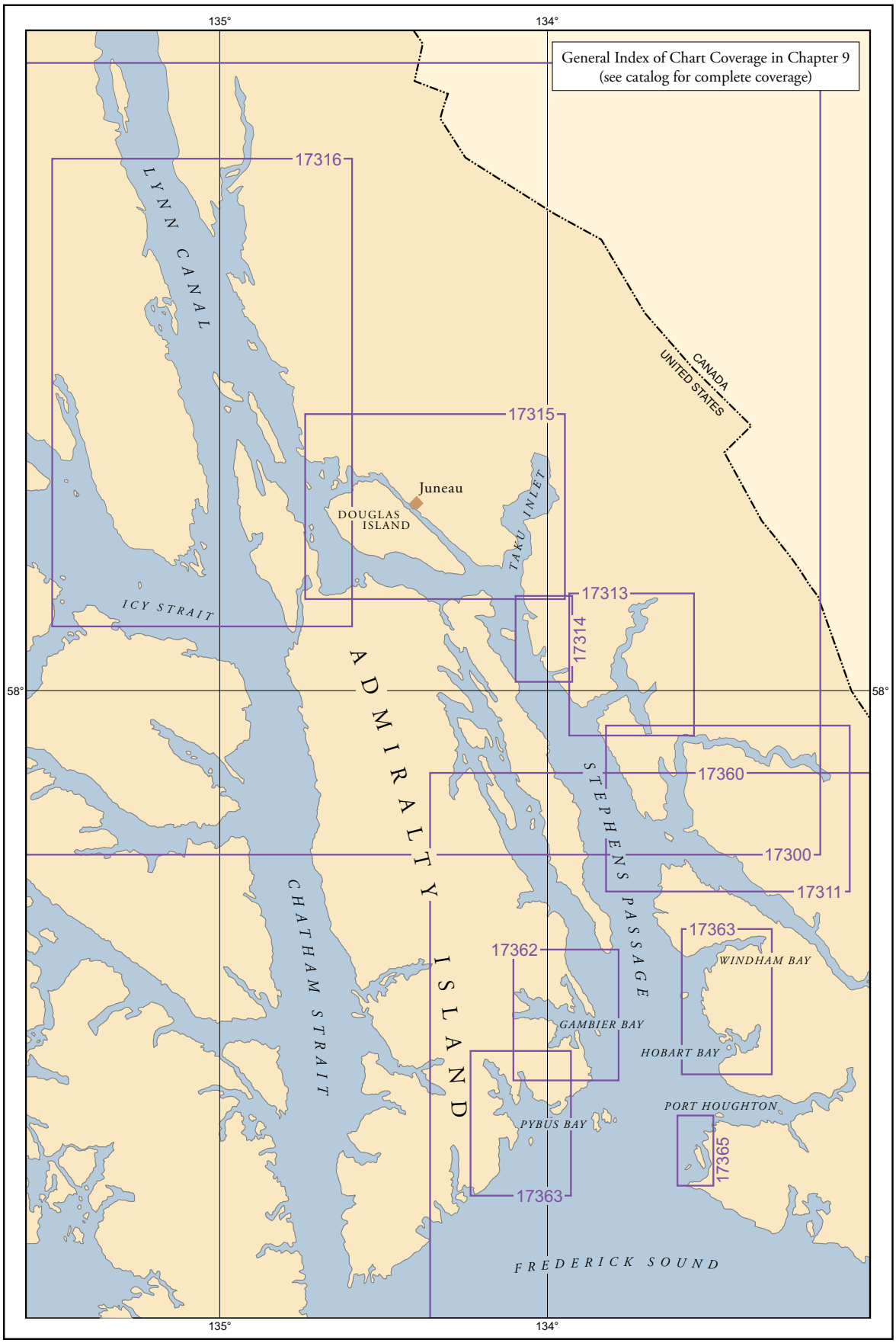
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Stephens Passage

(1) This chapter describes Stephens Passage, Holkham Bay, Endicott Arm, Tracy Arm, Taku Harbor, Gastineau Channel, Auke Bay, Tee Harbor, and the city of Juneau, including the communities of Douglas and Auke Bay.

Chart 16016

(2) **Stephens Passage** extends from its junction with Frederick Sound at Cape Fanshaw (57°11.1'N., 133°34.3'W.) in a general NNW direction for about 88 miles to Shelter Island, which divides it into two channels, Saginaw Channel and Favorite Channel, and connects it with Lynn Canal. Numerous islands are in both entrances to the passage, but otherwise it is open, deep, and generally free from dangers.

Anchorages

(3) The waters of Stephens Passage and its branches are generally deep, and there are few good anchorages. Anchorage can be had in Cleveland Passage, Gambier Bay, Seymour Canal, Taku Harbor, Gastineau Channel, Young Bay, Fritz Cove, Auke Bay, Barlow Cove, Tee Harbor, and Eagle Harbor. Temporary anchorage can also be found in Port Houghton, Hobart Bay, Sanford Cove (Endicott Arm), Limestone Inlet, Taku Inlet, and Adams Anchorage.

Currents

(4) The flood current enters Stephens Passage from both ends and meets in varying places W of Point Arden; the ebb current flows in the opposite direction. The velocity of the current is 0.5 to 2 knots. In Saginaw Channel, the current frequently ebbs throughout the day when the Moon is in quadrature. The ebb current in this channel is considerably stronger than the flood. The currents have considerable velocity in the entrance to all the larger bays and inlets that make off from Stephens Passage, causing tide rips and swirls. (See the Tidal Current Tables for daily predictions of places in Stephens Passage.)

Weather

(5) The prevailing winds are SE throughout the year. During the winter the winds are more variable and winds from the NE quarter may prevail, particularly in January. SE gales may occur at any season, but they are more frequent and more severe in winter than in summer. Fog may occur at any time, but is more frequent during the winter, reaching its maximum in January. The least fog occurs during April to July, inclusive, the minimum being in May.

Ice

(6) Ice is discharged from glaciers in Tracy and Endicott Arms and is always found in Holkham Bay, and is prevalent in Stephens Passage off the entrance to that bay. Occasional pieces of ice may be expected in all parts of the passage. In daytime with clear weather it is not a serious menace to navigation, but it is dangerous at night or in thick weather.

Chart 17365

(7) **Cape Fanshaw**, on the E side at the junction of Stephens Passage and Frederick Sound, is a long, low, wooded point terminating in a sandspit, with a reef and rocks at the extreme end and deep water within 0.2 mile.

(8) **Cape Fanshaw Light** (57°11'07"N., 133°34'26"W.), 33 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the point of the cape.

(9) **Fanshaw Bay**, on the NE side of Cape Fanshaw, is connected with Cleveland Passage by South Passage. Anchorage can be made in the SE side at the head, about 600 yards offshore and 0.5 mile SW of Whitney Island in 12 to 15 fathoms, sand and shell bottom, sheltered from NE and SE winds.

(10) **Storm Islands**, about 1.5 miles N of Cape Fanshaw, consist of a wooded island and several rocks; the southernmost, **Bird Rock**, is grass covered and marked by a light on the S side. A ledge extends about 300 yards WSW of Bird Rock. A grass-covered rock is between the larger Storm Island and Bird Rock. A 3¾-fathom shoal was reported about 300 yards NE of the light marking Bird Rock in about 57°12'37.0"N., 133°35'05.1"W. There is no safe passage through Storm Islands and adjoining rocks, and the passage between Storm Islands and Whitney Island is narrowed to about 0.6 mile by a ledge awash at half tide 0.2 mile NE of the N end of Storm Islands.

(11) **Whitney Island**, wooded, forms the NE shore of Fanshaw Bay and the W shore of Cleveland Passage. **Duck Point**, the S point of the island, and **Bill Point**, the N point, are marked by lights.

(12) **Cleveland Passage**, separating Whitney Island from the mainland, is 0.5 mile wide and affords good anchorage near its SE end. The depths vary from 8 fathoms at its SE end to over 70 fathoms at the NW end. A rocky shoal, covered 1¼ fathoms, is reported about 250 yards

off the W shore of the passage about 0.9 mile N of Duck Point. The anchorage is about 0.8 mile N of the narrowest part of South Passage, favoring the E shore, in 12 to 20 fathoms, soft bottom; take care to keep clear of East Spit. Small craft find anchorage in 4 to 8 fathoms E and N of East Spit. Winds from W to N bring in a slight swell, but do not seem to blow home with any force. Winds from SE, however, blow down from the mountains with great force during the SE blows in Frederick Sound.

(13) The entrance from NW is much safer because a midchannel course leads safely to the anchorage. **South Passage** has a midchannel depth of 11 fathoms. At the N end of South Passage are **East Spit** and **West Spit**, projecting N and NE, respectively. East Spit is about 0.25 mile into the SE end of Cleveland Passage. A rock is at the E end of West Spit.

(14) Small boats can find anchorage E of Duck Point close to the mainland in 10 to 12 fathoms with protection from NE and SE blows.

(15) The **tidal currents** have a velocity of 1 to 2 knots in South Passage.

(16) **Steamboat Bay** is 1 mile NNE of Whitney Island and has Foot Island on its N side. **McNairy Point** is the S point and **Fort Point** the N point at the entrance. The bay has generally deep water except for a reef that uncovers, about 400 yards N of McNairy Point, and has an advantage as an anchorage near Cleveland Passage. **Foot Island** is connected with a rocky reef at the head of the bay by a sandspit. The narrow passage on the NE side of Foot Island might afford shelter to small craft in 7 to 10 fathoms, abreast the middle of the island.

Chart 17360

(17) **The Five Fingers**, about 6 miles NNW of Cape Fanshaw, are a group of islets, the larger ones wooded, and ledges that extend about 3 miles in a NW direction and about 1.5 miles wide. The SE islet is marked by **Five Finger Light** (57°16'13"N., 133°37'53"W.), 81 feet above the water and shown from a white concrete tower rising from the center of a building. A reef, covered at high water, extends 300 yards SW from the light.

(18) **Akusha Island**, the N island of the group, is wooded and the largest. Rocks are about 1 mile to the W. Deep-water channels are on all sides of the group.

(19) **Sail Island**, about 5.3 miles NW of Five Finger Light, is wooded. It has two hummocks with low land between and is conspicuous when approaching from the N. At the S end are two small islets and a rock awash. A 3-knot current has been observed over a 6¼-fathom shoal 1.0 mile to the NNE of the northern tip of Sail Island.

(20) **False Point Pybus** is on the W side of Stephens Passage, about 9.5 miles NW of Five Finger Light. A daybeacon marks the point 1 mile to the SSW of False Point Pybus.

(21) **Point Walpole** on the E side of Stephens Passage, about 7.3 miles N of Cape Fanshaw, is the W extremity of the W wooded islet on the S side of the entrance to Port Houghton. The shores of the bight SE of the point are foul.

(22) **Port Houghton** is an extensive bay, about 9 miles above Cape Fanshaw. **Robert Islands** are a group of islands forming the S point of the entrance. The waters of Port Houghton are very deep, and afford no shelter for large craft. A good small-craft anchorage may be found in **Sandborn Canal**, which is a long narrow arm SE of **Walter Island**, in 8 fathoms, soft bottom. This is a good winter anchorage if ice does not bother. A midchannel course into it is clear. The proximity of Cleveland Passage makes it unnecessary to use Port Houghton for anchorage except in winter. A reef is reported to extend about 0.5 mile N from the N side of Walter Island. In 1971, rocks awash were reported off the unnamed point, on the S side of the bay about 3.5 miles ENE of Walter Island; caution is advised in this area because depths and character of bottom are not totally known. The chart is the best guide.

(23) **McDonald Rock** is in the broad part of Stephens Passage, about 8.8 miles N of Five Finger Light; it is small, has 3¼ fathoms over it with deep water close-to, and is marked by a lighted buoy on its N side. The range of the SE tangent of East Brother over the middle of Sail Island crosses this dangerous rock, which is almost directly in the track of vessels from Cape Fanshaw through Stephens Passage.

Chart 17363

(24) **The Twins** are two wooded islets on the E side of Stephens Passage about 9.8 miles NNE of Five Finger Light (chart 17360) and off the entrance to Hobart Bay.

(25) **Hobart Bay**, on the N side of **Point Hobart**, has its entrance about 14 miles N of Cape Fanshaw and 3 miles E of The Twins. A pinnacle rock, covered 3½ fathoms, is on the N side of Hobart Bay entrance about 1.1 miles W of Entrance Island in about 57°24'55"N., 133°28'41"W. A light about 0.3 mile offshore marks the S side of the entrance to the bay.

(26) **Entrance Island**, 458 feet high, is in the entrance to Hobart Bay. A small islet is 0.1 mile N of the island. A small bay, suitable for small craft, indents the SE side of the island for about 300 yards. A house on the neck of land that forms the S side of the entrance to the small bay is prominent when coming around the S side of the island from W. A State-maintained 100-foot-long small-craft and seaplane float is near the head of the small bay off the SW shore. The float is connected to shore by a long log catwalk, that is reported to be in poor condition. The float is used primarily as a weather layover facility. In 1976, depths of 15 feet were reported alongside the float. A privately owned radiotelephone is available on shore in an emergency.

(27) About 0.5 mile NE of Entrance Island, projecting points narrow the entrance into the inner bay. Bars, on which there are rocks, extend from the points of this entrance, leaving a navigable channel about 100 yards wide and 5½ fathoms deep into the inner bay. A rock with 1 fathom over it has been reported about 0.5 mile NNE of the S point at the entrance to the inner bay.

(28) Just within the entrance to the inner bay, a narrow arm leads NW to a basin, where a constricted anchorage in 10 fathoms may be found. In entering this basin, pass close E of the rocky islets just inside the entrance.

(29) The channel leading to the basin at the head of the bay is very narrow. Heavy overfalls at the end of the narrow passage are dangerous for small craft, except during a short period at slack water.

(30) Temporary anchorage may be found in 27 fathoms, soft bottom, NE of Entrance Island, with the N point of the entrance to Hobart Bay in range with the S shore of the small islet N of Entrance Island. Temporary anchorage may also be found in the bight SE of Entrance Island in 17 fathoms, soft bottom, about 0.2 mile from a fine sand beach. The N tangent of the easternmost of The Twins just shuts with the S tangent of the westernmost of The Twins.

Caution

(31) The foregoing information relative to anchorages has been obtained from a source considered reliable. In entering the S anchorage favor the shore of Entrance Island, keeping on the range mentioned above. A ledge makes out about 160 yards from the point on the S shore.

(32) **Sunset Island** is a large rounded island, about 4.5 miles N of The Twins and SSW of the entrance to Windham Bay. A reef awash is about 0.1 mile off the S shore, and a rock awash at low water is about 0.1 mile off the E point of the island.

(33) **Windham Bay**, on the SE side of Point Windham, has its entrance about 7.5 miles N of The Twins and about 17 miles N of Five Finger Light. In the middle of the entrance is a small group of wooded islets, with a deep passage on either side. Reefs extend about 0.2 mile E of the islands. Close E of Point Windham is another small group of islets. The northernmost islet is wooded, and the islet SW of it has some shrubbery on it.

(34) **Windham Bay Entrance Light** (57°33'42"N., 133°32'36"W.), 35 feet above the water, is shown from a small house with a red and white diamond-shaped daymark on the southeasternmost islet, about 0.6 mile E of Point Windham.

(35) Indifferent anchorage, in about 20 fathoms, may be had off the ruins of Windham N of the flat near the head of the bay. There is constricted anchorage in the cove just E of the S point of the entrance to the bay in 25 fathoms. Small craft anchor closer in.

(36) A fog bank of varying density frequently hangs over the upper part of Windham Bay, especially at night.

(37) From its 1.5-mile-wide entrance, Windham Bay narrows rapidly and connects with a deep inner basin about 4 miles long and 0.5 mile wide. This narrow connecting channel is constricted to about 100 yards by a ledge on its N side that bares. In passing through the narrows, great care should be exercised and the S shore kept aboard at a distance of about 50 yards. From the point on the S shore SE of the ledge, a spur that bares extends about 20 yards. A small wooded islet is close to the N shore about 0.6 mile W of the narrows. The extensive flat that extends from the SE side of Windham Bay leaves a passage about 0.2 mile wide close to the N shore up to within 0.4 mile from the head of the bay. **Chuck River**, entering the head of the bay, is reported to be navigable in a rowboat for about 1 mile. During the winter the head of Windham Bay to the narrows freezes over.

Chart 17360

(38) **Point League** (57°37.6'N., 133°40.0'W.), on the E side of Stephens Passage about 5.3 miles NW of Point Windham, is a gently rounding precipitous point. The cliff, about 30 feet high, is whitish. The point rises rapidly to a lofty mountain with partially bare slopes. **Point Lookout** is about 1.4 miles N of Point League and is hummock and timbered.

(39) Anchorage has been obtained in the cove between Point League and Point Lookout by a vessel 150 feet long in 15 fathoms close to the entrance near the N shore, but it is not recommended. It is exposed to SW winds and is constricted by a shoal making out from the S shore and shoal water inside the cove.

(40) **Thistle Ledge**, covered at high water and marked by kelp, is about 0.6 mile from the E shore of Stephens Passage about 1 mile N from Point Lookout. The shore is foul between Thistle Ledge and Point Astley, about 3 miles N. A small islet is 0.8 mile S of Point Astley.

Chart 17362

(41) **Gambier Bay** has its entrance on the W side of Stephens Passage, about 8 miles N of The Brothers (chart 17360). There are numerous islands and ledges in the entrance, but with the aid of the chart it can readily be entered in the daytime.

(42) **Point Gambier**, the NE point at the entrance to Gambier Bay and the SE end of Gambier Island is marked by **Point Gambier Light** (57°26'08"N., 133°50'27"W.), 38 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark.

(43) The bay is irregular in shape and is divided into two parts by a chain of narrow islands and reefs. The outer bay, which extends from Point Gambier about 7 miles in a NNW direction, is about 1.7 miles wide at the entrance; its N end is an inlet that affords anchorage in 15 to 20 fathoms, soft bottom. Anchorage in 6 to 17

fathoms, mud bottom, can be had N of **Good Island**. It can be approached without difficulty, but care should be taken to avoid the foul ground that extends off the NW point of Good Island.

(44) **Romp Island** is about 0.4 mile NW of Gambier Island with ledges between.

(45) The chain of islands and reefs, including Chapel Island and Price Island, paralleling Gain Island and the mainland at Church Point divides the outer part of the bay into two passages. In navigating the passage west of this chain care should be taken to avoid the bare rocks, that extend 165 yards out from the point, 0.5 mile SSE of **Church Point**.

(46) **Currents** have a velocity of about 3 knots in the passage between Church Point and Gain Island, and some swirls occur around the ledges E and N of Gain Island.

(47) **Price Island** is 680 yards from the W shore of the outer bay. A rocky shoal with a least depth of 5 fathoms is about 1 mile SE from the S end of Price Island, with deep water between it and the ledges, that have a number of bare heads, that extend 0.6 mile SE of the island. A large, conspicuous, gray boulder on the S ledge is a good landmark.

(48) **Chapel Island**, small in extent, is about 0.8 mile N of Price Island. A rock that bares 1 foot is about 0.4 mile E of Chapel Island. Ledges extend about 0.9 mile NW from the NW point of Chapel Island to a channel about 450 yards wide. The reef on the NW side of this channel is marked by **Gambier Bay Entrance Light 2** (57°27'54"N., 133°55'13"W.), 16 feet above the water and skeleton tower with a red triangular daymark.

(49) **Tree Island** appears as a clump of trees just N of **Gain Island**. At low water Tree Island appears at the end of a spit off Gain Island; in reality it is a part of Gain Island. About 0.3 mile NW of Tree Island is a much larger unnamed island, which is wooded. Two pinnacle rocks, covered 2½ and 2 fathoms, are 0.4 mile and 0.6 mile, respectively, NW of the unnamed island. Once past these rocks, the inner bay is relatively clear.

(50) Anchorage, with good protection from all but SW winds, is in the bight about 1.4 miles NNW of Gain Island, in about 11 fathoms with sand and mud bottom.

(51) **Snug Cove**, on the S side of the inner bay about 2 miles WSW of Church Point, has anchorage in 15 to 20 fathoms, soft bottom. Small craft find good protection here in 4 to 7 fathoms. Large vessels reach the cove by way of the channel close E of Church Point, Gain Island, and the unnamed island to the NW; two charted rocks are about 500 yards NNW of the unnamed island with a shoal of 8.9 fathoms between the south rock and the NNW end of the unnamed island. A S course can then be laid to pass about midway between the unnamed island and Muse Island, 0.7 mile to the SW. Only small boats can navigate the passage between Church Point and Gain Island because of the rocks.

(52) The preceding paragraphs have pointed out the channels into Gambier Bay and the dangers to be avoided. Specific courses would be of little help and could be confusing. The navigator should pay close attention to the chart.

Charts 17360, 17300

(53) **Seymour Canal** has its entrance W of Point Hugh (57°34.5'N., 133°49.0'W.), 15.5 miles N of The Brothers. It extends in a NW direction into Admiralty Island for about 38 miles, with an average width of about 3 miles. The survey of the canal is old and incomplete, and dangers exist in addition to those shown on the chart, especially near the shores. The upper part of the canal (chart 17300), to a distance of about 21 miles from its head, is filled with islands, ledges, and rocks. **Tiedeman Island**, 15 miles above Point Hugh, divides the canal for a distance of 8 miles. Above Tiedeman Island is another large island called Swan Island. A rock that bares at low water and surrounded by an extensive bed of kelp is 1 mile S of the SE end of Tiedeman Island. **Dorn Island** and **Faust Island**, 1.5 miles E of Tiedeman Island, and **Bug Island**, 1 mile E of Swan Island, are small and wooded. A 4-fathom ridge extends about 300 yards S of the SW end of Dorn Island. The waters of the canal are, in general, deep. By passing W of Dorn and Faust Islands and E of Tiedeman Island and Swan Island, the canal may be navigated to the head of **Fool Inlet**, though above Tiedeman Island the passage is narrow and somewhat intricate. A 1½-fathom spot is close E of Tiedeman Island in about 57°49'42"N., 134°07'57"W. In 1986, a 6-fathom spot was reported about 3.5 miles NW of Faust Island in about 57°51'11"N., 134°07'48"W. N and NE of Swan Island numerous submerged pinnacles rise to within 2 fathoms of the surface. An extensive area of ridges and reefs extends 1 mile SE from the E side of the entrance to King Salmon Bay. In the upper part of the canal the depths are moderate, and anchorage can be selected in places for which the chart is the guide. The extreme head of the canal is separated by a portage of less than 0.5 mile from Oliver Inlet. Vessels transiting the canal N of Tiedeman Island should use caution and local knowledge.

(54) Currents in excess of 4 knots during both flood and ebb have been observed in the channel that approaches Fool Inlet in Seymour Canal.

(55) **Point Hugh** is the S extremity of **Glass Peninsula**, a long, narrow, and moderately high strip of land that separates Seymour Canal from Stephens Passage. Rocks, awash, are about 400 yards off the point.

(56) There is a 6-fathom spot approximately 2.2 miles SSE of Point Hugh in about 57°32'42"N., 133°45'36"W. Deep draft vessels are advised to stand clear of this area.

Chart 17360

(57) **Pleasant Bay** is a small cove on the SW side of Seymour Canal, 7 miles above Point Hugh (57°34.5'N., 133°49.0'W.), which affords anchorage for small craft.

Two islets are in its entrance. The channel between the two islets is foul. A reef extends about 150 yards N from the NW islet. The best channel to enter is between this reef and the very prominent point of broken rock resembling a breakwater on the NW side of the entrance. This breakwater reef shows prominently at all stages of the tide. The channel is about 75 to 100 yards from the point of the breakwater reef. Depths of about 6 fathoms are in the entrance, and depths of 2 to 5 fathoms are inside the bay. Anchor in 4 fathoms about 300 yards SW of the NW islet. The bottom here is apparently a thin layer of mud on rocks that makes poor holding ground in heavy S weather. A spit extends 125 yards SW of the islet.

(58) The head of the bay bares except for a pool just W of the small point that projects from the NW shore. Small craft can pass into this pool at high water and have sufficient depth and swinging room for one or two boats at low water. This is an excellent shelter in N winds. Water can be obtained from a spring in the little bight near this pool.

(59) **Mole Harbor** is on the SW shore of the canal, about 9 miles above Point Hugh. A flat that bares at low water extends 0.6 mile from the head of the harbor. **Beacon Rock**, in the middle of the entrance, is part of a chain of rocky reefs extending from the S side of the entrance to the harbor to 400 yards NW of Beacon Rock. The reefs bare at low water. **Rasp Ledge**, a small bare rock, is 0.2 mile NE of **Flaw Point**, the N point at the entrance. A 2¼-fathom shoal and a 3-fathom shoal are 0.5 mile and 0.3 mile SW of Flaw Point, respectively. Enter midway between Beacon Rock and Rasp Ledge; when abeam of Flaw Point, maintain a distance of 0.2 mile from the N shore and come to a W heading, using care to avoid the 2¼- and 3-fathoms shoals. Anchor in 13 to 17 fathoms, sticky bottom, about 1 mile within the harbor, giving the shores a berth of about 0.2 mile. Small craft can find anchorage SW of Beacon Rock in 3 to 10 fathoms, mud bottom.

(60) **Sore Finger Cove**, on the NE shore of the canal about 4.5 miles N of Mole Harbor, offers good anchorage in 1 to 5 fathoms with shelter from all but W winds.

Charts 17360, 17300

(61) **Short Finger Bay** (57°48.5'N., 134°02.0'W.) is a small bay on the E shore of Seymour Canal about 16 miles N of Point Hugh and directly E of Faust Island. Good shelter from S weather and anchorage in 5 to 10 fathoms, mud bottom, can be had here.

(62) **Winning Cove**, about 3.5 miles NNE of Faust Island, is a shallow inlet of no importance in the E shore of the canal.

Chart 17300

(63) **Windfall Harbor** is on the W shore of Seymour Canal, abreast the NW end of Tiedeman Island, and about 23.5 miles N of Point Hugh. **Windfall Island**, large and high, is in the middle of the entrance. A flat extends about 0.8 mile from the head of the bay, and a long bight indents its W shore 1.5 to 2.8 miles SW of Windfall Island; both dry. The entrance to Windfall Harbor is SE of Windfall Island between **Late Point**, the S end of the island, and **Staunch Point**, directly opposite on Admiralty Island. A 2½-fathom shoal extends 0.3 mile S of Late Point. The passage on the NW side of Windfall Island is foul. The midchannel depths in the harbor are 12 to 19 fathoms.

(64) On the W shore near the head of the harbor is a shelter cabin maintained by the U.S. Forest Service.

(65) On the shoreline W of the N end of Windfall Island is the access point to the Pack Creek bear viewing area, part of the Stan Price Wildlife Sanctuary. The tide flats at the mouth of **Pack Creek** are part of the Sanctuary and are closed to all boat traffic when submerged at any tide level. The area is managed by the U.S. Forest Service and the Alaska Department of Fish and Game. Permits are required from June 1 to September 10; contact the district office in Juneau at 907-586-8800 for more information.

(66) Windfall Harbor should be approached only by the channel W of Tiedeman Island, which is about 0.8 mile wide. In using this passage keep in midchannel, except at a point 2 miles above the SE end of the island, where the W shore, which is bold, should be favored to avoid a patch of rocks about 700 yards off the E shore. A 3¼-fathom spot is 0.8 mile E of Staunch Point. Enter the harbor SE of Windfall Island and anchor anywhere in 15 to 17 fathoms, sticky bottom, preferably near the SE shore.

(67) **King Salmon Bay**, on the W side of the canal near its head, affords anchorage but the approach is difficult. The U.S. Fish and Wildlife Service patrol vessel BRANT reported grounding on a gravel bar that extends 100 yards W from the end of the long point forming the W side of the bay.

Chart 17360

(68) **Point Hugh Light** (57°37'12"N., 133°48'26"W.), 34 feet (10.4 m) above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the point on the W shore of Stephens Passage 2.9 miles N of Point Hugh. About 1.2 miles S of the light, rocks extend offshore about 0.2 mile.

(69) **Midway Point**, about 10 miles N of Point Hugh, is distinguishable from seaward and made prominent by a white rock cliff about 30 feet high, backed by a round grassy knoll.

(70) **Point Glass**, about 4.5 miles N of Midway Point, is an indefinite point. The shore is steep and rocky. Rocks covered at half tide are about 0.2 mile offshore, 0.7 mile S from the point. A rock, awash at half tide, is 0.3 mile S of the point about 100 yards offshore.

(71) **Holkham Bay** is an inlet, with two extensive arms, on the E side of Stephens Passage, about 8.5 miles NE of Point Hugh Light and about 28 miles N of Five Finger Light. The water in both arms is very deep, in some places more than 200 fathoms. In both arms the shores are steep and high.

Currents

(72) The **tidal currents** have an estimated velocity of 4 knots at the entrances to Tracy Arm and Endicott Arm, forming swirls in these areas. Currents of much greater velocity are found in Fords Terror.

Ice

(73) Glaciers discharge ice into both Tracy Arm and Endicott Arm. It is always present in Holkham Bay, sometimes in large quantities, and is prevalent in Stephens Passage off the entrance to the bay in greater or smaller quantities. This ice is dangerous at night or in thick weather, and in entering Tracy Arm or Endicott Arm care should be taken when near the ice, as the swirls are often dangerous.

(74) **Point Astley** and **Point Coke** are the S and N points, respectively, at the entrance to Holkham Bay. A group of three rocky islets are about 0.1 mile off Point Astley. The highest of the three is about 35 feet high; the westernmost about 15 feet high; and the third, close NE of the highest one, is about 5 feet high. A gravel bar connects the two larger ones at low water.

(75) A cove about 0.2 mile in extent, close under the E side of Point Coke, might afford a lee and anchorage for small craft with heavy NW winds blowing down Stephens Passage.

Anchorage

(76) An anchorage with shelter from SE winds may be had in the W bight between Point Astley and Wood Spit, in 20 to 30 fathoms, hard bottom.

(77) **Harbor Island** is a high wooded island in the middle of the entrance to Holkham Bay. In N weather the bight on the SE side of the island affords safe anchorage for small craft in 2 to 8 fathoms, hard bottom. A group of five islets, the largest and southeasternmost of which is **Round Islet**, is within 0.7 mile SE of Harbor Island. There is a safe passage through the group for small craft.

(78) A long, low wooded point extends W from the mainland E of Harbor Island. An extensive flat, with boulder patches on it, extends up to 1.2 miles from the point. The edges of the flat are steep-to. **Sand Spit**, a small islet, stands on the SE edge of the flat. Two bare rocks on the flat are 0.4 and 0.8 mile SW of Sand Spit.

(79) The passage between Harbor Island, the Round Islet group, SE of it, and the flat, is about 0.8 mile wide and has depths of about 23 fathoms in midchannel.

(80) **Wood Spit** is a long narrow spit that extends about 0.8 mile in a N direction from the S entrance point of Endicott Arm. At high water, it shows as a small, partially wooded island, about 20 feet high. Two boulder patches are 0.2 mile N of the spit. **Wood Spit Light** (57°44'18"N., 133°34'30"W.), 27 feet above the water and shown from a tower with a red and white diamond-shaped daymark, is on the N end of the boulder patches.

(81) Between Wood Spit Light and the SW end of the flats N of it, the channel leading into Endicott Arm is 0.5 mile wide and has depths of 18 fathoms 0.44 mile off Wood Spit Light.

(82) **Endicott Arm** is the S arm of Holkham Bay. **Sumdum Island** is in midchannel, abreast Sanford Cove. **Bushy Islands** are two small islets midway between Sumdum Island and the NE shore. **Dawes Glacier**, at the head of the arm, extends to the water's edge. This glacier frequently calves enough ice into the arm to seriously hamper navigation. Due to the steep nature of the area's shoreline, few anchorages are available.

(83) **Fords Terror** is a narrow inlet that extends 5 miles in a N direction. The entrance to the upper inlet is dangerous except at high water slack, and has a controlling depth of ¼ fathom. Tidal currents rush though this narrow part of the inlet with great velocity. Fords Terror has magnificent scenery and affords a relatively safe anchorage in its upper reaches. Anchorage may be had for small craft towards the head of the outer inlet, mud bottom.

(84) **Brown Glacier**, formerly visible at the head of Fords Terror, has receded and is no longer visible from the water.

(85) **Sanford Cove**, on the S shore of Endicott Arm, 5 miles within the entrance, is one of the two available anchorages in the arm. It has a depth of 36 fathoms and is protected except from N winds. **Rock Point** forms the NE side of the cove. A shoal with a depth of 4½ fathoms extends 0.3 mile off the point. A flat extends out 300 yards in the S part of the cove. An occasional piece of ice drifts into the cove, but is of no danger to vessels at anchor.

Routes, Holkham Bay and Endicott Arm

(86) When approaching from the S give the E shore of Stephens Passage a berth of 1 mile or more. From a position 0.8 to 1 mile NW of Point Astley steer for **Sumdum Glacier**, and pass in midchannel between Wood Spit Light and the Round Islet group, passing 0.44 mile off the light. Strong currents and whirlpools are common in the vicinity of Wood Spit Light.

(87) When approaching from the W, pass about 0.5 mile S of Point Coke and steer SE, leaving Harbor Island 0.2 mile or more to NE. Follow around the S side of Harbor Island and the Round Islet group at a 0.2-mile distance and pass midchannel between the latter and Wood Spit Light. The chart should be the guide.

Charts 17300, 17311

(88) **Tracy Arm**, the N arm of Holkham Bay, takes a general N direction for 9 miles and then turns E 16 miles to its head, where two large glaciers, Sawyer and South

Sawyer, discharge into salt water. The arm is often clogged by small icebergs for several miles, and great care is needed in navigating the ice field. Both glaciers, **Sawyer Glacier** and **South Sawyer Glacier**, can be very active, and huge blocks of ice fall off their faces into very deep water. These can generate waves that have been observed as high as 25 feet; however, a small boat can ride the waves safely if it keeps a few miles distance from the glacier face and avoids getting packed in the ice flow. It is recommended that vessels use extreme caution and avoid navigating in proximity to the glacier faces. In the N branch of Tracy Arm, which extends from **Sawyer Island** (57°52'45"N., 133°11'25"W.) to Sawyer Glacier, there is a shoal area on the E side of the arm which reaches a minimum depth of 0.8 fathom at MLLW and extends to 57°53'40"N., 133°10'51"W., about 250 yards from a waterfall on shore. Caution is advised in this area. Tracy Arm, with its deep water, numerous waterfalls, and bold shores, is one of the outstanding fjords of SE Alaska.

(89) The entrance to the arm is about 1.75 miles wide. The navigable channel, only 0.3 mile wide, has a depth of 6½ fathoms and is marked by two unlighted buoys and a mariner activated sector light (57°49'24"N., 133°34'27"W.) on the E shore of the arm, and heavy kelp beds in the summer on the SE side. To activate the sector light, mariners should transmit 5 carrier pulses in 5 seconds on VHF-FM channel 65. The aid will remain lighted for 10 minutes. The buoys and lights are seasonal. The buoys may become submerged during periods of strong current. Tidal swirls, in conjunction with very strong currents, will be met in the entrance except at slack water. Caution should be used when transiting this area due to large pieces of ice moving through the entrance with the current. A daybeacon with a radar reflector is inside the entrance on the W shore in about 54°47'29"N., 133°37'53"W.

(90) **Williams Cove**, a deepwater anchorage with constricted swinging room and hard bottom with patches of mud, is at the head of a large bight on the W side of Tracy Arm about 6 miles above the entrance to the arm. An anchorage for small boats in 5 fathoms, rocky bottom, is reported available in the small bight on the W side of the arm, about 2 miles above the entrance. A rock awash is about 0.2 mile SE of the entrance to the small bight.

(91) **Midway Islands** are two small, sparsely wooded islets, 16 miles N of Point Hugh and 2 miles off the E shore of Stephens Passage. Rocks, awash at highest tides, are between them, with deep water close-to. A ledge extends about 0.2 mile S from the S islet, which is marked by **Midway Islands Light** (57°50'12"N., 133°48'51"W.), 83 feet (25.3 m) above the water and shown from a skeleton tower with a red and white diamond-shaped daymark.

(92) **Twin Point**, a narrow wooded point with steep rocky shores, the more northerly of two similar points, is on the W side of Stephens Passage, about 7.5 miles NW of Midway Islands Light.

(93) **Station Point**, about 6 miles to the N of Twin Point, is wooded and rises to a knob 1.4 miles inshore. A small wooded islet 105 feet high is 300 yards off the point. The bight, about 0.5 mile S of the islet, is used as a fair-weather anchorage by small craft.

(94) **South Island**, about 2 miles SE from Station Point, is wooded. Reefs extend 50 to 100 yards from its shores, except at the SE end, where a reef extends about 0.5 mile SE. Two small wooded islets are close to the point to the SW of South Island. Anchorage in 14 fathoms, sticky bottom, has been found to the W of South Island. In the bight to the S of the small islets, small craft can find fair-weather anchorage.

Charts 17313, 17300

(95) **Port Snettisham** has its entrance on the E side of Stephens Passage, about 7 miles N of Midway Islands and 10 miles SE of Grand Island. It is about 1.7 miles wide at the entrance and has a NE direction for 4.3 miles, narrowing somewhat, and dividing into two arms. **Speel Arm**, the N arm, is 7.5 miles long to the flat at the mouth of **Speel River** at its head. A powerplant and a 2,000-foot airstrip are at the head of Speel Arm. **Gilbert Bay**, the south arm, is 3.5 miles long to the flat that extends 1 mile from its head, above which is a low valley 3 miles long to Holkham Bay.

(96) **Point Styleman** is the NW point of the entrance, and **Point Anmer**, marked by yellow and white cliffs, is 1 mile S of the SE point of the entrance.

Local magnetic disturbance

(97) Extreme magnetic disturbance exists in Port Snettisham and Gilbert Bay. The magnetic compass should not be relied upon within the area outlined in magenta as shown on charts 17300 and 17313.

(98) A private channel and basin are at the head of Speel Arm, but it was reported in 1976 that the channel and basin were no longer maintained. The basin was reported to freeze over in the winter.

(99) The shores of Port Snettisham are steep and wooded. Because of the great depth, it is not suitable as an anchorage, though in case of necessity a vessel may anchor in about 20 fathoms at the head of either Speel Arm or Gilbert Bay, close to the flats. A poor but possible anchorage in 28 fathoms, sticky bottom, can be found in the small cove W of **Mist Island**, about 1.8 miles ENE of Point Styleman. It is exposed to S winds and eddies during strong tides. Anchorage can be had directly across from Mist Island, on the SE side of Port Snettisham in a small cove in 5 to 15 fathoms, hard bottom.

(100) The port is entirely free from dangers, but there are large flats at the head of all the arms. Moderately heavy tide rips are sometimes found at the entrance to Port Snettisham.

(101) A barge dock and a small-craft float are in the basin at the head of Speel Arm. Gasoline is available

in an emergency only. A machine shop is available for emergency use. A supply barge visits twice a year. Telephone and radiotelephone service is available only in an emergency. Seaplanes visit Port Snettisham on a weekly schedule.

(102) **Whiting River** empties into the middle arm at the NE part of Gilbert Bay.

Charts 17314, 17300

(103) **Limestone Inlet** has its entrance on the E side of Stephens Passage, about 13 miles NNW of Midway Islands Light and 2 miles SE of Taku Harbor. It is a narrow arm that extends in an easterly direction. The depths are 13 to 30 fathoms in the lower half of the inlet, and a vessel may anchor anywhere in midchannel, but the holding ground is not very good. With the close proximity of Taku Harbor, vessels seldom find it necessary to enter. The upper half of the inlet is filled by a flat, most of which covers at high water. An overhead power cable with a clearance of 95 feet crosses the inlet about 0.3 mile above the mouth. The maximum safe clearance under this high voltage line is 80 feet.

(104) **Taku Harbor**, about 19 miles SE from Juneau, indents the E shore of Stephens Passage about 3 miles SE of Grand Island. The entrance is between **Stockade Point** and the SE tangent of **Grave Point**. In the approach from the S, its position is readily known by the projecting high land of Grave Point and **Taku Mountain** rising behind the point. Taku Mountain is prominent in Stephens Passage from Sunset Island N to Point Tantallon. A flat extends about 0.2 mile from the head.

Local magnetic disturbance

(105) Differences of as much as 10° from normal variation have been observed in the vicinity of Grave Point.

(106) **Grave Point Light** (58°03'44"N., 134°03'04"W.), 45 feet above the water, shown from a skeleton tower with a red and white diamond-shaped daymark on the SW extremity of Grave Point, marks the N side of the entrance to the harbor.

(107) The anchorage is in about 13 fathoms, soft bottom, favoring the E shore. A slight eddy current in Taku Harbor from Stephens Passage is sometimes noticed on the flood and, with large tides, swirls are produced that cause a vessel to surge somewhat on her cables at times. The N winter winds from the interior draw through the valley back of the harbor with great force. In the winter these conditions, when at their severest, render the anchorage somewhat dangerous.

(108) **Slocum Inlet** is on the E shore of Stephens Passage, about 4.5 miles N of Grave Point Light and 2.5 miles NE of Grand Island. It is almost filled with flats. The water is deep close to the flats, but it does afford convenient anchorage.

(109) **Circle Point**, the S point of the entrance to Slocum Inlet, rises to **Butler Peak**, a prominent conical peak.

Chart 17300

(110) **Grand Island**, in the middle of Stephens Passage, 17.5 miles NW of Midway Islands and 3.5 miles S of Point Arden, is marked on its NE side by **Grand Island Light** (58°05'58"N., 134°06'28"W.), 47 feet (14.3 m) above the water and shown from a skeleton tower with a red and white diamond-shaped daymark. It has three knolls and rises abruptly from deep water. A good channel is on each side of the island; the E one is generally favored.

(111) **Cove Point**, on the W side of Stephens Passage, about 1.6 miles NW of Grand Island, rises to a timbered knob, with a depression between it and a ridge to the NW. Two rocks are close to the S shore of the point; the outer rock bares and the inner rock uncovers 12 feet. **Doty Cove**, S of Cove Point, is deep. Flats at the head of the cove drop off rapidly to 20 fathoms.

Chart 17315

(112) **Point Arden** is a rocky bluff on the W side of Stephens Passage about 3.5 miles N of Grand Island and 11.2 miles from Juneau. **Point Arden Light** (58°09'33"N., 134°10'41"W.), 50 feet (15.2 m) above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the NE end of the point.

(113) **Taku Inlet**, on the E side of Stephens Passage, has its entrance about 2.7 miles NE of Point Arden Light. The inlet is about 15 miles long from **Bishop Point**, the W entrance point, to Taku Glacier at its head. A 1¼-fathom depth is about 100 yards SE of Bishop Point.

Anchorage

(114) The inlet has no secure anchorage and is exposed to strong winds. The best general anchorage, with fair protection from S winds, is to be had in 5 to 7 fathoms, soft bottom, 2 miles NNE of Jaw Point and about 0.5 mile offshore. Temporary anchorage, partially protected from N winds, can be had in from 3 to 7 fathoms, soft mud bottom, E of the Annex Creek Power Station.

Currents

(115) In Taku Inlet, currents have greater velocity on the ebb than on the flood. At Taku Point, the ebb current has an estimated velocity of 3 to 4 knots at times. At the entrance to Taku Inlet the velocity of the ebb current does not exceed 2 knots. (See the Tidal Current Tables for daily predictions.)

Winds

(116) The conformation of Taku Inlet is such that N winter gales sweep down the inlet and across Stephens Passage with great force, often accompanied by a blinding snowstorm. SE gales draw through the inlet.

Ice

(117) Taku Glacier has now pushed up the moraine ahead of its face, and ice no longer is a serious threat to navigation in the inlet. A few small chunks of ice occasionally drift down the inlet, but these are rarely more than 3 to 4 feet wide.

(118) For a distance of about 9 miles, from Bishop Point to about 2.6 miles above Jaw Point, the water is deep and the shores bold. Thence to about 2.6 miles S of Taku Point, a distance of about 3 miles, the channel is narrowed by a flat that extends out from the E shore. From 2.6 miles S of Taku Point the channel is ill-defined, narrow, and subject to change, and should not be traversed without local knowledge. Large vessels should not venture N of Flat Point because of the extensive shoaling at the head of Taku Inlet. It is reported that the deepest water between Flat Point and Scow Cove is 4 feet in the channel about 100 yards off the W shore of the inlet.

(119) **Jaw Point** is the prominently projecting point on the E shore about 5.5 miles within the entrance; there are high cliffs on the E shore S of it. **Flat Point** is on the W shore 3 miles N of Jaw Point. **Greely Point**, on the E shore, 4 miles S of Jaw Point, is distinguished by its reddish-brown color.

(120) **Sunny Cove** is on the W side of the inlet about 4 miles above **Cooper Point**, which is reddish-brown. In a small bight between Sunny Cove and Flat Point about 1.3 miles NE of Sunny Cove is the **Annex Creek Power Station**, which furnishes electric power to Juneau, and a small wharf at the station. The power station constitutes a good landmark. The bottom bares alongside the wharf.

(121) **Taku Point** is on the E shore S of the mouth of Taku River and 4.5 miles N of Flat Point.

(122) **Norris Glacier** is on the W side of Taku Inlet, about 4.5 miles N of Flat Point.

(123) **Taku Glacier**, the discharge of which is blamed for filling in the head of the inlet, is almost the only one of all Alaska's glaciers that is still advancing. It pushes ahead of it vast quantities of sediment that have filled up the formerly deep basins in the inlet.

(124) Because of the extensive shoaling at the head of the inlet that bars the mouth of **Taku River**, no directions can be given for proceeding N of the line between **Flat Point** and **Jaw Point**.

Caution

(125) Small craft should exercise caution when maneuvering in shoal water especially off Sunny Cove, Annex Creek Power Station, and off **Turner Creek** on the E side of Taku Inlet. These areas have scattered boulders that stand 2 to 5 feet above the surrounding bottom. Because of the discoloration of the water it is impossible to see them even when covered by only a foot of water. There is a flat for 1.5 miles alongshore S of Flat Point that extends off a greatest distance of 0.5 mile offshore. It has depths of ½ to 2 fathoms over it within these limits and deepens to 10 fathoms in about 0.2 mile. Along the edge of the flat for a distance of 0.2 mile SW of Flat Point, boulders and rock ledges bare at extreme low water. This area should be avoided by small boats except at high water.

(126) **Gastineau Channel**, separating Douglas Island from the mainland, extends NW for 13 miles from Stephens Passage, and then W for 2.5 miles to Fritz Cove. The channel is marked by lights, lighted and unlighted buoys, and daybeacons. The section of the channel from **Salmon Creek** NW for about 2 miles is marked by seasonal buoys. Juneau, 8 miles above the SE entrance, is the head of deep-draft navigation. The channel from Juneau to Fritz Cove, a distance of 7.5 miles, crosses **Mendenhall Bar** and is navigable only by small craft with local knowledge. This part of the channel is subject to considerable shoaling; mariners are advised to obtain the latest local information concerning channel conditions.

Caution

(127) The transit of the channel from Buoy 7 to Light 21 is limited by Mendenhall Bar. In 1983, it was reported that the shallowest part of the bar, between Daybeacons 15 and 17, bared at 10 feet above Mean Lower Low Water. The bar may be crossed **only** when the tide is high enough, i.e., when the tide is **at least** 10 feet above Mean Lower Low Water, plus the draft of the vessel transiting, plus a safety factor suitable for the vessel and operator. In selecting a safety factor, mariners should consider that the actual height of high tide can differ appreciably from the predicted high tide and that most often the actual height is less than the predicted height.

(128) Tide gages are on Mendenhall Bar Channel Lights 5 and 21. The zero mark on these gages is at the level of the least depth of the channel across Mendenhall Bar. Thus, the reading on these gages at higher tidal elevations shows the amount of water available over the shallowest part of the channel. Since this reading shows the actual tide level over the bar, it is unaffected by whatever difference there may be between the actual and the predicted tide.

(129) A 5 mph **speed limit** with wake not to exceed 6 inches in height is enforced in Gastineau Channel between Juneau Isle and Buoy 7.

(130) **Marmion Island**, about 300 yards to the NE of Point Tantallon, the SE point of Douglas Island and the SW point of the SE entrance to Gastineau Channel is small, flat-topped, and bushy. **Marmion Island Light** (58°11'55"N., 134°15'24"W.), 50 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark. A shoal with a least depth of 3¼ fathoms extends 0.2 mile E of the light.

Local magnetic disturbance

(131) Differences of 5° from normal variation have been observed in Gastineau Channel in the vicinity of latitude 58°15'N.

(132) **Sheep Creek** Flat, 4.5 miles above Marmion Island and close S of Thane, on the E side of Gastineau

Channel, extends 0.25 mile across the channel from the mouth of Sheep Creek and bares. The outer limit of the flat is marked by a light.

(133) **Thane** is a residential section of the borough of Juneau on the NE side of Gastineau Channel, 5 miles from Stephens Passage. A highway connects it with Juneau.

(134) **Juneau Isle**, a small wooded promontory opposite the S edge of Douglas, is connected to Douglas Island by a roadway. A light is on the NE end of the isle, and a tall white flagpole is near the S end. The U.S. Bureau of Mines occupies the buildings on the isle.

(135) **Douglas** is a residential section of the borough of Juneau on the SW side of Gastineau Channel, about 6.5 miles from Stephens Passage. A highway connects it with Juneau by way of the Juneau-Douglas Bridge.

Wharves

(136) A city dock is at Douglas. Douglas also has a protected harbor with small craft facilities.

Small-craft facilities

(137) **Douglas Boat Harbor**, on the inshore side of Juneau Isle, has a Federal project depth of 12 feet. The basin is entered between two jetties; the south jetty is marked by a light. In 2004, the controlling depths in the basin were 6.5 to 12 feet. Enter the basin between the jetty and the Douglas City Dock.

(138) The small-craft floats in Douglas Boat Harbor, operated by the city of Juneau, can accommodate about 135 craft including transients. The basin has a boat launching ramp and a 52-foot grid. Water and electricity are available; fuel and other supplies can be obtained in Juneau.

(139) The delta off the mouth of **Lawson Creek**, about 0.8 mile NW of Douglas, is marked by a light.

(140) The rock dump of mine tailings, about 1 mile S of Juneau, extends from the NE shore. Shoal water extends from the dump and is marked by a lighted buoy.

(141) **Juneau**, the State capital of Alaska, is a thriving city. The city's primary commerce is in containerized cargo, fish and fish products, petroleum products, and tourism. It is on the NE side of Gastineau Channel, 8 miles N of Stephens Passage. Extensive hard-rock gold mining operations formerly were carried on, but the mines have been closed since 1943.

Prominent features

(142) Prominent are the ruins of the mine buildings on the mountain slope above the S end of the Juneau business district, the tank farm at the rock dump about 1 mile S of Juneau, the Federal Building on Gold Creek, Juneau-Douglas fixed highway bridge, the lighted TV tower NW of the bridge, and the Governor's Mansion (58°18'11"N., 134°24'47"W.), a large white colonial mansion with green roof.

Channels

(143) The approach to Juneau from the SE through Gastineau Channel is clear and deep. The approach through Fritz Cove and **Mendenhall Bar** from the NW is narrow, shallow, and seasonally marked to show the best water; this approach should be attempted only during high water. The draft of the deepest vessels calling at Juneau in 2006 was 30 feet.

Anchorage

(144) Anchorage is available off the wharves, NE of the cable area, in 12 to 19 fathoms, soft bottom. Permission, however, must be obtained from the Coast Guard Captain of the Port prior to anchoring in this area from June through September due to extensive cruise ship traffic.

(145) The harbor area off the waterfront at Juneau is a **safety zone**. (See **165.1 through 165.9, 165.20, 165.23, and 165.1702**, chapter 2, for limits and regulations.)

Dangers

(146) Shoals extend off the mouths of the creeks and are, for the most part, marked. In navigating Gastineau Channel do not approach the shores too closely, especially the SW shore. Stream flats and deposits from mine tailings extend well offshore.

Bridges

(147) The Juneau-Douglas fixed highway bridge over Gastineau Channel has a clearance of 51 feet. An overhead power cable with a reported clearance of 55 feet crosses the channel just NW of the bridge.

Currents

(148) In Gastineau Channel, the current floods NW and ebbs SE past Juneau with a velocity of 2.0 knots. (See the Tidal Current Tables for daily predictions.) Currents at the wharves in Juneau Harbor, NE of the centerline of Gastineau Channel, are much weaker than at midchannel. The current follows the shoreline, going around the harbor in a counterclockwise direction on the flood and clockwise on the ebb.

Weather

(149) Juneau is well within the area of maritime influences that prevail over the coastal areas of southeastern Alaska, and is in the path of most storms that cross the Gulf of Alaska. Consequently, the area has little sunshine, generally moderate temperatures, and abundant precipitation. The surrounding rugged terrain causes considerable variation in the weather within relatively short distances.

(150) Temperature variations, both daily and seasonal, are usually small because of the marine influence. On average, the difference between maximums and

minimums ranges from about 9°F in December to around 18°F in June. Extremes range from 90°F in July to -22°F in February with above 80°F readings occurring from May through August, while -20°F temperatures have been recorded in December, January, and February. The city is often warmer than the airport in winter. Periods of severe cold, which usually begin with strong northerlies, are most often the result of cold air from NW Canada flowing across the Juneau ice field and are usually of short duration. During such periods, gusty, sometimes strong winds, known locally as "**Taku Winds**," occur in the city and other local areas. They draw down the mountain passes from N, but their force is modified somewhat under the lee of the highland E of Juneau. SE gales may occur in the vicinity of Juneau at any season, but they are much more frequent in winter than in summer. They are usually accompanied by rain. In summer, SE winds seldom blow home and when they do, the confined channel admits but little sea.

(151) February to June mark the period of lightest precipitation; monthly averages are about 3 to nearly 4 inches. After June the monthly amount increases gradually, reaching a maximum during October when it averages 8 inches. Monthly averages of precipitation then tend to decline from November until February.

(152) The first snow usually occurs in the latter part of October. On the average there is very little accumulation on the ground at low levels until the last part of November. Snow accumulation usually reaches its greatest depth during the middle of February when it averages around 10 inches at the Juneau Airport. Snow cover is usually gone before the middle of April. (See Appendix B for **Juneau climatological table**.)

Pilotage, Juneau

(153) Pilotage, except for certain exempt vessels, is compulsory for all vessels navigating the inside waters of the State of Alaska. (See Pilotage, Alaska, indexed as such, chapter 3 for details.)

(154) Vessels en route Juneau can meet the pilot boat at about 10.2 miles WSW of Point Macartney Light (56°57.9'N., 134°20.9'W.).

(155) The pilot boat, a crewboat, can be contacted by calling "JUNEAU PILOT BOAT" on VHF-FM channels 16, 13, or 12.

Towage

(156) Tugs up to 750 hp operating from Juneau and engaged principally in the towing of barges and log rafts are available for assisting in docking and undocking. They are equipped with VHF-FM channels 16, 13, and 6. Arrangements for tugs should be made well in advance through shipping agents.

Quarantine, customs, immigration, and agricultural quarantine.

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

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

(159) Juneau is a **customs port of entry**.

Coast Guard

(160) The U.S. Coast Guard station is on the NW side of the harbor at the U.S. Government Wharf (Subport). A **district office** and **sector office** are in Juneau. (See Appendix A for address.)

Harbor regulations

(161) The **harbormaster** assigns berths at the city float, Aurora Basin, Harris Harbor, and Douglas Boat Harbor, and controls the use of the grids in Harris Harbor and Douglas Boat Harbor. The harbormaster is on call 24 hours daily, and his office is on the S shore of Aurora Basin just inside the S entrance. The harbormaster's office monitors VHF-FM channel 16 from 0800 to 1630 daily during the summer and year round on Sundays. Working frequencies are channels 12 and 68. The call sign is WAB–950. The harbormaster can also be contacted by telephone (907–586–3300, ext. 255).

Wharves

(162) Most of the docks along the northeastern shore of Juneau harbor are owned and operated by the city of Juneau. The remaining wharves are privately owned except the U.S. Government wharf on the north side of the harbor. (For information on the latest depths, contact the individual operators of each facility.)

(163) **Alaska Marine Lines, Juneau Terminal Transfer Bridge** (58°17'08"N., 134°23'25"W.): 300 feet of berthing space with dolphins; 12 to 28 feet reported alongside in 2002; two 45- and one 31-ton container forklifts, and 22 acres of open storage; receipt and shipment of containerized, conventional, and roll-on/roll-off general cargo; owned and operated by Alaska Marine Lines.

(164) **Jacobsen's Dock** (58°17'22"N., 134°23'51"W.): 380-foot face, 1100 feet (335 m) with dolphins; reported depth alongside in 2005, 40 feet; mooring panamax cruise vessels; inside of dock, mooring smaller vessels; owned and operated by A J Juneau Dock, LLC.

(165) **Taku Oil Sales, Juneau Terminal Wharf** (58°17'25"N., 134°23'43"W.): 100-foot face; 274 feet of berthing space with dolphins; 40 feet reported alongside in 2002; 90-foot small-craft fueling barge moored W of wharf; pipelines extend to tank farm in rear; receipt of petroleum products; fueling vessels; owned and operated by Taku Oil Sales, Inc.

(166) **Cruise Ship Dock** (58°17'30"N., 134°23'41"W.): 272-foot face; 960 feet of berthing space with dolphins; 30 feet reported alongside in 2002; deck height, 24 feet; mooring cruise vessels; owned by Franklin Dock Enterprises and operated by Princess Cruises.

(167) **Intermediate Vessel Float** (58°17'41"N., 134°23'58"W.): 400-foot float; 800 feet berthing space; 25 feet reported alongside in 2002; mooring commercial

vessels and recreational craft; landing for passengers via launches serving cruise ships; owned by the State of Alaska and operated by the City and Borough of Juneau.

(168) **Taku Fisheries Wharf** (58°17'43"N., 134°24'00"W.): 40-foot face; 30 feet reported alongside in 2002; deck height, 26 feet; one 1¼-ton derrick and two 2-ton forklifts; receipt of seafood; handling supplies for fishing vessels; and icing vessels; owned by the City and Borough of Juneau and operated by Southeast Alaska Smoked Salmon Co.

(169) **Juneau Cruise Ship Terminal, Ferry Dock Wharf** (58°17'46"N., 134°24'05"W.): 100-foot face; 500 feet of berthing space with dolphins; 30 to 35 feet reported alongside in 2002; deck height, 26 feet; 30 by 15 foot steel transfer bridge; mooring cruise vessels; owned by the State of Alaska and operated by the city of Juneau.

(170) **Juneau Cruise Ship Terminal, Juneau Cold Storage Wharf** (58°17'51"N., 134°24'15"W.): 500-foot face; 27 to 30 feet reported alongside in 2002; deck height, 26 feet; mooring cruise vessels; owned and operated by the City and Borough Juneau.

(171) **Juneau Cruise Ship Terminal, Alaska Steamship Wharf** (58°17'54"N., 134°24'20"W.): 500-foot face; 27 to 30 feet reported alongside in 2002; mooring cruise vessels; owned and operated by the city of Juneau.

(172) **Goldbelt Merchants Wharf** (58°17'58"N., 134°24'26"W.): 270 feet berthing space; 30 feet reported alongside in 2002; mooring cruise vessels; landing for seaplanes; owned by Merchants Wharf and operated by Goldbelt, Inc.

(173) **U.S. Coast Guard Base, Juneau Wharf (Subport)** (58°17'54"N., 134°24'42"W.): 760-foot face; 36 to 40 feet reported alongside in 2002; deck height, 24 feet; mooring of U.S. Coast Guard and other Government vessels; owned by U.S. Government and operated by U.S. Coast Guard, National Marine Fisheries Service, and National Oceanic and Atmospheric Administration.

(174) **Trucano Construction Co., Douglas Wharf** (58°17'59"N., 134°26'06"W.): 200-foot face; 20 feet reported alongside in 2002; unpaved open storage located at rear; ten steel storage tanks with a capacity of 47,000 barrels; owned by Trucano Construction Co., Inc. and operated by Trucano Construction Co., Inc. and Harbor Enterprises, Inc., d.b.a. Petro Marine Services.

(175) **City Fisheries Terminal Dock** (58°18'12"N., 134°25'56"W.): 150-foot face; 12 feet reported alongside in 2002; deck height, 25 feet; two 2-ton and one 1-ton mast-and-boom derrick; mooring vessels; handling supplies for fishing vessels; and icing vessels; owned by the State of Alaska and City and Borough of Juneau and operated by the City and Borough of Juneau.

Supplies

(176) Provisions, and marine and fishing supplies are available in Juneau. Diesel fuel, diesel oil, gasoline, distillates, and lubricating oil and greases can be obtained at the oil company wharves. Only diesel oil is available for large vessels. Water can be had in the summer at all of the wharves and at the U.S. Government Wharf in the winter.

Repairs

(177) There are no drydocking or major repair facilities for large vessels in Juneau. The nearest facilities are in Ketchikan. Two private 50-ton cranes, that can handle small craft up to 5 feet in draft at high water, are available for mariners' use about 1.6 miles NW of Juneau-Douglas Bridge, on the NW side of Gastineau Channel. A 450-foot small-craft grid is in the NE part of Harris Harbor, and a 52-foot grid is in the SW part of Douglas Boat Harbor. Both grids are for public use. Several machine shops and repair firms along the waterfront can provide hull, engine, electrical, and electronic repairs.

Small-craft facilities

(178) Harris Harbor and Aurora Basin, both Federal projects, and Norway Point Float are N of Juneau-Douglas Bridge. All three facilities are operated by the city of Juneau. The **harbormaster monitors** VHF-FM channels 16 and 73 and can be contacted by telephone (907–586–5255) or FAX (907–586–5367).

(179) **Harris Harbor**, immediately N of the bridge, has a 12-foot project depth and is protected by two rock-mound breakwaters. In 2005, depths of 8 to 12 feet were available in the harbor with shoaling to 6.1 feet along the SE edge. A light at the end of the N breakwater marks the entrance.

(180) The harbor floats can accommodate over 275 vessels. Berths for transients are available. A seaplane hangar and float are in the SE part of the harbor, and a 450-foot grid is in the NW part. Water and metered electricity are available at the floats.

(181) **Aurora Basin**, 0.5 mile NW of Harris Harbor, has a project depth of 14 feet in the SE half and 12 feet in the NW half. The basin is protected on the NW side by a breakwater, marked by a light, and by a detached breakwater on the channel side. In 2002, depths of 6.5 to 12.0 feet were available in the N part of the basin and 13.4 to 14.0 feet in the S part. The basin can be entered at either end of the detached breakwater. The SE end of the detached breakwater is marked by a light.

(182) The basin can accommodate approximately 457 vessels. Water and metered electricity are available at the floats. A 100-foot-long float with facilities for fueling small craft is at the SE end of the basin. In 2002, 12 feet was reported alongside the float. Gasoline, diesel oil, and lubricating oils and greases are available.

(183) **Norway Point Float** (58°18'31"N., 134°26'28"W.), N of Aurora Basin, provides 480 feet of transient space with 4 to 10 feet reported alongside in 2002.

Communications

(184) Juneau has regular passenger, express, and freight service to Puget Sound ports, British Columbia, and other Alaska ports and towns by water and air. The Alaska State Ferry System, operating from Juneau and

Auke Bay, about 12 miles NW of the city, has daily ferry service during the summer to Haines, Skagway, Hoonah, Petersburg, Sitka, Wrangell, Ketchikan, and Prince Rupert, BC, and weekly service to Kake and Seattle. This schedule is less frequent during the winter. In addition to the scheduled airlines, other air services operate from Juneau on a charter basis.

(185) A highway parallels Gastineau Channel and Favorite Channel from Little Sheep Creek, about 5 miles SE of Juneau, to Echo Cove, about 33 miles NNW of Juneau. The highway on Douglas Island parallels Gastineau Channel and Fritz Cove from Paris Creek, about 1 mile SE of Douglas to Outer Point, about 11 miles NW of Douglas.

(186) Juneau maintains radiotelephone and telephone communications with the other States and parts of Alaska.

Chart 17315

(187) Stephens Passage continues NW from Point Arden (58°09.6'N., 134°10.6'W.) for about 22 miles to a junction with Saginaw Channel and Favorite Channel. (See chart 17300.) **False Arden** is a prominent point 1 mile WNW of Point Arden.

(188) **Douglas Island**, between Stephens Passage and Gastineau Channel, is large and wooded. It has several prominent peaks ranging in height from 2,500 to 3,500 feet. The S shore of the island is fairly bold and steep-to and can be followed at a distance of 0.3 mile.

(189) **Point Tantallon**, a timbered point with a rocky beach, is at the SE extremity of Douglas Island. **Icy Point** is 0.6 mile W of Point Tantallon.

(190) **Point Hilda**, the W point of a large bight, is about 8 miles to the W of Point Tantallon. **Point Hilda Light** (58°13'02"N., 134°30'23"W.), 20 feet above the water, is shown from a square frame structure with a red and white diamond-shaped daymark on the point. There is good anchorage and shelter from N weather 1 mile E of the light in depths of 6 to 15 fathoms.

(191) **Inner Point**, marked by a daybeacon, is 2.8 miles W of Point Hilda. **Middle Point**, 4.3 miles WNW of Point Hilda, is marked by a light; a shoal extends 0.2 mile off the point.

Chart 17300

(192) **Oliver Inlet** has its entrance on the S side of Stephens Passage about 5 miles W of Point Arden (58°09.6'N., 134°10.6'W.), through a narrow channel 1 mile long and 200 yards wide. The inlet is accessible only at high water to boats and small craft. The narrow entrance of the inlet is bared at low water by a natural dam of rocks, over which the water pours like a waterfall except at slack water. At high-water slack, small vessels drawing not over 6 feet can enter. The currents in the entrance have a velocity of 6 to 8 knots, forming heavy swirls. A portage about 0.5 mile long connects this inlet with the head of Seymour Canal.

Chart 17315

(193) **Point Young** (58°11.6'N., 134°33.7'W.) is on the S side of Stephens Passage about 12.2 miles W of Point Arden. The extremity of the point is grass covered and has a pebble beach. From the point the land rises in a timbered ridge with a long gentle slope in a SE direction. A low, rocky cliff, fringed by a kelp patch of 100 yards offshore, extends about 0.2 mile W along the point.

(194) **Admiralty Cove** is on the S side of Stephens Passage W of Point Young. It does not afford anchorage except for small craft because of shallow water. A small vessel can anchor in the cove S of the island on the SW side of Admiralty Cove, in 3 to 6 fathoms, mud bottom. This is a favorite anchorage for small craft but is open to W winds. A conspicuous trail-marker on the SE shore marks the end of a good trail maintained by the U.S. Forest Service. The trail extends 4.5 miles to **Admiralty Lake** and is much used by trout fishermen and hunters in season. A shelter cabin is on the beach near the end of the trail, and another is on the shore of the lake.

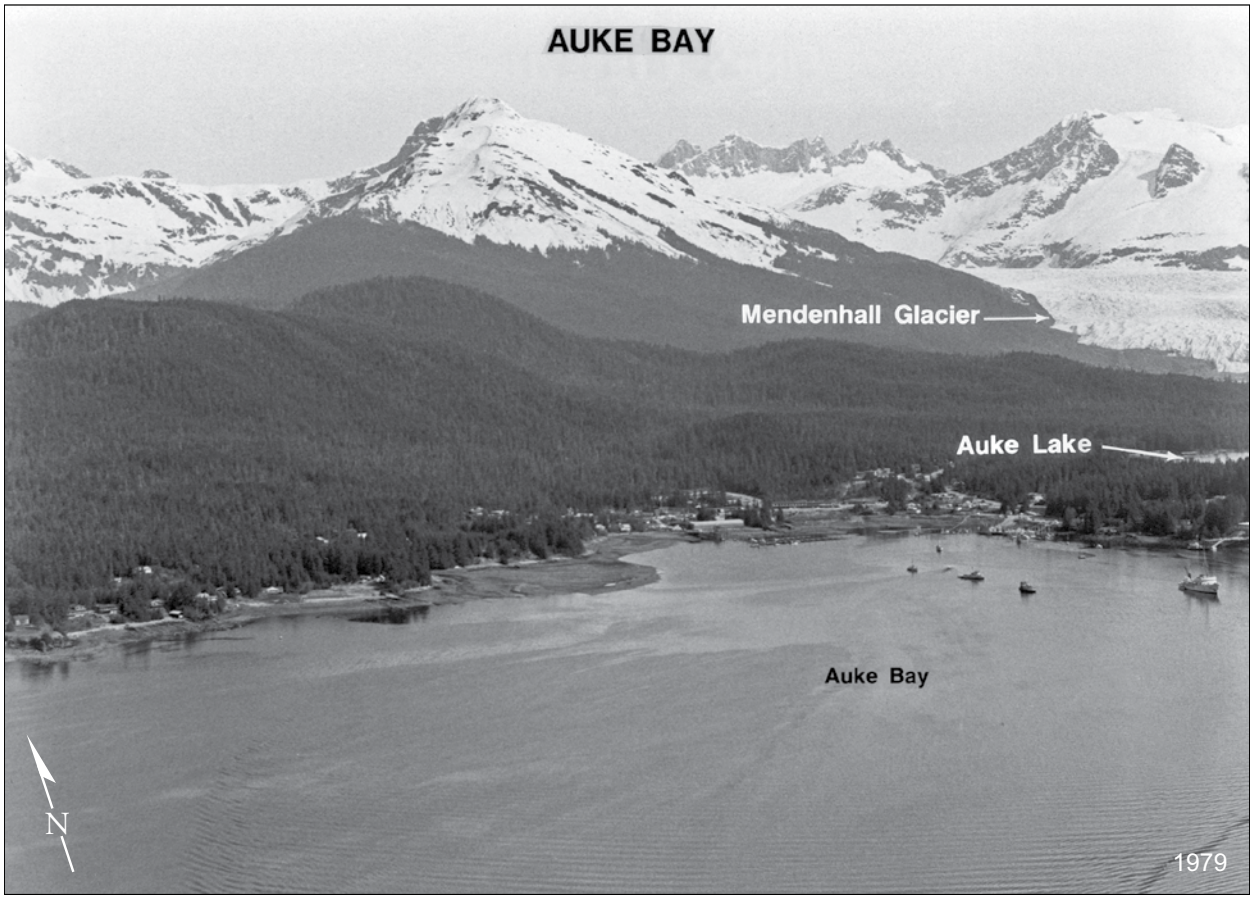
(195) A long narrow sand beach fronting a large tidal marsh is at the head of the cove, into which empties **Admiralty Creek**, a swift shallow stream.

(196) **Young Bay** is the broad bight in the S shore of Stephens Passage W of Point Young. **Scull Island**, a grass-covered rock 53 feet high with deep water around it, is in the middle of the entrance. A rocky shoal with a least depth of 1½ fathoms extends about 300 yards S of Skull Island. Young Bay is connected to Hawk Inlet Mine by road and to Auke Bay by ferry. Hawk Inlet is the site of a large mining operation and ship loading facility. A good foot trail maintained by the U.S. Forest Service extends from the SW side of Young Bay to the shore of Hawk Inlet. The cliff on the SE shore about midway between the head of the bay and Point Young is marked by a light-colored scar 60 feet high and 30 feet wide.

(197) Anchorage with shelter from SE winds can be had about 0.5 mile from the SE side of the bay, between Point Young and the head, in 18 to 22 fathoms, soft bottom. Small vessels may anchor closer in shore in desired depths.

(198) Horse Island and Colt Island, connected at low water and wooded, are on the W side of Stephens Passage N of the W entrance point to Young Bay. **Colt Island**, the N island, has ledges on its NE and NW sides. The N point of Colt Island appears as a separate islet about 20 feet high, but is a part of the island at all stages of the tide.

(199) **Horse Island**, the larger and southernmost of the two islands, has shoal ground that extends about 0.2 mile off the S shore of the island and practically continuous rock ledges extend from the S tip of the island



in a SSE direction across the entrance of a cove SSW of the island. A fair anchorage for small boats is had in this cove, but its use is not recommended because of the obstructions across the entrance. The best water for entering the cove from the SE is just N and close to a part of these ledges that uncover 7 feet about 0.6 mile SSE from the S end of Horse Island.

(200) A fair anchorage for small boats with protection from S winds can be had in midchannel W of Colt Island in 12 to 15 fathoms, mud bottom. Approach the anchorage from the N and avoid the ledge and rock that uncover 10 feet about 0.6 mile NNW of Colt Island, and the various small ledges and rocks near the shores.

(201) **Horse Shoal**, about 0.6 mile E of Horse Island, consists of two patches 0.5 mile apart, both of which bare at half tide. A light marks the S patch.

(202) **Shaman Island**, about 2.3 miles NE of Colt Island and 0.2 mile to the N of Outer Point, is wooded, and is connected with Douglas Island by a gravel bar. There is a rock awash at extreme low tides 0.1 mile off the N end of the island.

(203) **Dornin Rock**, with 7 feet over it, is 0.4 mile W of Shaman Island. **George Rock**, about 1 mile NNW of Outer Point, is awash at highest tides. It is marked by a light.

(204) **Fritz Cove**, NE of **Outer Point**, the NW extremity of Douglas Island, affords anchorage and shelter from S and E winds. A boat-launching ramp is along the S shore at Fritz Cove about 1.6 miles inside the entrance.

(205) **Entrance Point**, at the E end of Fritz Cove, is a wooded knoll connected with Douglas Island by a low spit.

(206) **Spuhn Island**, with a high wooded knob at its SW end, is on the N side of Fritz Cove, about 1.6 miles W of Entrance Point. **Gibby Rock**, covered 1 fathom and about 0.7 mile WSW from **Spuhn Point**, the S end of Spuhn Island, is marked by a light. To enter Fritz Cove, pass on either side of George Rock and follow the shore of Douglas Island, giving it a berth of 0.2 mile. Anchor about 500 yards from shore and 0.4 mile SW of Entrance Point in 20 to 25 fathoms, soft bottom.

(207) **Auke Bay** is a popular fishing and boating recreational area N of Fritz Cove. **Coghlan Island** is on the SW side of Auke Bay, about 1 mile NW of Spuhn Island. A buoy is off the N end of Coghlan Island. **Point Louisa** and **Indian Point** are on the N shore of the bay, about 1.2 miles NW and 0.6 mile N, respectively, of the N extremity of Coghlan Island. **Fairhaven** is on the shore of the bay between these two points. After passing 0.2 mile S and E of Coghlan Island, enter the bay on a NE course with the summit of the island astern. Anchorage for small craft, with protection from SE winds may be found at the head of Auke Bay.

(208) **Auke Bay** is a community with general stores, a ferry terminal, and seasonal small-craft facilities on the NE shore at the head of Auke Bay. The National Marine Fisheries Service has a biological laboratory at Auke Bay. Auke Lake and **Mendenhall Glacier** are about 0.3

mile and 3.6 miles inland, respectively, from the community.

Wharves

(209) **The Alaska State Ferry Terminal** (58°22'54"N., 134°41'11"W.): on the N shore of Auke Bay; 850 feet of continual berthing space; 26 feet reported alongside in 2002; owned and operated by the State of Alaska.

(210) **Southeast Alaska Lighterage Dock** (58°22'53"N., 134°40'41"W.): approximately 200 yards E of the ferry terminal; 250-foot barge, 50 feet reported alongside in 2002; handling materials, supplies, and equipment to and from barges; mooring vessels; owned and operated by Southeast Alaska Lighterage.

(211) **Allen Marine Tours Dock** (58°22'54"N., 134°40'32"W.): close E of the lighterage dock; 360-foot face; 60 feet reported alongside in 2002; mooring excursion vessels; mooring vessels; owned and operated by Allen Marine Tours, Inc.

Small-craft facilities

(212) The National Marine Fisheries Service Float, about 1.27 miles E of the ferry terminal along the E shore of Auke Bay, is for the use of their own vessels. It has a 120-foot face, and in 2002, the reported alongside depths were 10 to 15 feet.

(213) Auke Bay Public Float Facility is along the E shore of Auke Bay about 330 yards N of the National Marine Fisheries Service Float. There are about 200 transient berths from 17 to 100 feet long. The main pier is connected to the floating breakwater on the S side, which protects the head of Auke Bay. The W end of the breakwater is marked by a light. Water and electric are available on all the floats. In 2005, the reported depths were 20 to 40 feet alongside the floats. The floats have a 72-hour tie-up limit. A large parking area, and a float with a surfaced boat-launching ramp on each side are adjacent to the public floats. The Juneau **harbormaster** has control of the public float facility and the 48-foot grid about 60 yards NE of the floats. A U.S. Coast Guard patrol boat is stationed at the facility.

(214) Two private marinas are at the head of Auke Bay, N of the public float facility. Each facility can accommodate about 180 small craft, and can provide gasoline, diesel fuel, water, ice, marine supplies, provisions, dry storage, and minor repairs. A 15-ton mobile lift, a crane capable of handling craft up to 4 tons, and forklifts up to 10 tons are available at the marinas. The S side of the facilities is protected by a floating breakwater with a light at its W end.

(215) The National Park Service Pier is at the head of the cove immediately W of Indian Point. This 321-foot pier has a 90-foot face and, in 2002, the reported depth alongside the face was 10 feet. The pier is used to berth Park Service vessels.

(216) Auke Bay has highway connections with Juneau, 12 miles SE, and with Echo Cove, 21.5 miles N. Juneau Airport is about 2 miles E of Auke Bay on filled ground just E of the mouth of Mendenhall River.

Chart 17316

(217) **Portland Island** is a wooded island at the junction of Stephens Passage with Saginaw Channel and Favorite Channel. A reef, covered for the most part at high water, extends 0.7 mile NW from the N end of the island **Portland Island Light** (58°21'07"N., 134°45'31"W.), 20 feet above the water and shown on a pile with a red and white diamond-shaped daymark, marks the end of the reef.

(218) **Saginaw Channel** connects Stephens Passage with Lynn Canal and separates Mansfield Peninsula, the NW end of Admiralty Island, from Shelter Island. This channel is used by vessels going from Stephens Passage to Chatham Strait or Icy Strait.

(219) **Symonds Point**, the S point at the entrance to Saginaw Channel, about 2.8 miles W of the N extremity of Portland Island, is low and wooded; it rises with a gradual slope to Lone Mountain.

(220) **Lone Mountain**, Mount Robert Barron, and the low divide between them are conspicuous landmarks on **Mansfield Peninsula**.

(221) **Shelter Island**, at the NW end of Stephens Passage and E of the N end of Mansfield Peninsula, separates Saginaw Channel from Favorite Channel. The island is timbered. A dome-shaped peak on the NW part of the island forms an excellent landmark when coming down Lynn Canal. The SE part of the island is a long ridge. Reefs extend off the NW end of the island for about 0.5 mile. **Shelter Island Light** (58°22'29"N., 134°48'29"W.), 19 feet above the water, is shown from a frame structure with a red and white diamond-shaped daymark on the SE side of the island. About 0.2 mile NW of the light, a reef makes offshore for about 300 yards.

(222) **Strauss Rock**, 0.5 mile S of the SE end of Shelter Island and marked by a buoy, has 1¼ fathoms over it. It is of small extent and dangerous. Submerged rocks and broken ground are between Strauss Rock and the SE end of Shelter Island.

(223) **Adams Anchorage**, off the S end of Shelter Island and NW of Strauss Rock, offers good anchorage in 11 fathoms and very good anchorage for small craft in less depth, close to the shore during N weather.

(224) **Favorite Reef**, in the SE part of Saginaw Channel, bares at half tide and is marked on its S part by **Favorite Reef Light 2** (58°22'48"N., 134°51'41"W.), 33 feet above the water and shown from a pile with a red triangular daymark. The reef is about 0.7 mile long and 0.4 mile from the Shelter Island shore, with a deep channel between, which is seldom used, as it is partially obstructed at its SE end by a reef that uncovers 6 feet and extends out about 0.2 mile from Shelter Island.

(225) **Barlow Point** is about 2.8 miles NW from Symonds Point and about 1.1 miles W of Favorite Reef Light 2.

Barlow Islands extend about 1.4 miles in a NNW direction from Barlow Point.

(226) **Barlow Cove** is on the NE side of the N end of Mansfield Peninsula. A light on Point Retreat, described in chapter 11, marks the W point of the entrance and the Barlow Islands form the E point of the entrance. The waters throughout the cove are deep. Anchorage may be obtained 0.2 mile from the SE side at the head, in 15 fathoms, soft bottom.

(227) In entering, favor the Barlow Islands to avoid the foul ground that extends about 0.2 mile offshore SE of Point Retreat. There is a narrow passage between Barlow Point and the Barlow Islands through which 0.4 fathom can be carried, but it is unfit for vessels and is filled with tidal eddies and swirls except at slack water.

(228) **Faust Rock**, in Saginaw Channel 1.1 miles from Barlow Islands and in line with them, is of small extent, has 2½ fathoms over it, and is marked on the N side by a lighted bell buoy, which is reported to heel over considerably from icing in the winter. It can be passed on either side.

(229) **Favorite Channel** connects Stephens Passage with Lynn Canal N of Shelter Island. It is the channel used by vessels going from Stephens Passage to upper Lynn Canal points and Skagway. **Eagle Glacier** and **Herbert Glacier** are prominent from Favorite Channel between Aaron Island and Vanderbilt Reef.

(230) **Lena Cove** is on the E shore of Favorite Channel, about 2 miles NE of Shelter Island Light and N of Point Lena. It affords a SE lee, but the bottom is rocky and is not a good anchorage for large vessels. Rocks awash are close to the NE shore, N of the N point of the entrance.

(231) **Point Lena**, the SW point at the entrance to Lena Cove, is low and wooded. Rocks awash are about 100 yards from the N shore of the point. The wreck of the SS PRINCESS KATHLEEN is in 8 fathoms about 100 yards W of the point. In 1997, the minimum depth over the wreck was 25 feet at low water.

(232) Four lighted towers are about 0.3 mile to 0.7 mile SE from Point Lena.

(233) **Tee Harbor**, on the E side of Favorite Channel, 1.5 miles N of Point Lena, affords anchorage in the middle just within the points at the entrance, in 12 to 14 fathoms. During SE weather, williwaws are severe at times. Small craft avoid these by anchoring in 6 to 9 fathoms at the S end of the S arm close to the beach. Winter N winds can be avoided by small craft by anchoring in the N arm, close to the beach, in 4 to 9 fathoms. Tee Harbor has telephone and highway connections with Juneau. **Point Stephens Rock**, with ¼ fathom over it and marked by a buoy on its SW side, is 0.2 mile NW from **Point Stephens**, the S point of the entrance. **Tee Harbor Light** (58°25'40"N., 134°46'02"W.), 33 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the N point of the entrance.

(234) A private marina at the head of the S arm of Tee Harbor operates on a seasonal basis. A private buoy marks a **slow no-wake** speed zone in the approach to the marina. The marina can accommodate about 120 small craft at the floats. Gasoline, diesel fuel, lubricating oils, greases, limited supplies, ice, and a boat-launching ramp are available.

(235) **Cohen Island** is about 0.9 mile NNW from Point Stephens. It is timbered on the N end, bare and rocky on the S end, and has two rocks awash, close to the NW shore.

(236) **Aaron Island**, 1 mile E of the middle of Shelter Island and 2 miles NW of Tee Harbor, is wooded. **Aaron Island Light 2** (58°26'18"N., 134°49'32"W.), 20 feet above the water, is shown from a skeleton tower with a triangular red daymark on the NW side of the island. A grass-covered rock, 35 feet high, is 200 yards N from Aaron Island to which it is connected by a reef at low water. A shelving ledge, largely covered at half tide, extends 0.2 mile S from the S end of Aaron Island.

(237) **Cohen Reef**, awash at high water, is about 0.6 mile ESE of the S end of Aaron Island. A daybeacon is on the W side of the reef.

(238) **Eagle Reef**, about 1.2 miles N of Aaron Island, is awash at highest tides. A rock, 7 feet high, is on the N end of the reef.

(239) **Bird Island**, 2.2 miles E of the N extremity of Shelter Island, is wooded.

(240) **Gull Island**, about 0.8 mile NNW of Bird Island, is wooded. Reefs extend off the S point and the SW shore for about 250 yards and for about 100 yards off the E shore. A small islet is close to the N end of Gull Island.

(241) **Amalga Harbor**, a small landlocked cove about 1.9 miles E of Bird Island, affords good small-craft anchorage in 3 to 4 fathoms, rocky bottom. The harbor has a State-maintained surfaced boat-launching ramp.

(242) **Eagle Harbor**, immediately N of Amalga Harbor, affords anchorage in moderate weather. Good holding ground is found in depths of 14 fathoms near midharbor.

TIDAL INFORMATION					
Chart	Station	LAT/LONG	Mean Higher High Water*	Mean High Water*	Mean Low Water*
17313	Port Snettisham, Stephens Passage	57°58'N/133°53'W	15.8	14.9	1.5
17314	Taku Harbor, Stephens Passage	58°04'N/134°01'W	15.5	14.6	1.5
17315	Greely Point, Taku Inlet	58°13'N/134°04'W	15.7	14.7	1.5
17315	Fritz Cove, Douglas Island	58°19'N/134°36'W	15.9	15.0	1.5
17315	Juneau, Stephens Passage	58°18'N/134°24'W	16.3	15.3	1.6
17316	Funter, Funter Bay	58°15'N/134°54'W	15.1	14.2	1.6
17316	Barlow Cove, Mansfield Peninsula	58°19'N/134°53'W	15.8	14.8	1.6
17316	William Henry Bay, Lynn Canal	58°43'N/135°14'W	15.7	14.8	1.6
17360	Wrangell, Wrangell Island	56°28'N/132°23'W	16.0	15.1	1.5
17360	Coronation Island, Summer Strait	55°54'N/134°07'W	10.7	9.9	1.4
17360	Port Protection, Prince of Wales Island	56°19'N/133°36'W	12.4	11.5	1.4
17360	Petersburg, Wrangell Narrows	56°49'N/132°57'W	16.0	15.1	1.5
17360	Windham Bay, Stephens Passage	57°33'N/133°30'W	15.1	14.2	1.5
17362	Good Island, Gambier Bay	57°29'N/133°54'W	15.2	14.3	1.5
17365	Cleveland Passage, Whitney Island	57°13'N/133°30'W	15.0	14.1	1.5
17365	Eliza Harbor, Liesnoi Island	57°10'N/134°17'W	14.3	13.4	1.5

* Heights in feet referred to datum of sounding MLLW.
Real-time water levels, tide predictions, and tidal current predictions are available on the internet from http://tidesandcurrents.noaa.gov
To determine mean tide range subtract Mean Low Water from Mean High Water.
Data as of May 2012