 40°F (4.4°C) and every month except June, July, and August has recorded temperatures below freezing (0°C).

(407) The average annual precipitation for Brunswick is 45.2 inches (1148 mm) which is fairly evenly distributed throughout the year. Precipitation falls on about 186 days each year. The wettest month is November with 5.0 inches (127 mm) and the driest, July, averages only 3.0 inches (76 mm). An average of 29 thunderstorm days occur each year with July and August being the most likely months. Snow falls on about 59 days each year and averages about 72 inches (1829 mm) each year. December through March each average greater than one foot (305 mm) per year while January averages 19 inches (483 mm). One foot (305 mm) snowfalls in a 24-hour period have occurred in each month November through March and 21 inches (533

mm) fell in one 24-hour period during December 1970. About 15 days each year have a snowfall total greater than 1.5 inches (38 mm) and snow has fallen in every month, October through April. Fog is present on average 207 days each year and is evenly distributed throughout the year with a slight maximum during late summer.

(408) The prevailing wind direction in Brunswick is the north during the winter and south during the warmer months. March is the windiest month.

(409) (See page 423 for **Brunswick climatological table.**)

Chart 13298

(410) **Abagadasset Point** (44°00.3'N., 69°49.4'W.), on the west bank of the river about 1.6 miles above the Chops, should be given a wide berth to avoid the shoals extending from it to the northward. A buoy marks the northeastern extremity of the shoals.

(411) Overhead power cables over Kennebec River at Abagadasset Point have a clearance of 145 feet. An 11-foot spot on the west side of the channel opposite Twing Point is marked by a buoy. **Ames Ledge,** on the east side of the river north of **Twing Point,** is marked by a buoy off its northwest side.

(412) **Swan Island**, about 1.8 miles above Abagadasset Point, divides Kennebec River into two channels. The main channel, east of the island, is marked by buoys and by a daybeacon on **Beef Rock.** The channel leading westward of the island is not maintained and is only partially marked by private buoys. A rock covered 4 feet is reported at the entrance in about 44°01.7'N., 69°49.1'W. East of the main channel, a riprap training wall extends from off **Carney Point** to **Green Point.**

(413) **Eastern River** enters Kennebec River between Carney Point (44°02.0'N., 69°48.0'W.) and the flats and training wall extending 1.4 miles southwestward of **Green Point.** The river follows the eastern shore to **South Dresden.** It is unmarked and crossed by three highway bridges. State Route 128 bridge, about 2 miles above the mouth, has a fixed span with a clearance of 16 feet. Telephone and power cables on the south side of the bridge have a clearance of 22 feet.

(414) The second highway bridge, State Route 197, about 2 miles farther upstream, has a fixed span with a clearance of 23 feet. An overhead power cable on the north side of the bridge has a clearance of 40 feet; telephone cables are about 10 feet below the power cable. About 0.6 mile upstream from the second bridge, overhead power cables crossing the river have clearances of 50 feet.

(415) The third highway bridge, State Route 27 at **Dresden Mills,** about 2 miles above the second bridge, has a fixed span with a clearance of 4 feet.

(416) In 1970, the river was reported navigable to Dresden Mills with a draft of 4 feet, and above that by small outboard craft for several miles through beautiful woodland. There are several private landings on the river, but no facilities. Remains of old wharves can be seen at Dresden Mills and other points.

(417) **Richmond**, westward of Swan Island, is a town on the west bank of Kennebec River 23 miles above the entrance. There are several landings at the town. The town float landing, at the mill with a conspicuous red brick stack, has 16 feet alongside. There are no facilities at the landing, but gasoline, diesel fuel, water, provisions, and some marine supplies can be obtained in town.

(418) The submerged ruins of a jetty extend northeasterly from the northeastern tip of Swan Island to near channel Buoy 33.

(419) State Route 197 highway bridge, with a swing span clearance of 15 feet, crosses the river at a point just north of Swan Island, between Richmond and Dresden. (See **117.1 through 117.59 and 117.525**, chapter 2, for drawbridge regulations.)

(420) The Eastern River is a Marine Managed Area (MMA). (See **MMA 8-15**, Appendix C, for additional information.)

Chart 13297

(421) **Cedar Grove** is a small settlement on the east bank of Kennebec River, 2 miles above the north end of Swan Island and 0.6 mile above **Courthouse Point** (44°06.4'N., 69°46.0'W.).

(422) **Hathorn Rock**, covered 8 feet about 1.7 miles north of Courthouse Point, is marked on the east side by a buoy. A rocky area is reported on the west side of the river, about 0.5 mile northward of Hathorn Rock.

(423) **South Gardiner**, about 4.5 miles above Courthouse Point, is a village on the west side of Kennebec River 30 miles above the entrance. There are several private landings at the village.

(424) **Gardiner**, about 3.5 miles above South Gardiner, is a town on the west side of the river 33.5 miles above the entrance. The town wharf and float landing has 12 feet alongside, but no facilities. A public parking lot is on the wharf. The old coal wharf just upstream has 15 feet reported alongside, but is seldom used.

(425) **Randolph**, a village on the east side of the river opposite Gardiner, has a wharf with 12 feet alongside and oil connections, but is seldom used. Kennebec Boating Association has a float landing and ramp at the wharf.

Ice and provisions are available. A hardware store adjoins the landing, and restaurants are in the vicinity.

(426) A fixed highway bridge with a clearance of 35 feet crosses the river between Gardiner and Randolph just north of the waterfront facilities.

(427) The controlling depth from the bridge at Gardiner to Augusta was 5½ feet in 1963. Seasonal buoys mark the river channel from Gardiner to Augusta.

(428) Ruins of an old pier and power plant are on the west side of Kennebec River just above **Farmingdale**. Rock-filled cribs extend over 100 yards offshore and are marked by a buoy at the eastern end. No attempt should be made by small craft to pass between them and the west bank as the area is extremely foul. The east bank should be favored.

(429) A foul area, reported to be deadheads, is on the west side of the river off Farmingdale, about 0.4 mile northward of the bridge at Gardiner.

(430) At **Browns Island**, about 1.5 miles above Gardiner, the river is crossed by two sets of power cables that have clearances of 140 feet. Log booms extend southwestward and northwestward from the island. They are unmarked and are used to catch drifting pulp logs which are washed over the dams above Augusta by spring floods and freshets. A shoal with a least depth of 3 feet makes out to the north and northwestward of the island.

(431) **Hallowell**, about 3.5 miles above Gardiner, is a town on the west side of the river 37 miles above the entrance. An inactive oil berth with a depth of 10 feet alongside is on **Oil Cloth Point** (44°17.5'N., 69°47.1'W.), about 0.5 mile above Hallowell. A pilot for the river resides at Hallowell; see Pilotage for Kennebec River discussed previously in this chapter.

(432) A pinnacle rock, covered 5 feet, is on the east side of the channel about 500 yards southwestward of the wharf on Oil Cloth Point. It is marked by a buoy on its northwest side. A submerged obstruction, reported in 1965, is in the channel about 300 yards southwestward of the pinnacle rock and about 50 yards offshore.

(433) **Augusta**, the capital of Maine, is at the head of navigation on the Kennebec River 39 miles above the mouth. The city has no waterborne commerce. There is a public float landing on the east bank just above the southernmost bridge with 4 feet reported alongside. The landing is also used by the Augusta Yacht Club; a parking lot is available, but there are no other services.

(434) A private boatyard at the yacht club landing has a marine railway on which members' craft, up to 50 feet in length and 6 feet in draft, can be hauled out for repairs or open winter storage. There is a ramp at the club for launching small boats. There are no service facilities at either landing.

Bridges

(435) The four bridges at Augusta have fixed spans. The first, U.S. Routes 201–202 highway bridge, has a clearance of 70 feet for a width of 67 feet; the second, a city highway bridge at the upper end of the turning basin, has a clearance of 27 feet. The head of navigation is at this bridge as the river is very shallow above it, and not even small craft venture there. The third bridge, now used only to carry the city water conduits, has a clearance of 23 feet. The Maine Central railroad bridge adjacent to and above the third bridge has a clearance of 23 feet.

(436) The river is obstructed by a dam, 0.3 mile above the railroad bridge.

(437) Gasoline, diesel fuel, lubricants, provisions, ice, and marine supplies can be obtained in Augusta. Bus, taxi, and railroad freight services are available.

Chart 13290

(438) **Casco Bay** is a very extensive area between Cape Small and Cape Elizabeth, a distance of 17.8 miles. Between these two capes the bay extends up into the land an average distance of about 12 miles. The number of islands in Casco Bay is 136, and many are fertile and under cultivation; and nearly all are inhabited. Nearly every large island extends northeast and southwest, which is the general course of the bay and of all rivers and coves contained within its limits.

(439) A **vessel-to-vessel oil transfer anchorage area** in Casco Bay, about 3.5 miles northeastward of Portland, has been designated by the State of Maine Department of Environmental Protection. The area is 1 square mile beginning at Hussey Sound Buoy 12,

(440) 43°42'10"N., 70°09'46"W.); thence north to

(441) 43°43'10"N., 70°09'46"W.; thence west to

(442) 43°43'10"N., 70°11'09"W.; thence south to

(443) 43°42'10"N., 70°11'09"W.; thence east to origin. (See also chart 13292.)

Anchorages

(444) In the eastern part of Casco Bay, the best anchorage for strangers is in New Meadows River. Local fishermen and yachtsmen frequently use Sebasco and Cundy Harbors. Potts Harbor, Harpswell Harbor, and Mackerel Cove are good anchorages in the middle of the bay for small vessels and yachts.

(445) Merriconeag Sound and Harpswell Sound and the whole Casco Bay westward of Harpswell Neck afford good anchorage for large vessels, except in heavy northeast gales.

(446) Vessels can enter through Broad Sound, Luckse Sound or Hussey Sound and select an anchorage under the lee of some of the many islands, a suitable depth and good holding ground being found in most places. Portland Harbor is a secure anchorage on the western side of the bay and is the one used mostly by larger vessels.

(447) Most of the dangers are marked, and the waters are well charted, so that, with the aid of the chart, no difficulty should be experienced in navigating Casco Bay in clear weather.

COLREGS Demarcation Lines

(448) The lines established for Casco Bay are described in **80.110,** chapter 2.

No-Discharge Zone

(449) The State of Maine, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Casco Bay. The NDZ includes all waters north and east of 43°33'56"N., 70°11'48"W. at Cape Elizabeth Light to 43°42'17"N., 69°51'17"W. at Bald Point in Phippsburg (see chart 13292 for limits).

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

Tides and currents

(451) The mean range of tide in the bay is about 9 feet. Daily predictions for Portland are given in the Tide Tables. The velocity of the tidal current at strength is about 1 knot in the entrance to Portland Harbor and in Hussey and Broad Sounds. In the open waters of the bay it is generally 0.5 knot or less. Current predictions for a number of locations may be obtained from the Tidal Current Tables.

Ice

(452) Considerable ice forms at the heads of the numerous arms extending northward in Casco Bay, but the principal anchorages are available at any season of the year.

(453) The part of Casco Bay between Cape Small on the east and Halfway Rock Light and Harpswell Neck on the west is full of small islands, ledges, and rocks. Between them, narrow but deep channels lead to the bays and sounds at the head. These arms afford good anchorage for small vessels, but are used only by local fishing and pleasure craft. There are several small villages in this part of the bay, but no towns.

(454) **Temple Ledge**, about 1.8 miles southwestward of Cape Small and covered 25 feet, is unmarked. **Lumbo Ledge,** 2 miles west of Temple Ledge and 2.6 miles south of **Ragged Island,** is covered 17 feet and marked by a buoy on its south side.

(455) **Spoonbowl Ledge**, about 0.3 mile westward of Cape Small and about 0.4 mile southwest of **Gooseberry Island,** is covered 5 feet and unmarked. Craft bound from Cape Small to Small Point Harbor should be careful to avoid it.

(456) **East Brown Cow**, 1.6 miles west-northwestward of Cape Small, is 12 feet high and bare. **Mark Island,** 0.8 mile northward of East Brown Cow, is high and thickly wooded. **Mark Island Ledge,** 0.3 mile southwestward of Mark Island, uncovers 3 feet and is marked on its west side by a buoy. **Wyman Ledge,** 0.5 mile east of Mark Island, covered 4 feet, is marked on its eastern side by a buoy.

(457) **White Bull**, 1 mile westward of Mark Island, is a high, round, and bare islet. **White Bull Lighted Gong Buoy WB,** about 0.4 mile southeastward of the island, marks the southwestern approach to New Meadows River. **Bold Dick,** an unmarked rock about 0.7 mile west-southwestward of White Bull, uncovers 7 feet.

(458) **Small Point Harbor,** between Wood and Little Wood Islands on the west and **Hermit Island** on the east, is on the east side of Casco Bay 1.5 miles northward of Bald Head, the southwestern extremity of Cape Small. The harbor is an anchorage for local fishermen and yachts, but is open to southerly winds.

(459) The principal dangers are **Gooseberry Island Ledge,** extending about 0.3 mile southwestward of Gooseberry Island, awash at low water and marked by a buoy; **Wood Island South Ledge**, covered 5 feet at the end and extending about 0.3 mile south of Wood Island, marked by a lighted bell buoy about 350 yards westward of the south end of the ledge; **Middle Ledge,** awash and marked by a buoy on its southwestern side; **Pitchpine Ledges,** covered 6 feet and marked on its western side by a buoy; and a 3-foot shoal, marked off its southwest side by a buoy, about 0.2 mile southwestward of Carrying Place Head.

(460) There is good anchorage in the harbor for small craft and in the tributary harbors of Fish House Cove, West Point Harbor, and Cape Small Harbor, but the bottom shoals too rapidly in **Tottman Cove,** north of **Flat Point,** for good anchorage.

(461) Small Point Harbor can be entered either southward of Wood Island or northward of Little Wood Island. **Wood Island** is rocky and partly wooded, and **Little Wood Island** is thickly wooded. **Small Point,** a village on the eastern side of the harbor, has an improved highway to Bath, the nearest city.

(462) **Cape Small Harbor**, between Hermit Island and Cape Small, affords good anchorage for small craft, but its entrance, with 4 feet at low water, is narrow and

difficult, and should be entered only with local knowledge or at high water. The harbor entrance is marked by private unlighted buoys off Mill Point. A private camping ground is on Hermit Island. A large white hotel northeastward of Goose Rock may be used as a mark to clear the rock when entering northward of it.

(463) The passage between Goose Rock and **Mill Point** is sometimes used by local fishing craft, but is not recommended for strangers. The best water is reported to be obtained by entering northward of Goose Rock and then favoring the eastern shore until abeam of the northern extremity of Mill Point, then favoring the west side of the two islets eastward of Mill Point until southward of the fish pier at the lobster pound. The channel eastward of the islets should be used only at high water. There is reported to be 18 feet at the fish pier; gasoline is available. A marine railway at the pound can haul out craft up to 60 feet in length.

(464) Anchorage is in midchannel southward of the pier where swinging room can be found in 8 to 10 feet.

(465) A restaurant, open in the summer, is at **Head Beach** at the south end of the harbor, which joins Hermit Island to Small Point. A woodland road leads from the beach to the various camping sites on the island and to the lobster pound. Restrooms and picnic area are available at the restaurant when open.

(466) There are a number of private float landings and many moorings in the harbor, which is secure in all weather.

(467) **Carrying Place Cove** is a narrow, partially bare thorofare on the north side of Small Point Harbor. The thorofare is entered just westward of **West Point** and leads northward between **Carrying Place Head** on the west and the village of West Point on the east. It is reported that 5 feet can be carried through the thorofare at high water; local knowledge is advised. There is a small islet with a house on it in the middle of the passage. Two overhead power cables crossing the thorofare have a minimum clearance of 30 feet. The southern part of Carrying Place Cove is also known locally as **West Point Harbor.**

(468) There are numerous fish wharves and several service wharves along the east side of the thorofare at the fishing village of **West Point.** Two of the service wharves in the southern part of the thorofare, West Point Harbor, have gasoline available; depths of 4 to 5 feet are reported alongside. The more southerly of the two wharves is used to unload lobster boats, and also has diesel fuel available; groceries, ice, and some marine supplies can be obtained at the other wharf. Good anchorage in 15 feet, muddy bottom, but exposed to southerly weather, can be found off these wharves. Another service wharf with 6 feet reported alongside is near the northern end of the thorofare; gasoline and diesel fuel can be obtained here. Good anchorage in 8 to 20 feet is available northwestward of this wharf.

(469) **Fish House Cove**, just eastward of West Point, is used as an anchorage, but is exposed to southerly weather.

(470) The thorofare leading eastward of **Burnt Coat Island,** northward of Carrying Place Head, is marked by buoys. Strangers in small craft should have no trouble navigating it. In November 2004, a submerged rock, covered 3 feet, was reported in about 43°45'07.5"N., 69°51'59.8"W.; caution is advised.

(471) **Jamison Ledge**, 0.5 mile westward of Burnt Coat Island, is 0.4 mile long, and uncovers in one spot at its south end that is marked by a buoy. **Flag Island Ledge,** between it and Flag Island, is awash at low water and unmarked.

(472) **Flag Island** is high and thickly wooded. Shoals and rocky patches extend about 0.7 mile northeastward from Flag Island. **Long Ledge,** 0.4 mile northwestward of Flag Island, has two islets 10 and 12 feet high, which are grassy. **Goudy Ledge,** 0.6 mile northward of Flag Island, uncovers 4 feet and is marked by a daybeacon. **Rogue Island,** on the west side at the entrance to New Meadows River, is low with scattered trees. The bottom in this vicinity is very broken. A buoy is about 0.1 mile south of Rogue Island.

(473) **Sebasco Harbor**, a good anchorage for small vessels, is eastward and southward of Harbor Island, and 3.5 miles northward of Bald Head. **Dry Ledges** form a large, bare ledge in the entrance; the northern end should be given a berth of over 100 yards, and the broken ground extending 300 yards eastward from the ledge should be avoided.

(474) The entrance, marked by a lighted buoy, is between Dry Ledges and the buoy about 200 yards southward of Harbor Island. Rocky ledges extending about 150 yards from both shores restrict the entrance to Sebasco Harbor. On the western side numerous bare rocks extend shoreward along the ledge in a northwesterly direction.

(475) Anchorage can be selected in 30 to 36 feet, 250 to 300 yards off the cove on the eastern side, and also in midchannel off the landing at Sebasco Estates inside Harbor Island in 24 feet.

(476) **Sebasco Estates** is a summer resort on the east side of Sebasco Harbor. A pier with a float landing has a depth of 8 feet. Gasoline and water are piped to the float in summer, and a dockmaster is in attendance. Provisions, ice, boat hire, lodging, restaurant, and laundromat are available. An octagonal house with cupola at the landing is very conspicuous.

(477) The thorofare leading northward from Sebasco Harbor, inside Harbor Island, is bare at low water.

(478) A boatyard with a 12-ton mobile hoist and a 70-ton marine railway is in the cove at the north end of the

thorofare; the railway can handle craft up to 60 feet long or 9-foot drafts for hull repairs or dry covered or open winter storage. The cove mostly dries out at low water.

(479) The thorofare leading northward of **Harbor Island** and eastward of **Malaga Island,** marked by two buoys, is easily navigated by small craft. It is used considerably as an anchorage by small fishing craft.

(480) **Sebasco** is a village of fishermen on the east side of the thorofare. The wharf of an inactive fish-packing plant with 6 feet reported alongside is at the village. Provisions can be obtained close by. Gasoline and water are available at the float landing of a lobster wharf, about 0.5 mile northward of the fish-packing plant.

(481) A ledge covered at high water extends 350 yards north-northeastward from Bear Island and is marked at its end by a buoy. The buoy also marks the northern entrance to the thorofare and the anchorage northward of Malaga Island.

(482) **New Meadows River**, at the northeastern end of Casco Bay, is about 8.5 miles long from **Bear Island** at the entrance to the highway bridge on a dam at the head of navigation. A lighted buoy off **Fort Point** (43°46.8'N., 69°53.6'W.) marks the entrance to the river. It has a deep water channel for the first 6 miles, and a draft of about 12 feet can be carried to within 0.5 mile of the dam. The principal dangers are buoyed.

(483) Above **Howard Point,** about 1.5 miles south of the dam, the channel is narrow and unmarked, and has a depth of about 7 feet to the dam. Local knowledge is necessary to carry the best water above **Foster Point,** 3 miles from the head.

(484) The river is seldom used except by local fishing boats and small pleasure craft. Small craft can enter New Meadows River from westward 6 miles above its entrance through Gurnet Strait.

(485) **Cundy Harbor** is a good anchorage for small vessels on the west side of New Meadows River, 1 mile above its mouth. The harbor is clear and has depths of 22 to 31 feet. A buoy marks the south end of the bare ledges on the northeast side of the harbor.

(486) **Cundys Harbor** is a village on the western side of the harbor. A fish processing and shipping plant with a wharf and float landing is near the southwestern end of the harbor; depths of 7 to 8 feet are reported alongside the float. Diesel fuel is available at the wharf. Two service wharves with float landings, one just southward of the fish wharf and the other about 0.2 mile to the northward, have reported depths of 10 feet alongside the floats. Gasoline is available at the northerly float, and groceries and some marine supplies can be obtained at the stores on the wharves. A rock awash is about 75 yards south of the more northerly wharf.

(487) **Dingley Island** is on the west side of the river about 1 mile above Cundy Harbor.

(488) **The Basin**, a cove on the east shore of New Meadows River about 1.3 miles northeastward of Cundy Harbor, has a narrow but clear entrance. It is a popular weekend anchorage for yachts and small craft. There are no landings. A rock awash is almost in the middle of the anchorage, and the basin shoals in its eastern half. In August 1980, depths considerably greater than those charted were reported in The Basin; care should be taken to allow sufficient scope of chain when anchoring.

(489) **Winnegance Bay**, on the east side of New Meadows River 3 miles north of the entrance, is a large bight with secure anchorage in 18 to 24 feet. There are a few private landings. The southeast side of the bay is foul. **Bushy Islet** and **Hen Islet** are near the edge of the foul ground; **Hen Island Ledge,** awash at its southwest end at low water, extends 500 yards west-southwestward from the south islet, where it is marked by a daybeacon. The north side of the bay is clear. There is considerable yachting activity in this bay, and good anchorage is available in **Brighams Cove** at the head of the bay.

(490) A light on **Birch Point,** on the northwestern side of the entrance to the bay, shows a higher intensity beam downstream and marks the reach in the river from Sheep Island Ledge to the entrances to Winnegance Bay and the upper river. The light is the only lighted aid in the river northward of Bear Island.

(491) Good anchorage can be found in the long coves on either side of **Rich Hill,** about 2 miles northward of Birch Point.

(492) **New Meadows** and **Harding** are small villages on the highway at the bridge crossing New Meadows River at the head of navigation. The former dam has been converted to a causeway with a narrow, low-level bridge; caution is advised in the vicinity because of swift currents reported at the bridge. The remains of the piers of an old highway bridge, 0.3 mile below the former dam, are covered at high water. Caution should be used in passing between them. An overhead cable with a clearance of 50 feet is just above the bridge ruins. A town float and a launching ramp are on the west bank in the vicinity of the old bridge ruins.

(493) An inn is on the east bank at the causeway; lodging and a restaurant are available. Gasoline and non-potable water are available at the float of a marina on the west bank at the causeway; depths of 5½ feet are reported alongside the float. Guest berths and some marine supplies are available, and provisions can be obtained nearby. A 5-ton fixed lift at the marina can handle craft up to 24 feet for hull and engine repairs or winter storage. Good anchorage in 10 feet is off the landings.

(494) **Ridley Cove** is eastward of **Yarmouth Island** and just westward of the entrance to New Meadows River. The cove has good anchorage in 23 to 37 feet, but is exposed to southerly and southwesterly winds. It should be avoided by strangers because of the numerous unmarked ledges and rocks off the entrance. On the end of **West Cundy Point** is a large one-story house, which is very conspicuous from Ragged Island to Small Point.

(495) From the northern end, a narrow deep channel leads close westward of **George Island** into Hen Cove. Another narrow channel with a reported depth of 3 feet, obstructed and suitable only for small craft in the absence of local knowledge, leads into Quahog Bay. **Hen Cove** has extensive shoals, but is a good anchorage for small craft.

(496) **Little Yarmouth Island**, close westward of Yarmouth Island, has ruins of a wharf on its north end.

(497) Dangers off the entrance to Ridley Cove include: **Jenny Island,** 10 feet high and grassy; **North Jenny Ledge,** covered 2 feet and marked by a buoy at the south end; **Jenny Ledge,** which uncovers 5 feet; **Ballaststone Ledge,**with grassy **Duck Rock** 5 feet high on it; and numerous bare spots on **Yarmouth Ledges. Flash Island** is a small islet on the extensive ledge area southward of Yarmouth Island.

(498) **Quahog Bay** is a narrow arm extending about 4 miles in a northeasterly direction. It offers good anchorage for small vessels. Numerous unmarked ledges and many small islands are off its entrance, which is between Yarmouth Island and Ledges on the east and **Long Point Island** on the west.

(499) The buoyed channel from New Meadows River to Orrs and Bailey Islands leads across the entrance.

(500) There is also a good channel between Saddleback Ledge, Ragged Island, Blacksnake Ledge, Yellow Rock, and Two Bush Island on the east and Round Rock, **Middle Ground Rock,** and Cedar Ledges on the west.

(501) **Saddleback Ledge** uncovers 5 feet; **Ragged Island,** about 50 feet high and scantily wooded on top, has a house on it; **Blacksnake Ledge** uncovers; **Yellow Rock,** 4 feet high, and **Two Bush Island,** are grassy; **Round Rock,** marked off its south side by a lighted buoy, uncovers 7 feet; and **Cedar Ledges,** 2 feet high, are bare.

(502) Several unmarked ledges and sunken rocks are in Quahog Bay. **South Ledges,** covered at high water and marked by a buoy on the west side, and **North Ledge,** awash, extends 0.4 mile southwestward and northeastward, respectively, from **Pole Island.**

(503) **Card Cove**, on the west side of the bay and west of Pole Island, is used by small fishing boats, but the entrance is only 50 yards wide between ledges off **Pinkham Point** and the point on the south side. There are a few private wharves. Good anchorage in 29 feet is in the cove.

(504) On the east side of Pinkham Point in the channel between it and Pole Island are two lobster wharves with float landings. Depths of 15 to 20 feet are reported alongside. Gasoline and diesel fuel are piped to the floats. Excellent anchorage is off the wharves.

(505) The upper end of Quahog Bay, about 1.7 miles above Pinkham Point off **Dyer Cove** (43°49'15"N., 69°55'11"W.), affords one of the best anchorages on the coast for cruising craft, and the swimming in the warm water of **Mill Cove** northward of **Snow Island** is reported to be excellent.

(506) In **Orrs Cove,** 0.4 mile above Dyer Cove, is a boatyard and marina on the west bank about 0.4 mile below the head. Limited transient berths and moorings, gasoline, diesel fuel, water, electricity, ice, marine supplies and a pump-out station are available. Craft up to 50 feet long or 15 tons are handled on skids for limited hull, engine, and electronic repairs or open winter storage. In 2004, depths of 6 feet were reported alongside the fuel pumps.

(507) **Gun Point Cove**, westward of Quahog Bay, is a narrow arm of no importance making northward on the east side of Orrs Island. There are no wharves. **Gun Point** on the east side is wooded and has a house on the end. **Hen Island** and **Oak Island** are islets on the ledge area southward of Gun Point and **Long Point Island.** A channel across this ledge area, marked by a buoy, is part of an inside passage for small craft from New Meadows River westward to Orrs and Bailey Islands.

(508) A passage with a depth of 4 feet extends from the north end of Gun Point Cove into Harpswell Sound. This passage is crossed by State Route 24 highway bridge, which has a fixed span with a clearance of 10 feet. The passage is difficult because of strong currents and unmarked ledges, and should not be attempted by strangers. There are several lobster wharves with float landings in the vicinity of the bridge.

(509) **Lowell Cove**, in the south end of Orrs Island, is used as an anchorage by local fishermen. There are a number of fish and lobster wharves in the cove, most of which dry at low water. Ice, provisions, and some supplies can be had at a general store in the village of **Orrs Island,** at the head of the cove. The supply of water is very limited. There is a good road to the mainland.

(510) **Water Cove**, southward of Lowell Cove, makes into the north end of **Bailey Island.** The cove is foul near its shores and is little used.

(511) **Ram Island** and **Pond Island,** southeastward of Lowell Cove, are round and grassy. **Pond Island Ledges,** awash at high water, extend 0.6 mile southwestward of Pond Island, have many spots bare at low water, and are unmarked.

(512) **Halfway Rock**, about in the middle of the southern part of Casco Bay, is a low, rocky islet marked by

y **Halfway Rock Light** (43°39'21"N., 70°02'12"W.), 77 feet above the water, shown from a 76-foot white tower attached to a dwelling. A fog signal is at the light. Ledges extend 0.2 mile southwestward and northward from it. **Webster Rock,** covered 8 feet at the end of the ledge extending northward, is marked by a buoy.

(513) **Drunkers Ledges**, 2 miles north-northeastward of Halfway Rock, consist of two ledges 0.3 mile apart. The southeast one, **Eastern Drunkers Ledge,** is covered 4 feet and is marked on its southwest end by a buoy. The northwest one uncovers about 3 feet and is also marked by a buoy.

(514) Between Drunkers Ledges and Jaquish Island is **Mark Island Ledge** covered 4 feet and marked at its north end by a buoy. An area of broken ground with depths of 4 to 22 feet extends south-southwestward from Jaquish Island to Eastern Drunkers Ledge. In heavy weather the sea breaks on the shoalest places on it.

(515) **Little Mark Island**, on the west side of Merriconeag Sound at the entrance, is 37 feet high and grassy. It is marked by **Little Mark Island Monument Light,** 74 feet above the water, shown from a black and white stone pyramidal monument. **Great Mark Island** is 24 feet high, bare, and grassy.

(516) **Whale Rock**, 5 feet high, is 0.4 mile southwestward of Little Mark Island.

(517) **Merriconeag Sound** and **Harpswell Sound** are of little commercial importance, but they form the approach to a good and convenient anchorage. Vessels of the deepest draft can enter and find anchorage in 21 to 60 feet, good holding ground.

(518) The entrance is 3.5 miles north-northeastward of Halfway Rock Light and is marked on its western side by the light on Little Mark Island. The two sounds extend in a northeasterly direction for 10 miles to **Harpswell Cove,** and for the first 4 miles the important dangers are marked. Above this, strangers should not go without a pilot, as the channel is narrow, and flats make out some distance from the shore in several places.

(519) **Special anchorages** are in Harpswell Sound, at Harpswell Harbor, Mackerel Cove, Beals Cove, and the yacht club anchorage off the southwestern end of Orrs Island. (See **110.1 and 110.5,** chapter 2, for limits and regulations.)

(520) **Jaquish Island**, 29 feet high and grassy, on the east side of the entrance to Merriconeag Sound, and **Turnip Island,** 17 feet high and grassy, are conspicuous. **Turnip Island Ledge,** about 0.2 mile southwestward of Turnip Island, is awash at its southern end and is marked by a lighted gong buoy about 0.1 mile to the westward. **Jaquish Gut,** between Jaquish Island and Bailey Island to the northward, is reported to have a controlling depth of 7 feet; local knowledge is advised. A bell buoy is about 0.5 mile southeastward of Jaquish Island.

(521) **Charity Ledge**, eastward of Jaquish Island and covered 11 feet, is marked by a buoy.

(522) **Mackerel Cove**, in the southwestern shore of Bailey Island on the eastern side of the entrance to Merriconeag Sound, is a good anchorage in 30 to 48 feet for small craft, which use it frequently; it is open southwestward, but a heavy sea seldom enters.

(523) A **special anchorage** is in Mackerel Cove. (See **110.1** and **110.5,** chapter 2, for limits and regulations.)

(524) The village of **Bailey Island** is on Mackerel Cove. A ledge, marked by a lighted buoy, extends southward from **Abner Point,** on the west side of the entrance. There are no known dangers in the channel except for unmarked ledges that extend from the shores and an unmarked rock, reported to uncover about 2 feet, near the head of the cove. The water shoals gradually toward the head. It is reported that the west side of the channel should be favored in making the wharf and marina on the west side of the cove near the head. An uncharted large white house, on the west shore, is reported to be a good guide. Several fish piers are in the cove.

(525) A wharf and marina on the west side near the head has gasoline, diesel fuel, water and electricity at the floats which have 6 to 10 feet reported alongside; ice, some provisions and some marine supplies are available. A restaurant and motel are at the wharf. Overnight berthing is permitted, and guest moorings are maintained. Lodging and a store are available in the village.

(526) There is a good road to the interior. Ice seldom obstructs the cove in winter.

(527) The southern point of Bailey Island is marked by two high observation towers and a house.

(528) A boatyard is on the north side of the unnamed cove on the west side of the island, just northward of Mackerel Cove. The yard has a 1½-ton crane, and a marine railway that can handle craft up to 50 feet in length for hull and limited engine repairs, and dry, covered or open winter storage. Electric and electronic repairs can also be made, and some marine supplies can be obtained.

(529) A marina in the cove has gasoline and water available. Depths of 4 feet are reported alongside the floats.

(530) Small boats can be launched from the hard beach at the head of the cove making into the north end of Bailey Island, west of the bridge over Wills Gut. The cove is protected on its westerly side by a spit. A lobster pound with wharf and float landing is on the end of the spit. Depths of 6 feet are reported alongside the float; gasoline is available. Parking and picnic areas adjoin the restaurant on the wharf.

(531) A small-craft launching ramp, usable only at high water, is available at a small marina on the north end of Bailey Island just east of the bridge.

(532) **Wills Gut** is a thorofare between the south end of Orrs Island and the north end of Bailey Island. It is used by local fishing boats, but the channel is very narrow and difficult. Strangers using the channel should await low water, when the ledges bare enough on each side to indicate the channel course. State Route 24 highway bridge over the gut has a fixed span with a clearance of 10 feet. An overhead power cable at the bridge has a clearance of 41 feet. The controlling depth through the gut is reported to be 5 feet.

(533) A summer resort is on the southwest end of Orrs Island. Only a few piles remain of the old steamer wharf there. The Orrs-Bailey Yacht Club has a float with 15 feet alongside close northward of the ruins of the old steamer wharf. Gasoline and water are available at the float. A **special anchorage** is off the club. (See **110.1 and 110.5,** chapter 2, for limits and regulations.)

(534) There are several wharves southward of the club landing toward the Wills Gut bridge, on one of which is a general store where ice, provisions, and some marine supplies may be obtained. There are a ramp, parking, and picnic areas at the store.

(535) The approach to the wharves from Merriconeag and Harpswell Sounds is northward of a buoy and a daybeacon marking the end of **Cox Ledge,** which uncovers at low water and extends from the northwestern point of Bailey Island.

(536) **Pinkham Island**, on the west side of Merriconeag Sound northward of the thorofare leading westward into Potts Harbor, has one house and is 31 feet high, bare, and grassy. Ledges, bare and covered, extend 500 yards southward of the island to a buoy. A channel northwestward of the island has a depth of at least 8 feet. It leads between shoals and should not be used by strangers.

(537) **Harpswell Harbor**, on the west side of Harpswell Sound 3.5 miles above Little Mark Island, is a good anchorage in 18 to 36 feet, shoaling gradually to the head. There are private float landings for small craft on the west side, and the small settlement of **West Harpswell** is on the main road back of the landing. The waters of Harpswell Harbor are a **special anchorage.** (See **110.1 and 110.5,** chapter 2, for limits and regulations.)

(538) **Beals Cove**, a shoal, foul cove on the west side of Orrs Island, is a **special anchorage.** (See **110.1** and **110.5,** chapter 2, for limits and regulations.)

(539) **Reed Cove**, on the west side of Orrs Island, is reported to have good anchorage in 12 to 18 feet with protection from south and southwesterly winds; sand over mud bottom.

(540) There is a thorofare from the north end of Harpswell Sound through **Ewin Narrows, Prince Gurnet, Long Reach,** and **Gurnet Strait** to New Meadows River. It is occasionally used by local boats. The channel is narrow, has a depth of about 6 feet, and has many dangers; the tidal currents are strong, and the thorofare should not be used by strangers. It is sometimes marked by bush stakes.

(541) A fixed highway bridge with a clearance of 30 feet crosses the southern part of Ewin Narrows.

(542) Gurnet Strait is crossed by State Route 24 highway bridge which has a fixed span with a vertical clearance of 10 feet and a horizontal clearance of 42 feet. The depth at the bridge is reported to be about 6 feet. In 1979, shoaling to bare was reported in the northerly part of the channel.

(543) The **tidal current** through Gurnet Strait is very strong at strength–estimated at 7 to 8 knots at times–and boats go through only at slack water. The ebb current runs eastward. Low-water slack occurs a little before low water at Portland.

(544) At the strength of the current, there is a difference of elevation of probably 3 feet in the level of the water on either side of the bridge. The flood currents meet in the reach between Prince Gurnet and Gurnet Strait.

(545) **Gurnet** is a village on the shores of Gurnet Strait. There are several wharves with float landings. Restaurants are available on the wharves or nearby. Provisions can be obtained.

(546) The part of Casco Bay westward of **Harpswell Neck** has numerous sounds, bays, and rivers, separated by islands mostly lying in a northeasterly and southwesterly direction. Portland Harbor, at the western end of the bay, is the principal port of Maine. Many summer resorts and landings are on the islands and shores of the bay, and small vessels from Portland run as far east as Bailey Island and call at the State piers on the islands.

(547) There are broad channels into the bay through Broad, Luckse, and Hussey Sounds, and secure anchorage for vessels of any draft can be found. The bay is frequented by many yachts and small pleasure craft, and some fishing boats. The ferries running to the State piers are of 4 to 6 feet in draft.

(548) Through **Hussey Sound,** 42 feet can be taken on either side of Soldier Ledge which has been cleared to a depth of 40 feet. The inshore channel extends from Peaks Island along the north shore of Long Island. A submerged obstruction is reported close westward of the lighted gong buoy on the south side of the eastern entrance to Hussey Sound.

(549) The Coast Guard Captain of the Port, Portland, advises the minimum visibility requirements for deep draft vessels for Hussey Sound and its approach channels are ¼ mile. Pilots and tugs are available at

Portland; see Pilotage, Portland, indexed as such. Tug/barge units should not change mode of towing in the vicinity of the Hussey Sound entrance due to the restricted navigation area available.

(550) From the fairway bell buoy in the entrance to **Broad Sound,** 42 feet can be carried to good anchorages in upper Broad Sound to Middle Bay, and to the vicinity of French Island and the north end of Great Chebeague Island.

(551) Also, 42 feet can be taken through **Luckse Sound** to the vicinity of **Bangs Island.** There is a minimum effective cleared depth of 20 feet westward of the island to off the north point of Great Chebeague Island.

(552) An inshore channel used by interisland ferries, yachts, and fishing craft extends from the south point of Great Chebeague Island around either side of Bangs Island, across Broad Sound, and through Potts Harbor to Merriconeag Sound.

(553) **Potts Harbor** is a large irregular bight in the southern end of Harpswell Neck, between Potts Point on the east and Basin Point on the west, and **Haskell Island** and **Upper Flag Island** and the ledges between them on its southern side. The harbor affords good anchorage in depths of 24 to 33 feet.

(554) **South Harpswell** is a village on the east side of Potts Harbor. A town wharf with float landing is on the east side of the harbor, about 0.4 mile above **Potts Point;** depths of 6 feet are reported alongside the float. A fish wharf with 7 feet reported alongside in 1979, is on the west side of **Ash Point,** at the entrance to Basin Cove; gasoline and diesel fuel are available. A marina and restaurant are on the west side of the harbor about 0.1 mile above **Basin Point.** Transient berthage, gasoline, diesel fuel, water, electricity, and ice are available; depths of 5 feet are reported alongside the float landing. A trailer at the marina can handle craft up to 35 feet for some engine repairs and open winter storage.

(555) A **special anchorage** is on the northeast side of Basin Point. (See **110.1 and 110.5,** chapter 2, for limits and regulations.)

(556) There are two entrances to the harbor. The eastern one, from Merriconeag Sound, is marked by buoys and a daybeacon. It has a depth of about 14 feet, but is narrow and crooked with strong tidal currents. It is suitable only for small craft or small vessels with local knowledge.

(557) The western entrance, between Upper Flag Island and Horse Island, is straight and about 225 yards wide at its narrowest part, between Horse Island and the edge of the shoal between Upper Flag Island and **Thrumcap,** a grass-covered rock. **Upper Flag Island,** 59 feet high, **Little Birch Island,** 14 feet high, and **Horse Island,** 23 feet high, are grass covered.

(558) A ledge extending southwestward from Little Birch Island is marked by a bell buoy, and a shoal covered 3 feet, about 0.2 mile west of Upper Flag Island, is marked on its southwestern end by a buoy.

(559) **Basin Cove** is a **special anchorage.** (See **110.1 and 110.5,** chapter 2, for limits and regulations.) The entrance to the cove is obstructed by the remains of an old dam which is covered at high water. Entry into this cove is dangerous at all times and should not be attempted without local knowledge.

(560) **Outer Green Island**, 4 miles westward of Halfway Rock Light (43°39.4'N., 70°02.3'W.), is grassy. **Junk of Pork,** a high rock with surrounding bare ledges, is 250 yards southward of it. **Johnson Rock,** 0.1 mile northeastward of Outer Green Island, with foul ground between, is covered 8 feet and is marked on its north side by a buoy.

(561) **Green Island Reef**, about 0.2 mile long and bare at low water, is 0.7 mile northeastward of Outer Green Island. It is marked on its southwest end by a buoy. **Green Island Passage,** leading between the buoys marking Green Island Reef and Johnson Rock, has a width of 400 yards and a depth of 44 feet, and is used by small vessels. **Inner Green Island,** 0.4 mile northeastward of Green Island Reef with foul ground between, is 15 feet high and grassy.

(562) **Jewell Island** and **Cliff Island,** northward of Inner Green Island, are partly wooded. Numerous homes and several private landings are on the northwest shore of Cliff Island; the State pier and public float landing are on the west shore of the island about 0.7 mile from the south end. There is 22 feet at the head of the pier. Gasoline is available at a pier and float landing with 6 feet alongside on the east shore of the island. Provisions can be obtained at a store near the pier. The old steamer wharf on the west shore of Jewell Island is reported to be in disrepair.

(563) **Johns Ledge**, covered 3 feet in places, extends 0.4 mile southwestward from the southern end of Cliff Island. Its end, covered 16 feet, is marked by a bell buoy. There is no safe passage for vessels between the bell buoy and the island. A buoy marks the broken ground and shoals southeastward of the island.

(564) A cove on the northwest side of Jewell Island has excellent anchorage with good protection in 10 feet, mud bottom. A prominent stone tower is on the south end of Jewell Island, and the ruins of two old wharves and a house are on the west side. There are no facilities.

(565) **Broken Cove**, about 1 mile northeastward of Jewell Island, is formed by a group of bare rocks and small islets connected by ledges extending 0.6 mile northeastward from **West Brown Cow,** a 36-foot-high grass-covered islet. The daybeacon on Stockman Island in range with or open eastward of the northeast point of

Ministerial Island leads eastward of the ledges, which are marked on the northeast side by a gong buoy.

(566) **Eagle Island** is 64 feet high, wooded, and prominent, and has a house and flagstaff on the northeast side. A ledge, which uncovers about 6 feet, extends 300 yards westward of the island; a buoy is on the southwest side of the ledge. The State of Maine maintains a pier, float, ramp, and at least four guest moorings for summer visitors on Eagle Island.

(567) **Eagle Island Ledg**e, awash at high water, is 300 yards southeastward of the southern end of Eagle Island. Ledges covered 4 to 5 feet extend 300 yards southeastward and 500 yards northeastward from Eagle Island Ledge. Partly bare ledges extend about 250 yards northward from Eagle Island.

(568) **Bates Island**, 29 feet high, and **Ministerial Island,** 24 feet high, both westward of Eagle Island, are grassy. They are surrounded by extensive ledges. **Stave Island** is sparsely wooded. **Stave Island Ledge** uncovers 2 feet and is marked by a buoy at its northeast end.

(569) **Hope Island**, in Luckse Sound opposite Cliff Island, is 90 feet high and wooded except on the southwest end, which is marked by a large house and flagpole. **Rogues Island,** 16 feet high, and **Sand Island,** northeastward of Hope Island, are grassy. The channel between them is marked by buoys. **Crow Island,** 0.8 mile north of Sand Island, is 15 feet high and grassy and has one house in the center.

(570) **Bangs Island**, 66 feet high, and **Stockman Island,** 36 feet high, are bare and grassy. Stockman Island has a daybeacon at the southwest end. **Goose Nest** is a grassy islet about 4 feet high, and **Goose Nest Ledge,** part of which uncovers about 7 feet, is northward of Goose Nest. A ledge extending 400 yards south of Goose Nest is marked by a buoy.

(571) **Whaleboat Island** is 74 feet high and wooded on the north end, the highest part, and 56 feet high and grassy at the south end. A light shown from a white skeleton tower is near the southerly point. A 23-foot shoal, about 0.2 mile south of the light, is marked by a gong buoy, which also marks the junction of two deep channels leading to a naval fuel depot and wharf on the west shore of Harpswell Neck in Middle Bay, eastward of Goose Ledge, about 2.6 miles northeastward of Basin Point. The tanks and other features of the naval fuel depot are conspicuous. The T-head pier is reported to have 35 feet alongside.

(572) The eastern channel leads between **Birch Island Ledge,** which uncovers 6 feet and is marked on its southwestern end by a buoy, and a buoyed 27-foot spot on the east, and Whaleboat Island on the west. The western channel leads between Whaleboat and Little Whaleboat Islands. It is buoyed.

(573) A **038°–218°** measured course, 5,946 feet long and marked by shore ranges, is on the west side of Whaleboat Island.

(574) **Little Whaleboat Island** is 35 feet high and wooded. Extensive ledges extend about 0.7 mile northward, westward, and southwestward of the island. **Little Whaleboat Ledge,** covered 3 feet and **Whaleboat Ledge,** covered 6 feet, are about 0.8 and 1 mile, respectively, southwestward of Little Whaleboat Island. Both are marked by buoys.

(575) **Middle Bay** makes northeastward on the west side of Harpswell Neck. **Harpswell Center** is a village on the main road of Harpswell Neck. The bay has good anchorage, but is seldom used. **Lower Goose Island,** 73 feet high, and **Upper Goose Island,** 85 feet high, on the west side of the bay, are wooded.

(576) Gasoline and diesel fuel can be obtained at the float landing of a lobster pier on **Lookout Point,** on the east side of Middle Bay opposite Upper Goose Island. Depths of 3 feet are reported alongside the float.

(577) **Merepoint Bay**, shallow and obstructed by flats at its northern end, is between **Birch Island,** about 50 feet high, and **White Island** on the east, and **Merepoint Neck** on the west. It is the center of considerable yachting activity in the summer season. The Merepoint Yacht Club on the neck is an organization of summer residents without formal clubhouse or landing. Several private float landings of members are used. **Merepoint** is a village on the neck.

(578) A marina with 3 feet reported alongside its float is on the east side of the neck, about 1 mile above **Mere Point**. Limited moorings, gasoline, diesel fuel, water, ice, some marine supplies, and a pump-out facility are available. A marine lift to 22 tons and dry winter storage are also available.

(579) **Maquoit Bay** makes northeastward on the westward side of Merepoint Neck; the entrance is north of the Goose Islands. Most of the bay is shoal and is obstructed by flats covered 1 to 4 feet. Through the flats a channel with 19 to 24 feet leads for a distance of 2 miles northwestward from its entrance.

(580) A boatyard is on the west side of Merepoint Neck, about 2 miles above Mere Point. The marine railway at the yard can handle craft up to 35 feet in length for hull and engine repairs, and dry, covered or open winter storage. A small-craft launching ramp is at the yard.

(581) Southward of Maquoit Bay, the chain of islands between **Sister Island** and **Bustins Island,** are wooded, and there are flats between and northward of them. **Sister Island Ledge,** northward of 41-foot-high Sister Island, is partly bare at high water. Bustins Island, 83 feet high, has numerous cottages. A public landing is on the southeast side of the island with a post office and store nearby. Gasoline is available.

(582) Rocks, awash at low water, are 50 yards southeastward and 75 yards southwestward from the landing. Eastward of the landing is a house on a ledge about 100 yards offshore. **Little Bustins Island,** 15 feet high, is marked by a house and a clump of trees in the center.

(583) **Bustins Ledge**, southeastward of Bustins Island, is about 4 feet high in one spot. **French Island,** 62 feet high, is wooded. **Little French Island,** also wooded, is on ledges which extend northward of the island.

(584) **Harraseeket River** is west of Maquoit Bay. The approach is between Bustins Island on the east and **Moshier Island,** 91 feet high and wooded, on the west. The entrance to the river, between **Moore Point** and **Stockbridge Point,** is narrow and marked by buoys. Except for a dangerous midchannel rock, covered 2 feet, reported to lie in the entrance about 100 yards southwest of Pound of Tea Island, it has a depth of 23 feet.

(585) From the entrance the channel leads between flats, mostly bare at low water, in a northerly direction to **Weston Point.** Thence a shoal unmarked channel leads to **Porter Landing,** to which small craft drawing up to 6 feet or less are reported to go at high water with local knowledge.

(586) A **special anchorage** is between Stockbridge Point and Weston Point. (See **110.1 and 110.5,** chapter 2, for limits and regulations.)

(587) **South Freeport**, on the west side of Harraseeket River, about 0.7 mile above the entrance, has a town wharf with a depth of 15 feet reported alongside its float landing. Guest berths and moorings, electricity, gasoline, diesel fuel, water, ice, most marine supplies, and a pump-out facility can be obtained at the float landings of marinas on either side of the town wharf; depths of 12 to 16 feet are reported alongside the floats. Lifts to 36 tons are available, and complete hull, engine and electronic repairs can be made. Dry open winter storage is also available.

(588) The Harraseeket Yacht Club with 19 feet reported alongside its float landing is about 300 yards southward of the town wharf; guest moorings are maintained. A motorboat passenger ferry operates from the town wharf to Bustins Island during the summer.

(589) At Porter Landing, 1.4 miles north-northeast of the South Freeport town wharf, is a boatyard which builds boats up to 40 feet and makes hull and engine repairs. The landing is reported accessible for a draft of 6 feet within 2½ hours of high tide.

(590) Prominent landmarks include a large stone turreted tower at South Freeport, a tank and standpipe at Yarmouth, and the two stacks and green painted powerplant and oil tanks on Birch Point, the southwestern end of Cousins Island, which are visible from every section of Casco Bay. The stacks are marked by flashing lights.

(591) **Littlejohn Island** and **Cousins Island,** northward of Great Chebeague Island, are connected by a wooden bridge. The passage between the islands dries at low water. An overhead telephone cable crosses the passage just north of the bridge. There is a wharf on the southeast side of Littlejohn Island which has a reported depth of 3 feet alongside and is seldom used.

(592) There is a large powerplant on the north side of **Birch Point,** the southwestern end of Cousins Island; the two stacks and green painted powerplant and oil tanks are conspicuous throughout the bay. The two stacks are marked by flashing lights. The plant's T-head pier with dolphins can accommodate vessels 715 feet in length and 32 feet in draft. In 1979, depths of 33 feet were reported alongside; bottom is mud and rock. The pier is used by tankers which re-supply the powerplant with fuel oil. Vessels normally moor starboardside-to and require tugs and a line boat to handle bow and stern lines. Pilots and tugs are available at Portland; see Pilotage, Portland, indexed as such. Only fresh water is available; bunker fuel oil and diesel oil can be obtained in Portland. Vessels should engage the services of one or more escort tugs for transit to the Wyman Station Oil Terminal on Cousins Island. For inbound transits the escort tugs should be engaged in the vicinity of Cow Island. The use of escort tugs for vessels with an operational bow thruster will be at the discretion of the pilot.

(593) There is a wharf and float landing on **Doyle Point** on the east side of Cousins Island. No facilities are available. A motorboat taxi service operates from the landing to a stone wharf on the northwest side of Great Chebeague Island throughout the year.

(594) Cousins Island is connected to the mainland by a highway bridge. The fixed span over the main navigation channel has a clearance of 25 feet. Overhead power cables with a clearance of 68 feet over the main channel cross the waterway northeastward of the bridge.

(595) **Royal River** is a narrow crooked stream southwestward of Harraseeket River. The river is entered northward of Cousins Island through a dredged channel which leads from the northwestern part of Casco Bay to the river entrance between **Parker Point** on the south and **Fogg Point** on the north, and thence to the head of river navigation at the anchorage basin, about 0.7 mile below the town of **Yarmouth**. The approach section of the channel is State maintained. In November-December 2003, the controlling depth was 5.3 feet (7.2 feet at midchannel) from Buoy 4 to Buoy 18, thence 6.6 feet at midchannel to the basin, with depths of 2.6 to 6 feet available in the basin. In September 1993, shoaling to an unknown depth was reported in the vicinity of Royal River Channel Buoy 2. The channel is marked by buoys. Falls in the river are about 0.3 mile above the turning basin.

(596) The Royal River is a Marine Managed Area (MMA). (See **MMA 8-16**, Appendix C, for additional information.)

Small-craft facilities

(597) There are several small-craft facilities on the river below the bridge, with electricity, gasoline, diesel fuel, water, ice, provisions, marine supplies, pump-out stations, small-craft launching ramps and dry, covered or open winter storage available. Lifts to 60 tons and a marine railway that can handle craft up to 50 feet long or 20 tons are available for hull, engine and electronic repairs.

(598) **Cousins River,** a narrow shallow stream marked by private seasonal uncharted buoys, empties into the mouth of Royal River from northward. U.S. Route 1 and Interstate 95 highway bridges crossing the river about a mile above its mouth have 46-foot fixed spans with clearances of 3 feet. A boatyard on the west side of the river about 0.9 mile above the mouth, builds boats up to 70 feet in length. The yard has a 3½-ton fixed crane, and a marine railway that can handle craft up to 40 feet for hull and engine repairs; guest moorings are maintained.

Charts 13290, 13292

(599) **Great Chebeague Island** is one of the largest islands in Casco Bay. **Indian Point,** a sandspit at the southwestern end of the island, has a house and a lone tree on it.

(600) **Chandler Cove** is formed by a bight in the southwestern end of Great Chebeague Island and by Little Chebeague Island; it is a good anchorage with 30 to 60 feet, but is little used. Mariners are cautioned to avoid anchoring in the cable area that extends across the southeast part of Chandler Cove. There is passenger and freight service from Portland to the State pier and public float landing in Chandler Cove, at the south end of the island. The pier has a depth of 15 feet at the head. A water taxi service carries passengers from the wharf at Doyle Point on Cousins Island to the stone wharf on the northwest shore of Great Chebeague Island; there is 6 feet alongside the wharf.

(601) A boatyard is on the east side of Great Chebeague Island, in the bight west of Crow Island. Gasoline, limited water, and sewage pumpout facilities are available.

(602) **Chebeague Island** is a village located in the north central part of the island.

(603) **Little Chebeague Island** has a patch of woods in its center and a few houses. The old landing, on the east side, is in disrepair.

(604) **Long Island**, southwestward of Great Chebeague Island, has several landings on its northwest side. **Mariner** and **Long Island** are villages near the northern and western ends, respectively. A passenger and freight ferry from Portland calls at **Ponce Landing** on the northwest shore. The ruins of three piers are northeastward of Ponce Landing.

(605) The passage between **Crow Island,** 6 feet high, and the north point of Long Island, is closed by scuttled vessels with hulls showing above high water.

(606) The islands southward of Long Island are described with Portland Harbor.

(607) **Broad Cove** (43°46.0'N., 70°11.0'W.), in the northwestern part of Casco Bay, is shallow. Good anchorage is available in the middle of the cove, southwest of **Prince Point,** in 15 to 17 feet. It is open southward and eastward.

(608) **Falmouth Foreside**, a yachting center 4.3 miles north of Portland, has a boatyard that builds boats to 55 feet and a large marina with mobile hoists to 15 tons, where craft up to 50 feet can be hauled out for hull and engine repairs, and covered or open dry winter storage. Electric and electronic repairs can be made. The marina has float landings with 6 to 10 feet reported alongside. Gasoline, diesel fuel, and water are piped to the floats, and electricity and most marine supplies are available. There is a restaurant at the yard and lodging in the vicinity.

(609) There are numerous private moorings, and the yard maintains guest moorings. Ice, provisions, marine supplies, and bus and taxi services are available.

(610) The Portland Yacht Club, close northeastward of the yard, has a float landing with 10 feet reported alongside; water and electricity are available. The club has a restaurant and club facilities for members and guests.

(611) The waters off Falmouth Foreside shore from Prince Point (43°42.7'N., 70°13.0'W.), northeastward for 1.8 miles are a **special anchorage.** (See **110.1 and 110.5,** chapter 2, for limits and regulations.) The **harbormaster** supervises the moorings; he can be reached by telephone (207-781-4673).

(612) In approaching the landings from the southward, care should be taken to pass eastward and northward of the buoy close eastward of **York Ledge,** before rounding up to the northwestward. A number of small craft cutting too close to the buoy have hung up on the ledge. A daybeacon is on the ledge.

(613) **Sturdivant Island**, 51 feet high and covered with grass and bushes, is partly wooded and has a house on it. **Sturdivant Island Ledges,** about 0.4 mile south-southwest of the island, uncover 7 feet in places and are marked on the southern, eastern, and western edges by buoys. **Underwood Ledge,** to the westward, is

covered 4 feet and is marked on its eastern side by a buoy. **Basket Island** is wooded.

(614) **Upper Basket Ledge** and **Lower Basket Ledge** both uncover 5 feet and are marked by daybeacons. A 12-foot spot, about 700 yards westward of the daybeacon on Lower Basket Ledge, is marked by a buoy on its southwestern side. **Clapboard Island** is 50 feet high and wooded, and has a private landing on its west side. The island is surrounded by ledges, bare and covered.

(615) **Cow Island Ledge Light** (43°42.2'N., 70°11.3'W.), 23 feet above the water, is shown from a spindle tower with a red and white diamond-shaped daymark on a red caisson; the light marks the ledge between Clapboard Island and Cow Island. A buoy marks the northeast extremity of the ledge.

(616) **Waites Landing** is 1.7 miles southward of Falmouth Foreside. **The Brothers** are two low, flat islets, 6 and 11 feet high.

(617) **Mackworth Island** is connected to **Mackworth Point,** the eastern entrance point of Presumpscot River, by a stone causeway and highway bridge on piles with a 17-foot fixed span and a clearance of 5 feet at the navigation channel through the bridge.

(618) **Presumpscot River**, the entrance of which is between Mackworth Island and **Martin Point,** has a narrow crooked channel with a depth of 13 feet to the U.S. Route 1 highway fixed bridge at the entrance. The bridge has a clearance of 12 feet. For about 1 mile above the bridge, the channel has a depth of 6 feet.

(619) Three fixed spans, Interstate 295 Highway bridge, a railroad bridge, and State Route 9 Highway bridge, cross the river about 2 miles above the U.S. Route 1 fixed bridge; the minimum clearance is 9 feet. An overhead power cable between the railroad bridge and State Route 9 Highway bridge has a clearance of 42 feet. There is no waterborne commerce on the river and the channel is unmarked. On Martin Point, the buildings of the former marine hospital are conspicuous.

Chart 13292

(620) **Portland Harbor**, at the western end of Casco Bay, is the most important port on the coast of Maine. The ice-free harbor offers secure anchorage to deep-draft vessels in all weather. There is considerable domestic and foreign commerce in petroleum products, wood pulp, paper, seafood products, and general cargo. It is also the Atlantic terminus of pipeline shipments of petroleum products to Canada.

(621) The **outer harbor** comprises the area westward of Cushing, Peaks, House, and Great and Little Diamond Islands from the entrance at Portland Head to the entrance of Fore River at **Fish Point,** including the three deepwater general anchorages and the oil discharging berth westward of **Spring Point**. The Coast Guard Captain of the Port, Portland advises the minimum visibility requirements for deep draft vessels for Portland Outer Harbor are ½ mile.

(622) The inner harbor is considered to be in two sections; the outer part or **Main Harbor,** extending from the entrance of Fore River to the Casco Bay Bridge; and the inner part, or **Fore River,** from Casco Bay Bridge to the head of deepwater navigation at the combined fixed railroad and highway bridge. The Coast Guard Captain of the Port, Portland advises the minimum visibility requirements for deep draft vessels for Portland Inner Harbor are ¼ mile.

(623) **Portland**, an important manufacturing, fishing, and industrial center, is on the north side of the inner harbor with all the railroad, bulk, and general cargo terminals and piers. **South Portland** is on the south side of the harbor with all of the petroleum handling terminals and pipeline facilities along its waterfront.

(624) The main approaches to the harbor are from the southward from Portland Lighted Whistle Buoy P, or from the eastward from Halfway Rock Light to the entrance of the harbor between Portland Head, and Ram and Cushing Islands. (See chart 13290.)

(625) **Traffic Separation Scheme (Portland)** has been established in the approaches to Portland Harbor. (See charts 13260 and 13286.)

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

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

(628) The **precautionary area** in the approaches to Portland Harbor has a radius of 5.45 miles centered on Portland Lighted Whistle Buoy P (43°31'36"N., 70°05'28"W.), excluding that area of the circle bounded by an imaginary line extending between the outer limits of the inbound and outbound traffic lanes.

(629) Portland Eastern Approach.

(630) A 1–mile–wide **traffic separation zone** centered in the following positions: (i) 43°30'11"N., 69°59'10"W., and (ii) 43°24'17"N., 69°32'42"W.

(631) **Inbound traffic lane** is a 1.5-mile-wide lane with a length of about 20 miles. Entering the traffic lane at a point in about 43°25'00"N., 69°32'30"W., a course of **287°** follows the centerline of the traffic lane to the junction with the precautionary area.

(632) **Outbound traffic lane** is a 1.5-mile-wide lane with a length of about 20 miles. Entering the traffic lane at a point in about 43°29'00"N., 69°59'42"W., a course of **107°** follows the centerline of the traffic lane to its end; thence steer usual courses to destination.

(633) **Portland Southern Approach**.

(634) A 1–mile–wide **traffic separation zone** centered in the following positions: (i) 43°27'00"N., 70°03'29"W., and (ii) 43°07'49"N., 69°54'57"W.

(635) I**nbound traffic lane** is a 1.5-mile-wide lane with a length of about 20 miles. Entering the traffic lane at a point in about 43°08'12"N., 70°53'18"W., a course of **342°** follows the centerline of the traffic lane to the junction with the precautionary area.

(636) **Outbound traffic lane** is a 1.5-mile-wide lane with a length of about 20 miles. Entering the traffic lane at a point in about 43°26'36"N., 70°05'06"W., a course of **162°** follows the centerline of the traffic lane to its end; thence steer usual courses to destination.

(637) The Traffic Separation Scheme is not buoyed.

(638) A vessel-to-vessel **oil transfer anchorage area** in Casco Bay, about 3.5 miles northeastward of Portland, has been designated by the Maine State Department of Environmental Protection. The area is 1 mile square beginning at Hussey Sound Buoy 12, (43°42'10"N., 70°09'46"W.); thence north to 43°43'10"N., 70°09'46"W.; thence west to 43°43'10"N., 70°11'09"W.; thence south to 43°42'10"N., 70°11'09"W.; thence east to origin.

Prominent features

(639) **Portland Lighted Whistle Buoy P** (43°31'36"N., 70°05'28"W.), is a large navigational buoy (LNB) about 5.3 miles east-southeastward of Cape Elizabeth Light. The buoy is red, shows flashing and fixed white lights 42 feet above the water, and is equipped with a fog signal and racon.

(640) **Cape Elizabeth,** the southern entrance point of Casco Bay, is marked by **Cape Elizabeth Light** (43°33'58"N., 70°12'00"W.), 129 feet above the water, shown from a 67-foot white conical tower; the fog signal is about 266 yards southeast of the light. An abandoned lighthouse tower is about 300 yards to the southwest. Numerous houses are near the light.

(641) A stone tower about 0.5 mile southward of Portland Head Light is conspicuous as is **Chimney Rock** about 300 yards southeastward of the tower.

(642) **Portland Head Light** (43°37.4'N., 70°12.5'W.), 101 feet above the water, shown from an 80-foot white conical tower connected to a dwelling, marks the south side of the entrance. A fog signal is at the light. A directional light, 23 feet above the water, is shown from the same structure.

(643) **Ram Island Ledge Light** (43°37.9'N., 70°11.2'W.), 77 feet above the water, shown from a light gray conical, granite tower, is on the ledge, awash at low water, about 400 yards south of 27-foot-high **Ram Island,** and marks the north side of the entrance; a fog signal is at the light.

(644) **Cushing Island**, on the northeast side of the entrance, is mostly grass covered. **White Head** is a bluff at its northeastern end. A pier is in Spring Cove on the north side.

(645) Two old observation towers on the island are conspicuous. One is on White Head at the northeast end of the island; another is 500 yards southwestward of it.

(646) **House Island**, also on the east side of the main channel, northwestward of Cushing Island, is the site of the abandoned quarantine station. Old **Fort Scammel** on the southwest end is conspicuous, and the summit of the northeastern part of the island is marked by a house and flagpole. **House Island Light 3,** 20 feet above the water on a skeleton tower with a square green daymark, is on the north end of the island, and **Fort Scammel Point Light 2,** 35 feet above the water on a skeleton tower with a triangular red daymark, is on the south end.

(647) **Spring Point** is on the west side of the channel about 1.8 miles northwest of Portland Head Light. The buildings at **Fort Preble** on and southward of the point are conspicuous. A breakwater on the ledge which extends about 300 yards northeastward of Spring Point is marked at the end by **Spring Point Ledge Light** (43°39'08"N., 70°13'26"W.), 54 feet above the water, shown from a white conical tower on a black cylindrical pier. A fog signal is at the light. The light shows a white sector over the entrance fairway.

(648) **Fort Gorges**, a conspicuous gray stone structure, is on **Diamond Island Ledge,** 0.8 mile northwestward of House Island. The ledge has a large area which uncovers, and a few spots bare at high water. **Diamond Island Ledge Light** marks the west end of the ledge. The south and east side of the ledge are marked by buoys. The wreck of a six-masted schooner about 700 yards 018° from Fort Gorges is visible at low water.

(649) On the bluff above and westward of Fish Point on the north side of the entrance is the city of Portland. There are numerous conspicuous landmarks on the bluff and in the city, most of which are charted. One of the most conspicuous and historical is the old observatory tower which resembles a lighthouse. The

microwave towers on the telephone building are very conspicuous.

COLREGS Demarcation Lines

(650) The lines established for Casco Bay are described in **80.110,** chapter 2.

Security Broadcast System, Portland Harbor

(651) The Coast Guard Captain of the Port, Portland, has established a voluntary system of radiotelephone broadcast/reporting procedures designed to give masters and pilots real-time information on marine traffic in Portland Harbor. The system supplements the Vessel Bridge-to-Bridge Radiotelephone Regulations contained in 33 CFR 26 (see chapter 2), and all vessels subject to these regulations are urged to participate in the system. Nothing in these procedures shall supersede the Navigation Rules or relieve the master of the vessel of his responsibility for the safe navigation of the vessel. These recommended procedures are designed to give notice of unseen vessels, give notice of intended movement, clear VHF-FM channel 13 of traffic unrelated to navigation, and give vessels information on other vessels within the immediate vicinity.

(652) All participating vessels are requested to use VHF-FM channel 13 for all bridge-to-bridge communications, including listening watches and security calls, except when calling a small vessel not responding on channel 13, in which case channel 16 is appropriate.

(653) Participating vessels shall maintain a listening watch commencing 30 minutes prior to getting underway or 30 minutes prior to reaching the vicinity of Portland Lighted Whistle Buoy P inbound.

(654) Security calls shall be made as follows: 15 minutes prior to getting underway; when getting underway, including route; when passing Portland Lighted Whistle Buoy P (inbound); for inbound vessels not passing Portland Lighted Whistle Buoy P, 15 minutes prior to passing Willard Rock (43°36.1'N., 70°13.4'W.), Witch Rock (43°37.4'N., 70°10.6'W.), or entering Hussey Sound (43°39.9'N., 70°10.0'W.); when passing Willard Rock Lighted Gong Buoy 7, Witch Rock Lighted Bell Buoy 2, or Hussey Sound Lighted Gong Buoy 3, include destination; when passing Spring Point Ledge Light (43°39.1'N., 70°13.4'W.); when passing Casco Bay Bridge; and when mooring or anchoring.

(655) During periods of low visibility, security calls should be made at more frequent intervals.

(656) If a call is made to a ship or station to pass any of the above information on channel 13, an additional security call is unnecessary. Example: tug and barge in Fore River calling Casco Bay Bridge 15 minutes prior to getting underway to arrange for an opening.

(657) Vessels carrying passengers or cargo and not required by law to comply with the Vessel Bridge-to-Bridge Radiotelephone Regulations are encouraged to monitor and respond on channel 13. During periods of low visibility these vessels should follow the security call procedures discussed above, except that security calls 15 minutes prior to getting underway, when passing Portland Lighted Whistle Buoy P, and 15 minutes prior to passing Witch Rock, Willard Rock, or entering Hussey Sound should not be made.

(658) **Coast Guard Group Portland** monitors channel 16 and will receive and transmit information when necessary.

Recommended minimum under-keel clearances for the Port of Portland

(659) The U.S. Coast Guard, in cooperation with the Maine and New Hampshire Port Safety Forum, has established recommended minimum under-keel clearances for the Port of Portland, in order to prevent groundings and to promote safety and environmental security of the waterway resources for the Port of Portland. The group recommends that all entities responsible for safe movement of vessels in and through the waters of the Port of Portland operate vessels in such a manner as to maintain a minimum under-keel clearance as follows:

(660) (a) 3 feet, when transiting inside a line drawn between Ram Island Ledge Light and Portland Head Light to Dredged Channel Lighted Buoy 5 at the entrance to Fore River,

(661) (b) 2 feet, when transiting Dredged Channel Lighted Buoy 5, including Fore River,

(662) (c) 2 feet, when transiting via Hussey Sound inside a line drawn between Lighted Gong Buoy 3 and Lighted Buoy 4. The minimum under-keel clearance should be between the deepest draft of the vessel and the channel bottom; a minimum under-keel clearance of 1 foot is recommended for all berthing areas.

Channels

(663) The main entrance is from the southward, between Ram and Cushing Islands on the north and Portland Head on the south.

(664) In addition to the main entrance from the southward, there are several entrances and channels from eastward and northward between and westward of the islands, some of which have been described previously. These are seldom used except by local vessels familiar with them or by small craft.

(665) A Federal project provides for a 45-foot channel from the sea to Fort Gorges, thence 35 feet in the Inner Harbor and Fore River to a turning basin at the head of the project near the combination railroad and highway

bridge, a 45-foot anchorage in Diamond Island Roads, and a 30-foot anchorage off Fish Point. In February-July 2005, the controlling depths were 45 feet in the entrance from the sea to Fort Gorges Island Ledge Lighted Buoy 4, thence 30.8 feet (32.5 feet at midchnnel) to Casco Bay Bridge, thence 31.2 feet to the turning basin, thence 32.2 feet in the turning basin, thence 33.5 feet to the head of the project. Depths of 40 to 45 feet were available in Diamond Island Roads anchorage and in August 2004, depths of 25 to 30 feet were available in the anchorage off Fish Point.

(666) **Whitehead Passage**, between Cushing and Peaks Islands, has a depth of about 24 feet. It is sometimes used by smaller vessels approaching the harbor from the eastward. The principal dangers in it are marked, but the channel is narrow and strangers are advised to use the main channel.

(667) **Diamond Island Pass**, between Peaks Island and Little and Great Diamond Islands is marked only at its northeastern and southwestern ends, and is used by the smaller bay vessels and small craft. To carry the best water, pass 50 yards off the old and former Coast Guard buoy pier on Little Diamond Island and the wharf on the south end of Great Diamond Island.

(668) A buoyed 22-foot channel westward of Great and Little Diamond Islands connects Hussey Sound with Portland Harbor.

(669) A channel dredged to 15 feet and marked with daybeacons and buoys leads from the main channel in Fore River to the two mole-type piers of **South Portland Coast Guard Base** in South Portland, about 0.4 mile northeast of Casco Bay Bridge.

(670) **Fore River** constitutes the Inner Harbor of Portland. The Casco Bay Bridge, about 1.5 miles above the entrance to the river, has a bascule span with a clearance of 55 feet. (See **117.1 through 117.59**, chapter 2, for drawbridge regulations.) The Casco Bay Bridge is often considered to pose the greatest risk to large vessels which transit into or out of the Fore River. Great care and prudent seamanship must always be exercised by mariners who transit through this bridge span. Mariners are cautioned that strong crosscurrents on both the ebb and flood tides frequently tend to set vessels to the South Portland side of the bridge. The dual railroad and highway bridge at the head of deep water navigation on the river has a fixed span with a clearance of 10 feet. All vessels passing through the bridge span should observe the voluntary speed limit of a maximum of 4 to 6 knots over the ground, except when additional speed is necessary to maintain proper steerage way. All vessels should also note the special procedures in Pilotage, Portland, this chapter, indexed as such.

(671) Note: The city councils of Portland and South Portland request that mariners voluntarily refrain from requesting draw openings of the Casco Bay Bridge during the peak hours of highway commuter traffic on Mondays through Fridays from 0700 to 0900 and from 1600 to 1800. It is also requested that mariners desiring draw openings of the Casco Bay Bridge on Saturdays, Sundays, and holidays during June, July, and August, notify the bridgetender at the bridge by radiotelephone, and also their agents and tug companies of the expected time of arrival at the bridge; a minimum of 1 hour's notice is desired. The draw of the bridge will be opened for transit of vessels upon arrival at the bridge. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign KQU-653. The bridgetender may also be contacted by telephone at (207) 774-3534.

Anchorages

(672) Secure anchorage for any vessel is available at all times in Portland Harbor. General, quarantine, and special anchorages have been prescribed for the harbor. (See **110.1, 110.6, 110.6a, and 110.134,** chapter 2, for limits and regulations.) A submerged cable area extends southeast from House Island through part of the available anchorage area.

(673) **Diamond Island Roads**, with depths of 40 to 45 feet, is the principal deepwater anchorage in the outer harbor. The anchorage eastward of Fish Point, called the **30-foot anchorage,** has depths of 25 to 60 feet, but is not as large as Diamond Island Roads anchorage.

(674) A **special anchorage** is between Little Diamond Island and Great Diamond Island. (See **110.1 and 110.6,** chapter 2, for limits and regulations.)

(675) A **naval anchorage** extends northward of Great Diamond Island to the south end of Cousins Island.

Dangers

(676) There are numerous isolated dangers in the approaches to the harbor and the most important ones are marked. **West Cod Ledge** (chart 13290), a 6.5-mile-long area of broken ground and isolated shoals, sets across the entrance from northeastward and southwestward. These include **Bulwark Shoal, Bache Rock, West Cod Ledge Rock, Corwin Rock, Alden Rock, Old Anthony Rock, East Hue and Cry,** and **West Hue and Cry.** The most important and largest of the shoal areas are buoyed, and the deep natural channels between them afford a clear approach to the harbor in clear weather from several directions.

(677) A second barrier of shoals extending from Ram Island Ledge to Cape Elizabeth includes **Witch Rock, Jordan Reef, Pine Tree Ledge, Willard Rock, Trundy Reef, Broad Cove Rock,** and **Mitchell Rock,** almost all of which are buoyed. Several deep clear channels

between them afford approach and entry well into the harbor by deep-draft vessels.

(678) In May 1982, unexploded depth charges were reported in the western end of Portland Eastern Approach Traffic Lane and in the eastern part of the precautionary area within a circle having a radius of 3 miles centered in 43°31'03"N., 70°00'08"W. Mariners are cautioned not to conduct dragging operations in this area.

(679) Platts Bank (43°09'N., 69°37'W.) between the Portland Eastern and Southern Approaches, approximately 40 nautical miles east of Portland, is a feeding area for endangered North Atlantic right whales in the spring (peak season: April through June).

(680) The City of Portland, Department of Transportation and Waterfront, distributes educational material to mariners in an effort to reduce right whale ship strikes.

Tides and currents

(681) The mean range of the tide is 9.1 feet. Daily predictions for Portland are given in the Tide Tables.

(682) The velocity at strength of the tidal current in the channel is about 1 knot southwest of Cushing Island and southwest of Diamond Island Ledge; within the harbor it is about 0.5 knot. For predictions, see Tidal Current Tables.

Weather, Portland and vicinity

(683) As a rule, Portland has very pleasant summers and falls, cold winters with frequent thaws, and disagreeable springs. Very few summer nights are too warm and humid for comfortable sleeping. Autumn has the greatest number of sunny days and the least cloudiness. Winters are quite severe, but begin late and then extend deeply into the normal springtime.

(684) Heavy seasonal snowfalls, over 100 inches (2540 mm), normally occur about each 10 years and extreme events as well as true blizzards are very rare. The White Mountains, to the northwest, keep considerable snow from reaching the Portland area and also moderate the temperature. The 24-hour record snowfall for Portland is 22 inches (559 mm) recorded in December 1970. Snow falls on an average of 59 days each year and has fallen during each month except June, July, and August. Average annual snowfall is 71 inches (1803 mm) and about 15 days each year have snowfall greater than 1.5 inches (38 mm).

(685) Normal monthly precipitation is remarkably uniform throughout the year averaging 43.6 inches (1107 mm) each year. The wettest month is November with about five inches (127 mm) and the driest months are July and August; each averaging 2.9 inches (74 mm). About 29 days each year have precipitation greater than 0.5 inch (13 mm) and precipitation falls an average of 185 days each year. Thunderstorms occur about 16 days each year and most frequently during June, July, and August.

(686) Winds are generally quite light with the highest velocities being confined mostly to April and May. The prevailing winds are southerly during the summer and northerly during the winter. During all seasons the heaviest gales are usually from the northeastward or eastward. The occasional northeasterly gales have usually lost much of their severity before reaching the coast of Maine.

(687) Fogs occur most frequently during June through September but happen during each month of the year. At the head of the bays and within rivers it is often comparatively clear when it is thick outside. Winds from the east to the southwest by way of south bring fog; westerly and northerly winds clear it away. An average of 167 days each year have foggy conditions. During August and September it is occasionally foggy or smoky in the harbor in early morning when it is clear outside.

(688) The warmest month is July with an average high of 79°F (26.1°C) and an average low of 58°F (14.4°C). The coolest month is January with an average high of 31°F (-0.6°C) and an average low of 12°F (-11.1°C). The warmest temperature on record is 103°F (39.4°C) in August 1975. Temperatures well below zero are recorded frequently each winter. Cold waves sometimes come in on strong winds, but extremely low temperatures are generally accompanied by light winds. The average freeze-free season at the airport station is 139 days. May 12 is the average date of the last freeze (0°C) in spring, but this has been as early as April 22, and as late as May 31. The average date of the first freeze in fall is September 27, with the earliest and latest occurrences on September 17 and October 10. Every month has seen extreme minimum temperatures of 40°F (4.4°C) or below. The coldest temperature on record is -26°F (-32.2°C) recorded in January 1971. The average year has 155 days with minimums below 32°F (0°C) and 23 days with minimums of 5°F (-15°C) or below.

(689) Ice seldom obstructs navigation; when it does it is only for a limited time. Tugs keep a clear channel to the wharves.

(690) (See page 424 for **Portland climatological table.**)

North Atlantic Right Whales

(691) Endangered North Atlantic right whales may occur in the vicinity of or within the Portland approaches. The northernmost portion of Jeffreys Ledge, a well known feeding area for right whales, abuts the Traffic Separation Scheme (Portland) Southern Approach Outbound Lane. (See North Atlantic Right Whales, indexed as such, chapter 3, for more information on right

whales and recommended measures to avoid collisions with whales.)

Pilotage, Portland

(692) Pilotage is compulsory for all foreign vessels and U.S. vessels under register in the foreign trade drawing over 9 feet. Pilotage is optional for coastwise or fishing vessels under enrollment or license who have on board a pilot licensed by the Federal government. Pilotage is provided by Portland Pilots, Inc., 48 Union Wharf, Portland, ME 04101-4607, telephone 207–774–5623, FAX 207-774-5683. The pilot office monitors VHF-FM channels 16 and 11, Monday through Friday from 0900 to 1700 hours. A pilot can be reached during non-office hours by calling 207-774-5623 or through the vessel's port agent. The pilot boat monitors VHF-FM channels 16, 13, 11, 10, and 7A when underway; works on channel 11. Pilots board in the vicinity of Portland Lighted Whistle Buoy P. The pilot boat has a black hull, with white superstructure, and the word PILOT on either side of the superstructure; one boat is 48-foot and the other is 65-foot in length. The pilot boat maintains station only in anticipation of prescheduled vessel movement. Arrangements for pilots should be made in advance through the ship's agent. Vessels are requested to give a 48-hour and a 24-hour notice of their ETA at the above buoy; and an update of any appreciable change of ETA. The Coast Guard Captain of the Port, Portland, recommends the following for deep draft vessels.

(693) Vessels awaiting the boarding of a pilot should anchor about 1.5 miles north and east of Portland Lighted Whistle Buoy P to allow the unrestricted passage of other vessels through the precautionary area.

(694) All self propelled vessels over 375 feet length-over-all (LOA) and all tank vessels should engage the services of one or more escort tugs for inbound and outbound transits through the Casco Bay Bridge. The use of escort tugs for vessels with an operational bow thruster will be at the discretion of the pilot. For inbound transits the escort tugs should be engaged in the vicinity of Spring Point and Portland Pipeline Corp. Pier 2.

(695) All tug/barge units should only pass through the Casco Bay Bridge in the pushing ahead or towing alongside modes. All light tug/barge should use flood tide when making a transit outbound through the Casco Bay Bridge. All light tug/barge units with a capacity of 70,000 barrels or more should also engage the services of an assist tug.

(696) All tug/barge units in the towing astern mode should refrain from transiting the area of Portland Head to Spring Point while this area is being transited by large vessels. Enhanced bridge-to-bridge communications should be used to avoid meeting situations in restricted navigation areas. Tug/barge units towing astern should change mode of towing before the Portland Pipeline Corp. Pier 2, weather conditions permitting, in preparation for entrance into Portland Harbor. Inbound laden tug/barge units with a capacity of 70,000 barrels or more towing astern past Portland Head Light to Spring Point should engage the services of an assist tug when transitioning the mode of towing.

Towage

(697) A fleet of modern tugs up to 3,500 hp is available at Portland. Tugs meet vessels off Spring Point and use VHF-FM channel 7. Arrangements for tugs are made through ships' agents or direct by telephone or cable; telephone 207–772–8319; cable address MORTOW. Most large vessels use tugs when docking.

Tug Escort System, Portland Harbor

(698) The Port of Portland has established a voluntary system of tug escorts for crude oil tankers of any size or tonnage entering, departing, or moving within Portland Harbor. The system is designed to assist vessel operators in the safe navigation of western Casco Bay and Portland Harbor. Nothing in these procedures shall supersede the Navigation Rules or relieve the master of the vessel of his responsibility for the safe navigation of the vessel.

(699) All participating vessels are requested to arrange for an escort by tugs of sufficient horsepower at Portland Harbor Eastern Approach Lighted Gong Buoy 1 (43°37.1'N., 70°09.8'W.). Any movement of these vessels within the confines of the harbor or the channel must be under the escort of tugs with sufficient horsepower for docking, undocking, or assistance in maneuvering.

Quarantine, customs, immigration, and agricultural quarantine

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

(701) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) Two private hospitals are available in Portland.

(702) Portland is a **customs port of entry.**

Coast Guard

(703) A **marine safety office** is in Portland. (See Appendix A for address.) **South Portland Coast Guard Base** is in South Portland.

Harbor regulations

(704) The Board of Harbor Commissioners in Portland has jurisdiction over the piers to the pierhead line, checks on harbor pollution, establishes pilot rates, appoints harbor pilots, and establishes harbor regulations. The harbormaster, appointed by the City of Portland, enforces the regulations and maintains an office at the State pier.

(705) The Maine Department of Transportation with offices on the State pier administers and fosters the development of maritime activities in the State of Maine.

(706) The following **speed regulations for Portland Harbor** have been promulgated by the Board of Harbor Commissioners:

(707) I. **Definitions**.

(708) A. **Restricted Speed Area**. The term Restricted Speed Area shall mean the following areas of Portland Harbor:

(709) 1. Main Ship Channel.

(710) (a) Between a line drawn from Portland Head Light to Portland Harbor Main Approach Lighted Bell Buoy 12, and a line drawn from Spring Point, where the breakwater meets the shore, to the lighted day marker #2 on House Island, the speed of vessels shall not exceed 20 knots.

(711) (b) Between a line drawn from Spring Point, where the breakwater meets the shore, to the lighted day marker #2 on House Island, and a line drawn from Bug Light (an abandoned light house in South Portland) to Diamond Island Ledge Light, the speed of vessels shall not exceed 15 knots.

(712) (c) Between a line drawn from Bug Light (an abandoned light house in South Portland) to lighted day marker #6 on Diamond Island Ledge, and a line drawn from the Maine State Pier to Portland Pipe Line Pier, the speed of vessels shall not exceed 10 knots.

(713) (d) Between a line drawn from the Maine State Pier to Portland Pipe Line Pier #1, and a line created by the Veterans Memorial Bridge, the speed of vessels shall be headway speed only, not to exceed 10 knots, with NO WAKE.

(714) 2. Portland.

(715) (a) All areas north of the following line:

(716) From a point located at the intersection of (I) a line from Fish Point Lighted Buoy 1 to the north end of the draw in the bridge and (II) a line formed by extending in a southerly direction the westerly side of the Maine State Pier to the northerly end of Portland Pipe Line Pier #1.

(717) To the north end of that draw; and

(718) (b) All areas within a 150 yard radius of the gas pumps on Ted Rand's marina on the easterly side of Little Diamond Island.

(719) 3. South Portland. All areas south of the following line: from the northerly end of Portland Pipe Line Pier #1, to Lighthouse Channel Lighted Buoy 1, to Lighthouse Channel Buoy 2, to Mill Cove Daybeacon 1, to south end of draw in the bridge.

(720) B. **Restricted Wake Area**. The term Restricted Wake Area shall mean the following areas of Portland Harbor:

(721) 1. Inner harbor. All areas between (a) a line formed by extending in a southerly direction the westerly side of the Maine State Pier to the northerly end of Portland Pipe Line Pier #1, and (b) the bridge.

(722) 2. Diamond Island Pass. All areas in Diamond Island Pass extending northeasterly from Diamond Island Passage Buoy 6 off the southwesterly point of Little Diamond to Diamond Island Passage Lighted Buoy 1 off the northeast point of Peaks Island.

(723) 3. Whitehead Passage.

(724) (a) All areas south of a line between the point on the westerly side of Spicers Cove and the northernmost point of White Head on Cushings Island; and

(725) (b) All areas north of the following line: from Brackett Point on Peaks Island southeasterly to Sand Piper Island, and from Sand Piper Island to Daybeacon 4 on Trotts Rock.

(726) 4. Spring Point. All areas west of a line between the easterly end of Portland Pipe Line Pier #2 and the easterly end of the pier of Southern Maine Community College.

(727) 5. Willard Beach. Simonton Cove, also known as Willards Beach.

(728) 6. South Portland Public Landing. All areas within a 200 foot radius of the end of the dock at the South Portland Public Landing.

(729) 7. Peaks Island Public Landing. All areas within a 200 foot radius of the end of the dock at the Peaks Island Public Landing.

(730) 8. East End Beach and Mooring Area. All areas west of a line from Fish Point to Pomeroy Rock, and from Pomeroy Rock continuing at a distance of 300 feet offshore to Tukey's Bridge.

(731) C. **Bridge**. The term "bridge" shall mean the bridge between Portland and South Portland known as the "Casco Bay Bridge".

(732) D. **Vessel**. The term "vessel" shall mean any watercraft used or capable of being used for transportation.

(733) II. **Speed of Vessels**. It shall be unlawful to operate a vessel within the Restricted Speed Area at a speed (a) in excess of 5 mph or (b) that endangers any person or property.

(734) III. **Wake**. It shall be unlawful to operate a vessel within the Restricted Wake Area in such a manner as to cause a wash, wake or waves that damage, endanger or

unreasonably disturb any person, wharf, float, anchored or moored vessel, or vessel tied up at any pier, float, dock, wharf or marina.

(735) IV. **Exception**. Nothing in these speed or wake regulations shall make unlawful any action necessary to (a) navigational safety, (b) observance of rules of the road, and (c) emergency missions by emergency or public safety craft. The burden shall be upon any person asserting the exception provided by this paragraph as a defense to a prosecution for violation of any speed or wake regulation.

(736) V. **Penalty**. A violation of any speed or wake regulation shall be penalized by a fine of $100, to be collected by the harbormaster in District Court.

(737) VI. **Buoys**. The harbormaster shall establish speed and wake signs on the Maine State Pier and at such other locations and on such buoys at points on the perimeter of the Restricted Speed Area and Restricted Wake Area as he finds necessary.

Wharves

(738) Deepwater facilities at Portland include seven petroleum terminals, one general cargo terminal, and one international ferry terminal. All have highway connections and most have railroad connections. The alongside depths are reported; for information on the latest depths contact the operator. The other active facilities in the port are used as repair berths, and by fishing vessels, small craft, barges, tugs, ferries, and other miscellaneous craft. For a complete description of the port facilities, refer to Port Series No. 1, published and sold by the U.S. Army Corps of Engineers. (See Appendix A for address.)

(739) **Facilities on the north side of Fore River at Portland**:

(740) **State Pier:** about 0.8 mile northeastward of Casco Bay Bridge; 115-foot face, 35 feet alongside; southwest side in two sections, 587 feet and 430 feet long; 14 to 35 feet alongside; deck height, 16 feet; moorage for ferry, police boats, city fireboat and transient vessels; owned by the City of Portland and operated by the City of Portland and Casco Bay Lines.

(741) **International Marine Terminal:** immediately northeastward of Casco Bay Bridge; 707-foot wharf, 27 feet alongside; deck height, 19 feet; trailer-truck marshalling area adjacent; passenger and vehicle ferry operates between this terminal and Yarmouth, Nova Scotia, Canada; roll-on/roll-off facility for trailer trucks; owned by the City of Portland and operated by Prince of Fundy Cruises, Ltd.

(742) **Facilities on the south side of Fore River at South Portland:**

(743) **Bancroft and Martin L-Dock:** (43°38'27"N., 70°17'06"W.); 114-foot face; 440 feet of berthing space with dolphins; 35 feet alongside; deck height, 15 feet; water connections; pipelines extend to storage tanks, 2 1/5 -million-barrel capacity; receipt and shipment of petroleum products and asphalt; owned by Bancroft and Martin, Inc., and operated by various oil companies.

(744) **Bancroft and Martin T-Dock:** immediately southeastward of L-Dock: 115-foot face; 250 feet of berthing space with dolphins; 25 to 20 feet alongside; deck height, 15 feet; pipelines extend to storage tanks, 220,000-barrel capacity; receipt and shipment of petroleum products; owned by Bancroft and Martin, Inc., and operated by Gibbs Oil Division of B.P. Oil, Inc.

(745) **Mobil Oil Corp. South Portland Terminal Dock:** about 1.1 miles westward of Casco Bay Bridge; 600 feet with dolphins; 35 feet alongside; deck height, 14½ feet; water connections; receipt and shipment of petroleum products; owned and operated by Mobil Oil Corp.

(746) **Texaco Wharf:** about 0.3 mile southwestward of Casco Bay Bridge; 900 feet with dolphins; 39 feet alongside; deck height; 19 feet; water connections; receipt and shipment of petroleum products and bunkering vessels; owned and operated by Texaco, Inc.

(747) **Portland Pipe Line Corp. Pier No. 1:** about 0.85 mile northeastward of Casco Bay Bridge; southwest and northeast sides 850 feet of berthing space; 34 feet alongside; deck height, 16 feet; water connections; pipelines extend to storage tanks, 816-barrel capacity; receipt of crude oil; owned and operated by Portland Pipe Line Corp.

(748) **Chevron USA, South Portland Terminal Dock:** about 0.95 mile northeastward of Casco Bay Bridge; 100-foot face; 750 feet total berthing space; 28 to 32 feet alongside; deck height, 15 feet; water connections; receipt and shipment of petroleum products; owned and operated by Chevron, U.S.A., Inc.

(749) **Portland Pipe Line Corp. Pier 2:** (43°39.3'N., 70°13.8'W.); northwest and southwest sides; 910 feet with dolphins; 48 feet alongside; deck height, 20 feet; water connections; receipt of crude oil; owned and operated by Portland Pipe Line Corp.

Supplies

(750) All grades of fuel oil are available. Bunkers can be obtained at the oil terminals or at the piers from barges. Water is available at most of the piers. Marine supplies and provisions are available in any quantity.

Repairs

(751) A shipyard at Portland has an 80,000-ton drydock, 844 feet long, with a clear inside width of 137 feet and a depth of 47 feet over the keel blocks. The drydock has two wing-wall 25-ton cranes. A repair pier with 37 feet reported alongside is available for above-the-waterline

repairs. The pier has two cranes, 25 tons and 60 tons. A complete array of shops is at the yard.

(752) A boatyard at South Portland, about 0.7 mile northeastward of the Casco Bay Bridge has three marine railways, the largest of which can handle craft up to 210 feet long, 1,200 tons displacement, and 16-foot draft for practically any type of repair work. A machine shop is at the yard; rental mobile cranes can be obtained.

(753) There are several ship repair firms in the port that have fully equipped machine, pipe, joiner, and welding shops and can handle above-the-water hull and engine repairs. A 100-ton fixed derrick, floating cranes up to 20 tons, and a 65-ton mobile crane are available in the port.

Small-craft facilities

(754) There are ample facilities in the port where all services can be obtained either at the piers on the Portland side of the river, or at the facilities on the South Portland side. The Centerboard Yacht Club in South Portland is between the Coast Guard base and the boatyard. The yacht club has a float landing with depths of 3 to 5 feet reported alongside. Water is available at the float. The public landing and boat ramp are 150 yards west of the abandoned lighthouse on the south entrance point to Fore River. The approach channel to the landing is marked by private seasonal buoys.

(755) A marina in South Portland is in the cove entered northeastward of the Casco Bay Bridge; depths of 2 to 6 feet are reported alongside the berths. A 20-ton mobile hoist at the marina can handle craft up to 40 feet for minor engine repairs or dry open winter storage. A privately dredged and marked channel leads to the marina's service float at which gasoline and diesel fuel can be obtained. In 1979, the channel had a reported controlling depth of 6 feet. A second marina is at the old shipyard, between Spring Point Ledge Light and Portland Pipe Line Corp. Pier 2. A depth of 8 feet is reported at the marina; a 35-ton mobile lift, gasoline, diesel fuel, storage facilities, a pump-out station and marine supplies are available. Hull, engine and electronic repairs can be made.

(756) There are marinas with service piers at the old buoy depot on Little Diamond Island, Peaks Island, and several on the Portland waterfront from the State pier to the combination railroad and highway bridge.

(757) There are also public landings at the State pier in Portland and at most of the State piers on the islands in Casco Bay.

(758) Gasoline, diesel fuel, and water can be obtained at the service piers of the marinas, or from fuel barges which serve vessels in the stream. Marine supplies, food, and ice can be obtained in any quantity in the port.

Communications

(759) Portland is served by the Boston and Maine Railroad, Maine Central Railroad, and the Canadian National Railway. The Portland Terminal Railroad connects the port with the trunk railroads. Passenger and freight ferries serve the nearby islands. Interstate bus lines offer transportation to all sections of the United States and Canada. Portland International Jetport is on the southwest side of the city. Three scheduled airlines operate from the airport, and charter and air taxi service is available. A scheduled passenger and vehicular ferry operates between Portland and Yarmouth, Nova Scotia, Canada. Numerous truck lines serve the greater Portland area with interstate and intrastate service.

(760) **Ship Cove**, **Maiden Cove**, **Danford Cove**, **Broad Cove**, and **Simonton Cove,** small coves on the west side of the main channel south of Spring Point, are important only as summer anchorages for local pleasure craft.

(761) **Peaks Island** is the large island northeastward of Cushing Island. It has communications with Portland by automobile and passenger ferries. Several wharves are on the west side. The ferries land at **Forest City Landing** at the village of **Peaks Island** on the west side of the island. The Casco Bay boats dock at the State pier just south of Forest City Landing where there is a public float landing. **Trefethen** is a village at the north end of the island. **Pumpkin Nob,** 51 feet high, is about 150 yards north of the northern extremity of Peaks Island; a lighted bell buoy is off its eastern side.

(762) **Great Diamond Island** and **Little Diamond Island,** northwestward of Peaks Island, are connected by a sandbar covered at high water. Little Diamond has many houses visible on it, and a former Coast Guard buoy pier on its east side. Casco Bay passenger ferries from Portland call at the landings at wharves on the south end of both islands.

(763) Gasoline, water, some provisions, and supplies are available at the marina at the former buoy pier.

(764) The red-roofed community building on the State pier on Little Diamond Island is very conspicuous.

Anchorage

(765) It is reported that excellent anchorage in 18 feet with good protection from all but easterly winds can be had in **Diamond Cove,** at the northeast end of Great Diamond Island. Anchor beyond the 16-foot contour to ensure adequate swinging room.

(766) **Back Cove** is on the north side of Portland. The cove is now of little commercial importance and mostly dries out. There is an oil-handling berth that has 3 feet

reported alongside on the north side of the entrance to the cove, outside the railroad bridge.

(767) An approach channel to Back Cove, north of Fish Point, has a project depth of 30 feet to the Canadian National Railway bridge. Above this bridge, the project depths are 14 feet to the highway bridge, thence 12 feet in the channel along the east side of Back Cove. (See Notice to Mariners and the latest edition of the chart for controlling depths).

(768) The Canadian National Railway bridge crossing the entrance to Back Cove has a swing span with a clearance of 5 feet. The bridge is maintained in the closed position. (See **117.521**, chapter 2, for drawbridge regulations.) U.S. Interstate 295 bridge, about 500 yards above the railway bridge, has a fixed span with a clearance of 29 feet.