



West Coast of Prince of Wales Island

(1) This chapter covers the outer coast between Dixon Entrance and Sumner Strait and includes the inlets and bays on the west coast of Prince of Wales Island and the off-lying islands with the connecting bodies of water. The area is described in the following order: Forrester Island and west coast of Dall Island; Meares Passage; Cordova Bay; Hetta Inlet; Sukkwan Strait; Kaigani Strait; Tlevak Strait and Narrows; Ulloa Channel; Bucareli Bay, San Alberto Bay and Klawock Inlet; Port Real Marina, Portillo Channel and San Christoval Channel; Arriaga Passage, Gulf of Esquibel and Tonowek Bay; Bocas de Finas; Tonowek Narrows; Tuxekan Passage, Davidson Inlet, Sea Otter Sound and El Capitan Passage. The cities of Hydaburg on Sukkwan Narrows and Craig and Klawock on Klawock Inlet are described in this chapter.

(2) Forrester Island to Dall Island

(3) The connecting bodies of water along the west coast of Prince of Wales Island and between the off-lying islands afford protected inside passages between Dixon Entrance and Sumner Strait. The main passages have been surveyed, but there are several inlets and bays that have not been surveyed.

(4) Currents

(5) A few observations made in 1917, at times when the sea and air were calm, show a northeast to northwest set varying from 0.3 to 1.3 knots between Dall Island and Forrester Island. West of Lowrie Island at the 100-fathom curve, a northeast to north sea of 0.1 knot to 0.8 knot was observed. Near the 1,000-fathom curve, a slight south set was experienced during calm weather.

(6) The currents have considerable strength in the vicinity of the rocks and islets off Forrester Island and are irregular in direction but generally have a north set during flood. Tide rips are usually found around Forrester Island and in the passages between the rocks.

(7) Weather

(8) Along the inside passages between Dixon Entrance and Sumner Strait, the rugged islands west of Prince of Wales Island afford some protection from the rigors of the open Gulf. However, passages such as Cordova Bay and Kaigani Strait, as well as numerous inlets and harbors along these routes, are exposed to heavy southeast weather, which is prevalent from September through April. The worst conditions usually occur in

November, December and January when gales are encountered about 8 to 11 percent of the time in open water; strong winds are most often out of east through southeast. Winds are further intensified in some restricted passages, and when they blow across strong currents the waters become treacherous. Swells from the open ocean add to the problem in areas like Steamboat and Cordova Bays and North Kaigani Harbor. In addition, because of the high elevations of the islands, williwaws can develop and create rough conditions in many of the inlets and passages. Local weather knowledge is essential to the safe navigation of these waters.

(9) **Forrester Island** (54°48'N., 133°31'W.), about 14.5 miles off Dall Island shore and about 30 miles west-northwest from Cape Muzon, is wooded. The north half of the Island is a ridge with distinctive summits; the south summit is rounding, relatively flat with a ragged tree line; the next peak to the north is sharp; the third is rounding; and the north peak shows flat, with two knobs. The south part of the island is a wooded flat with a knob on the east side. At the south end of the island is a detached knob, which from east and west directions appears as a separate island.

(10) Forrester Island is a National Wildlife Refuge under the jurisdiction of the U.S. Fish and Wildlife Service.

(11) There are no secure anchorages off Forrester Island. During the summer, small craft anchor in four different places: Wood Cove, Eagle Harbor, the north end and the bight on the west side near the north end. Anchorage is close to the beach at the edge of the kelp in about 10 fathoms, rocky bottom. There is a small freshwater stream in Eagle Harbor.

(12) **Wood Cove and Eagle Harbor** are on the east side of the island, about 1.4 miles and 0.8 mile, respectively, from the north end.

(13) **Petrel Island** is about 1 mile south from Forrester Island. It has two wooded summits. From a distance these look like two islands.

(14) **South Rock**, close to the south end of Petrel Island, is not very prominent. Between South Rock and Petrel Island is a rock, 73 feet high, and several smaller rocks.

(15) North of Forrester Island for 3 miles there are, in succession: **Sea Lion Rock**, 117 feet high, with a flat and grassy top; **Cape Horn Rocks**, 148 feet high, with steep sides and grassy tops; **Lowrie Island**, wooded and marked by a light; and North Rocks, 15 to 25 feet high, a group with outlying rocks and breakers.

(16) Breakers are numerous around the Forrester Island group but for the most part are close to shore or are readily discernible. **Butler Rock**, 20 feet high, is 500 yards

west from the point on the north side of the bight in the northwest end of Forrester Island. Breakers are north and south of the rock. A breaker between Sea Lion Rock and Lowrie Island is reported to break at low water springs with a moderate swell. During unusually fair seasons, this locality has been marked by kelp.

(17) The pass between Forrester Island and Petrel Island is used by fishermen. At times the currents are severe, and during heavy weather the pass is dangerous. The channel around the north end of Forrester Island and south of Sea Lion Rock and Cape Horn Rock is reported clear; that between Sea Lion Rock and Cape Horn Rocks is seldom used. There is a channel between Lowrie Island and North Rocks, but the locality of North Rocks is reported foul. The passes are used only by small fishing craft and should only be attempted by those with local knowledge.

(18) **Wolf Rock**, 13.5 miles 005° from the highest summit of Forrester Island, is small in extent and bare of vegetation; it is surrounded by foul ground to a distance of about 0.5 mile.

(19) **Dall Island**, the largest island off the west coast of Prince of Wales Island, is about 40 miles long from Cape Muzon, its southeast extremity, to Eagle Point, its northwest extremity, in Meares Passage. It is about 8.5 miles wide between Cape Augustine and High Point, in Tlevak Strait. It is mountainous; Thunder Mountain in the vicinity of Cape Lookout is 3,010 feet high. Both the east and west coasts of the island are indented by numerous bays, coves and inlets, some of which are excellent harbors of refuge.

(20) The west coast of Dall Island from Cape Muzon to Meares Passage, a distance of about 40 miles, is rugged with prominent partially wooded peaks ranging in elevation to about 3,000 feet.

(21) In 1972, a shoal covered 4 fathoms or less was reported in 54°59.6'N., 133°16.6'W., about 4.3 miles southwest of Sakie Point. A rock covered 2 fathoms or less is about 0.8 mile northwest of the 4-fathom shoal in about 55°00'03"N., 133°17'51"W.

(22)

Chickwan Bight to Dolgoi Island

(23) **Chickwan Bight**, about 2.5 miles west of Cape Muzon, is open and exposed and has depths of about 30 fathoms at the entrance, decreasing to 12 fathoms near the head.

(24) **Wolk Harbor**, about 3.5 miles west of Cape Muzon, is deep throughout and is open and exposed. Midchannel depths are 20 to 40 fathoms. There are tide rips off **Wolk Point** between Chickwan Bight and Wolk Harbor.

(25) **Liscome Bay**, about 4.3 miles west-northwest of Cape Muzon, affords an anchorage for small vessels but is exposed to south weather and swell. A submerged rock is about 100 yards off the east shore, about 1.1 miles within the entrance, where the bay narrows. A small rock is about 230 yards north of the submerged rock. Favoring the west shore, depths of 40 fathoms at the entrance to

about 16 fathoms in the vicinity of the rocks may be carried. Depths of 8 to 10 fathoms are found at the head of the bay.

(26) **Point Cornwallis**, marked by a light, is a prominent headland about 6.6 miles west-northwest of Cape Muzon. At the extremity is a projecting rocky point, 195 feet high, on the north side of which, close-to, is a similar point, 131 feet high, near which are two small rocks. A rock awash is immediately west of the projecting point, and a submerged rock and a bare rock are about 0.3 mile to the southeast. Immediately back of the point is a round-topped hill, 440 feet high. **Stripe Mountain**, about 1.3 miles northeast of the point, is marked by a prominent slide on the northwest side.

(27) **Security Cove** is 2.7 miles north of Point Cornwallis. Two rocks awash are close off the south shore at the entrance. Depths at the entrance are deep but irregular; in the narrow part of the cove depths of 6½ fathoms are obtained. Depths of 19 to 35 fathoms are found inside. In the bight on the north side, close inside the narrowest part of the entrance, small craft have found temporary anchorage in depths from 6 to 22 fathoms. A small lake, about 0.5 mile inshore, at an elevation of 950 feet, empties into the head of Security Cove.

(28) **Essowah Harbor** is about 1.7 miles north-northwest from Security Cove. The entrance channel is about 0.3 mile long and 30 yards wide; there are two rocks near the entrance. **Essowah Lakes** empty into the head of Essowah Harbor. A small lake, 0.5 mile south of Essowah Lakes, empties near the entrance to Essowah Harbor.

(29) **Parrot Rock** is about 0.9 mile west-northwest from **Essowah Point**, the point south of the entrance to Essowah Harbor, and is about 0.2 mile offshore.

(30) **Port Bazan** (54°48.8'N., 132°58.5'W.) is between two prominent mountain peaks, about 15 miles from Cape Muzon and 7.5 miles northwest of Point Cornwallis. The northwest mountain top is a small bare tip; the southeast mountain is roughly the shape of a rounded cone and is heavily wooded to the top. Often when the tops of the mountains are enveloped in fog or low clouds, the latter mountain stands out clearly. There are a number of islands within the port.

(31) **Dolgoi Island**, at the entrance to Port Bazan, is mound shaped and wooded (with the seaward side rocky and bare of vegetation) to heights of 50 to 100 feet. There are through channels to the northwest and southeast. West from Dolgoi Island, on the south side of the entrance to the north channel, is a group of four islets close together. The west side of the outermost islet is a precipitous sharp pointed rock, light brown to white, 125 feet high; the east part is lightly wooded. The next larger islet is lightly wooded; the other two are small and bare. A shoal with a depth of 4 fathoms, and probably less, is about 750 yards northwest from the west extremity of the largest islet.

(32) Port Bazan affords good anchorage north and northeast of the islands that stretch across the east part of the bay. The anchorage is well protected from the swell and is generally free from williwaws. It can be entered

either southeast or northwest of Dolgoi Island, but the northwest entrance is more often used. At low water the channels are fairly well defined. Rocks that cover are a considerable distance from the shores of the narrow channels, presenting elements of danger to those without local knowledge. The chart shows known dangers.

- (33) Anchorage may be had northeast of the islands in the center of the bay in 11 to 19 fathoms, mud bottom, or in the bight north of the north island in 11 to 13 fathoms. A rock, bare at low water, is close to the northeast end of the north island. A small 6¼-fathom shoal is 0.2 mile northeast from the north island. The small bight at the head of the bay is foul.

(34)

Tides and currents

- (35) Currents are reported to seldom exceed 1 knot.

(36)

Gooseneck Harbor to Manhattan Arm

- (37) **Gooseneck Harbor** (54°53'N., 133°03'W.), about 4 miles northwest of the northwest entrance point to Port Bazan, is identified by a black rock, 65 feet high, close south of the entrance. The upper half of the harbor is mostly obstructed by bare rocks and ledges, and the head is especially foul. A rock, awash at extreme low water, is near the middle of the entrance, 200 yards west of a small islet off the south shore. A rock that bares is almost in midchannel, about 0.8 mile inside the entrance. In entering, follow the north shore at a distance of about 250 yards until about 1 mile inside. After rounding the point on the north side, anchorage is afforded for small craft 100 yards off the north shore, 1.5 miles within the entrance.

- (38) **Gold Harbor**, about 2 miles northwest of Gooseneck Harbor, is reported clear in midchannel. On the north side of the bay is a peak, on the south side of which is a very prominent landslide, 110 yards wide and 350 yards long, with its top at an elevation of 1,560 feet. About 2.6 miles from the entrance and about 0.6 mile northwest of the north shore are **Twin Peaks** about 500 yards apart. The peaks are bare above an elevation of 1,700 feet.

- (39) About 0.9 mile from the entrance, to the south of midchannel, is a small island. A midchannel course, passing north of the island, leads to the head of the bay, where depths of 23 to 29 fathoms are found. The small cove west of the northwest point of the entrance to Gold Harbor is foul.

- (40) **Waterfall Bay** is about 4.5 miles northwest of Gooseneck Harbor. The entrance is distinguished by a bold, bare point on the southeast side and **Gourd Island**, a wooded islet in the middle. Near the head of the bay are extensive deposits of marble on the slopes of Twin Peaks, two prominent bare summits that are about 0.6 mile east of the head. Two small islands, one close to the north shore and the other about in midchannel, are about 0.9 mile east-northeast of Gourd Island. Dangers are shown on the chart. The bay has two prominent waterfalls: one

at the head and the other on the north shore close to the north island and several islets.

- (41) The bay may be entered northwest or southeast of Gourd Island. A narrow area with 8 fathoms on it extends from the north shore of the bay to within 270 yards of the north side of Gourd Island. A channel about 120 yards wide, with depths of 26 to 38 fathoms, is between this area and the rocks and kelp that extend off the north side of Gourd Island for about 100 yards.

- (42) The channel between the two islands within the bay has a depth of 15 fathoms near midchannel. A depth of 30 fathoms is available in the channel south of the south island with an 8-fathom spot, marked by kelp, and a 3¼-fathom spot, which are about 0.2 mile southwest and 0.1 mile east-southeast, respectively, of the island. If this channel is used, round the island at a distance of about 180 yards, and leave the 3¼-fathom spot to the east.

- (43) Anchorage may be had near the head of the bay in about 26 fathoms, sticky bottom. West winds draw into the bay with considerable force. With southeast winds, williwaws are severe. Small craft anchor in 10 fathoms on the northwest side of the bay, just north of the north island. There is anchorage for small craft, 50 feet long or less, in 5 fathoms, mud bottom, in the small bight at the extreme head of the bay.

- (44) **Cape Augustine** (54°57.0'N., 133°09.8'W.), at the northwest side of the entrance to Waterfall Bay, has several bare black rocks close-to.

- (45) **Augustine Bay** is a small bay north of Cape Augustine. Kelp and rocks extend offshore; depths of 8 to 16 fathoms are found near the center of the bay. It is open and exposed and is not suitable for anchorage.

- (46) **Welcome Cove** is about 1.5 miles north of Cape Augustine. Off the entrance the ground is foul, but there is a narrow channel into the cove, where anchorage may be had for small boats in 2 to 5 fathoms, mud bottom. The entrance should not be attempted without local knowledge.

- (47) **Camp Cove** is about 2.5 miles north from Cape Augustine. Off the entrance is a rock 15 to 20 feet high with foul ground that extends in a north-northeast direction to the shore. The south shore of the cove is foul.

- (48) **Devil Lake** empties to the north of **Devil Island**, about 0.8 mile to the north of Camp Cove. The channel at the entrance is very narrow. The lake extends about 2.5 miles in a northeast direction.

- (49) **Fisherman Cove** is about 4.5 miles north from Cape Augustine. At the entrance is a small island that has a few scattered trees. In entering, pass the south point of this island at a distance of about 100 yards and steer for the left or west edge of the sand beach at the head of the cove. The anchorage is about 170 yards wide, with depths of 3 to 6 fathoms, mud bottom, and is large enough for four or five small fishing vessels.

- (50) **Sakie Bay** is about 7.5 miles north-northwest from Cape Augustine. Rocks and reefs extend 0.6 mile offshore in a west-southwest direction from **Sakie Point**, the south point of the entrance. The outermost rock is 20 feet high.

Table Rock is the most prominent of the rocks that extend about 320 yards off the north shore at the entrance. The channel, about 300 yards wide, is to the south of Table Rock. Tide rips, severe for small craft, are experienced at the entrance. The bay has not been thoroughly surveyed.

(51) **Middle Island** is near the center of the bay. Near the head of the bay and about 450 yards off the north shore is a group of small islands and rocks. Anchorage can be found in the bay in 6 to 8 fathoms, sticky mud bottom.

(52) **Cape Lookout** (55°06'N., 133°14'W.) is a prominent headland about 2 miles north of Sakie Bay. From the cape, extending in a southeast direction, are four prominent peaks. **Cone Mountain**, 0.6 mile from the extremity of the cape, is a symmetrical, timbered cone. **Bear Mountain**, 1.4 miles from the cape, is round topped, and timbered to an elevation of 1,800 feet. **Thunder Mountain**, the highest peak on Dall Island, 2.8 miles from the cape, has a bare, rugged summit.

(53) There are several breakers off Cape Lookout. One, about 3.4 miles west-northwest from the cape, has no kelp on it and does not break in a calm sea. A 2½-fathom shoal, which breaks, is about 2.8 miles west-northwest from the cape; 0.4 mile north of it is another shoal, covered with a heavy mass of kelp, which breaks only in a heavy sea.

(54) **Sea Otter Harbor** on the north side of Cape Lookout divides into two branches about 1.4 miles from the entrance.

(55) **Entrance Island**, a prominent rock, is 0.6 mile northwest of Cape Lookout and a little to the south of the middle of the entrance to Sea Otter Harbor. Foul ground surrounds the island. Give the island a berth of 0.5 mile on the west side and a berth of about 0.3 mile from the north around to the south side. Kelp patches extend from the island to a breaker 0.8 mile in a south direction, and about 0.4 mile off Cape Lookout.

(56) **Juel Point**, the headland on the north side of Sea Otter Harbor, is rugged and rocky. From the point the land slopes east for 1.3 miles to a summit, 1,100 feet high.

(57) Inside the entrance to Sea Otter Harbor, rocks and reefs extend north about 0.6 mile from Cape Lookout. Within the entrance, 1.5 miles east of Entrance Island, a group of rocks extends 0.2 mile off the north shore of the bay. The largest and southernmost rock of this group is known as **Gate Island**. **Clear Point** is the west extremity of the headland that divides the bay into two arms. To the south of this point is **Nellag Island**, with off-lying rocks close-to that extend in a west direction.

(58) In entering Sea Otter Harbor, small boats, with local knowledge, frequently use a channel to the east of Entrance Island, passing close to Cape Lookout. A rock awash, about 450 yards east-southeast of Entrance Island, is left to the west.

(59) **Hook Arm**, the north arm of Sea Otter Harbor, is well protected from wind and sea. Anchorage may be had anywhere in the arm in 21 to 26 fathoms in the center and 17 to 19 fathoms at either end, mud bottom. Small vessels can anchor in 8 to 15 fathoms at the head of the

arm or in the bight north of Channel Island. A small sand and gravel beach is at the head of this bight.

(60) **Camp Island**, small and rocky, is close to the west shore of Hook Arm, about 0.5 mile north of Clear Point.

(61) **Channel Island**, separated by a very narrow passage from the west shore of Hook Arm about 0.8 mile north of Clear Point, is wooded. **Low Rock** and a rock awash close east are 200 yards off the south shore of Channel Island.

(62) Two small rocky islets are near the head of Hook Arm; the outermost is 240 yards from the north shore.

(63) The west end of Nellag Island should be given a berth of at least 100 yards. The principal dangers in the channel are the rocks off Camp Island and Low Rock and the rocks awash.

(64) **Manhattan Arm**, the southeast branch of Sea Otter Harbor, is exposed to the force of the wind and sea and is too deep for secure anchorage. A rocky islet, with off-lying rocks awash, is in the middle of the arm.

(65) **Foul Bay to Eagle Point**

(66) **Foul Bay**, immediately north of Juel Point (55°07.6'N., 133°13.6'W.), is about 2.5 miles north of Cape Lookout. In the center of the bay near the entrance is a cluster of submerged rocks. The shores of the bay are foul where the bay narrows; reefs extend from either shore almost to midchannel, leaving a narrow passage 50 to 100 feet wide through which very small boats pass to a secure anchorage in 3 to 5 fathoms near the head of the bay. Only those with local knowledge should enter the bay.

(67) **Meares Passage** is at the northwest end of Dall Island, between it and Suemez Island, and affords passage from the sea to Tlevak Narrows and the east part of Ulloa Channel. The approach to Meares Passage from west is foul in places for about 2 miles from the Suemez Island shore.

(68) **Suemez Island**, about 8.5 miles in diameter, is west of and separated from the north end of Dall Island by Meares Passage. The island is mountainous; the peaks are generally rounded and wooded, except near the summits. The shoreline is rocky, fringed by small rocky islets and kelp, and indented by numerous bays and inlets.

(69) **Arena Cove** is a small open bight in the south shore of Suemez Island west of **Lontana Point**, the south extremity of the island. It has depths of about 17 fathoms near the entrance, shoaling to about 4 fathoms near the head.

(70) **Diver Islands**, off the east shore of Meares Passage, are prominent in the approach from seaward. The west island is wooded; the east island has several trees on its summit. The passage east of the islands is narrow, and its shores are marked by heavy kelp. Most small craft coming from the south use this passage when the weather permits.

(71) **Diver Islands Light** (55°10'40"N., 133°15'53"W.), 130 feet above the water and shown from a small house with a red and white diamond-shaped daymark on the northwest side of the island, marks the southwest entrance to Meares Passage.

(72) **Diver Rocks**, two in number and bare at half tide, are about 0.2 mile west of the island. A 2½-fathom shoal, marked with kelp, is 200 yards west of them.

(73) **Diver Bay**, on the southeast side of Meares Passage at its entrance, extends southeast from Diver Islands. The bay is clear except for a kelp-marked rock, with ½ fathom over it, that is 650 yards from the north shore about in midchannel. Small craft can find excellent anchorage in the **Hole in The Wall**, an indentation in the north shore; the entrance is narrow but has a least depth of 4¼ fathoms. Pass either side of the ½-fathom rock in entering.

(74) **Bobs Bay**, northeast of Diver Islands, is an irregularly shaped bay, obstructed by a chain of reefs and islands. The bay is divided into three arms. The northernmost arm is deep and clear and the middle arm is foul and not navigable except by small boats. The easternmost arm affords good anchorage for moderate-sized craft in 6 to 10 fathoms, soft bottom. Enter Bobs Bay 0.2 mile or more south of the largest outer island, and follow the east side of the island at a distance of about 250 yards. Pass in midchannel south of the high island off the entrance to the east arm.

(75) **Millar Rocks**, a group of bare rocks surrounded by submerged and rocks awash, are about 1 mile north of Diver Islands. The passage north of the rocks is foul to the Suemez Island shore, although there are deep passages between. In moderate to heavy weather, the entire area appears to be covered with breakers.

(76) In the north part of Meares Passage, about on a line from **Eagle Point** to the summit of Ridge Island, at a distance from Eagle Point of about 0.6 mile to 1.5 miles, there are several rocky kelp-marked patches with deep water between; all should be avoided.

(77) **Currents**

(78) The tidal currents in Meares Passage set northeast on the flood and southwest on the ebb. The estimated velocity of the current is about 1 to 1.8 knots. South of Meares Island the flood sets east and the ebb west with an average velocity of 2.1 knots. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Meares Passage. Links to a user guide for this service can be found in chapter 1 of this book.

(79) **Cordova Bay**

(80) **Cordova Bay** has its entrance on the northwest side of Dixon Entrance between Cape Muzon (54°39.9'N., 132°41.4'W.) and Point Marsh and extends about 19 miles in a north direction from between Dewey Rocks

and the southeast end of Long Island. The bay has a clear channel about 3 miles wide between Barrier Islands and Long Island and an average width of about 3 miles from Ship Islands to Lime Point. From the head of Cordova Bay at Lime Point, Hetta Inlet extends in a general north direction for about 15 miles to Gould Island.

(81) The best entrance to the bay is between Barrier Islands and Long Island, but Eureka Channel, East of Barrier Islands, is sometimes used by vessels with local knowledge. From Cordova Bay and Hetta Inlet, Tlevak Strait and Sukkwan Strait extend northwest and afford passage through channels to Bucareli Bay. Small craft ply from Ketchikan to Cordova Bay, Hetta Inlet and other points on the west coast of Prince of Wales Island.

(82) **Currents**

(83) In Cordova Bay and adjacent waters the flood current sets north and the ebb current south. The estimated velocity of the current is 1 to 2 knots; the stronger velocity occurs in the narrows. (See the Tidal Current Tables for daily predictions in Cordova Bay.)

(84) **Cape Muzon to Natoma Point**

(85) The west side of the entrance to Cordova Bay from Cape Muzon to Natoma Point (54°52.3'N., 132°37.4'W.) is comparatively clear.

(86) Off the east end of Cape Muzon are a group of small islands and rocks. On the main shore is a sandy beach where landings can be made in good weather. This area was occupied by the Haida Tribe (a Native American tribe) at the time they migrated north from British Columbia and Puget Sound territory. Only a few graves now mark the site of their village of **Kaigani**. Rather severe tide rips are experienced off the cape. Along the south shore of the cape, close in, are several large rocks. The shoreline in this section is rocky, precipitous, and marked by light-colored cliffs. Breakers are about 0.2 mile off the south shore of the cape. Vessels in passing should give the cape a berth of at least 1 mile.

(87) **Local magnetic disturbance**

(88) Differences of as much as 4° from normal variation have been observed at Cape Muzon.

(89) The north side of Cape Muzon trends northwest for about 2.5 miles, forming the south side of **McLeod Bay**. Temporary anchorage in 5 to 9 fathoms, exposed to all east winds, may be had in this bay, about 0.5 mile northwest of a green landslide. The chart and the lead are the best guides, as landslides frequently occur, and there are several landslides besides the one mentioned. At the head of the bay is a small stream of freshwater and a sand and gravel beach for about 200 yards. **Little Daykoo Harbor**, a small-boat harbor, is close north of McLeod Bay.

(90) **Daykoo Islands** and **Datzkoo Islands** extend 2 miles in a north direction from McLeod Bay, with a maximum distance of about 1 mile offshore.

(91) **Long Island** forms the west side of Cordova Bay for a distance of about 12 miles. The east shore of the island is rugged and broken, with a number of outlying islets and rocks within a distance of about 0.5 mile. There are also a number of indentations and some anchorages.

(92) A shoal area that ends in a submerged rock with 1¼ fathoms over it and marked by kelp extends for 0.5 mile off the south point (54°45.1'N., 132°38.0'W.) of Long Island. This point is marked by a very prominent landslide about 0.3 mile inshore. The points at the south and southeast parts of the island should be given a berth of not less than 0.8 mile.

(93) **South Rocks**, about 0.3 mile off the southeast point of Long Island, consist of two large rocks, 28 and 29 feet high, and several smaller rocks.

(94) **Coning Inlet** is on the east side of Long Island about 4.5 miles from the south end. It is open to east and does not afford good anchorage. A lagoon is at the head of the inlet, where it is connected by saltwater rapids.

(95) **Nina Cove**, on the south side of Coning Inlet at the entrance, affords secure anchorage for small craft in 3 to 4 fathoms, sticky bottom. The anchorage is about 200 yards in extent and is south of the small islet in the center of the cove at its head.

(96) **Coning Point**, the north point at the entrance to Coning Inlet, is low and wooded. A conspicuous black rock 40 feet high is about 0.3 mile off the point.

(97) **Natoma Bay**, on the east side of Long Island about 6 miles from its south end, is about 1 mile in diameter and open to east and southeast. Partially protected anchorage can be had in the north part of the bay in 11 to 20 fathoms, mud bottom. The entrance is on either side of the two wooded islets in the middle of the entrance. A 5¼-fathom shoal is about 0.6 mile northwest of the islets. The shores of the bay are foul and should be given a good berth.

(98) **Natoma Point**, low and wooded, is the north point at the entrance to Natoma Bay. A large wooded, high-water islet is close off the point to south. Give the east side of the point and islet a berth of about 0.3 mile.

(99) **Cordova Bay to Grave Point**

(100) The east side of the entrance to Cordova Bay, from Point Marsh (54°43.2'N., 132°19.1'W.) to Shipwreck Point (54°53.8'N., 132°29.5'W.), is very broken and abounds with islands, reefs, shoals and pinnacles in random pattern. The channels between the islands, for the most part, are deep with steep sides but are often obstructed by shoals. Currents and eddies about the islands, large tides and exposure to ocean swells make the running of straight courses difficult.

(101) Small fishing vessels bound between Point Marsh and Eureka Channel frequently pass through **Minnie Cutoff**, then run between the reefs close inshore along

the southwest coast of Prince of Wales Island, and thence through Thompson Passage to Eureka Channel. Local knowledge is necessary. The area has few protected anchorages for large vessels.

(102) **Round Islands Light** (54°46'42"N., 132°30'25"W.), 56 feet above the water, and shown from a skeleton tower with a red and white diamond-shaped daymark on the southwest side of the westernmost of the Round Islands, marks the east approach to Cordova Bay.

(103) **Round Islands**, about 7 miles northwest of Point Marsh, consist of four small wooded islands about 140 feet high. A dangerous rocky reef that uncovers 6 feet is about 500 yards west-southwest of Round Islands Light. Between the reef and the island are other rocks awash and kelp patches; this area should be avoided.

(104) **Dewey Rocks**, about 1.8 miles south-southeast of Round Islands Light, are small in extent and consist of one large rock and several smaller ones that uncover at various stages of the tide. A red sector in Round Islands Light from 327° to 346° covers Dewey Rocks.

(105) **Egg Rock**, 20 feet high and bare, is about 0.5 mile north of Round Islands, with extensive areas of kelp between. A wooded islet, 60 feet high, is about 1 mile north of Egg Rock. Rocks awash are about midway between the wooded islet and Egg Rock. Some fishing vessels use **Egg Passage**, about 0.5 mile east of Egg Rock and Round Islands; this passage is not recommended for strangers.

(106) **Boat Rocks**, two in number and bare, are about 2.5 miles north of Round Islands, and are the northwesternmost dangers of this group. East of a line from Round Islands to Boat Rocks are numerous dangers.

(107) **Barrier Islands** are an extensive group of wooded islands between 4 and 8 miles northwest of Point Marsh and east of Round Islands. **Black Rock**, 20 feet high and the southernmost large offshore rock of the Barrier Island group, is a conspicuous black rock near the southeast edge of a foul area containing numerous rocks awash. A 1½-fathom shoal is approximately 0.7 mile south-southeast of Black Rock. Approach courses to seldom-used channels through the Barrier Islands pass about 0.5 mile both east and west of Black Rock. These two passages, **Rocky Pass** and **Kelp Passage**, continuing east and west, respectively, of **Middle Island**, are useful only to small craft. It is possible to carry 2 fathoms of water through the west passage and 7 fathoms through the east.

(108) **Mexico Point**, at the southeast end of Eureka Channel about 3 miles northwest of Point Marsh, is the west extremity of an island, bluff and wooded, with several high rocky islets that extend about 0.1 to 0.5 mile off it. The area along the south and southeast sides of the island is very foul, and there are numerous shoals, rocks and islets between Mexico Point and Point Marsh. **Thompson Passage**, used extensively by fishing craft, extends between the islands from 1.2 to 1.5 miles north and northeast of Mexico Point. Although 8 fathoms can be carried through it, this passage is not suitable for large vessels. Small vessels using it frequently continue

through the narrow passage off the mouth of Minnie Bay behind Point Marsh where 2 fathoms can be carried.

(109) **Hessa Inlet**, northeast of Mexico Point, is about 3.5 miles long and has depths up to 32 fathoms. The best approach to the inlet is through the passage north of **Hessa Island**, but it can be approached from the south via **Buschmann Pass**; only small craft with local knowledge should attempt this pass, which is narrow and full of rocks. In **Hessa Narrows** the tidal currents attain a reported velocity of 6 to 7 knots.

(110) **Eureka Channel**, between Barrier Islands and Prince of Wales Island, affords a short cut to Klakas Inlet and is suitable for moderate-sized craft with local knowledge; large vessels should use the passage west of Dewey Rocks and Barrier Islands. The depths in Eureka Channel are good, but it is narrow and has several dangers that are generally marked by kelp in summer.

(111) **Far Point**, on the west side of Eureka Channel and at the southeast extremity of Barrier Islands, is about 1.4 miles north-northwest of Mexico Point. Eureka Channel Daybeacon 1 is on the south end of the small island about 0.4 mile northeast of Far Point.

(112) **Center Island** is a small round island with a few trees, about 1.6 miles north-northeast of Far Point and 0.4 mile south-southwest of **Leading Point**. It is fairly steep-to on all sides and can be approached closely. A rock, awash at high water and marked by Center Island Reef Daybeacon 3, is 350 yards west of Center Island.

(113) About 0.6 mile north of Leading Point is the narrowest part of Eureka Channel. **The Narrows** has a least width of 125 yards. Good depths are found through The Narrows except for narrow ledges close to the west shore. About 480 yards north of the north end of The Narrows is a submerged rock that is awash at extreme low tides.

(114) **Guide Rocks**, gray and marked by a daybeacon, are about 0.5 mile north-northeast of the north end of The Narrows and are conspicuous, except at high water, when coming through The Narrows.

(115) **Currents**

(116) Tidal currents through The Narrows have an estimated velocity of from 1 to 2 knots. The flood sets north, and the ebb south. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(117) **Routes, Eureka Channel**

(118) From a point 670 yards west of the rocky islets off Mexico Point, a course of **002°** will keep in the deepest channels and clear all dangers in the south part of Eureka Channel. Center Island Reef Daybeacon 3 is on the leading bearing on this course. It is almost on range with the east tangent of the second group of islands west of

The Narrows. The **002°** course passes 345 yards east of Eureka Channel Daybeacon 1 and if made good keeps well clear of a submerged rock with a least depth of 3 feet that is about 0.7 mile north-northeast of Eureka Channel Daybeacon 1. When Center Island Daybeacon 3 is distant 440 yards and the west bank of The Narrows is slightly open, change course to **022°** and pass about midchannel between Center Island Reef Daybeacon 3 and Center Island, slightly favoring the daybeacon but keeping clear of the kelp bed that is northeast of the daybeacon. When Guide Rocks Daybeacon 4 shows in the middle of The Narrows, change course to **032°**, which is a leading bearing on that daybeacon. Continue on this course until the north tangent of the nearest island bears **275°**, then change course to **350°** for Klakas Inlet and Hunter Bay. Avoid the submerged rock that is 205 yards northeast of the north point of the island that forms the west side of The Narrows. This rock is awash at extreme low tides. Small fishing vessels also frequently use the channel that leads to the north-northwest from a point about 0.3 mile south of Center Island Reef Daybeacon 3. An extensive shoal area in this channel is 0.7 mile northwest of the daybeacon where the best water is near the west shore.

(119) **Wallace Rock**, with $\frac{1}{2}$ fathom over it and marked on its northwest side by a buoy, is about 2.3 miles northeast of Boat Rocks. Vessels going to Hunter Bay usually pass well north of it.

(120) **Tah Bay**, northeast of Guide Rocks, has depths up to 37 fathoms. Several rocks and reefs bare near the center of the bay. The best entrance is to the north of **Tah Island**; the entrance south of that island is partly obstructed by a rock with 1 fathom of water over it. No good anchorages are available, although small craft can anchor near the beach at the south part of the bay.

(121) **Local magnetic disturbance**

(122) Differences of as much as 4° from the normal variation have been observed south of Tah Island in the vicinity of Anchor Island.

(123) **Turn Island** ($54^\circ 52.2'N.$, $132^\circ 23.6'W.$) is about 3 miles north of the north end of Eureka Channel and is the easternmost of a number of small islands. It is bare except for a small stunted growth of trees that gives it the appearance of a building. It is bold-to on the west side, but foul ground extends about 0.2 mile north-northeast and about 180 yards east. A dangerous rock awash is close south-southwest of the island.

(124) **Turn Point**, marked by an abandoned light structure, is 1.2 miles east-northeast of Turn Island and consists of a number of small, low, grassy rocks. It is at the extremity of a low peninsula that is not wooded for about 300 yards back from the point.

(125) **Hunter Bay** makes in for a distance of about 2.5 miles east of Turn Point. The entrance to the bay is obstructed on its north side by a number of islets, but the channel close around Turn Point is comparatively clear. About 1 mile above the entrance, the bay contracts to a

width of 275 yards, with a large bare rock in the middle. The best channel is between this rock and a rock awash about 200 yards north of it. About 0.4 mile east of the bare rock is an arm leading north-northeast about 1 mile to **Biscuit Lagoon**. Passage into this lagoon is through a narrow pass that is partially obstructed by several rocks. Small craft of 3-foot draft can clear these rocks at high water. Tidal currents are strong, and passage should be attempted only on the high-water slack.

(126) **The Saltchuck** is the Chinook jargon name for the brackish lagoon to the northwest of the upper end of Biscuit Lagoon. The two are connected but the passage is too shallow for navigation other than by small skiffs.

(127) Hunter Bay has good anchorage about 1.8 miles east from the entrance in 10 to 15 fathoms. The anchorage, however, is subject to strong williwaws with winds from the east meeting those of equal force from the west. Velocities up to 78.2 knots have been experienced here. Nearby, off the south shore of the bay, is an islet surrounded by a flat of considerable extent. About 0.4 mile beyond the anchorage the bay contracts and is foul.

(128) **Klinkwan Cove**, east of **Gusdagane Point** (54°53.1'N., 132°21.4'W.), should be avoided as it contains many rocks. **Grave Point** is about 0.8 mile northwest of Gusdagane Point.

(129)

Klakas Inlet to Sukkwan Strait

(130) **Klakas Inlet** joins Cordova Bay west of the entrance to Hunter Bay. The inlet is about 1 mile wide, 12 miles long, and 20 to 100 fathoms deep in midchannel. **Max Cove** (54°57.4'N., 132°24.3'W.), about 2.5 miles above the entrance on the east side, offers good anchorage for small craft near the southeast end in 8 fathoms, mud bottom. The main entrance to Klakas Inlet is east of **Klakas Island**; the deepest water favors the west side of the entrance. Local fishermen frequently use **Ruth Cutoff**, the narrow pass north of Klakas Island that has a controlling depth of 1¾ fathoms and extends from Ruth Bay to Klakas Inlet.

(131) Good anchorage in a depth of about 16 fathoms can be found east of a small wooded island about 1.5 miles east-northeast of the north end of Klakas Island. A rock that uncovers 3 feet is about 0.2 mile southwest of the small island.

(132) **Bird Rocks**, about 1.3 miles southwest of Klakas Island, have a gray appearance with a rounded white pinnacle that forms the highest point.

(133) **Shipwreck Point** (54°53.8'N., 132°29.5'W.), 2.5 miles west of Klakas Island, is low and timbered and rises to a knob 605 feet high. **Barbara Rock**, a low rocky islet, is about 300 yards off the point. An island, about 160 feet high, is close-to and west from this point.

(134) **Ship Islands**, 50 to 120 feet high, with outlying rocks and ledges, are about 0.5 mile offshore, west of Shipwreck Point. Small craft from Turn Point pass north of Bird Rocks and between Shipwreck Point and the

island close-to. The narrow channel has a submerged rock. The pass to the west of the inner island is preferable; avoid the rock in the middle of the entrance.

(135) **Kassa Inlet**, just north of the northernmost of the Ship Island group, has an entrance about 0.8 mile wide. Good anchorage for small craft is available at **Clam Cove** and several places in the upper reaches. A mooring buoy is about in the middle of the entrance to Clam Cove.

(136) **Point Webster**, about 6 miles northwest of Shipwreck Point, is a small projection where the east shore of Cordova Bay changes direction. Near the point are a number of outlying rocks and reefs, and this shore should be given a berth of 0.5 mile.

(137) **Elbow Bay** (54°54.5'N., 132°39.4'W.), on the west side of Cordova Bay, indents the northeast side of Long Island and is partially protected by two wooded islands, connected at low water in the entrance. Good anchorage for small vessels can be had in the southeast arm in 13 fathoms, mud bottom. The anchorage is about 250 yards wide. A large lagoon extends south from the west end of the bay, where it is connected by a narrow rocky channel. Rapids make this channel impassable except at high water.

(138) To enter Elbow Bay, pass in midchannel southeast of the wooded islets in the entrance and avoid the reefs making off to south of the islets. The submerged rock in the middle of the bay can be passed on either side; the west side has the best water.

(139) **Dova Bay**, on the north side of Long Island, about 2 miles northwest of Elbow Bay, appears to be well protected at its head, but because of the configuration of the surrounding hills, southeast and northwest winds draw across it with considerable force. The shores are lined with small islets and rocks.

(140) Tlevak Strait, described later in this chapter, has its entrance on the west shore of Cordova Bay between Long Island and Jackson Island.

(141) **Shoe Rock** (54°56.9'N., 132°44.1'W.), about 15 feet high, is about 160 yards north-northeast of the most easterly island of a group of small islands at the junction of Tlevak Strait and Cordova Bay.

(142) **Jackson Island**, about 1.8 mile north of Shoe Rock and close southeast of the south end of Sukkwan Island, has prominent cliffs on its south side. About 300 yards southwest of these cliffs are two dangerous rocks, marked by kelp, that bare only on minus tides. The channel between Jackson and Lacey Islands, to the east, is partially obstructed by **Triplet Rocks**. These rocks are marked by kelp and uncover 10 feet on the west side and 12 feet on the east side. **Jackson Passage**, the channel west of Jackson Island, is clear in midchannel.

(143) **Lacey Island**, about 0.9 mile east of the southeast end of Jackson Island, comprises three small wooded knolls close together and joined by the bare spits. Foul ground extends up to 0.2 mile from the island.

(144) **Mellen Rock** is a bare rock about 0.8 mile off the west shore of Cordova Bay and about 3 miles to the northeast of Jackson Island. **Mellen Rock Light** (55°01'36"N.,

132°39'58"W.), 32 feet above the water, is shown from a pole with a red and white diamond-shaped daymark on the rock.

- (145) **Hassiah Inlet**, on the east shore of Cordova Bay, about 3 miles east-southeast of Mellen Rock Light, is about 2 miles long to the head of its northeast and east arms; the latter is a landlocked anchorage known as **Mabel Bay**. **Mabel Island**, on the south side of the entrance, is wooded; a low place in the center gives the appearance of two islands. **Helen Island**, at the entrance to south arm and Mabel Bay is low and wooded and has rocky beaches on the north and west shores and sandy beaches on the east and south shores.
- (146) To enter Mabel Bay pass north and east of Mabel Island, giving it a berth of 0.2 mile, and steer for the east end of Helen Island. Follow a careful midchannel course, passing northeast of Helen Island, and anchor about 0.3 mile from the islet at the head in 10 to 12 fathoms.
- (147) **Nutkwa Inlet** and **Keete Inlet** are at the head of Cordova Bay east of Lime Point. Nutkwa Inlet, about 4.5 miles north of Point Webster, is 1.5 miles wide at the entrance and extends about 5 miles north-northeast. Depths range from 90 fathoms at the entrance to 10 fathoms at the head, with several shoals of 4 to 6 fathoms in between. **Nutkwa Point** is the promontory between the two bays.
- (148) **Nutkwa Lagoon** is a narrow body of water about 3.5 miles long with midchannel depths of from 40 fathoms at the southwest end to 20 fathoms at the northeast part. **Nutkwa Falls**, at the head of Nutkwa Inlet, obstructs passage into the lagoon; on the higher water slacks, drafts of 3 or 4 feet can be carried into the lagoon, but this passage should not be attempted without local knowledge.
- (149) **Keete Inlet** has its entrance about 2.5 miles east of Lime Point. The inlet has depths of more than 10 fathoms throughout, except for several scattered shoal spots with depths of 4 to 8 fathoms. Local fishermen bound from Cordova Bay to Keete Inlet usually pass south of **Keete Island**, about 0.8 mile west of **Keete Point**, the south point of the entrance to the inlet. A shoal with a least depth of 3 feet extends north about 0.5 mile from the north end of Keete Island. Inside the bay, a rock that uncovers 5 feet is about 1.1 miles east of Keete Point. Good anchorage in 20 fathoms, mud bottom, can be had south of the small island at the bend in the inlet.
- (150) **Hetta Inlet** extends 5 miles north from Lime Point to the entrance of Sukkwan Strait and is about 2 miles wide. Then it trends in a general north-northwest direction for 11 miles to Gould Island, above which it is navigable for small craft only. Above Sukkwan Strait, the width of the inlet decreases gradually from 1.2 miles to 0.4 mile or less in places; there are apparently no outlying dangers. Considerable fishing for salmon is done in the inlet in season, and boats may be found in all of its parts.
- (151) **Lime Point** is the dividing point between Cordova Bay and Hetta and Nutkwa Inlets. The tip of the point is marked by a white marble formation that is conspicuous from south. Three bare rocks are about 0.2 mile south of the point, with other rocks, submerged and awash, between. A submerged rock and a 4-fathom spot are 0.1 mile southwest and 0.2 mile south, respectively, from the southernmost of the three bare rocks.
- (152) **Mud Bay**, the small cove about 2 miles north of Lime Point on the east shore of Hetta Inlet, is used extensively for anchorage during the fishing season. The anchorage has a depth of 4 to 10 fathoms with mud bottom. A 1¼-fathom rock is 100 yards north of the islet on the south side of Mud Bay.
- (153) **Alder Cove**, the small cove 1 mile north of Mud Bay, is used by small craft for anchorage in 4 to 8 fathoms, mud bottom, during the fishing season. The cove has no known dangers.
- (154) **Eek Inlet**, on the west side of Hetta Inlet, about 0.6 mile north of Eek Point (55°08.4'N., 132°39.9'W.), which is marked by a light, may be used by fishermen with local knowledge. A midchannel course leads to an anchorage in 8 fathoms, midway in the inlet, about 0.3 mile northwest of the narrow entrance.
- (155) **Hetta Point**, on the east side of Hetta Inlet, about 3.2 miles northeast of Eek Point, is bold, rocky, and heavily wooded. The bight about 0.8 mile south of the point, in which are two wooded islets, affords temporary anchorage. The cove east of the point affords anchorage for small craft having local knowledge of the area. The cove has numerous reefs and shoal soundings.
- (156) **Copper Harbor**, on the east shore, 2.4 miles north-northwest of Hetta Point, is about 1 mile long and 0.3 mile wide. A midchannel course leads to the head of the harbor, where there is anchorage in 10 to 20 fathoms. **Simmons Point** is at the south entrance to Copper Harbor.
- (157) **Deer Bay**, on the west shore about 2 miles above Copper Harbor, affords good anchorage in 5 to 16 fathoms; the midchannel course is clear. A flat extends 0.3 mile from its head.
- (158) **Jumbo Island**, in the middle of the inlet, about 2.5 miles above Copper Harbor, is wooded. The channels on either side are about 300 yards wide, but the better channel is east of the island. The west channel should be attempted only at high water, as there is a rock with 1 fathom over it in midchannel at the entrance.
- (159) **Dell Island**, about 1.1 miles above Jumbo Island and close to the east shore, is wooded. Anchorage can be had in 14 to 16 fathoms about 250 yards off the north shore of the inlet about 1.4 miles northeast of Dell Island.
- (160) **Gould Island** practically closes the inlet for a distance of about 1.4 miles. **Gould Passage**, south of the island, runs dry at about half tide and should not be attempted at any stage of the tide as a through passage into Portage Bay because of tidal currents and numerous rocks and dangers at the east end of the passage. **Sulzer Passage**, north of the island, is navigable for small craft, but foul for 1 mile above the entrance, and the tidal currents have considerable velocity. It should be navigated only by those having thorough local knowledge.

(161)

Local magnetic disturbance

(162) Differences of as much as 6° from normal variation have been observed on Gould Island.

(163) **Portage Bay**, that part of the inlet above Gould Island, is about 1.5 miles long, with depths of 9 to 27 fathoms. A trail leads from its head to the head of Cholmondeley Sound, about 2.8 miles.

(164) **Sukkwān Strait** has its southeast entrance between **Eek Point** on the northeast and **Round Point**, the east extremity of Blanket Island, on the southwest. **Eek Point Light** (55°08'17"N., 132°40'01"W.), 19 feet above the water, is shown from a square frame structure with a red and white diamond-shaped daymark on Eek Point. The strait extends 7 miles northwest from Hetta Inlet to Sukkwān Narrows. It has good depths and few dangers and is entered by vessels of considerable size as far as the village of Hydaburg. **Saltery Point**, is 5.2 miles above the entrance.

(165)

Pilotage, Hetta Inlet

(166) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

(167) Hetta Inlet is served by the Southeastern Alaska Pilots Association. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup station and other details.)

(168)

Sukkwān Narrows to Natzuhini Bay

(169) **Sukkwān Narrows** has a least depth of 2¼ fathoms in a narrow channel with rocky shoals on both sides. The average maximum current is about 1.3 knots and sets northwest with the flood and southeast with the ebb. The channel is buoyed, and its west entrance is marked by **Sukkwān Narrows Light** (55°12'03"N., 132°50'30"W.), 16 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the north end of Sukkwān Island. A rock covered 1 fathom is at 55°12'15"N., 132°50'19"W.

(170) **Hydaburg** is an incorporated Native American village on the northeast shore of Sukkwān Narrows. The village has an airport, a post office, school and church.

(171)

Caution

(172) Vessels drawing 15 feet or more when approaching or leaving Hydaburg Cooperative Pier should avoid the submerged ledge that makes out into the channel from the point close east of pier. The ledge extends about 290 yards south of the pier and has a depth of 16 feet at its outermost end. A pinnacle rock at a depth of 2¼ fathoms is about 350 yards southwest of the pier; it is marked by a buoy.

(173)

Wharves

(174) Hydaburg has one pier at the southeast end of the village and small-craft facilities in the basin, at the northwest end of village and alongside the pier.

(175) **City of Hydaburg Pier** (55°12'08"N., 132°49'24"W.): at the southeast end of the village; berthing for larger vessels are at the outer end of this T-shaped pier; 2,300 square feet of warehouse storage space; gasoline and diesel fuel can be obtained at the pier during the summer.

(176)

Small-craft facilities

(177) Small-craft berthing is alongside City of Hydaburg Pier. A seaplane float is on the northwest side of the approach. In 2002, depths of 14 feet were reported alongside.

(178) A small-craft basin is about 0.5 mile north of the Hydaburg pier. The city operated floats in the basin provide about 160 berthing spaces. In 2002, depths of 15 to 25 feet were reported alongside. Water and electricity are available at some of the floats. A 100-foot by 39-foot grid is inshore of the floats.

(179)

Communications

(180) Scheduled commercial air travel is available at Hydaburg airport. Daily seaplane communication is maintained with Ketchikan and with other cities on Prince of Wales Island. Hydaburg has road connection with Craig. Telephone and radiotelephone communications are maintained with other states and parts of Alaska.

(181) Above Sukkwān Narrows, Sukkwān Strait divides into two parts known as South Pass and North Pass.

(182) **South Pass** extends about 3.5 miles southwest from Sukkwān Narrows to Tlevak Strait. It has good depths in the middle of a channel that has many turns between islands, islets and rocks.

(183) **Scrag Islands**, two wooded islands about 75 feet high, are on the east side of South Pass about 1.2 miles to the southwest of The Narrows and are separated from Sukkwān Island only at high water. A reef with two bare rocks extends about 100 yards from Scrag Islands into the pass; it is marked by a buoy and kelp. A reef, with 1¼ fathoms over it and marked by a buoy and kelp, is about 0.3 mile north of Scrag Islands. A kelp patch marks a 1-fathom shoal about 600 yards to the north-northeast of Scrag Islands. Depths of 5 to 9 fathoms are found around this shoal. Small craft can find good anchorage in South Pass in the small bay on the southeast side, about 2.4 miles south-southwest of Sukkwān Narrows. Good anchorage also is available for medium-sized vessels in 16 fathoms, mud bottom, in the bight on the same side of South Pass 1.5 miles from the narrows.

(184) **Lone Tree Island (Lone Spruce Rock)**, on the south side of the southwest entrance to South Pass, is about 0.2 mile west of a 75-foot island. It is a low, grass-covered islet. A rock with two knobs is close-to, to the

west. A 1½-fathom spot is about 300 yards west of the rock.

(185) **Goat Island Light** (55°10'07"N., 132°53'35"W.), 21 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on **Whisker Point**, the south extremity of **Goat Island**. The light marks the north side of the southwest entrance to South Pass.

(186) **Turn Rock**, about 5 feet high and 20 yards in diameter, and marked by a daybeacon, is about 0.8 mile west of the light.

(187) **North Pass**, on the north side of Goat Island, is navigable by shallow draft vessels at high-water slack with local knowledge. Numerous rocks and reefs must be passed close aboard until clear of North Pass to the west. Tidal currents are estimated at 3 to 4 knots. Surveys indicate a least depth of ½ fathom at the shoalest point of the pass.

(188) **Natzuhini Bay**, north of Hydaburg and Sukkwan Narrows, is navigable for large fishing vessels. However, strangers should not attempt it because of the many reefs and shoals in it and the lack of aids to navigation.

(189)

Kaigani Strait to Keg Point

(190) **Kaigani Strait** (54°44.4'N., 132°40.2'W.) is the passage that extends from Cordova Bay to Tlevak Strait and separates Long Island, and the group of islands northwest of it, from Dall Island. **Howkan Narrows**, immediately north, is the narrow part of the passage from American Bay to above Channel Islands. It is endangered by several charted shoals and reefs that are unmarked. This passage is best suited for small-craft. Ships from Dixon Entrance, bound through Tlevak Strait, should preferably use the broad channel through Cordova Bay east of Long Island and enter Tlevak Strait between Long and Jackson Islands.

(191) South of American Bay, the strait is clear of dangers along a midchannel course and may be navigated easily with the aid of the chart. North of American Bay the channel is tortuous, narrow and complicated by strong currents; in the absence of aids to navigation, it is not recommended for use by large vessels.

(192) The channel through Howkan Narrows is about 250 yards wide and is between **Howkan Reef**, which uncovers 5 feet, and **Mill Reef** off the west shore that has a depth of ½ fathom. The currents are strong here and have an estimated velocity of about 3 knots. Strong winds greatly affect them. North of the two reefs, the channel leads west of the Channel Islands, and extreme caution is necessary to avoid the dangerous shoals on each side of the channel. After passing **Keg Point** (54°53.8'N., 132°51.2'W.), shape the course as desired and be guided by the chart.

(193)

Kaigani Point to Datzkoo Islands

(194) The southeast entrance to Kaigani Strait is about 1.8 miles wide between Kaigani Point on the northeast and Datzkoo Islands on the southwest. It is clear except for the 1¼-fathom shoal 1 mile southeast of Kaigani Point and the ¾-fathom rock about 0.5 mile east of the Datzkoo Islands.

(195)

Local magnetic disturbance

(196) Differences of as much as 3° from normal variations have been observed in the Daykoo Islands and 4° in Kaigani Strait 1.2 miles northwest of Kaigani Point.

(197) **Kaigani Point**, at the southwest end of Long Island, is low and wooded. A large rock, 18 feet high, is 0.7 mile northwest of Kaigani Point and about 0.2 mile offshore.

(198) **Datzkoo Harbor** is on the east side of Dall Island about 1.6 miles northwest of the Datzkoo Islands. The entrance is clear and is north of two wooded islands. Anchorage can be had in 15 to 20 fathoms, soft bottom. A wooded islet, about 20 feet high, is visible in the mudflats at the head of the harbor.

(199) **South Kaigani Harbor**, immediately north of Datzkoo Harbor, is constricted at the entrance by reefs on the north side and a rock that uncovers 5 feet on the south side. The channel about 100 yards wide has a depth of 4½ fathoms. During the fishing season a fish-buying scow may be anchored in the harbor. The scow sells gasoline, diesel fuel, water, provisions and fishing supplies. In 1968, it was reported that anchorage for small craft was available in depths of about 5 fathoms, mud bottom, in the cove on the south side of the harbor about 0.7 mile above the entrance. In 1971, submerged pilings were reported in about the middle of the cove; caution is advised.

(200) **North Kaigani Harbor**, immediately north of South Kaigani Harbor, is entirely exposed to southeast weather and the ocean swell and is of no use as an anchorage.

(201) The small bight about 0.8 mile north of North Kaigani Harbor has an entrance difficult even for small vessels. Good anchorage may be had here in 5 to 10 fathoms. Very small vessels may anchor near the head in about 3½ fathoms.

(202) **Pond Bay** is on the southwest side of Kaigani Strait about 3.5 miles north of North Kaigani Harbor. A wooded island is halfway toward the head of the bay with a clear channel on the north side. Anchorage may be had west of this island in desired depths up to 20 fathoms, soft bottom. However, a strong wind blows up the bay in southeast weather and, because of the danger from dragging, it is not recommended for anchorage.

(203) **Bolles Inlet** is a narrow inlet on the east side of Kaigani Strait about 6.5 miles north of Kaigani Point. The entrance is about 0.5 mile north-northeast from a wooded islet 99 feet high. The entrance is very narrow, and rapids occur here; the currents are estimated to be at least 8 knots. It is reported that the inlet once had a

logging camp and small craft used the entrance at high-water slack.

(204) **American Bay**, on the west side of Kaigani Strait opposite Bolles Inlet, is about 12 miles north-northwest of Cape Muzon. Good anchorage may be had a little north of midchannel and about 400 yards west-southwest from the group of islands, known as **Bay Islands**, which are on the north side of the entrance. Small craft may find good anchorage in 5 fathoms near the north shore in the cove just east of the group of islands.

(205) **Mission Cove** is a small bight on the east side of Kaigani Strait about 1.4 miles north-northeast of American Bay. Small craft can anchor here in 6 to 8 fathoms, although there is considerable kelp in the cove. A submerged rock lies approximately in the southern third of the bight, just inside the entrance.

(206) **Howkan Reef**, bare at half tide and surrounded by kelp, extends 400 yards southwest from the shore south of the entrance to Mission Cove; at the southeast end of the reef is a small island with grave sites. There is deep water close to the reef.

(207) The channel is 300 yards wide between Howkan Reef and Mill Reef on the west side of **Howkan Narrows**. **Mill Reef** shows at high water and is surrounded by an extensive kelp patch about 600 yards in diameter, extending to the shore. There is no safe channel between Mill Reef and the west shore.

(208)

Channel Islands to Rose Inlet

(209) **Channel Islands** (54°52.9'N., 132°49.4'W.), near midchannel in Kaigani Strait and about 0.6 mile northwest of Mission Cove, are two wooded islands joined by a bare spit. A rock, with a least depth of 2¼ fathoms, is in midchannel, 550 yards south from the west end of these islands. The main channel is southwest of the islands. The channel northeast of Channel Islands is used by small craft going to and from Mission Cove but is narrow in places between kelp patches.

(210) **Ham Cove**, on the west side of Kaigani Strait, about 0.8 mile west of Channel Islands, has a very narrow entrance and can be entered only by small craft.

(211) **Pond Rock**, which uncovers 4 feet and is marked by kelp, is 0.5 mile northwest of the west end of Channel Islands and 0.5 mile east-northeast of the entrance to Ham Cove. **West Mill Rock** is the easternmost of two islets close to shore about 1 mile northwest of Channel Islands. Two rocks, which uncover 1 foot, and a grassy islet from which a reef makes off about 0.2 mile, are 0.3 mile east-northeast and 0.4 mile, north-northwest, respectively, of West Mill Rock. An inactive logging camp is on the west shore of Long Island, about 1 mile northeast of Pond Rock. Kelp extends about 200 yards off the southwest side of the large island close west to the northwest extremity of Long Island.

(212) From the northwest end of Long Island, a group of islands and rocks extend about 5 miles north-northwest,

two of the larger ones being **Aston Island** and **Grand Island**. A small timbered islet, 50 feet high, is about 0.9 mile northwest from Grand Island. About 0.3 mile west of this islet is a cluster of islets, the highest being about 15 feet. A pinnacle, covered 1½ fathoms, is 0.4 mile west of the islets. A 2½-fathom rock is just north of the pinnacle.

(213) **Square Island** (54°58.2'N., 132°53.5'W.), so called from its appearance, is about 0.8 mile west of Grand Island and is the westernmost of a group of rocks and islets.

(214) **Luke Point** (54°55.8'N., 132°53.7'W.), on the west side of Kaigani Strait, is 1.4 miles west-southwest of Aston Island. Rocks extend up to 0.3 mile from the south side of the point and should be avoided when approaching **Grace Harbor**, about 1 mile southwest of Luke Point. An active logging operation is in the harbor. Anchorage may be had in 10 to 16 fathoms soft bottom, in the middle of Grace Harbor. Care should be taken to avoid a ledge that extends 150 yards from the north shore. Southwest winds draw through a low divide from the ocean.

(215) **Vesta Bay**, 1.5 miles north of Grace Harbor, is entered between Luke Point on the south and **Vesta Point** on the north. The bay is about 1 mile long in a west direction and is clear in midchannel. A 2½-fathom spot is about 75 yards off the south shore of the bay, 0.5 mile southwest of Vesta Point. There is anchorage near the head of the bay in 12 to 15 fathoms, soft bottom, with scant swinging room. **Bushy Island**, small and wooded, is close to the headland between Vesta Bay and Rose Inlet.

(216) **Rose Inlet**, on the west side of Kaigani Strait, is 1.5 miles northwest of Vesta Point and about 20 miles north of Cape Muzon. Two groups of islands are in the entrance with the entrance channel between. There are three patches of light-colored rocky outcrops on the north point of the entrance. The larger and more southerly patch is roughly triangular in shape.

(217) An unmarked shoal, about 300 yards long, is 0.7 mile west of the prominent point on the north shore of Rose Inlet. A rock awash at lowest tides is on the east end of the shoal. The ruins of a cannery are at the head of the inlet. Submerged piles have been reported in this area and caution is advised.

(218)

Tlevak Strait

(219) **Tlevak Strait** and Tlevak Narrows separate Sukkwan Island and Prince of Wales Island from Dall Island and from the group of islands north of Long Island and extend from Cordova Bay to Ulloa Channel. From Cordova Bay, the main channel of Tlevak Strait trends northwest for about 10 miles to McFarland Islands and then north-northwest for about 14 miles to Tlevak Narrows; the width of the strait is 1.2 to 4 miles. Islands are numerous, and the shores are much indented.

(220) The southeast entrance to the strait, about 20 miles north of Cape Muzon, is marked by **Shoe Island Light**

(54°57'04"N., 132°44'41"W.), 20 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the northeast end of Shoe Island, about 0.7 mile off the north end of Long Island.

(221)

Currents

(222) The direction of maximum flood current (and ebb) varies considerably as one progresses through the 24-mile-long Tlevak Strait. Maximum average currents range from 1.5 to 3.0 knots on the flood and 1.5 to 4.3 knots on the ebb, the strongest currents occurring in Tlevak Narrows. (See the Tidal Current Tables for daily predictions for places in Tlevak Strait.)

(223) **Sukkwan Island** is on the northeast side of Tlevak Strait and separated from Prince of Wales Island by Cordova Bay, Hetta Inlet and Sukkwan Strait. It is mountainous, and its rugged coastline is indented by numerous inlets. The west shore of the island, just outside of Dunbar Inlet and opposite the McFarland Islands, is very irregular and foul.

(224) Lacey and Jackson Islands, on the north side of Tlevak Strait at the entrance from Cordova Bay, have been described previously in this chapter.

(225) The group of islands, islets, and rocks that extend 5 miles northwest from the northwest end of Long Island have been described with Kaigani Strait.

(226)

Shoe Inlet

(227) **Shoe Inlet** (54°55.7'N., 132°48.7'W.) indents the northwest part of Long Island and is about 2 miles long and 0.3 mile wide. The inlet is clear except near the shore. Anchorage for small vessels can be had near its head. **Touchit Cove** is a foul bight on the northeast side of Shoe Inlet just within the entrance.

(228) **Cleva Bay**, east of Shoe Inlet, is an open bight on the northwest end of Long Island and is of no importance as an anchorage.

(229) **Kasook Inlet** makes into the south shore of Sukkwan Island 2 to 3 miles northwest of Jackson Island and about 5 miles north of Shoe Inlet. A cluster of small, wooded islands with a good, clear channel on either side are in the entrance. The inlet divides just inside the islands. The western branch is about 1.8 miles long and has a clear course at midchannel, except at a point about midway of its length where a ledge projects from the east side about half the distance across the inlet. At the head of the inlet, on the northeast side, good anchorage can be had in about 8 fathoms, soft bottom. The eastern branch extends about 0.8 mile to a bay from which a short arm extends southeast. Just inside the entrance, good anchorage may be had in about 10 fathoms, soft bottom, favoring the south shore.

(230)

Pilotage, Tlevak Strait

(231) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

(232) Tlevak Strait is served by the Southeastern Alaska Pilots Association. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup station and other details.)

(233)

McFarland Islands to Green Inlet

(234) **McFarland Islands** (55°04'N., 132°55'W.) are a group of large and small islands 3.5 miles in extent, on the east side of Tlevak Strait off the west coast of Sukkwan Island, about 5 miles northwest of Kasook Inlet. The southernmost island is bluff, high, and prominent. Among the islands are passages and fairly well-sheltered anchorages for small launches.

(235) **Dunbar Inlet**, east of McFarland Islands, has numerous rocks and islets at the entrance, including a 1½-fathom rock just inside the entrance, but otherwise provides a clear channel about 0.2 mile wide with least depths of 5 to 6 fathoms leading to a protected anchorage inside. When anchoring, take care to avoid the 1¼-fathom rock at the northeast extent of the inlet. Small craft can find good anchorage in the passage between Dunbar Inlet and Island Bay. A narrow passage north of the islands off the entrance to Dunbar Inlet may be used by small fishing vessels.

(236) When approaching from the south via Tlevak Strait, take care to avoid the 3¼-fathom shoal a little west of midchannel between McFarland Islands and the west shore of Sukkwan Island.

(237) **Island Bay**, the deep bight just north of Dunbar Inlet, affords well-protected anchorage from all winds, except west, in depths of 6 to 7 fathoms, sticky to hard bottom. Swinging room is limited, and large vessels should anchor farther offshore in greater depths.

(238) Two miles north of Island Bay is a second bight with a small island to the northwest. An indifferent anchorage is about 0.3 mile offshore and 0.3 mile east-southeast from the south point of the island in depths of 8 to 12 fathoms, sticky bottom, but provides rather poor protection. The entrance should only be attempted with local knowledge.

(239) **Profit Island (Gui Kangulas)**, 75 feet high, is a small prominent island, about midway between the McFarland Islands and Corlies Islands. A reef extends about 0.3 mile north-northeast from the north end of the island.

(240) **Baldy Bay** is on the west side of Tlevak Strait opposite the McFarland Islands and is easily approached when coming from Cordova Bay. The entrance is between High Point and Reef Point. It has two large arms known as View Cove and Coco Harbor. **High Point**, bold and rounded, is the south point of the entrance to the bay. **Reef Islands** are a large group of low wooded islands about 0.8 mile north of High Point. They are steep-to along the

north shore and are surrounded by kelp. **Reef Point**, the north point of the entrance, is a long projecting point.

(241) **View Cove Entrance Light** (55°03'10"N., 132°57'52"W.), 35 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on a rock awash, is about 0.5 mile southeast of Reef Point.

(242) South of Reef Islands and just inside High Point is a small inlet with two arms at the head. The west arm is rather deep and clear, except near the head which is foul with rocks. The anchorage area here is suitable only for small vessels and is exposed to williwaws. The east arm offers fairly good anchorage for small vessels. The entrance is very narrow and partially obstructed by rocks awash on the western edge. Anchor in the center in 5 fathoms, sticky bottom. A ¼-fathom spot is about 600 yards north of the entrance.

(243) **Windy Cove**, about 2 miles west-northwest of High Point, is narrow, clear, and deep. The entrance is 50 yards wide with a depth of ½ fathom. A large rock extends into the eastern side of the entrance channel. Strong tidal currents prevail through this entrance.

(244) **Coco Harbor** is the west arm of Baldy Bay. **Entrance Island**, off the entrance to the main reach, is a large island with a constricted passage to the north and south. Off this island are numerous rocks and islets that must be avoided when entering Coco Harbor. After these obstructions are passed, the channel is clear and deep, except close along the shores, to the head of the inlet.

(245) Near the head of Coco Harbor are anchorage depths of 12 to 20 fathoms, soft bottom, but heavy williwaws prevail.

(246) **View Cove**, the north arm of Baldy Bay, extends about 4.5 miles inside Reef Point and is practically free of obstruction. The shores are generally steep-to. There are some off-lying rocks about the south and east shores of Clam Island. About 0.8 mile from the head of the cove on the south shore is a small rather prominent island with foul ground between it and shore. A good anchorage, with protection from all but west to northwest winds, is about 0.25 mile from the head of the bay in 15 to 20 fathoms.

(247) Pile ruins of a wharf are on the north shore of View Cove about 2 miles from Reef Point; caution is advised.

(248) **Clam Island** is off the south shore of View Cove about 2.5 miles inside Reef Point and divides the head of View Cove into two parts.

(249) North of Clam Island an arm extends over 2 miles farther inland; south of the island is a large circular bight about 0.8 mile in diameter. East of Clam Island is a small cove offering fair anchorage for small boats.

(250) **Green Inlet** is a small narrow inlet on the south shore of View Cove. Small craft may enter, but the entrance is shallow, running dry on minus tides. Large mudflats extend a long distance from the head of the inlet and there are heavy williwaws.

(251) View Cove has three indifferent anchorages. In the bight southwest of Clam Island, anchor about 0.3 mile from the head of the bight in 17 to 18 fathoms, semi-hard

bottom with patches of gravel and silt, with the west end of Clam Island bearing 034°, distant 0.5 mile. Off Clam Island, anchor in 8 to 14 fathoms, sticky to hard bottom, with the large bare rock off the island bearing 270° and distant 450 yards. At the head of the long arm, anchor about 0.3 mile offshore in 16 to 18 fathoms. At the head of the long arm the winds seem to blow harder than outside, which is especially true for southeast winds. Opposite Clam Island, although apparently an exposed position, is fair protection for larger vessels, although the swinging room is restricted. For large vessels the best anchorage is in the bight southwest of Clam Island, where there is fair protection and good swinging room.

(252)

Corlies Islands to Joe Island

(253) **Corlies Islands** are a group of low wooded islands about 1.8 miles in extent, on the northeast side of Tlevak Strait, south of the west entrance to South Pass, Sukkwon Strait. There is foul ground among the islands and to the south of them. About the middle of the group is a channel for small craft with local knowledge.

(254) A small-boat passage between Sukkwon Island and Corlies Island is used by small fishing vessels. The entrance is easily approached from the south. The west shores of Sukkwon Island should be favored in order to clear the numerous rocks and small islets east of Corlies Islands. When up to the northernmost of the Corlies Islands, steer a midchannel course to avoid the thick patches of kelp.

(255) **Nichols Islands**, about 2 miles northwest of the Corlies Islands, are a group of wooded islands that extend in a northeast direction for about 2.1 miles. **Fort Islet**, small and wooded, is the most northerly of the group. The area surrounding the outer north and southeast edges of the islet appears to present a danger to navigation. These include a 4¼-fathom pinnacle, 350 yards northwest of the islet, and a rock awash, 450 yards southeast of the islet.

(256) **The Sentinels**, a scattered group of five small wooded islets and rocks that cover, are about 1 mile north-northwest of Nichols Islands. Numerous shoals and pinnacles exist between the islets and Nichols Islands; local knowledge is recommended for mariners transiting this area.

(257) **Breezy Bay** is on the west side of Tlevak Strait abreast Nichols Islands; it is 2 miles wide between Eolus and Boreas Points. It is divided into two arms and has several small islands and numerous rocks in the bay. The northern arm has numerous rocks and islets at the entrance, including a ½-fathom rock midchannel about 0.6 mile south-southeast of Boreas Point, but otherwise provides a clear channel about 400 yards wide with least depths of 13 to 15 fathoms that leads to a protected anchorage, inside for larger vessels in 13 to 17 fathoms. **Eolus Point** on the southeast side at the entrance is high, steep, and rocky. A wooded island is close south of **Boreas Point**.

- (258) **Farallon Bay** is on the west side of Tlevak Strait, about 3 miles west-northwest of the Nichols Islands. Enter in midchannel. The bottom is rocky and very broken; southeast winds draw through it, and it is not recommended as an anchorage. Just east of the southeast entrance point of the bay is a high-water islet that shows from south.
- (259) **Halibut Nose** is the promontory on the northeast shore of Tlevak Strait opposite Farallon Bay. It is irregular in outline and not so high and prominent as some of the other headlands in Tlevak Strait. A rock covered 3 fathoms is 0.8 mile southwest of Halibut Nose. This rock can be seen on extreme low tide and is bare of sea growth. It is large in extent and surrounded by deep water. No kelp marks the area.
- (260) **North Bay** is on the west side of Tlevak Strait, about 1.5 miles north-northwest of Farallon Bay and 2.8 miles south of Tlevak Narrows. **Hassler Point**, the northwest point of the entrance, is timbered. **Cayman Point**, the southeast point of the entrance, is low at the extremity and rises to a knob, 0.4 mile from the beach, that is separated by a very low saddle from a ridge to the south.
- (261) When entering North Bay, favor the southeast side and anchor near the head of the bay in 12 to 15 fathoms soft bottom, with the high-water islet at the head, bearing about west. Southeast winds draw around Cayman Point and blow directly into the bay with severe squalls and williwaws.
- (262) An open bight on the north side of Hassler Point has depths of 29 to 31 fathoms at the entrance, shoaling to 16 fathoms about 250 yards from the head. The north side of the bight is formed by a wooded island; between it and the main shore is a cove with depths of 1 to 4 fathoms.
- (263) **Guide Island**, about 0.9 mile east of the entrance to North Bay, is small, wooded, and surrounded by kelp. Reefs extend north about 0.4 mile from it.
- (264) **Lively Islands**, north-northwest of Guide Island, are about 1.2 miles in extent and wooded. There are several outlying rocks off the islands marked by kelp and mostly covered at high water. The currents have considerable velocity around the Lively Islands group, and swirls occur in places.
- (265) **Lively Islands Light** (55°13'38"N., 133°05'06"W.), 20 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the west side of the southernmost island of the group.
- (266) In passing Lively Islands, consider the channel west of them to be the main channel, and favor the Dall Island shore slightly. The channel northeast of Lively Islands is deep, safe, and largely used by small craft bound north; the dangers are charted.
- (267) **Round Island**, about 0.5 mile east of the northernmost large Lively Islands, is a large, grass-covered rock about 20 feet high, with a small clump of trees near its southwest end. It is steep-to on all sides.
- (268) **Soda Bay** is on the northeast side of Tlevak Strait to the northeast of the Lively Islands. Anchorage can be found in Soda Bay about 0.5 mile east of Shelikof Island in about 20 fathoms, mud and shell bottom. The low surrounding land offers little protection from the wind.
- (269) **Midway Island** is a small wooded islet in the middle of the strait about midway between the northernmost of the Lively Islands and Block Island.
- (270) **Block Island** is heavily wooded; the south side of it is bold-to. The narrow passage north of the island is foul, and the currents are unusually strong. **Tlevak Narrows Light 2** (55°15'45"N., 133°07'01"W.), 22 feet above the water, is shown from a skeleton tower with a red triangular-shaped daymark on the southwest side of the island.
- (271) **Turn Point**, at the north extremity of Dall Island and just west of Block Island, is a bluff, wooded knoll. Foul ground extends about 300 yards southeast and 150 yards north from the point.
- (272) **Tlevak Narrows**, locally known as **The Skookum Chuck**, is a narrow and comparatively deep passage between Block Island and Turn Point and connects Tlevak Strait and Ulloa Channel. A 6¾-fathom spot, near midchannel, is about 0.3 mile northwest of Block Island Light. A ½-fathom shoal 0.4 mile northwest of Turn Point is marked on its south side by a buoy that is reported to tow under during large tides. The channel south of the buoy is the one generally used.
- (273) Good anchorage for small craft can be had in 2½ fathoms, soft bottom, in the small cove on the north side of Tlevak Narrows; the entrance to it is about 0.5 mile north of Turn Point.
- (274) **Currents**
- (275) Currents in the vicinity of Tlevak Narrows run very strong during large tides; in the narrowest part the velocity is over 4 knots. In the vicinity of Turn Point there is an approximate ninety-degree turn with strong currents, on both the flood and ebb, that swirl and cause whirlpools that can spin a boat around. Caution is advised while transiting this area. Soon after passing through the narrows, the current greatly diminishes in strength; beyond Guide Island and Meares Island it is almost imperceptible.
- (276) With the large tides there is very little slack, while with the small tides, slack water lasts from 10 to 30 minutes, and there is not much current for 1 hour on either side. (See the Tidal Current Tables for predicted times and velocities.)
- (277) Northeast of Lively Islands it is reported that the current sets constantly northwest, being stronger when the main stream west of the islands is setting northwest. To take advantage of this constant set, small craft bound north usually pass northeast of the Lively Islands.
- (278) The current setting northwest divides into two parts off the east end of Ulloa Island. One part sets north of the island, and the other sets with considerable strength into Meares Passage.
- (279) **Ulloa Channel** is 9 miles long from Tlevak Narrows to Bucareli Bay. For a distance of about 3 miles from

Tlevak Narrows, it leads between the islands at the north end of Meares Passage and is about 0.25 mile wide, thence between Suez Island and Prince of Wales Island, where its width is about 0.35 mile at its east end and 1.4 miles at its west end at Cape Flores, where it joins Bucareli Bay.

(280)

Currents

(281) The flood current in the channel sets southeast and the ebb northwest. The average velocity of the currents is 1.8 to 2.2 knots on both the ebb and flood. (See the Tidal Current Tables for predictions for places in Ulloa Channel.)

(282) **Ulloa Island**, close to the west end of Tlevak Narrows, is wooded. The main channel is close south of the island.

(283) Anchorage in 10 to 15 fathoms, soft bottom, is north of Ulloa Channel in the entrance to a small passage at 55°16'50"N., 133°09'10"W. A shoal with a depth of 2¼ fathoms near its end extends about 0.2 mile southwest from the mainland on the north side of this entrance. Ulloa Island, and the 160-foot high island to the northwest, can be passed on either side, but the channel north of Ulloa Island is foul.

(284) **Bush Islets**, about 0.8 mile west of Turn Point and south of Ulloa Island, consist of two rocks with multiple trees on both of them. A wooded islet, 50 feet high and surrounded by kelp, is 700 yards northwest of Bush Islets. Two other islets are 0.2 and 0.3 mile, respectively, southwest of Bush Islets.

(285) **Meares Island**, about 1.8 miles west of Tlevak Narrows, is the largest island in Ulloa Channel. **Meares Island Light** (55°16'20"N., 133°10'35"W.), 13 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the north side of the island. The main channel is north of the island, the north side of which is bold-to. A rocky islet is 275 yards southeast of Meares Island, with rocks and kelp between.

(286) **Ridge Island** is off the east extremity of Suez Island about 1 mile west of Meares Island Light. The island is high, wooded, and joined to Suez Island by a sandy neck, awash at high water. Off the south side of the island are two wooded islets, with rocks submerged and awash, close west. The islets are connected with the island by a spit, bare at half tide.

(287) **Waterfall**, on the east side of Ulloa Channel and about 1.7 miles above Ridge Island, is the site of a saltwater sport fishing resort. Vessels waiting for berthage at Waterfall can find temporary anchorage in Port Refugio. Berthing is offered for resort business and private vessels on a case by case basis. The resort usually operates only during the summer. During the off-season it has a caretaker. The main dock has a 250-foot face and is 500 yards north of a fuel pier; depths of 24 feet were

reported alongside in 2015. A seaplane and a small-craft float are close north of the main dock.

(288) Waterfall has telephone and seaplane communications with Ketchikan during the summer.

(289) **Port Refugio** is a large bay, with two arms, on the west side of Ulloa Channel opposite the fishing resort at Waterfall. Its southeast arm, inside of **Bocas Point**, is 1 mile long and about 0.2 mile wide and near its head affords anchorage for small craft in about 12 fathoms. **Point Verde**, the northwest point of the entrance, is wooded.

(290) Anchorage for larger vessels may be had between the east shore of the southwest arm of Port Refugio and the island at its head, in 12 to 20 fathoms, sand or mud bottom. The dangers are charted; the chart is the guide.

(291) **San Adrian Island**, 130 feet high, is about 0.7 mile north of Point Verde. Less than 100 yards to the south-southeast of San Adrian Island are a smaller island and a reef that bares connecting them.

(292) **Adrian Cove**, on the west side of Ulloa Channel, at its north end, is open to north and is of no importance.

(293) **Cape Flores**, on the east side of Ulloa Channel at its north entrance, is the northwest point of **Joe Island**, which is wooded. Rocks bare at low water, and foul ground, marked by kelp, extends about 0.3 mile north of Cape Flores and about 0.3 mile south-southeast of the south end of Joe Island. A lighted buoy marks the northwest extremity of the foul ground north of Cape Flores. The channel on the northeast side of Joe Island is largely used by small craft.

(294)

Bucareli Bay

(295) **Bucareli Bay** (55°13.5'N., 133°31.0'W.), about 50 miles northwest of Dixon Entrance, extends about 20 miles northeast from its southwest entrance between Cape Bartolome and Cape Felix. Baker, St. Ignace, Lulu and San Fernando Islands form its west shore, and Suez and Prince of Wales Islands form its east shore. The passages between these islands connect the bay with the sea, the Gulf of Esquibel or Cordova Bay. They are used by small vessels and small craft as a protected route when proceeding along the outer coast between Dixon Entrance and Sumner Strait.

(296)

Currents

(297) The tidal currents in Bucareli Bay set northeast on the flood and southwest on the ebb. The average velocity of the current is 1.0 to 1.5 knots on both the ebb and flood. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Bucareli Bay. Links to a user guide for this service can be found in chapter 1 of this book.

(298)

Cape Bartolome to Christina Island

(299) **Cape Bartolome Light** (55°13'50"N., 133°36'56"W.), 158 feet above the water and shown from a spindle with a red and white diamond-shaped daymark on the south end of one of the islets south of Cape Bartolome, marks the entrance to Bucareli Bay.

(300) **Cape Bartolome**, the south extremity of Baker Island, has several storm-swept islets, some partly wooded, off the main shore. The southernmost wooded islet, 300 feet high, slightly higher than those close to the cape, shows prominently from offshore. The cape rises rather sharply. A small rounded peak, 2 miles north from the cape, with higher peaks on either side, shows prominently when other peaks are clouded. In rounding the cape, the outer wooded islet should be given a berth of about 1 mile. A shoal with a least depth of 1¼ fathoms is about 0.5 mile east of Cape Bartolome Light.

(301) The rocks and cliffs northwest of Cape Bartolome are black, while those southeast are whitish gray; it is reported that this characteristic is of considerable assistance in identifying the locality when making the coast in thick weather.

(302) **Baker Island**, forming the west side of the south end of Bucareli Bay, is cut up by numerous bays and inlets. The shore along the outer coast is precipitous and marked by ragged ledges and deep clefts. The interior is rugged, mountainous, and generally wooded.

(303) **Fortaleza Bay**, on the west side of Bucareli Bay, about 4.5 miles north of Cape Bartolome, is a small open deepwater bight. **Lake Fortaleza**, with an elevation of about 12 feet, empties into the bay. A rocky shoal extends 0.1 mile northeast of Point Fortaleza, near the outfall of the lake. **Thimble Cove**, about 0.8 mile north of Fortaleza Bay, is a small exposed bight with bare rocks and rocks awash that extend nearly across the entrance from the south shore.

(304) **Port San Antonio**, on the west side of Bucareli Bay, about 6.5 miles north of Cape Bartolome, has two arms at the head, one that extends in a north-northeast and the other in a south-southwest direction. The south side of the channel is clear, but a shoal with rocks that uncovers north feet is about 0.3 mile west-southwest from **Point San Roque** the north point at the entrance. Depths in the bay decrease from 35 fathoms at the entrance to about 8 fathoms at the head. Small craft can find anchorage in the north arm in 5 to 7 fathoms and in the south arm in 10 fathoms, mud bottom. The north arm has a low shoreline with gravel beach.

(305) **Port Asumcion**, on the west side of Bucareli Bay, 9 miles north-northeast of Cape Bartolome, offers protected anchorage in 12 to 21 fathoms, sand bottom, near its head. Entrance to the bay should be made from the southeast staying close to midchannel with care taken to avoid the dangerous rock 0.25 mile northeast of **Point Cosinas** at 55°21'58"N., 133°30'17"W. The anchorage is known to

have winds up to 10 knots higher than surrounding areas, particularly if winds are out of the west or east; caution should be used when choosing to anchor in the bay. The midchannel is clear.

(306) **Cape Felix** (55°12.7'N., 133°25.9'W.) is at the southwest end of Suez Island. The depths off the cape are comparatively regular and good, but, to the east, foul ground extends about 0.7 mile offshore. Cliffs well up on the mountain side and a steep light-colored cliff a little to the northeast of the cape are the most prominent landmarks. Northeast of the cape is a small section of a cliff of columnar formation, somewhat unusual for this section of Alaska. From the cape the shoreline trends in a north direction, forming the east side of Bucareli Bay.

(307) **Port Santa Cruz** is on the east side of Bucareli Bay 4.5 miles north of Cape Felix. The north shore is steep and rocky, with detached rocks close-to, whereas the rest of the shoreline is generally low, with rocky, gravel, or sand beaches. **Labandera Rock**, a kelp-marked submerged rock covered 2¾ fathom, is midway between **Point Rosary** and **Point San Jose**, the two points at the entrance. A rock that bares at low water is about 0.7 mile east-northeast from Point Rosary and 250 yards off the islet fronting **Point Isleta**. With a moderate swell, the breakers on this rock can frequently be seen at night.

(308) In entering, round Point Rosary or Point San Jose at a distance of 0.2 mile and head for the point on the north side of the bay 1 mile inside the entrance. Round this point at a distance of 300 yards and select anchorage as desired in 12 to 17 fathoms, mud bottom. Anchorage with more swinging room may be had to the south of the point in 17 to 19 fathoms, mud bottom. The channel to the north of Labandera Rock is preferable.

(309) **Point Arboleda** is a low point about 2.2 miles north of the entrance to Port Santa Cruz. Several outlying islets and rocks make it necessary to give the cape a berth of 0.4 mile in rounding it. **Point Arboleda Light** (55°19'14"N., 133°28'20"W.), 33 feet above water, is shown from a spindle with a red diamond-shaped dayboard on the northernmost islet. **Point Quemada** is midway between Point San Jose and Point Arboleda.

(310) **Point Fula**, **Point Remedios** and **Point Barrigon** are headlands on the northwest shore of Suez Island.

(311) **Port Dolores** is on the east side of Bucareli Bay, 2 miles east-northeast of Point Arboleda. It has generally broken bottom with a rocky reef, about 400 yards in extent, in its center about 0.4 mile inside the entrance. Its use is recommended only for small craft, and they can find anchorage in about 11 fathoms 0.5 mile from the head in the northern part of the bay. The anchorage is exposed to west winds.

(312) **Point Arucenas**, the headland on the north side of Port Dolores, and **Point Cangrejo**, about 1.6 miles east of Point Arucenas, are wooded.

(313) **Cabras Islands** are a small, wooded group, about 1.5 miles northeast of Port Dolores. The channels between the islands contain numerous partially submerged rocks and should be navigated only by small craft with local

knowledge. A reef that uncovers 5 feet and marked by kelp is about 0.5 mile southwest from this group. The passage between Cabras Island and Suemez Island is 0.35 mile wide at its narrowest with depths over 20 fathoms available. The 10 fathom shoal 0.35 mile southeast of the main island is the controlling depth. A group of small islets and rocks is located 0.3 mile northeast of Point Cangrejo.

(314) **St. Ignace Island**, on the northwest side of Bucareli Bay about 11.5 miles from Cape Bartolome, is bold and wooded. The east and northeast shores are mostly rocky, whereas the west and northwest shores are gravel. **St. Ignace Rock Light** (55°25'41"N., 133°23'43"W.), 20 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on **St. Ignace Rock** about 0.8 mile northeast of **Silvester Point**, the northeast end of St. Ignace Island.

(315) **Port Mayoral**, the passage between St. Ignace Island and Baker Island, has depths of 6 to 12 fathoms up to **Canal Point**, with irregular bottom. North of Canal Point and south of Santa Rita Island, the passage is heavily congested with kelp. **Cristina Island**, small and wooded, and a cluster of high-water islets are west of midchannel at the entrance, with a deepwater passage (exceeding 20 fathoms) on either side. Foul ground extends 300 yards off the southwest end of the island and for 550 yards off Canal Point. The north entrance is obstructed by the Santa Rita group of islands; between them and the St. Ignace Island shore is a narrow channel less than 50 yards wide with a least depth of 3¼ fathoms. The channel between Santa Rita and Baker Islands is passable at high water by rowboats and similar craft.

(316)

San Juan Bautista Island to Klawock

(317) **San Juan Bautista Island**, in the north part of Bucareli Bay, is densely wooded and has two prominent summits. The island separates Bucareli Bay from Ursua Channel to the northwest and San Alberto Bay to the north.

(318) **Agueda Point**, at the northeast end, and **Diamond Point**, at the southwest end of the island, have no special features as landmarks. Deep-draft vessels passing west of San Juan Bautista Island should exercise caution in the area.

(319) **Point Miliflores**, bold and wooded, is the southeast point of San Juan Bautista Island. **San Juanito Island**, about 500 yards east-northeast of the point, is wooded and from north and south directions shows as a prominent landmark clear of San Juan Bautista Island. Deep water extends close to the point and island.

(320) **Port Estrella** is south of San Juan Bautista Island and east of Cape Flores (55°21.2'N., 133°17.4'W.). Foul ground, marked at its outer end by a lighted buoy, extends north for about 0.3 mile from Cape Flores and about 0.2 mile south from **Point Providence**, the north point of the entrance. Anchor near the head of the bay in 7 to 9

fathoms. Caution is necessary on entering, as shoal water makes out from each side of the bay.

(321) **Tranquil Point, Point Batan** and **Point Lomas** (55°22.7'N., 133°10.5'W.), on the southeast shore of Bucareli Bay and southeast of San Juan Bautista Island, are headlands without any prominent features.

(322) **Port Caldera**, about 4.5 miles northeast of Cape Flores and immediately east of Point Lomas, is open to the north. It affords limited anchorage with a 4-fathom shoal in the center of the bay. Foul ground extends about 300 yards off **Point Iphigenia**, the northeast headland at the entrance.

(323) **Trocadero Bay**, east of the entrance to Port Caldera, extends about 9 miles east from the head of Bucareli Bay, with a greatest width of about 3 miles. The bay is locally known as **Big Harbor**. In the entrance is a group of islands, of which the largest is **Madre de Dios Island**, high and bare, having been logged. The islands have a few outlying rocks, and the passages between them are mostly of good depth. The area to the south of **Canoe Point** between **Canas Island** and the larger island to the southeast is foul with many rocks and broken ground. Passage to the head of Trocadero Bay should be made to the north of the group of islands east of Point St. Sebastian avoiding the small islet and dangerous rock 0.15 mile northwest of the first large island. Near the head of Trocadero Bay, the chart is the guide.

(324) The **Ladrones Islands**, east of Madre de Dios Island, are a group of small wooded islands in the entrance to Trocadero Bay. The passage between the islands on the southwest side of the Ladrones, closest to the entrance to Trocadero Bay, is impassable with shallow, narrow openings and kelp. **Unlucky Island**, a small wooded island 0.1 mile long, is about 1 mile northeast of Ladrones Island; 0.35 mile to the west of Unlucky Island is shoal ground with a least depth of 3 fathoms. **Doyle Bay** is a square bay about 0.7 mile wide with **Culebrina Island** at the mouth, north of Trocadero Bay, and provides anchorage in 30 fathoms. The best approach to Doyle Bay is from the southwest passing to the north of the shoals off of Unlucky Island with care to avoid the ½-fathom rock 0.3 mile east of Culebrina Island. **Toti Island**, a small wooded island, is 0.5 mile north of Madre de Dios Island.

(325) **Port St. Nicholas** is north of Doyle Bay. **Coronados Islands**, a group of islands, are midway in the entrance, and rocks and reefs with two channels between extend to the north. **Rancheria Island** is south-southwest of and close to **Point Miraballes**, the south point at the entrance to Port St. Nicholas. A passage into Port St. Nicholas runs between Rancheria Island and the Coronados Islands. Dangers are shown on the chart. About 2 miles north of Point Miraballes is a peak 2,940 feet high, light green in the summer, which shows conspicuously from north and south.

(326) **Balandra Island** (55°27.2'N., 133°13.2'W.), small and wooded, is about 0.6 mile east of Agueda Point, at the junction of Bucareli Bay and San Alberto Bay. Foul ground extends 250 and 200 yards off the east and west

ends, respectively. A 2½-fathom spot is 0.2 mile northeast of the island. The channel between Balandra Island and San Juan Bautista Island has a least found depth of 4½ fathoms.

- (327) **San Alberto Bay**, with numerous shoals and broken areas, extends about 7 miles north from Bucareli Bay to San Christoval Channel.
- (328) **San Fernando Island**, on the west side of San Alberto Bay and on the northeast side of Portillo Channel, is about 7 miles in diameter, with low rocky shores cut up by numerous small indentations and bights. Timbered hills and ridges cover the island.
- (329) **Ursua Channel** separates San Fernando and San Juan Bautista Islands and connects Bucareli Bay and San Alberto Bay. Midchannel depths are good. The principal dangers are a 4½- and a 5¾-fathom shoal about 1.0 mile west of Diamond Point, on the southwest coast of San Juan Bautista Island; the shoal ground that extends about 0.4 mile south from **Point Amargura**, the south point of San Fernando Island; and the shoal ground that extends about 0.4 mile off **Point Eugenia**, the middle point on the northwest side of San Juan Bautista Island. From this point to the shoal spot, 0.5 mile west-northwest of Agueda Point, the San Juan Bautista Island shore should be given a berth of at least 0.4 mile. Irregular bottom with shoal spots extends about 0.6 mile off the San Fernando Island shore, near the north end of the channel. The channel east of San Juan Bautista Island is more generally used.
- (330) **Ballena Islands**, two in number and wooded, are about 1.2 miles northeast of Balandra Island and about the same distance southwest of Fish Egg Island. The bottom is foul between Ballena Islands and Fish Egg Island. A reef, with a least reported depth of ¾ fathom, is 0.4 mile southwest of the west Ballena Island, with an extensive kelp patch between.
- (331) **Ballena Island Shoal**, with a least depth of 1¾ fathoms, is 0.6 mile west of the west Ballena Island. Its west side is marked by a lighted buoy.
- (332) **Balandra Shoal**, about 1.1 miles west of the west Ballena Island, consists of two small areas 0.2 mile apart, having a least depth of 1 fathom in the north area and ¾ fathom in the south area, with deep water between. The north area is marked by a buoy on its northeast side. The usual course in passing Balandra Shoal leads east of it, between the buoys marking it and Ballena Island Shoal.
- (333) **Fern Reef**, marked by kelp, is about 1.5 miles northwest of Balandra Shoal and about 1 mile off the San Fernando Island shore. Two rocky heads, 0.2 mile apart and bare at low-water springs, are conspicuous. **Fern Point** is on the east extremity of San Fernando Island. A 2¼-fathom spot, marked on its southeast side by a lighted buoy, is about 0.3 mile south of Fern Reef.
- (334) **Parida Island** (55°31.2'N., 133°14.5'W.), about 1.5 miles northeast of Fern Point, is a prominent wooded landmark in the middle of San Alberto Bay. **Parida Island Reef** is 0.5 mile south from Parida Island. One head bares at low-water springs. An area with a least reported depth of 3½ fathoms and marked by a buoy on its southeast side is 0.5 mile southeast of this reef; the depth may be less. A rock covered 4¾ fathoms is about 0.5 mile northeast of Parida Island in about 55°31'36"N., 133°13'53"W.
- (335) **Alberto Islands** are northeast of Parida Island and north of Fish Egg Island and Klawock Reef. The southernmost island is wooded and is 1.7 miles northeast of Parida Island and about the same distance north of Fish Egg Island.
- (336) **Alberto Reef** extends 0.4 mile west-southwest from the southernmost of the Alberto Islands; its highest point uncovers 5 feet. A 5½-fathom channel separates this reef from the southernmost Alberto Island; the deepest water is found 100 yards off the island.
- (337) **Wadleigh Rock** is 0.5 mile east of the southernmost Alberto Island and consists of two reefs about 100 yards apart. The west reef bares at half tide and the east reef at low water. The shoal is about 0.2 mile long in a north direction, steep on the west side, and can be passed 100 yards off.
- (338) Three rocky patches, covered by about 4 feet, are about 1 mile north-northwest of Parida Island. They are marked by a lighted buoy off the northernmost patch. These rocky patches are usually marked by kelp. The range of the southwest end of Parida Island and the northeast end of San Juan Bautista Island passes a little northeast of the patches.
- (339) **The Witnesses**, locally known as **Hour Islands**, are wooded islets 2 miles north of Parida Island. **Witness Rocks**, about 0.9 mile west of The Witnesses, are almost covered at high water.
- (340) **Abness Island**, at the north end of San Alberto Bay, about 0.5 mile west of **Wadleigh Island**, is surrounded by foul ground and off-lying islets. A winding, unmarked channel is between Abness Island and Wadleigh Island. This channel has many dangers and is only suitable for small craft with local knowledge.
- (341) **Shinaku Inlet** makes off from the north end of San Alberto Bay and connects with Big Salt Lake and Klawock Inlet. The inlet has much foul ground, and the passages leading to Big Salt Lake and Klawock Inlet are only good for small craft with local knowledge.
- (342) **Klawock Inlet** extends in a north direction from the head of Bucareli Bay for about 7.5 miles to the entrance of Big Salt Lake. The inlet has two entrances. The entrance from Bucareli Bay is southeast of Fish Egg Island; the entrance from San Alberto Bay is north of Fish Egg Island.
- (343) **Cape Suspiro** is the low wooded point on the east side of the south entrance to Klawock Inlet. **Port Bagial**, a small cove on the east side of Cape Suspiro, has depths of 4 to 5 fathoms west of the islands on the east side.
- (344) **Fish Egg Island**, at the south end of Klawock Inlet, is low and wooded. Shoals extend off the southwest end of the island to the Ballena Islands. **Fish Egg Reef** extends for 350 yards southeast of the southeast point of the island and is marked by a lighted buoy at its outer end.

Cole Island, a low, wooded island, is in the bight in the northeast side of Fish Egg Island.

- (345) **Craig** is an incorporated settlement on the island at the south end of Klawock Inlet and close southeast of Fish Egg Island. The community has a cold storage depot, hotel, an oil terminal and several general stores. A maintenance, support and storage facility for fishing vessels is near the northwest end of the island.

(346)

Prominent features

- (347) A brown water tank near the southwest side of the island, several white oil tanks near the northwest side of the island and a microwave tower close east of the brown tank are prominent from the waters near Craig.

(348)

Channels

- (349) A federal project provides for a mooring basin and a 100-foot-wide entrance channel, protected by two breakwaters in **Shelter Cove** at the southeast side of Craig Island. A light on the northwest end of the south breakwater and a **048°** unlighted range mark the entrance channel.

(350)

Dangers

- (351) **Craig Island Reef**, marked by a lighted buoy, is a submerged rock with $\frac{3}{4}$ fathom over it, about 0.6 mile north-northeast of the fish facility at Craig. Fish Egg Reef extends from the southeast point of Fish Egg Island for about 275 yards into the channel west of Craig Island; a lighted buoy is off the outer end. A shoal, marked by a buoy at the outer end, extends about 300 yards from the northwest point of Craig Island in a north-northwest direction, obstructing the channel west of the island. Another shoal extends north about 300 yards from the northeast point of Craig Island and is marked by a daybeacon.

(352)

Currents

- (353) It is reported that the flood current sets toward the wharf and the ebb current sets off the wharf.

(354)

Harbor regulations

- (355) The **harbormaster** controls the use of the community dock, grids, and floats. The harbormaster monitors VHF-FM channel 16 and can be contacted by telephone (907-826-3275) or FAX (907-826-3278).

(356)

Wharves

- (357) All of the piers and wharves at Craig are on the north side of the island, except for the facilities in Shelter Cove and on the west side of False Island.

- (358) **City Fuel Dock** (55°28'41"N., 133°09'08"W.): 100 yards east of Wards Cove Dock; 100-foot face; 20 feet reported alongside in 2002; for fueling and mooring small-craft; owned and operated by the City of Craig.

- (359) **Craig City Dock** (55°28'41"N., 133°09'05"W.): about 150 yards east of Wards Cove Dock; 72-foot face; 15 feet reported alongside in 2002; receipt and shipment of conventional general cargo; receipt and shipment of seafood; owned by the State of Alaska and operated by the City of Craig and Western Pioneer.

- (360) **Shaan-Seet Dock** (55°28'42"N., 133°09'02"W.): 250 yards east of Wards Cove Dock; 60-foot face; 15 feet reported alongside in 2002; receipt of seafood and mooring vessels; owned and operated by Shaan-Seet, Inc.

- (361) **Craig Fisheries Dock** (55°28'52"N., 133°08'33"W.): about 0.4 mile northeast of Craig City Dock on the east side of North Cove; 60-foot face; 260-foot face each side; 23 feet reported alongside in 2002; receipt of seafood; handling supplies for fishing vessels; and icing fishing vessels; owned and operated by E.C. Phillips and Son, Inc.

- (362) **J.T. Brown Industrial Wharf** (55°29'18"N., 133°08'30"W.): about 0.5 mile north of Craig Fisheries Dock on the west side of False Island; 140-foot face; 15 feet reported alongside in 2002; receipt of petroleum products and seafood; icing fishing vessels; and fueling vessels; owned and operated by the City of Craig and Harbor Enterprises.

(363)

Supplies

- (364) Water, gasoline, diesel fuel, distillates and lubricating oils and greases are available at the Fisheries Dock and the floats. The general stores in the community sell some fishing supplies and limited provisions.

(365)

Repairs

- (366) The community operates three grids: the west side of approach to South Cove Harbor, east side of approach to Craig City Dock and east side of approach to North Cove Harbor.

(367)

Small-craft facilities

- (368) The community of Craig operates the small-craft basin and floats at Shelter Cove. Water and electricity are available on the floats. A boat-launching ramp and a U.S. Forest Service float are on the west side of the basin. Craig has 200 feet of float space at the west side of the City Dock. The floats extend from the approach pier in a west direction for 50 feet, then north for 150 feet. A depth of 8 feet was reported alongside the floats west of the City Dock. Additional public float space is on the west side of North Cove, about 500 yards east of the City Dock. This 1,025-foot float had 14 feet reported alongside in 2002. About 50 ancillary moorage spaces, for commercial fisherman, are in east North Cove Harbor. The Industrial Wharf, 0.5 mile north of North Cove on the west side of False Island, has a ramp and a 160-foot float on the northeast side. A seaplane float is on the west side of the Cove west of North Cove.

(369)

Communications

(370) Craig has weekly barge and freight service with Ketchikan and monthly barge and freight service with Seattle. A road connects Craig with Klawock, Hollis, Hydaburg and Thorne Bay Logging Camp. Klawock is about 7 miles north. The road along the shore from Craig to Klawock is visible from Klawock Inlet. Craig has daily seaplane service with Ketchikan and other settlements on Prince of Wales Island. Telephone and radiotelephone communications are maintained with other parts of Alaska and with other states.

(371) **Clam Island** is a low wooded island, about 1 mile north of Fish Egg Island. **Klawock Reef**, marked by a lighted buoy at the southwest end and an unlighted buoy at the south end, consists of four groups of rocks that extend in a southwest direction from the west end of Clam Island.

(372) A channel, about 200 yards wide, with depths of 11 to 22 fathoms, separates the reef from the shoals off Fish Egg Island. The channel is marked by lighted and unlighted buoys. A tow channel, about 0.4 mile south, has depths of 3¼ to 7 fathoms and is marked by a light, a lighted buoy and daybeacons.

(373) **Entrance Point** is a low wooded point about 0.3 mile east of Clam Island. A channel leads between Entrance Point and Clam Island into the bay southeast of the Alberto Islands. The channel is foul and unmarked and should not be entered without local knowledge.

(374) **Klawock Island** is near the head of Klawock Inlet. A 1¼-fathom spot, marked by a lighted buoy, is about 0.4 mile west from the south end of the island.

(375) **Klawock Harbor**, separates Klawock Island from the west shore of Prince of Wales Island. A large amount of freshwater discharged into Klawock Harbor from Klawock River and Klawock Lake causes severe ice conditions in the colder months of winter. The harbor is reported to freeze over at times during the winter. There are times each winter when the harbor cannot be used by small craft. At these times, outside communication with Craig is by the highway that extends between the two settlements.

(376) **Klawock** is a community on the east shore of Klawock Harbor. Two general stores, an airstrip, a sawmill and a cannery are here.

(377) **Klawock Harbor Entrance Light 2** (55°33'26"N., 133°06'14"W.) 20 feet above the water, is shown from a small house on a skeleton tower with a red triangular daymark on a concrete pier, at the northeast extremity of a reef that extends north of Klawock Island.

(378)

Channels

(379) The approach to Klawock Harbor is rocky and narrow. Depths of 3½ to 8 fathoms can be made with local knowledge.

(380) The entrance channel, about 200 yards wide, is between Klawock Harbor Entrance Light 2 and a daybeacon, about 250 yards north of the light.

(381)

Anchorage

(382) A small anchorage is in the bight south of the community. The south end of the anchorage has a high-water pass for canoes to Klawock Inlet.

(383)

Dangers

(384) A reef extends south from **Peratrovich Island** into the entrance channel to Klawock Harbor. The south extremity of the reef is about 250 yards north of Klawock Harbor Entrance Light 2 and is marked by a daybeacon. A daybeacon about 175 yards southeast of the light marks the west side of a rocky shoal on the east side of the harbor entrance channel. This daybeacon should be given a berth of not less than 35 yards.

(385)

Pilotage, Klawock

(386) Pilotage, except for certain exempted 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.)

(387) Vessels en route Klawock meet the pilot boat about 1 mile northwest of Cabras Islands, Bucareli Bay (55°22.0'N., 133°24.8'W.).

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

(389)

Towage

(390) Two tugs, 500 hp and 700 hp, are available at Klawock for assistance in docking and undocking. Arrangements for tugs should be made well in advance through ships agents.

(391)

Quarantine, customs, immigration and agricultural quarantine

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

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

(394)

Wharves

(395) All piers and wharves at Klawock are on the east side of Klawock Harbor, except for the sawmill dock south of Klawock Island and the logging dock on the west side of Klawock Island.

(396) **Viking Lumber Company Wharf** (55°32'25"N., 133°06'28"W.): about 0.2 mile south from the south end of Klawock Island; 500-foot face; 900 feet of berthing space; 42 feet alongside; deck height, 22 feet; a pipeline extends from the sawmill to a chip-loading spout on the south end of the dock; two 25-ton log-handling lift

trucks, a 20-ton crane, one 10-ton and two 9-ton forklifts; electricity is available; shipment of lumber and wood chips; owned and operated by Viking Lumber Co.

(397) **Kidco Corporation Wharf** (55°33'15"N., 133°06'35"W.): on the west side of Klawock Island; 440-foot face; 440 feet of berthing space; 37 feet alongside; deck height, 19 feet; occasional shipment of logs; owned by Klawock Heenya Corporation.

(398) **Klawock Seafood Wharf** (55°33'27"N., 133°06'00"W.): about 300 yards east of Klawock Harbor Entrance Light 2; 130-foot face, north side 80 feet long, south side 50 feet long; 18 feet alongside; deck height, 20 feet; water is available; occasional receipt of seafood; handling supplies and icing for fishing vessels; owned and operated by Klawock Cooperative Association.

(399)

Supplies

(400) Limited amounts of provisions can be obtained at Klawock. During the fishing season, the cannery has water and ice for fishing vessels. The nearest fuel facility is at Craig.

(401)

Repairs

(402) A 68-foot grid is in the mudflats at the south side of Klawock Dock. A machine shop at the cannery can assist fishing vessels with minor repairs during the fishing season.

(403)

Small-craft facilities

(404) The community of Klawock operates 792 feet of small-craft floats with a seaplane float at the north end of the west float, about 0.2 mile south of Klawock Dock. Electricity and water are available. Depths of 7 to 34 feet reported alongside in 2002.

(405) Klawock Cooperative Association operates 587.5 feet of small craft floats close north of Klawock Dock. Electricity and water are available. Depths of 5 to 16 feet were reported alongside in 2002.

(406)

Communications

(407) Klawock has daily seaplane service to Ketchikan and to other communities on Prince of Wales Island and weekly freight boat service with Ketchikan. A road connects Klawock with Craig, Hollis and Thorne Bay Logging Camp. Craig is about 7 miles south. Telephone communications are maintained.

(408) The head of Klawock Inlet consists of a series of irregular flat islands broken by a great number of intricate channels. Beyond these is **Big Salt Lake**, which is separated from the inlet by an island, on both sides of which are narrow channels obstructed by ledges. These serve to dam the waters of the lake. The flow of water from the lake into the inlet at the lower stages of the tide is reversed near high water. A slack water occurs about 2 hours before and after high water at Klawock, at which time a draft of about 8 feet can be taken into the lake. The passages above Klawock are intricate and foul in places

and should not be attempted without local knowledge. Guides can be obtained at Klawock.

(409)

Port Real Marina to Point Santa Gertrudis

(410) **Port Real Marina**, the passage on the north side of Baker Island, connects Bucareli Bay with Siketi Sound and thence with the Pacific Ocean. It is about 0.7 mile wide, but its use is not recommended for any except small craft. The west entrance is constricted in the vicinity of Pigeon Island; the bottom is very irregular. The east entrance is also constricted by Rana Reef.

(411) **Rana Reef** extends from a point about 500 yards north of **Point Gorda**, the northwest point of St. Ignace Island, almost to **Arrecife Point**, the southeast point of Lulu Island. The reef has several rocky heads; the two highest are about 8 feet high. There is a channel at each end of the reef, but the one to the south is reported to be better, staying offshore of the 10 fathom contours, giving the St. Ignace Island shore a berth of 200 to 400 yards.

(412) **Lulu Island**, which forms the north shore of the passage, is less than 1 mile north of Baker Island. It is a large irregularly shaped mountainous island with summits from 418 to 1,618 feet in elevation.

(413) **Santa Rita Island** is between St. Ignace and Baker Islands and is part of a group of five low, irregularly shaped wooded islands. The elevation of Santa Rita Island is 250 feet. Rocky shores predominate.

(414) Anchorage may be had in 12 fathoms in the bight between Santa Rita Island and St. Ignace Island.

(415) **Pine Island**, on the northeast end of Port Real Marine, is opposite Santa Rita Island. The rocky shoreline covers and uncovers and is surrounded on all sides by kelp. The southeast side has strong ebb and flow tidal induced currents of 4 knots.

(416) **Coposo Island**, in midchannel near the east end of the passage and about 0.5 mile north of Santa Rita Island, is small and wooded. It shows prominently from east and west directions. Waters foul with rocks and kelp extend 300 yards west and southwest from the center of the island. A shoal, reported covered by at least 3 feet, is about 250 yards southwest from the center of Coposo Island.

(417) **Sola Rock**, marked by a daybeacon, is a pinnacle rock that uncovers 4 feet, 0.5 mile southwest of Coposo Island.

(418) **Pigeon Island**, between Baker Island and Lulu Island, off the northwest end of Baker Island, is wooded. A small wooded islet is close to its southeast shore, and a group of small rocky islets and submerged rocks are off its south shore.

(419) **Paloma Pass** is between Pigeon Island and Lulu Island. This pass has least depths of 3½ fathoms in midchannel, but the channel is winding and lined with dangers. A rock covered 1¼ fathoms, centered in the pass, is at 55°25'59"N., 133°33'23"W., along with a submerged

reef located immediately to the north; extreme caution is advised.

(420) In entering from the Pacific, pass the south end of Cone Island at a distance of about 0.5 mile and avoid the foul ground that extends off the Baker Island shore. Pigeon Island may be rounded on the northeast side through Paloma Pass or through the marked channel to the southwest of the island. In Paloma Pass, shoal water extends for about 180 yards in an east direction from the north end of Pigeon Island. Halfway from either end of the pass, rocks awash extend for 250 yards from the Lulu Island shore. At this place the channel, about 40 yards wide, favors the Pigeon Island shore. Near the south end of the pass is a 1¼-fathom spot on the west side of the channel at 55°25'49"N., 133°33'16"W.

(421) The pass to the southwest of Pigeon Island, marked by daybeacons, is a more direct route, passing between two small islets, the west one of which is in about midchannel. The pass is about 40 yards wide and has a least depth of 2½ fathoms. To the west of the west islet is a narrow channel with a 1¾ fathom shoal at the north end.

(422) Coposo Island may be passed about 200 yards to the north and about 300 yards to the south; the south passage is preferable. In approaching the island, favor the north shore of the south passage and pass between Sola Rock and the reported shoal covered 3 feet about 250 yards southwest from the center of Coposo Island.

(423) **Portillo Channel** connects Bucareli Bay at its north part with the Gulf of Esquibel. It is of irregular width, about 2.5 miles across the entrance and about 0.8 mile wide halfway between the ends. There are many islets in the channel, the south part of which is shoal; the bottom is irregular, and there are numerous kelp patches. The north half is comparatively clear. The channel may be used by small craft, but local knowledge is desirable for safe navigation.

(424) The currents in the channel flow north and south with an estimated velocity of about 2 knots.

(425) **Reef Point**, on the Lulu Island shore, is low and inconspicuous.

(426) **San Clemente Island**, about 1.5 miles from the south entrance close off the shore of San Fernando Island, is wooded and about 108 feet high. The channel to the east is shoal, and numerous rocks and reefs extend to the north.

(427) **Arboles Islet**, near Lulu Island shore about 1 mile northwest of San Clemente Island, is a small but conspicuous crag, jutting powerfully from the seafloor while being scantily populated with trees. The islet is surrounded on all sides by kelp, and submerged rocks extend 400 yards to the north-northwest of the main islet.

(428) **Snail Point**, the west extremity of **Caracol Island**, on the east shore of Portillo Channel, is 80 feet high and wooded. Prudent mariners should give Snail Point a berth of 350 yards on the west and south to avoid numerous submerged rocks and kelp.

(429) **Point Delgada**, on the Lulu Island shore about 1.5 miles from the northwest entrance, is a gravel spit, grass covered inshore and conspicuous from the east.

(430) **Abrejo Rocks** are about midway between the two points of the northwest entrance; the highest is 6 feet. **Quitasueno Rock**, 12 feet high, is about 0.4 mile east of Abrejo Rocks. A 4-fathom spot is about 0.5 mile west, and a 3-fathom spot is about 0.5 mile north of Abrejo Rocks.

(431) **Animas Island**, close to **Point Animas**, is a small wooded island 120 feet high. Foul ground extends in a north direction parallel with the San Fernando Island shore.

(432) **Point Santa Gertrudis**, the north extremity of Lulu Island, is a low wooded point at the northwest entrance to Portillo Channel.

(433) **San Christoval Channel to Point Santa Rosalia**

(434) **San Christoval Channel** is the passage leading west-northwest from San Alberto Bay to the Gulf of Esquibel. There are numerous islands, reefs and shoals with three passages between them, all of which present difficulties for vessels of any size because of the narrowness of the passages and the strength of the currents. The dangers, mostly marked by kelp in summer, are shown on the charts.

(435) **Catalina Island**, near the east end of San Christoval Channel 0.5 mile off the south shore, is small, 145 feet high and wooded. Rocks and foul ground extend almost 0.4 mile off the north and east sides of the island.

(436) **Piedras Island**, 0.6 mile north of Catalina Island, is a wooded islet, 75 feet high. A reef marked by a buoy extends 200 yards north from the island.

(437) **San Christoval Rock**, with 1 fathom over it and marked by a lighted bell buoy off its southeast side, is about midway between Piedras Island and the easternmost Hermanos Island. The rock is surrounded by a heavy bed of kelp that tows under when the current is running strong.

(438) **Cruz Islands** are a group, 1.4 miles long, level, and wooded, close to the south shore of the east end of San Christoval Channel, with deep water between them and shore.

(439) **Cruz Pass**, between Cruz Islands and San Fernando Island, affords a passage for small craft through San Christoval Channel; however, this pass is seldom used because the passage north of Rosary Island is more direct and less difficult to navigate.

(440) **Hermanos Islands**, four in number, small and wooded, are about 0.5 mile north of Piedras Island. Range daybeacons on the north islands mark the channel north of Cruz Islands.

(441) **Point Ildefonso** is the low wooded point of the island east from the Hermanos Islands. **Rosary Island**, the largest island of the group, is near the north shore of San Christoval Channel. All of the islands of the group are low and wooded.

- (442) The channel on the north side of the Rosary Island group is used by small craft, which follow the general trend of the main shore at a distance of about 250 yards.
- (443) **Larzatita Island**, 115 feet high and wooded, is the westernmost of the islands near the middle of San Christoval Channel; there is a good channel on either the east or west side. **Tuft Rock**, small and bare except at extreme high water, is 400 yards southeast of Larzatita Island. A rocky patch, with $3\frac{1}{4}$ fathoms over it and marked by a buoy on its east side, is about 350 yards east-southeast of Tuft Rock.
- (444) **Larzatita Island Reef**, marked by kelp and awash at half tide, is 300 yards north of Larzatita Island. Its north extremity is marked by **Larzatita Island Reef Light** ($55^{\circ}35'02''\text{N.}$, $133^{\circ}19'45''\text{W.}$), 22 feet above the water and shown from a caisson with a red and white diamond-shaped daymark on a concrete pier.
- (445) **Point Santa Lucia** is the easternmost of four points at the north extremity of San Fernando Island, west of Cruz Islands. Foul ground extends about 0.2 mile north from the point. A small open cove, with depths of 8 to 24 fathoms, is west of the point.
- (446) **Palisade Island**, a low wooded island, is separated from San Fernando Island by a channel about 100 yards wide, with depths of $1\frac{1}{2}$ to $2\frac{1}{2}$ fathoms. Foul ground extends to the north and northwest of the island for about 400 yards. **Palisade Point**, the extremity of the small island close to and north of Palisade Island, shows prominently from west. Shoal spots are about 0.5 mile north-northwest and northeast of the point.
- (447) **Point San Pasqual** and **Point Santa Rosalia** are low wooded points on the north shore of San Fernando Island. A small open cove, with depths of 14 to 20 fathoms, is between the points. The cove provides protection from south winds, has a mud bottom, and is favorable for anchoring small craft.
- (448) **Cape Chirikof to Marabilla Island**
- (449) Cape Bartolome, the south extremity of Baker Island, has been described earlier in this chapter. About 3 miles north-northwest from the cape is a low headland with a pinnacle rock, 50 feet high, close to the beach. There are several dangers in the vicinity, the outermost is about 500 yards offshore. The chart shows all known dangers.
- (450) **Cape Chirikof**, a prominent headland with a group of rocky islets close-to, is about 4.8 miles north-northwest from Cape Bartolome. A small bay, about 1.4 miles long in a north-northeast direction and 0.5 mile wide at the entrance, is east of the cape. At the west side of the entrance are two small rocky islets. A rock that bares is 285 yards south from the south islet. The head of the bay is shoal for almost 0.3 mile. Small vessels find temporary anchorage in 6 fathoms, about 1 mile from the entrance, but the southwest swell makes in heavily.
- (451) **Granite Point**, about 0.8 mile north from Cape Chirikof, is a rocky point with light-colored cliffs and ledges. From Granite Point the shore trends northeast for about 1.4 miles to a small cove. At the entrance to the cove are two rocks awash; the outer one is almost in midchannel. A $3\frac{1}{4}$ -fathom spot, usually marked by kelp, is 300 yards from the east shore at the entrance. A 13-fathom channel is between this spot and the outer rock. A rock that bares 3 feet is 0.7 mile north of the entrance and about 700 yards offshore. Depths of 6 to 13 fathoms are found within the bay. Shoal water extends about 250 yards from the head of the bay.
- (452) **Veta Bay**, an open bight 3 miles northeast of Granite Point, with depths of 4 to 13 fathoms, is too exposed for safe anchorage. At the head of the bay is a group of small rocks, awash at high water. Close to **Veta Point**, on the northwest shore of the bay, are two small islets off which kelp extends south for 350 yards.
- (453) From Veta Point the shoreline trends in a west direction for about 1 mile, then north for 0.3 mile, forming the headland, the north extremity of which is Outer Point. **Arcada Rock**, locally known as **Arch Rock**, 130 feet high, is close to the south end of the headland. At times kelp extends about 0.6 mile southwest from the rock.
- (454) **Outer Point**, about 3.5 miles north from Granite Point, is a projecting rocky point. East of Outer Point, about 0.2 mile, is a prominent knob 500 feet high, separated by a divide from high land to the east. Foul ground extends 0.6 mile north-northwest from the point. A bank of considerable area, with depths of $7\frac{1}{2}$ to 14 fathoms, is 2 miles west of the point; lesser depths may exist.
- (455) **Gaviota Rock**, about 40 feet high, is the largest of a group of rocky islets, about 1 mile north-northeast of Outer Point. Breakers are found 0.2 mile north of the islets. The bottom is shoal and irregular for about 0.6 mile from the islets. Foul ground is between the islets and the points to the east.
- (456) **Cone Island**, 2.5 miles north of Outer Point, is on the northwest side of the Pacific entrance to Port Real Marina and on the southeast side of the entrance to St. Nicholas Channel. It has several summits; the tallest is 1,120 feet high and centrally located. The south end of the island is clear of off-lying dangers. Kelp extends for 200 to 400 yards off the northwest and east shores. From the northeast point of the island, shoal water extends in a northeast direction for 0.5 mile and is marked by a daybeacon on its northeast side. **Siketi Point** is at the southwest extremity of Cone Island.
- (457) **Siketi Sound**, between Cone Island and Baker Island, is the Pacific Ocean entrance to Port Real Marina. The south part of the entrance is obstructed for about 600 yards north of the **Gaviota Islets**; the rest of the sound is clear. At the northwest end of the sound, a narrow channel leads to St. Nicholas Channel, passing close along the Lulu Island shore and avoiding extensive reefs that extend off the northeast end of Cone Island.

- (458) **Noyes Island**, about 2.1 miles north-northwest of Baker Island, is mountainous with rugged steep cliffs along the west shore. **Noyes Peak**, a triple-headed peak on the north part of the island, is a very conspicuous landmark and during clear weather has been seen from 50 miles offshore.
- (459) **St. Nicholas Point**, the southeast extremity of Noyes Island, is about 5.5 miles east from Cape Addington. The shoreline between the cape and the point forms a large open bight; at its head kelp extends about 0.3 mile offshore. The shoreline is fringed with rocks. From St. Nicholas Point the shoreline turns north, forming the west side of St. Nicholas Channel.
- (460) **Cape Addington** is the southwest extremity of the narrow tongue of land which for 2 miles is less than 0.5 mile wide and forms the southwest end of Noyes Island. The extremity of the cape is a rocky knob, 65 feet high, cut by deep crevices. To the north of it are two timbered knobs. From offshore, the knobs appear as islets and the tops of the wooded knobs show flat from the west. The cape rises to a rocky steep ridge, with jagged, serrated skyline. This ridge and the knobs at the extremity of the cape serve as good landmarks.
- (461) Two rocky islets, with rocks between, bear west-northwest from the cape. The outermost is about 0.2 mile offshore. Heavy tide rips form immediately west of these islets.
- (462) **Shaft Rock**, 1.1 miles north of the cape, is conical in shape and light brown and shows prominently from the south and north. Between the cape and Shaft Rock, ledges extend offshore for about 0.3 mile. The cape should be given a berth of at least 0.8 mile when rounding.
- (463) Four miles northeast of the cape, on the west coast of Noyes Island, is a small bay where small boats find anchorage in 4 to 8 fathoms, in calm weather, near the head of the bay.
- (464) **Roller Bay**, 6 miles northeast of Cape Addington, is open, exposed, and not recommended as an anchorage. At the head of the bay a tongue of land extends offshore and appears as a wooded island. A small rocky islet is close to the south shore of this tongue, and two rocks awash are about 0.3 mile to the southwest. The inner part of the bay is shoal. The outer part of the bay has 5 to 17 fathoms.
- (465) The head of the bay is the west end of a divide that extends across the island. From west directions, it is a conspicuous means of identifying the locality. The headland at the north entrance point of the bay rises to a prominent flat-topped mountain. At the west slope of the peak near the shore, pinnacle rocks over 100 feet high are formed by deep clefts.
- (466) **St. Nicholas Channel**, connecting the Gulf of Esquibel with the Pacific Ocean, is 8 miles long in a northeast direction, 0.5 mile wide at the south end, and 2.2 miles wide at the north end. Noyes Island forms its west shore; Cone Island and Lulu Island, its east shore.
- (467) **Prominent features**
- (468) The grassy hill at the southwest part of Lulu Island is prominent from north directions, appearing rather sharp, covered with grass and brush, with a steep slope to the northeast and a gradual slope to the southwest. The hills to the west appear as rounding hills. The peaks at St. Nicholas Point and the peaks on Cone Island are prominent.
- (469) **Tides and currents**
- (470) The current floods north and ebbs south. During large tides, tidal currents are strong. Heavy tide rips sometimes occur near the entrance, extending from St. Nicholas Point to Cone Island, which appear as breakers when viewed from north. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.
- (471) **St. Nicholas Point**, at the south entrance of St. Nicholas Channel on the Noyes Island shore, is high, rising sharply. **Point Santa Theresa**, on the same shore about 1 mile from St. Nicholas Point, presents no prominent features. **Point St. Isidor**, at the west extremity of Lulu Island, is low, with a gradual rise to Isidor Hill, rounded and high. Foul ground extends 0.3 mile offshore from the point and from the shore north of it. **Twin Rocks**, 1.5 miles from Point St. Isidor, slightly to east of midchannel, show two rounded knobs, each about 6 yards in diameter. A small timbered island is about 0.7 mile east of Twin Rocks. A 1-fathom spot is 300 yards off the north end of the island.
- (472) **Kelly Cove**, on the west side of St. Nicholas Channel, 0.6 mile from Point Santa Theresa, affords anchorage for small craft in 7 fathoms, rocky bottom.
- (473) A fish-buying scow is usually anchored in the cove during the fishing season. This vessel sells gasoline, diesel fuel, water, provisions and fishing supplies. The scow usually has a radiotelephone.
- (474) **San Francisco Island**, three high-water islands 3 miles from the north entrance and about 0.4 mile from the Lulu Island shore, is 108 feet high. The south side is a sheer rock bluff, inconspicuous because of its dark color.
- (475) The bight 0.7 mile south of San Francisco Island affords anchorage for small craft in about 10 fathoms, sand and gravel bottom. The gravel beach at the head of the bight makes well offshore. Anchorage for small vessels may be had in 8 to 15 fathoms, sand and gravel bottom, in the bight 0.7 mile east of San Francisco Island; here the gravel beach at the head of the bight makes well offshore.
- (476) **Point San Francisco**, on the west side of the channel about 2 miles from the north entrance, is a low sandy point, with sand and grass near the high-water line. It shows prominently and may be distinguished by its

light color. A rock awash and marked by kelp is 1 mile southwest of Point San Francisco. A 1¼-fathom shoal and rock awash, marked by kelp, are about halfway between the outer rock and the west shore.

- (477) **Marabilla Island**, 0.8 mile from the north entrance and about 180 yards off Lulu Island, is wooded. Rocks, reefs and kelp extend off the south end for 0.4 mile and for a distance of 0.1 mile off the west and north shores. A 1½-fathom shoal, marked by kelp, is 0.4 mile northwest of the north end of Marabilla Island.

(478)

Arriaga Passage to Peep Rock

- (479) **Arriaga Passage**, the channel north of Noyes Island and separating it from the Maurelle Islands, is 4 miles long in an east direction and 1 to 1.8 miles wide.

(480)

Tides and currents

- (481) In general, the current floods east and ebbs west. Only at the west entrance has the tidal current any noticeable effect. Drifting kelp is frequently found in midchannel abeam the entrance to Sonora Passage.

- (482) **Cape Ulitka Light** (55°33'45"N., 133°43'43"W.), 115 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the north end of the cape, marks the south side of the west entrance to Arriaga Passage. The cape, locally known as **Snail Point**, is a neck of land that projects about 0.6 mile in a north direction from the northwest end of Noyes Island. A long rounded ridge and a pinnacle rock at the extremity of the cape give it an appearance, from east and west, that accounts for its local name.

- (483) **Ulitka Bay**, east of Cape Ulitka, affords fair-weather anchorage for fishing boats in depths of 6 to 8 fathoms. The head of the cove should not be approached too closely as the shores are foul.

- (484) The point 2.2 miles east of Cape Ulitka shows well at night from the west entrance. Rocks extend off this point for about 0.2 mile. An 11-fathom bank, usually marked by kelp, is 0.7 mile north-northwest from the point. The shoreline between this point and Cape Ulitka should be given a berth of at least 0.4 mile.

- (485) **Steamboat Bay**, about 3 miles east of Cape Ulitka, is 0.8 mile wide at the entrance and 0.2 mile wide at the head. A 6-fathom spot, marked by kelp, is just within the entrance, slightly west of midchannel. Good anchorage in 18 fathoms may be had about 0.4 mile from the head of the bay. The bottom is sand with a rather hard crust, through which a heavy anchor sinks into softer and better holding ground. During heavy southeast weather the wind draws through with considerable force and may cause vessels to drag their anchors. At low water, a sand and gravel beach extends several hundred yards from the head of the bay. Small boats anchor close to the head of the bay. The bay is open to the north; during north blows it affords little protection. It is reported that the ocean swells enter the bay. At night, deep shadows are cast by the mountains

and the entrance cannot always be readily distinguished. **Steamboat Point**, rounding and indefinite, is the west entrance point of the bay. A landslide has left a prominent grey scar at about the 1,000-foot level on the northwest side of Steamboat Point, showing well into Arriaga Passage and Sonora Passage.

- (486) The ruins of a 285-foot wharf are on the west shore of the bay near the head. The facility is maintained by a caretaker and is scheduled to be demolished.

- (487) **Point Incarnation**, 3.6 miles east of Cape Ulitka, is the east entrance point. A light marks the point, which is the north extremity of a low wooded islet. Rocks and kelp are off the point, close-to. From the point 8- to 10-fathom spots extend in a north direction for 0.8 mile.

- (488) **St. Joseph Island**, at the northwest end of Arriaga Passage, has a number of high timbered knobs. The west coast is rocky and foul, and the northwest section should be given a berth of at least 1 mile. Rocks and irregular bottom extend off the north coast for about 0.7 mile. The east and south coasts are, in general, rocky shelves that drop off rapidly. A 10-fathom spot is 0.3 mile southwest from the south point of the island and a 9½-fathom rock is about 0.4 mile southeast from the southeast point of the island.

- (489) **San Lorenzo Islands**, at the northeast end of Arriaga Passage, consists of two timbered islands separated by a narrow channel. This channel is locally known as **Hole in the Wall**.

- (490) A midchannel course through the very narrow southeast entrance is safe, but, when inside, the northeast side of the channel should be favored when passing the vertical bluff on that side. A submerged rock that covers 5 feet is about 150 feet off the west shore, opposite the vertical bluff. A depth of 3 fathoms can be carried past the rock on its northeast side.

- (491) **Sonora Passage**, between St. Joseph Island and the San Lorenzo Islands, connects Iphigenia Bay with Arriaga Passage. It is about 1.7 miles wide but has a very irregular bottom. Sonora Passage affords the only ship channel among the islands. The chart shows the known dangers. Vessels using this passage should follow a midchannel course, but the use of Arriaga Passage is considered preferable. The channels between the islands that are used by small boats are numerous but have many dangers, mostly indicated by kelp.

- (492) The **Gulf of Esquibel** is 8 miles long from Noyes Island to Tonowek Bay and 6 miles wide from San Fernando Island to the Maurelle Islands. It is clear of islands and is connected to the sea by several passages. The navigation of the Gulf of Esquibel presents no difficulty. The waters are generally deep except near the shores. The known dangers are shown on the chart; the principal one, Curacao Reef, is marked by a buoy. Small craft with local knowledge pass inside all the islands of the St. Philip and Culebra groups. A rock awash and a submerged rock are about 300 yards southeast and east-southeast, respectively, of the 130-foot island off the southeast end of St. Philip Island.

- (493) The **Hermagos Islands**, on the southeast side of the Gulf of Esquibel, are a group of low wooded islands north of Garcia Cove about 0.3 miles offshore from San Fernando Island. A small island, with a prominent evergreen on its north side, is halfway between the group and San Fernando Island. Either side of this island has a small-boat channel.
- (494) **Point Garcia** and **Point Aguirre** are low, wooded points on the northwest end of San Fernando Island. Foul ground extends offshore for 0.5 mile in a northwest direction.
- (495) **Garcia Cove** is a small inlet at the northwest end of San Fernando Island and 0.4 mile east of Point Garcia. In 1983, a rock that bares at low water was reported in the approach to Garcia Cove in about 55°33'52"N., 133°25'47"W. A group of small islets extends south from the east side of the entrance to the cove. A rock that uncovers 7 feet is on the west side of the cove at the entrance. In 1983, a large rock was reported in the center of the cove in about 55°33'28"N., 133°25'41"W. A 9-foot-high rock is just south of the large rock. An islet was reported on the southwest side of the cove in about 55°33'22"N., 133°25'54"W. Anchorage with restricted swinging room may be found in 9 fathoms, mud bottom about 150 yards south of the 9-foot rock in the center of the cove.
- (496) **Aguirre Bay** is an open bight south of Point Aguirre. Rocks awash extend part way across the entrance.
- (497) **Blanquizal Islands, St. Philip Island** and **Culebra Islands** are in the east part of the Gulf of Esquibel close to the Prince of Wales Island shore, distant 3, 4.5 and 6 miles, respectively, northwest of Larzatita Island Reef Light. They are comparatively low and heavily wooded. At the southeast end of St. Philip Island is an old Native American village, known locally as **Bobs Place**. Fair anchorage for moderate-sized vessels can be had in midchannel off the village.
- (498) A rock awash, marked by kelp, is 0.5 mile off St. Philip Island at a point 1.4 miles 311° from the west point of Blanquizal Islands.
- (499) **Curacao Reef** is 0.8 mile west of the south end of Culebra Islands, with deep water between. The reef has a least depth of ½ fathom and is small in extent and marked by a buoy off its southwest extremity.
- (500) The **Maurelle Islands** are a group of islands, rocks, reefs and breakers forming the west side of the Gulf of Esquibel, covering an area about 12.5 miles long in a north-northwest direction and about 9 miles wide.
- (501) **Currents** appear to be entirely tidal; the strongest are reported around Timbered Island and the north end of St. Joseph Island but do not exceed 2 knots. Between Timbered Island and the Wood Islands and to the southeast, also to the north of St. Joseph Island, currents run northeast in flood and southwest in ebb; between Emerald Island and Feather Rock, the current runs east on flood and west on ebb. Southwest of Emerald Island and Gull Island, flood sets southeast and ebb northwest. In the vicinity of Lambda Rock, south of Twin Islands, the flood runs east and the ebb, west. In the area between this rock and the San Lorenzo channels, little, if any, current was observed. In the small passage east of Wood Islands, the flood runs north and the ebb south.
- (502) **Caution**
- (503) Without local knowledge, navigation among these islands, except in small craft, is dangerous.
- (504) **Anguilla Island**, one of the largest of the group, is timbered and rises to an elevation of 630 feet. From offshore the summit may be recognized, appearing rather sharp; its skyline to the west and southeast appears lower and somewhat flat. **Anguilla Bay**, on the south side of the island, is foul at its head.
- (505) **Esquibel Island, Turtle Island, Sonora Island, Twin Islands (Princesa Island and Favorita Island)** and the unnamed islands are generally wooded and have no characteristics of marked interest to the navigator. The largest and highest of the **Wood Islands** is wooded and rises conically to a height of 280 feet; it is somewhat prominent from offshore. An anchorage for small craft is in the west side of **Nagasay Cove**, on the north side of Esquibel Island, in 4 fathoms, mud bottom.
- (506) **Timbered Island**, very prominent from offshore, the westernmost of the Maurelle group, is 198 feet high and wooded. The shores are brown sheer cliffs and ravines. Many rocks are close by. Tide rips are north and south of the island. A barren, gray island, slightly smaller, is just south of Timbered Island.
- (507) From Timbered Island to the Wood Islands is a line of rocks and breakers that show in a moderate swell. In heavy weather, breakers may be seen for about 800 yards around the rock 0.8 mile 205° from the center of Emerald Island (55°44.0'N., 133°40.7'W.). The body of water between the two groups of rocks that are about 0.8 mile northwest and about 0.6 mile west from the west shore of Little Dome Islet (55°41.5'N., 133°37.9'W.) breaks in heavy weather.
- (508) About 550 yards south of Feather Rock, 1.8 miles west of Little Dome Islet, is a small area, marked by kelp, that is dangerous in heavy weather.
- (509) About 0.5 mile west of the Wood Island group is an extensive area of rocks and breakers that are marked by kelp. Near the south end of this patch is a low, bare, round-topped rock.
- (510) Tide rips, heavy for small craft, were observed in the vicinity of Timbered Island, the north end of St. Joseph Island and Feather Rock.
- (511) **Launch Passage**, between Anguilla Island and Esquibel Island, is frequently used. In making passage from the Gulf of Esquibel, keep south of the rocks awash at half tide and the submerged rocks just inside the entrance. When abeam the inner rock, change course to pass close to and just south of the two islands in midchannel. Keep close to the islands. From here the channel is clear to the anchorage in Nagasay Cove, on the north side of Esquibel

Island; the chart is the best guide for mariners without local knowledge.

(512) Northwest of the anchorage in Nagasay Cove are numerous islands. The channel between these and the Anguilla Island shore is used. In passing north, favor the islands, passing west of two rocks in midchannel. When past these rocks, favor the Anguilla Island shore. Near the north end of the channel are shoal spots. There is a rock awash 250 yards west of the northwest island. The two islands off the southwest shore of Anguilla Island should be given a berth of at least 0.2 mile. Deep water was found on all sides of the rock awash, 0.3 mile northwest of the north end of Turtle Island.

(513) There is a launch channel north of the San Lorenzo Islands, just south of **Escorial Island**.

(514) **Tonowek Bay** extends northeast for about 6 miles from the Gulf of Esquibel to Tonowek Narrows and borders the southeast side of Heceta Island. **Kabanof Rock**, awash, is near midchannel about 0.9 mile south-southwest of the 1,085-foot hill on Heceta Island. Approximately 0.4 mile southwest of Kabanof Rock, there is an 8³/₄-fathom shoal in about 55°43'40"N., 133°25'44"W.

(515) **Warm Chuck Inlet** on the northwest side of Tonowek Bay, has considerable foul ground, as indicated on the chart. A rock, with ½ fathom over it, is in midchannel, 0.5 mile east of a well-defined point on the southwest shore. About 0.7 mile north of this point is a group of wooded islets. Rocks that uncover 7 feet are 150 yards south of the group.

(516) **Salt Lake Bay**, on the southeast side of Tonowek Bay, is about 2 miles northeast of the Culebra Island Group. The entrance is choked by a group of wooded islands. Two channels are used, one north of the group with a depth of 1½ fathoms, the other south of the group with a depth of 2½ fathoms. The northeast and southwest ends of the bay are shoal; depths of 7 to 15 fathoms are found in the center. A number of freshwater streams, emptying into the bay, attract salmon in considerable numbers.

(517) **Harmony Islands**, on the east side of Tonowek Bay, are a group of high, wooded islands. There are channels between the islands of this group, but they are made difficult by numerous dangers. Rocks that cover are off the south and west points of the group.

(518) The channel east of the Harmony Islands and east of the islands to the south, off the entrance to Salt Lake Bay, is used extensively by small craft plying between San Christoval Channel and Tonowek Narrows. The midchannel is safe and partially protected. It is a continuation of the small-craft channel east of Blanquizal Island, St. Philip Island and Culebra Islands.

(519) **Nossuk Bay**, in the northeast part of Tonowek Bay 1.5 miles south of Tonowek Narrows, is largely filled with islands and shoals. **Nossuk Anchorage**, in the north part of the bay, 0.7 mile south of Tonowek Narrows, affords excellent anchorage in 10 fathoms, soft bottom. The north entrance is narrow; the chart shows the least depths.

(520) **Bocas de Finas** is the passage leading from the junction of the Gulf of Esquibel with Tonowek Bay to Iphigenia Bay and the Pacific Ocean. It is between Anguilla, Tonina, Bushtop and Twocrack Islands, which are the northeasternmost of the Maurelle group, and the southwest coast of Heceta Island.

(521) **Currents**

(522) Between Emerald Island and Dead Tree Point, the estimated velocity of the current is about 2 knots.

(523) The Heceta Island shore, on the northeast side of the passage, is steep with no outlying dangers. The southwest side of the passage is foul for about 0.3 mile off the Anguilla Island shore and should be avoided. The least width about 0.7 mile between Twocrack Island and Heceta Island is at the northwest end of the passage.

(524) **Heceta Island** shows up prominently from the west. The south end is rocky, rugged and mountainous, and the west shore is formed by light-colored cliffs; the north part of the island is lower and more heavily timbered. **Bald Mountain** has several bare summits and is a prominent landmark near the south end of the island. **Timber Knob**, centrally located on the south part of the island, and lower than Bald Mountain, is timbered and has moderate slopes; from a considerable distance offshore to the west, it may be recognized over the coast ridges. **Cone Peak** shows from the west over long, wooded ridges as a low wooded cone. The 1,050-foot peak to the north shows prominently from offshore.

(525) **Point Desconocida** (55°41.7'N., 133°31.7'W.), the south point of Heceta Island, marks the north side of the east entrance to Bocas de Finas. **Desconocida Reef**, an area of broken ground, boulders, and submerged rocks, extends 700 yards south-southeast of the point. A rock, barely covered at low water at the outer end of the reef, is marked by a buoy on its southeast side.

(526) There is a secure anchorage in the west bight on the north side of Anguilla Island, about 0.5 mile south of Bushtop Island. When entering, pass about 200 yards east of Bushtop Island and stand in on a south course. Anchor in 11 to 15 fathoms, soft bottom. Kelp and broken ground are on the west side of the anchorage.

(527) **Tonina Island** is about 300 yards north of the west end of Anguilla Island, with islets and rocks between. **Twocrack Island**, on the south side of Bocas de Finas, is wooded and has two prominent crevices that can be seen only from the north and south. The island shows up dark against Heceta Island.

(528) **Bushtop Island**, about 0.8 mile southeast of Twocrack Island, is 45 feet high and conspicuous from Bocas de Finas; 200 yards east of it is a small bare rock with a rock awash close west.

(529) **Dome Islets** are two small wooded islands close together, about 0.6 mile southwest from the south end of Twocrack Island. **Feather Rock**, 5 feet high, is about 2.4 miles west from Twocrack Island.

- (530) From Bocas de Finas to Cape Lynch the coast is rugged, with numerous outlying islets and reefs, most of which show above water. The main passage follows the general trend of the shoreline at a distance of 0.2 to 0.5 mile. The southwest side of the passage is fringed by an area of broken ground, reefs and islets that extend about 3.6 miles northwest from Emerald Island to Losa Island. This section of the passage is exposed to the swell from seaward, and during and after gales, vessels traversing it are subjected to a disagreeable beam sea that breaks furiously over the rocks on both sides of the passage. Too much reliance should not be placed on the position of the buoys, especially after severe storms.
- (531) **White Cliff** (55°43.9'N., 133°38.6'W.), on the Heceta Island shore, is a precipitous wooded point with white cliffs 100 feet high. About 0.8 mile southeast of White Cliff is a conspicuous landslide that extends down to the water from near the summit of the ridge. A lighted bell buoy, 0.6 mile west of White Cliff, marks the outer limit of dangers on the east side of the passage.
- (532) **Emerald Island**, about 1.2 miles west of White Cliff, is 45 feet high and flat, has several clumps of stunted spruce, and shows up green. The southeast side has a very small sand beach. The ground in the vicinity of this island is foul. A buoy, about 0.6 mile north-northeast of Emerald Island, marks the outer limit of dangers on the southwest side of the passage.
- (533) **Dead Tree Point**, about 1.2 miles north-northwest of White Cliff, juts out from the higher land of Heceta Island and is low and wooded with bare cliffs at the water. **Raso Rock**, a large bare rock 20 feet high, is 0.6 mile west-southwest of Dead Tree Point. A rock, 6 feet high, is about 0.7 mile northwest of Raso Rock.
- (534) **Gull Island** is about 2.3 miles west-northwest of Emerald Island. The island, 87 feet high, is light colored, grass covered at the top, and somewhat flat and has rather steep shores. Rocky islets and foul ground extend in a north direction for about 1.3 miles. The ground is foul to the east-southeast for about 0.4 mile. A rock that bares is 0.9 mile west-southwest from Gull Island.
- (535) **Losa Island**, about 2 miles west-southwest of Cape Lynch and 1.5 miles northwest of Gull Island, is only 5 feet high and is the westernmost of the chain of islands and reefs south and southwest of Heceta Island. Foul ground extends for 0.2 mile northwest of Losa Island.
- (536) **Cape Lynch Light** (55°46'52"N., 133°42'06"W.), 50 feet above the water and shown from a spindle with a red and white diamond-shaped daymark on an islet off the southwest end of Cape Lynch, marks the west end of Heceta Island. The light also marks the northwest approach to Boca de Finas, the approach to Davidson Inlet, and the east side of the entrance to Sumner Strait.
- (537) A kelp-marked ledge, with 1½ to 4¼ fathoms over it and a 2¾-fathom spot at its outer end, extends 0.7 mile northwest of the cape.
- (538) **Cone Bay**, northeast of Cape Lynch, is open and exposed to the west. The bottom is irregular, and kelp extends well into the bay along the south shore.
- (539) **Tonowek Narrows** (55°45.5'N., 133°20.1'W.), locally known as **Little Skookum Chuck**, connects Tonowek Bay and Karheen Passage. It has a least width of 100 yards between the 10-fathom curves.
- (540) **Currents**
- (541) The currents in Tonowek Narrows set northeast on the flood and southwest on the ebb. The velocity of the current is 3.0 knots. (See the Tidal Current Tables for daily predictions.) Tide rips have been reported, but they are seldom dangerous even to small boats.
- (542) **Karheen Passage** extends from Tonowek Narrows to Sea Otter Sound. The southeast part of the passage is characterized by islets, ledges and generally broken ground, surrounded by comparatively deep water. Much of the area is filled with kelp. The channel is marked by a daybeacon, buoys and an unlighted range as far as Karheen Cove and is used by vessels with a draft of about 17 feet.
- (543) **Currents**
- (544) Currents in Karheen Passage set northwest on the flood and southeast on the ebb. The velocity of the current is 0.4 to 0.5 knot.
- (545) **Point Swift** is on the east side at the northeast end of Tonowek Narrows. Two totem poles and a gravesite can be seen on an island about 0.4 mile west of Point Swift, on the west side of Tonowek Narrows. **Point Swift Rock** uncovers 5 feet and is 0.3 mile north-northeast of Point Swift. A buoy is about 0.3 mile north-northeast of the rock and marks the north end of the shoal area that extends from the rock. A daybeacon is on a small islet 16 feet high, on the west side of the channel, about 0.6 mile north from Point Swift.
- (546) **Ham Islands**, a group of wooded islets, are about 1.8 miles northeast of Tonowek Narrows and extend about 1 mile in a south-southeast direction from the east end of Heceta Island. Reefs and broken ground extend east, south and southwest of the islands. A buoy about 1.1 miles northeast of Point Swift marks a submerged rock about 0.3 mile south of the southernmost of the three larger central islands of the group. Another buoy is on the west side of a submerged rock marked by kelp, about 1 mile northwest of Kauda Point, the south extremity of Tuxekan Island.
- (547) **Trim Island** is about 0.5 mile northeast of the larger Ham Island, close to the Tuxekan Island shore. **Cob Island** is about 0.3 mile northwest of Trim Island and 1 mile south-southeast of Karheen Cove. Reefs extend about 200 yards southeast, south and west of Cob Island. A daybeacon marks the reef on the west side of the island.
- (548) **Chapin Island**, small and wooded, is on the west side of Karheen Passage west of Cob Islet. An unlighted range of two daybeacons on the north end of the island, in line 306°, marks the center of the channel north of Ham Islands and south of Trim Island and Cob Island. Local fishing craft prefer the shortcut known as **Canoe Pass**,

which extends southwest from Chapin Island between Heceta and Ham Islands. Strangers and larger vessels should use the longer route through Karheen Passage.

(549) For 1.5 miles northwest from Cob Island, Karheen Passage has an average width of about 0.5 mile. The depths are generally good except for an extensive kelp-marked ledge, with a least depth of 1¾ fathoms over it, in midchannel west of Karheen Cove. During summer, streamers of kelp are visible along the west half of the passage, just north of Chapin Island, in 3 to 5 fathoms.

(550) **Karheen Cove** is a small indentation on the northeast side of Karheen Passage at its northwest end. A bare rock is off the south point at the entrance. A buoy marks the outer end of the ledge that extends about 400 yards southwest from the south point.

(551) **Peep Rock**, a conspicuous rock, marked by a light, is about 0.7 mile northwest of Karheen Cove. Shoal areas, marked by kelp, extend for about 700 yards west and about 500 yards northwest of the rock. The channel east and north of the rock is clear and is generally used in preference to the channel south, where there are unmarked dangers.

(552)

Tuxekan Passage

(553) **Tuxekan Passage** has its south entrance on the southeast side of Karheen Passage and extends north along the east side of **Tuxekan Island** for about 10 miles to El Capitan Passage. The shores are heavily wooded throughout its length and are indented with numerous bights, coves and bays that provide anchorage in any desired depth. The width varies from a maximum of about 2 miles north of Stoney Island to about 225 yards in **Tuxekan Narrows**. This passage is preferred to Karheen Passage by some operators enroute between Tonowek Bay and El Capitan Passage.

(554)

Currents

(555) The currents in Tuxekan Passage set generally north on the flood and south on the ebb. The velocity of the current is weak, being less than 1 knot. (See the Tidal Current Tables for daily predictions.)

(556)

Kauda Point to Nundei Cove

(557) **Kauda Point** (55°46.4'N., 133°15.5'W.), at the south tip of Tuxekan Island and on the west side of Tuxekan Passage, is a small islet at high water and is conspicuous from the southwest and northeast.

(558) **Kaguk Cove**, at the south end of Tuxekan Passage, about 2 miles southwest of Kauda Point, affords a well-protected anchorage in depths of 4 to 8 fathoms, with a gentle sloping bottom.

(559) The **Dasani Islands** are in the south entrance to Tuxekan Passage midway between Kauda Point and the entrance to Kaguk Cove. The islands are wooded and

have boulder-strewn beaches. An extensive kelp patch usually extends northeast from the north island. Other kelp patches, over rocks awash, are east of these islands.

(560) **Gaohi Islands**, across the passage from Kauda Point, form the southwest shore of Winter Harbor, where good small-boat anchorage is available in depths of 2 to 10 fathoms. They are difficult to identify when approaching from the west.

(561) **Yahku Cove**, on the west side of Tuxekan Passage 1.5 miles north-northeast of Kauda Point, and **Nundei Cove** on the east side of the passage opposite Yahku Cove are not recommended for small-boat anchorages. Nundei Cove is deep and exposed to the north. A rocky reef that is uncovered at high water constricts the entrance to Yahku Cove.

(562)

Stanley Island to White Cliff Passage

(563) **Stanley Island**, about 3.5 miles northeast of Kauda Point (55°46.4'N., 133°15.5'W.), is the largest and most northwest of a chain of wooded islands that extend into Tuxekan Passage from the east shore. The passage to the west and southwest of Stanley Island is clear, but from other directions it should be approached with caution. A 1¾-fathom rock and a 1½-fathom rock are 0.8 mile and 0.5 mile north, respectively, of the island. Northeast from Stanley Island the waters are generally foul with a number of submerged rocks and rocks that uncover 1 to 7 feet.

(564) **Naukati Bay** is the largest indentation in the east shore of Tuxekan Passage. Its entrance, about 2 miles north of Stanley Island, is constricted by rocks and kelp, and the entire area has numerous islets, reefs and rocks. In the narrow winding channel, 3 fathoms can be carried well in toward the head of the bay.

(565) **Klinau Island**, on the west side of the entrance to Naukati Bay, should be given a wide berth. A rock that uncovers 5 feet is about 0.3 mile south-southwest of the island, and the waters around it from east through south to west are foul.

(566) **Nichin Cove** on the west side of the passage, about 1.3 miles west-southwest of Klinau Island, affords good small-craft anchorage. Larger vessels will find unprotected anchorage in 6 to 8 fathoms, mud bottom, off the entrance to the cove. A ramp and float, with a 60-foot face, are on the west side of the cove near the entrance.

(567) **Little Naukati Bay**, on the east side of Tuxekan Narrows and about 6.5 miles north of Kauda Point, is not recommended as a small-boat anchorage. At low water its entrance is almost closed by rocks and reefs. The best water into it is the north channel. The narrows northwest of Little Naukati Bay is relatively clear and deep.

(568) **Village Rock**, about 0.5 mile northwest of the north end of Tuxekan Narrows, is awash at high water and is marked by a daybeacon. The safest and recommended route for northbound transit vessels is south and west of Village Rock. Mariners transiting the waterway about 100 yards east of Village Rock should use care; detached

rocks and shallow water extend about 0.2 mile off Kinani Point.

- (569) **Jinhi Bay** extends southwest from Village Rock. This bay shoals gradually to mud flats that bare in its southwest extremities. It is studded with small islets and numerous rocks that bare at various stages of tide. Only those with local knowledge should attempt to enter this bay.
- (570) **Elghi Island**, near the north extremity of Jinhi Bay, is one of the more prominent features of Tuxekan Passage. The waters to the west are foul, and a large rock that uncovers 4 feet is about 0.1 mile east of its north tip.
- (571) **Aikens Rock**, 3 feet high and marked by a daybeacon, is about 400 yards east of the north end of Elghi Island. **Kassan Islands**, about 1.4 miles north of Elghi Island, separate Tuxekan Passage from El Capitan Passage. These islands are heavily wooded and separated only by a narrow channel that runs dry at half tide.
- (572) **Kahli Cove**, between Kassan Islands and Prince of Wales Island, provides suitable anchorage for small craft. The southwest entrance is constricted by rocks and reefs, but a narrow winding channel is open. The northwest entrance is less winding and has fewer rocks.
- (573) **Davidson Inlet** is the west part of a large expanse of water, northeast of Iphigenia Bay, between Heceta Island and Kosciusko Island. The east part, Sea Otter Sound, is separated from it by a chain of islands that extend southwest from Marble Island and Orr Island. The shores and islands in the inlet and sound are wooded and generally high. The entrance to El Capitan Passage is at the northeast end of Sea Otter Sound.
- (574) The entrance to Davidson Inlet is 2 miles wide between Whale Head and Surf Point, the northwest extremity of Heceta Island. **Surf Point Light** (55°50'01"N., 133°38'00"W.), 29 feet above the water and shown from a monopile with a red and white diamond-shaped daymark on the point, marks the southeast side of the entrance. **Surf Point** is low and wooded. From it broken ground extends about 0.7 mile north, with a 1¼-fathom shoal 0.3 mile northeast of the light. During severe weather the seas are reported to pile up heavily and it is advisable to give the point a berth of at least 1 mile.
- (575) **Whale Head** (55°51.1'N., 133°40.9'W.), a prominent cliff 50 to 300 feet high that shows up conspicuously offshore to the southwest, marks the northwest side of the entrance. It is the south extremity of **Whale Head Island**.
- (576) Broken ground extends 0.6 mile south of Whale Head, with a 1½-fathom shoal that breaks about 0.5 mile, and a ¾-fathom patch, marked by kelp, about 0.6 mile south-southeast of the head. **Whale Rock** uncovers 3 feet and is 0.5 mile south-southwest of the head. A midchannel course through the entrance clears all dangers.
- (577) North of Whale Head Island is a chain of islands that extend to the south end of Kosciusko Island. The passes between these islands are suitable for small craft only.
- (578) **Fake Pass**, the southernmost of the two larger channels north of Whale Head Island, has a minimum depth of 4 feet. A rock awash is near the center of the southwest entrance. The seas pile up heavily on this rock and in the pass during moderate to severe southwest weather. **Cosmos Pass**, the northernmost channel, has a controlling depth of about 5 feet and current of not more than 3 knots and is used by small boats bound to and from Warren Channel. Breakers cover the west entrance to Cosmos Pass in heavy southwest weather. A rock awash is near midchannel.
- (579) **Port Alice**, on the south side of Davidson Inlet east of Surf Point, is a secure anchorage. A ledge, about 0.4 mile inside the entrance, extends about 0.5 mile from the east shore into the bay; two rocks that uncover 8 and 5 feet are near its center. To enter, give the points at the entrance a berth of about 0.5 mile and enter in midchannel. Follow the west shore at a distance of about 250 yards, passing west of the ledge until about 0.5 mile from the head of the port, where good anchorage will be found in the middle in 14 to 18 fathoms, soft bottom. Water can be obtained by boats from several small streams.
- (580) **Green Island**, 4.2 miles northeast of Whale Head, is about 0.5 mile in diameter. A shoal with a depth of 2¼ fathoms near its center extends about 0.7 mile south-southwest from the small island southeast of Green Island. The 2¼-fathom spot and a 3½-fathom patch about 300 yards to the southwest are surrounded by kelp.
- (581) **White Cliff Island** is on the east side of Davidson Inlet about 4.2 miles east of Green Island. A rock, with 1¼ fathom over it, is about 1.4 miles west of the island, and a 3½-fathom shoal, marked by kelp, is about 1.9 miles west-northwest from the northwest extremity of the island. Davidson Inlet and Sea Otter Sound have numerous other unmarked isolated dangers and shoals. They are shown on the chart and, with close attention, can be avoided.
- (582) **Edna Bay** is on the west side of Davidson Inlet, 5.5 miles north of Whale Head. It has good anchorage about 0.3 mile from the south shore in 14 to 17 fathoms, soft bottom. Islets and foul ground make out 0.5 mile from the west end of the bay; foul ground makes off in the north part of the bay, about 750 yards from the west shore and about 500 yards south from an islet.
- (583) In 1986, an uncharted reef, covered 5 feet, was reported about 50 feet southwest of the face of a T-float at the north end of Edna Bay.
- (584) **Limestone Point**, the north entrance point to the bay, is marked by **Edna Bay Entrance Light** (55°56'19"N., 133°36'58"W.), 23 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the end of the point.
- (585) **Entrance Island** forms the southwest side of the entrance to the bay. A narrow channel, west of the island, has a controlling depth of 3 fathoms but should be used only by those with local knowledge. Kelp-marked reefs extend 300 yards south of the island. A shoal, with depths of 3½ fathoms near its south end and 7¾ fathoms at the north end, extends 0.2 mile north of the island and about halfway across the entrance. At about midchannel 18 fathoms are found. A 9-fathom spot is just inside the

entrance about 0.3 mile west of Edna Bay Entrance Light. Near the center of the bay are two unmarked shoals with depths of 6 and 8 fathoms. The chart is adequate for the entrance east of the island.

(586) A rock, covered 9 feet and marked by a buoy, is at the southeast end of the extensive shoal area making out from the west side of the bay. About 300 yards southeast of this shoal is an unmarked 8-foot shoal.

(587) **Edna Bay Light 3** (55°56'28"N., 133°39'30"W.), 20 feet above the water and shown from a small house with a green square daymark on the west escarpment of the bay, is the guide for a channel between these shoals, leading northwest to an inner bay. The 10- and 14-foot shoals are near midchannel about 275 and 375 yards, respectively, north of the light. Strangers should not attempt this channel without first obtaining local information.

(588) Small boats will find excellent shelter in the extreme southwest part of the bay from winds from the southeast through south to west, in depths of 3 to 12 fathoms, with good holding ground, sticky mud.

(589) **Van Sant Cove** is a small open bight on the west side of Davidson Inlet, about 4 miles northeast of Edna Bay. A reef is off the south point of the entrance.

(590) **Tokeen Cove**, opposite Van Sant Cove, is on the northwest end of Marble Island. Anchorage can be had west of the ruins of a wharf, on the east side of the cove, in 14 to 18 fathoms. Small craft can find anchorage in 4 to 8 fathoms, soft bottom. The cove is shoal south of the wharf site. A rock that uncovers 6 feet is 300 yards west from the northeast point of the cove.

(591) **Tokeen Bay**, on the east side of Davidson Inlet, about 12 miles northeast of Whale Head, extends east-northeast for about 4 miles. Its east side is connected with El Capitan Passage by a high-water boat passage. A shoal, with about 1½ fathoms over it, is in the middle of the bay, about 2.4 miles east of the north point at the entrance. Elsewhere in the bay a midchannel course is clear, but there are rocks near the shores and care is required in its navigation.

(592) Anchorage can be found in the middle of Tokeen Bay, about 0.5 mile east from the north point at the entrance in 14 to 16 fathoms; also at the north end, northeast side, and southeast end of the bay. There are several sheltered anchorages for small craft, one of which is at the head of the bay behind the small islet in 4 fathoms, mud bottom. The area east of the small wooded islands in the southeast part of the bay also offers good anchorage in 4 to 10 fathoms, mud bottom.

(593) **Marble Passage** extends northeast from the northeast part of Davidson Inlet between **Marble Island** and **Orr Island**. The approaches to the channel at each end are obstructed by rocks and ledges, and about midway between the ends the channel shoals to depths of about 2 feet. Numerous rocks both submerged and awash are throughout the passage. The tides meet in the north part of this passage.

(594) **Sea Otter Sound** extends west from Karheen Passage and Tuxekan Island along the north side of Heceta Island to Davidson Inlet. Its northwest shore is formed by numerous islands, large and small. The sound is about 6 miles in extent, with depths of 15 to 75 fathoms, irregular bottom. The sound has few desirable anchorages. With the assistance of the chart, depths suitable for anchorage can be found on its east side, but care is required because of submerged rocks that are generally marked by kelp during summer.

(595) **Turn Point** (55°50.8'N., 133°21.5'W.), low and wooded, is on the east shore of the sound and forms the north point at the northwest entrance to Karheen Passage. The cove east of Turn Point has considerable foul ground.

(596) About 1.7 miles south of Turn Point are a group of wooded islands that form the south shore of the northwest entrance of Karheen Passage. Shoals, marked by kelp, extend for about 0.5 mile north of the west islands of this group. Good anchorage for small vessels can be found back of the islets and shoals about 1.2 miles west-southwest of the light on Peep Rock (55°49.2'N., 133°19.8'W.). By running on a northwest course, keeping Clump Island on range with the gap between the two largest islands in this group, the mariner will find suitable depth in less than 20 fathoms.

(597) The cove on the north end of Heceta Island, just west of Camp Island and about 5 miles southwest of Turn Point, is shoal in its east part. Protected anchorage for small craft can be found in the westernmost of two bights at the head of the cove, with restricted swinging room.

(598) **Gas Rock** is the bare islet about 0.6 mile from Heceta Island and 4 miles east of Whale Head. **Clump Island**, 2.8 miles east-northeast of Gas Rock, is the outer one of a group 1.3 miles south of Eagle Island, with foul ground between. A shoal with depths of 4¾ to 6½ fathoms is about 0.9 mile south-southwest of Clump Island.

(599) **White Cliff Island** is about 0.9 mile north of **Eagle Island**. It is wooded and has a prominent white cliff on the southwest side, **Fox Rock** is about 0.4 mile west of the Eagle Island group. **Dove Island, Owl Island, Hoot Island** and **Cap Island** are some of the small wooded islands in the north part of Sea Otter Sound. The passages between Owl Island, Hoot Island, and Orr Island should be used only with local knowledge.

(600) **Cyrus Cove**, North of Owl Island, is a small bight in the north part of the sound and is an excellent anchorage for small boats. The best anchorage, in depths of 5 to 11 fathoms, good holding ground, mud bottom, is in the center of the north part where the cove branches to east. Five fathoms can be carried through midchannel to this anchorage. Smaller vessels may anchor in shoaler water in midchannel in the east arm of the cove.

(601) The channel close east of White Cliff Island is known as **White Cliff Passage**. A rock, with 9 feet over it, is in midchannel about 0.35 mile southeast of the southeast end of White Cliff Island.

(602)

El Capitan Passage

(603) **El Capitan Passage** has its entrance on the northeast side of Sea Otter Sound. It extends about 18 miles in a north direction from Sea Otter Sound to Aneskett Point, then trends west for about 6.5 miles to Shakan Strait. The south part of the passage is 1 to 4 miles wide, forming a bay about 7 miles long with numerous rocks and islets. To the north of this section the passage is 0.3 to 1 mile wide and is comparatively clear to Aneskett Point. The shoreline should not be approached too closely, as numerous rocks, awash at various stages of the tide, are close-to. From a point about 3.5 miles west of Aneskett Point to Shakan Strait a 12-foot channel has been dredged through the shoals to provide a protected route for fishing vessels and log rafts.

(604) Numerous bights and inlets indent the shores of the passage. The islands in the passage are heavily wooded without any marked characteristics of interest to the navigator.

(605)

Channels

(606) Local knowledge is desirable for safe navigation through the channels in El Capitan Passage. This applies in particular to the section between Aneskett Point and Shakan Strait, including **Dry Pass**. From north of Tenass Island to Aneskett Point, midchannel courses hold good; from Sea Otter Sound to Tenass Island, various courses among the islands may be followed. The charts are the guide to safe navigation. The channel above Aneskett Point favors the south shore until about 1.8 miles west of the point, where it takes a turn to the south-southwest and narrows. Here a small wooded islet in the midchannel should be left to the west. Then for about 1.5 miles a midchannel course should be followed to the east end of a federal project about 2.8 miles long that provides for a 12-foot channel dredged through seven shoals, including Dry Pass, to the west entrance of El Capitan Passage at Shakan Strait. Daybeacons mark the dredged sections of the channel.

(607)

Anchorage

(608) All of El Capitan Passage is protected, and large vessels can anchor wherever the depths are suitable; the chart is the best guide. Small craft can usually find anchorage in the bights and inlets that indent the shores of the passage.

(609)

Tides and currents

(610) In the south part of El Capitan Passage, the current floods north from Sea Otter Sound. In the channel between El Capitan Island and Tuxekan Island, the velocity of the current may reach 3 knots. In the channel north of Tenass Island the current is reported to be negligible. In Dry Pass, the current floods east with a velocity of 1.8 knots and ebbs west with a velocity of 0.9 knot. (See the Tidal

Current Tables for daily predictions.) High and low water in this vicinity occur at practically the same time as at Sitka.

(611)

Cap Island to Tenass Pass

(612) **Cap Island** is at the south entrance to the passage. **Knob Island**, about 0.5 mile north of Cap Island, is a small wooded island with two knobs. The channel between it and El Capitan Island is about 100 yards wide and has depths of 2 to 3 fathoms. Rocks are offshore on either side of this channel. Rocks extend off the shore of the island for about 100 yards. **Dot Island** is the larger of two islands about 0.3 mile north of the northernmost point of Cap Island.

(613) **El Capitan Island** is near the south end of the passage. A narrow inlet is in the south side of the island where rocks and depths less than 1 fathom are found. Off the southeast end of the island, separated from it by a narrow, high-water channel, is a small wooded island. A daybeacon marks a group of rocks off the east side of El Capitan Island. On the west side of El Capitan Island, about 1.6 miles north of Knob Island, is a deep bight with three islands in the entrance.

(614) **New Tokeen** is a small settlement at the head of the bight.

(615) **New Tokeen Harbor Entrance Light** (55°56'11"N., 133°19'51"W.), 35 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the south end of the southernmost island at the entrance.

(616) The bight is entered from the south through a clear channel. A wharf, with a 100-foot face and reported to be in poor condition, is on the north side of the bight; depths of about 24 feet were reported alongside in 1976. A mooring float 180 feet long is anchored in the bight for the use of fishing vessels. Limited amounts of ice, gasoline, diesel fuel, water and provisions can be had during the fishing season.

(617) New Tokeen maintains radiotelephone communications with other parts of Alaska and with other states. Charter seaplane service is available with Ketchikan and communities on Prince of Wales Island.

(618) **Twin Islands** are a group of small islands about 12 feet high about 0.6 mile west of the south end of El Capitan Island. Several rocks are on the reef 0.4 mile northeast of Twin Islands.

(619) **Fir Rock** is a rock awash at higher high water 0.3 mile west-northwest of Twin Islands. Rocks awash are close-to.

(620) **Keski Island** is a wooded island about 1 mile north of Knob Island on the west side of El Capitan Island. Foul ground extends 250 yards west from the south end of the island, and irregular bottom extends 0.25 mile west off the northwest part of the island.

(621) **Flat Island** is a small island on the south end of the large shoal area east of and close to Teal Island.

To the northeast of Flat Island is another small island. Submerged rocks extend in a north direction from Flat Island for 250 yards to a rock awash at high water.

(622) **White Point** is the northwest point of a bight on the west side of El Capitan Island east of Singa Island. Foul ground extends for about 100 yards south of White Point. **Teal Island** is the southernmost of three large islands west of El Capitan Island. Rocks extend off the south shore for about 0.2 mile.

(623) **San Island** is the largest and middle of the group west of El Capitan Island. Between San Island and Teal Island are several islets and foul ground.

(624) **Singa Island** is the northernmost of the three large islands west of El Capitan Island. Between Singa Island and San Island are several islets with channels between, navigable by small boats.

(625) **Scow Island** is a small island north-northeast of Singa Island and about 0.3 mile northwest of the north end of El Capitan Island.

(626) **Hub Rock** (55°56.5'N., 133°17.8'W.), 8 feet high, almost in midchannel, east of El Capitan Island, is a prominent landmark marked by a daybeacon. Foul ground and irregular bottom extend for almost 0.2 mile from north through west to south from the rock.

(627) **Graveyard Island**, about 1.4 miles north-northeast of Hub Rock, is a small island with a few graves on it at the entrance to Sarkar Cove.

(628) **Brockman Island**, about 0.6 mile to the northwest of Graveyard Island, is the largest and most southerly of a group of three islands.

(629) **Burnt Island** is the small island about 325 yards north-northeast of Brockman Island. The island is covered with a heavy growth of underbrush and a few young second-growth trees. **Burnt Island Light 5** (55°58'27"N., 133°17'45"W.), 15 feet above the water, is shown from a skeleton tower with a square green daymark on the island.

(630) **Tenass Island**, about 1 mile north of Burnt Island, is southeast of the east entrance to Tenass Pass. A 4-fathom shoal is 0.6 mile northeast of the north end of the island.

(631) **Sarkar Cove**, on the east side of El Capitan Passage, is entered about 1.3 miles southeast of Burnt Island Light 5 and is about 6 miles from Sea Otter Sound and about 18 miles from Shakan Strait. The cove affords good anchorage in 6 to 8 fathoms, mud bottom. A large lake empties into the head of the cove through a series of rapids. Water at the lower end of the lake is brackish and at the head is fresh. The lake is an important spawning ground for red salmon.

(632) In entering Sarkar Cove favor the north shore to avoid a rock, awash at high water, 0.6 mile northeast of **Sarkar Point**. A 3½-fathom patch is 0.2 mile east of Graveyard Island.

(633) **Salt Water Lagoon** is about 0.5 mile northeast of Sarkar Cove. It is connected to **Tunga Inlet** by short rapids. Water ebbs from the lagoon for about 2½ hours after low water. At slack water, about 2½ hours after high water, a launch drawing 4 feet may pass through the entrance into the lagoon.

(634) **Clam Cove** is a small cove about 1.1 miles north of Sarkar Cove. **Clam Island** and rocks block the south part of the entrance. The head of the cove is shoal. Mariners should navigate with caution, referring to the latest edition of the chart.

(635) **Rocky Cove** is a small cove about 0.4 mile north of Clam Cove. In midchannel, off the entrance, is a rock awash at minus tides with deep water on all sides; it is usually marked by kelp. The cove is foul.

(636) **Tenass Pass**, north of **Spanberg Island**, and **Brockman Pass**, south of the island, connect Tokeen Bay with El Capitan Passage. Both passes bare at low water. Tenass Pass carries slightly more water than Brockman Pass but is very narrow, having a width of 25 feet at one place where the current exceeds 5 knots at times. Boats drawing 7 feet have gone through Brockman Pass on extreme high tides.

(637)

Sarheen Cove to Aneskett Point

(638) **Sarheen Cove** (56°03.0'N., 133°15.9'W.) is on the east shore of El Capitan Passage about 5.3 miles north of Sarkar Cove and about 6 miles south from Aneskett Point. Depths of 8 to 10 fathoms were found within the cove except toward the head where it is shoal.

(639) **Devilfish Bay** is on the west side of the passage about 3 miles north-northwest of the entrance to Sarheen Cove and 3.5 miles south of Aneskett Point. The bay consists of two parts connected by a narrows; the east part has depths of 34 to 52 fathoms at the entrance, shoaling to 7½ fathoms about 0.1 mile from the narrows. The bight in the north corner of this part of the bay is shoal.

(640) The narrows, about 170 yards wide, expands into an arm with depths of 7½ to 18 fathoms at midchannel to within 0.8 mile of the head. About 0.5 mile from the head of the arm, in midchannel, is a submerged rock with ¾ fathom over it. The narrows is constricted by a rock in midchannel, awash at high water. Depths of 3½ fathoms west and 5 fathoms east of the rock were found, but the channel should not be attempted until seen at low water. Currents of 2 to 3 knots were observed in the vicinity of the rock.

(641) **Aneskett Point**, bold and wooded, is on the west side of the passage where its trend turns from north to west. North from the point is a wooded island that may be passed on either side.

