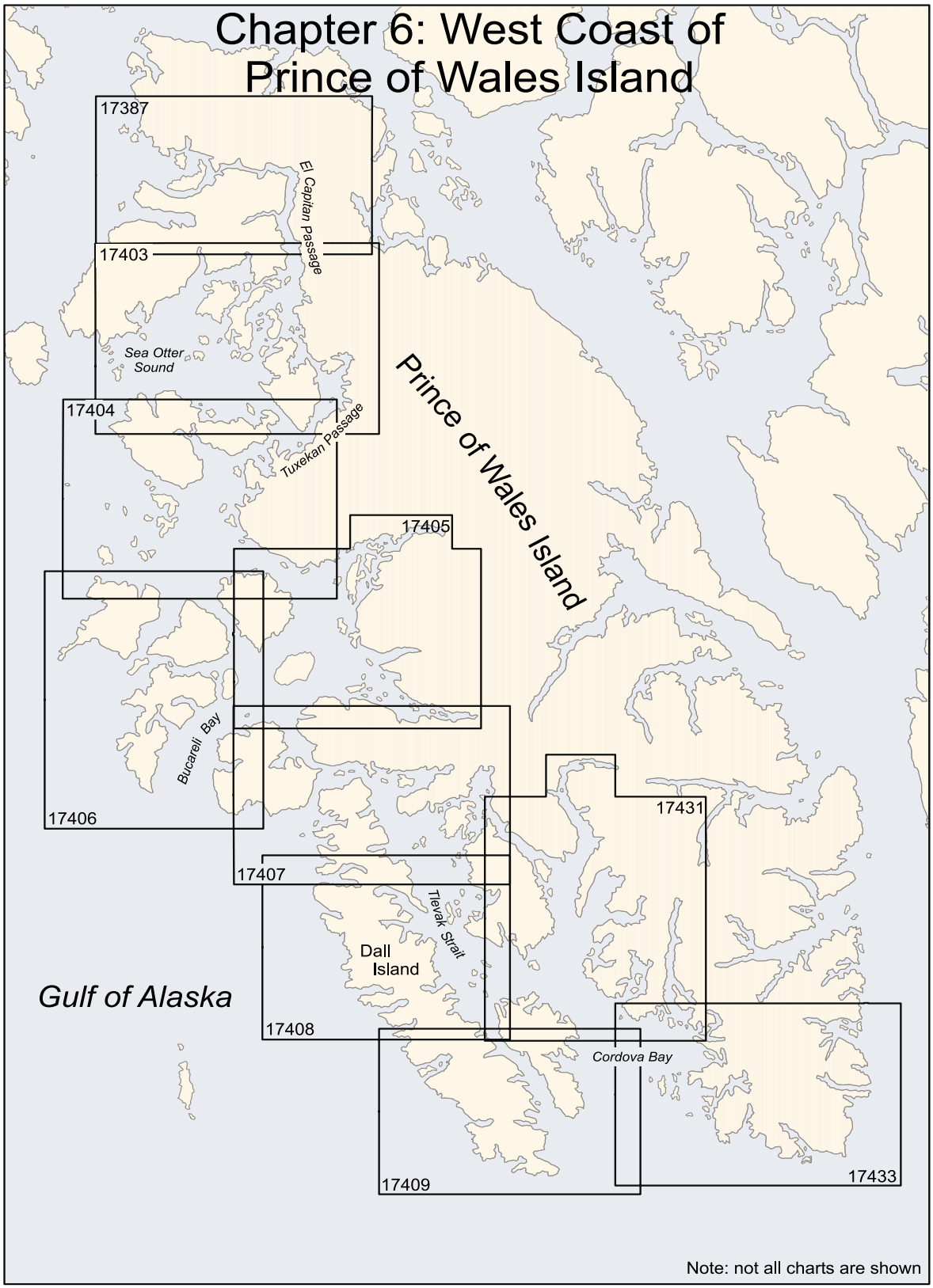
Chapter 6: West Coast of Prince of Wales Island
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West Coast of Prince of Wales Island

(1) This chapter covers the outer coast between Dixon Entrance and Sumner Strait, and includes the inlets and bays on the W 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 W 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.

Chart 17400

(2) The connecting bodies of water, along the W 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.

Currents

(3) A few observations made during June 1917, at times when the sea and air were calm, show a NE to NW set varying from 0.3 to 1.3 knots between Dall Island and Forrester Island. W of Lowrie Island at the 100-fathom curve, a NE to N sea of 0.1 knot to 0.8 knot was observed. Near the 1,000-fathom curve, a slight S set was experienced during calm weather.

(4) 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 N set during flood. Tide rips are usually found around Forrester Island and in the passages between the rocks.

Weather

(5) Along the inside passages between Dixon Entrance and Sumner Strait, the rugged islands W 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 SE 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 E through SE. 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.

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

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

(8) There are no secure anchorages off Forrester Island. During the summer, small craft anchor in four different places: Wood Cove, Eagle Harbor, the N end, and the bight on the W side near the N 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.

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

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

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

(12) N 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.

(13) 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 W from the point on the N side of the bight in the NW end of Forrester Island. Breakers are N and S 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.

(14) 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 N end of Forrester Island and S 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.

(15) **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.

(16) **Dall Island**, the largest island off the W coast of Prince of Wales Island, is about 40 miles long from Cape Muzon, its SE extremity, to Eagle Point, its NW 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 E and W coasts of the island are indented by numerous bays, coves, and inlets, some of which are excellent harbors of refuge.

(17) The W 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.

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

Chart 17409

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

(20) **Wolk Harbor**, about 3.5 miles W 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.

(21) **Liscome Bay**, about 4.3 miles WNW of Cape Muzon, affords an anchorage for small vessels, but is exposed to S weather and swell. A submerged rock is about 100 yards off the E shore, about 1.1 miles within the entrance, where the bay narrows. A small rock is about 230 yards N of the submerged rock. Favoring the W 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.

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

(23) **Security Cove** is 2.7 miles N of Point Cornwallis. Two rocks awash are close off the S 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 N 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.

(24) **Essowah Harbor** is about 1.7 miles NNW 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 S of Essowah Lakes, empties near the entrance to Essowah Harbor.

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(25) **Parrot Rock** is about 0.9 mile WNW from **Essowah Point**, the point S of the entrance to Essowah Harbor, and is about 0.2 mile offshore.

(26) **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 NW of Point Cornwallis. The NW mountain top is a small bare tip; the SE 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.

(27) **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 NW and SE. W from Dolgoi Island, on the S side of the entrance to the N channel, is a group of four islets close together. The W side of the outermost islet is a precipitous sharp pointed rock, light brown to white, 125 feet high; the E 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 NW from the W extremity of the largest islet.

(28) Port Bazan affords good anchorage N and NE of the islands that stretch across the E part of the bay. The anchorage is well protected from the swell and is generally free from williwaws. It can be entered either SE or NW of Dolgoi Island, but the NW 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.

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

Tides and currents

(30) The mean tide range is about 9 feet while the diurnal range is about 11 feet. Currents are reported to seldom exceed 1 knot.

Chart 17408

(31) **Gooseneck Harbor** (54°53'N., 133°03'W.), about 4 miles NW of the NW entrance point to Port Bazan (chart 17409), is identified by a black rock, 65 feet high, close S 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 W of a small islet off the S shore. A rock, that bares, is almost in midchannel, about 0.8 mile inside the entrance. In entering, follow the N shore at a distance of about 250 yards until about 1 mile inside. After rounding the point on the N side, find anchorage for small craft 100 yards off the N shore, 1.5 miles within the entrance.

(32) **Gold Harbor**, about 2 miles NW of Gooseneck Harbor, is reported clear in midchannel. On the N side of the bay is a peak, on the S 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 NW of the N shore are **Twin Peaks** about 500 yards apart. The peaks are bare above an elevation of 1,700 feet.

(33) About 0.9 mile from the entrance, to the S of midchannel, is a small island. A midchannel course, passing N of the island leads to the head of the bay, where depths of 23 to 29 fathoms are found. The small cove W of the NW point of the entrance to Gold Harbor is foul.

(34) **Waterfall Bay** is about 4.5 miles NW of Gooseneck Harbor. The entrance is distinguished by a bold, bare point on the SE 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 E of the head. Two small islands, one close to the N shore, and the other about in midchannel, are about 0.9 mile ENE of Gourd Island. Dangers are shown on the chart. The bay has two prominent waterfalls: one at the head and the other on the N shore close to the N island and several islets.

(35) The bay may be entered NW or SE of Gourd Island. A narrow area with 8 fathoms on it extends from the N shore of the bay to within 270 yards of the N 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 N side of Gourd Island for about 100 yards.

(36) 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 S of the S island with an 8-fathom spot, marked by kelp, and a 3¼-fathom spot, which are about 0.2 mile SW and 0.1 mile ESE, 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 E.

(37) Anchorage may be had near the head of the bay in about 26 fathoms, sticky bottom. W winds draw into the bay with considerable force. With SE winds, williwaws are severe. Small craft anchor in 10 fathoms

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on the NW side of the bay, just N of the N 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.

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

(39) **Augustine Bay** is a small bay N 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.

(40) **Welcome Cove** is about 1.5 miles N 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.

(41) **Camp Cove** is about 2.5 miles N from Cape Augustine. Off the entrance is a rock 15 to 20 feet high with foul ground that extends in a NNE direction to the shore. The S shore of the cove is foul.

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

(43) **Fisherman Cove** is about 4.5 miles N from Cape Augustine. At the entrance is a small island that has a few scattered trees. In entering, pass the S point of this island at a distance of about 100 yards and steer for the left or W 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.

(44) **Sakie Bay** is about 7.5 miles NNW from Cape Augustine. Rocks and reefs extend 0.6 mile offshore in a WSW direction from **Sakie Point**, the S 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 N shore at the entrance. The channel, about 300 yards wide, is to the S of Table Rock. Tide rips, severe for small craft, are experienced at the entrance. The bay has not been thoroughly surveyed.

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

(46) **Cape Lookout** (55°06'N., 133°14'W.) is a prominent headland about 2 miles N of Sakie Bay. From the cape, extending in a SE 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.

(47) There are several breakers off Cape Lookout. One, about 3.4 miles WNW 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 WNW from the cape; 0.4 mile N of it is another shoal, covered with a heavy mass of kelp, which breaks only in a heavy sea.

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

(49) **Entrance Island**, a prominent rock, is 0.6 mile NW of Cape Lookout and a little to the S 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 W side, and a berth of about 0.3 mile from the N around to the S side. Kelp patches extend from the island to a breaker 0.8 mile in a S direction, and about 0.4 mile off Cape Lookout.

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

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

(52) In entering Sea Otter Harbor, small boats, with local knowledge, frequently use a channel to the E of Entrance Island, passing close to Cape Lookout. A rock awash, about 450 yards ESE of Entrance Island, is left to the W.

(53) **Hook Arm**, the N 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 N of Channel Island. A small sand and gravel beach is at the head of this bight.

(54) **Camp Island**, small and rocky, is close to the W shore of Hook Arm, about 0.5 mile N of Clear Point.

(55) **Channel Island**, separated by a very narrow passage from the W shore of Hook Arm about 0.8 mile N of Clear Point, is wooded. **Low Rock** and a rock awash close E are 200 yards off the S shore of Channel Island.

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

(57) The W 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.

(58) **Manhattan Arm**, the SE 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.

Chart 17407

(59) **Foul Bay**, immediately N of Juel Point (55°07.6'N., 133°13.6'W.), is about 2.5 miles N 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.

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

(61) **Suemez Island**, about 8.5 miles in diameter, is W of and separated from the N 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.

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

(63) **Diver Islands**, off the E shore of Meares Passage, are prominent in the approach from seaward. The W island is wooded; the E island has a lone tree on its summit. The passage E of the islands is narrow, and its shores are marked by heavy kelp. Most small craft coming from the S use this passage when the weather permits.

(64) **Diver Islands Light** (55°10.7'N., 133°15.9'W.), 130 feet above the water, and shown from a small house with a red and white diamond-shaped daymark on the NW side of the island, marks the SW entrance to Meares Passage.

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

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

(67) **Bobs Bay**, NE 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 S of the largest outer island, and follow the E side of the island at a distance of about 250 yards. Pass in midchannel S of the high island off the entrance to the E arm.

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

(69) In the N 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.

Currents

(70) The tidal currents in Meares Passage set NE on the flood and SW on the ebb. The estimated velocity of the current is about 1 to 1.8 knots. S of Meares Island the flood sets E and the ebb W with an average velocity of 2.1 knots. (See the Tidal Current Tables for daily predictions for places in Meares Passage.)

Chart 17400

(71) **Cordova Bay** has its entrance on the NW 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 N direction from between Dewey Rocks and the SE 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 N direction for about 15 miles to Gould Island.

(72) The best entrance to the bay is between Barrier Islands and Long Island, but Eureka Channel, E of Barrier Islands, is sometimes used by vessels with local knowledge. From Cordova Bay and Hetta Inlet, Tlevak Strait and Sukkwan Strait extend NW and afford passage through channels to Bucareli Bay. Small craft ply

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from Ketchikan to Cordova Bay, Hetta Inlet, and other points on the W coast of Prince of Wales Island.

Currents

(73) In Cordova Bay and adjacent waters the flood current sets N and the ebb current S. 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.)

Chart 17409

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

(75) Off the E 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 N 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 S 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 S shore of the cape. Vessels in passing should give the cape a berth of at least 1 mile.

Local magnetic disturbance

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

(77) The N side of Cape Muzon trends NW for about 2.5 miles, forming the S side of **McLeod Bay**. Temporary anchorage in 5 to 9 fathoms, exposed to all E winds, may be had in this bay, about 0.5 mile NW 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 N of McLeod Bay.

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

(79) **Long Island** forms the W side of Cordova Bay for a distance of about 12 miles. The E 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.

(80) 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 S 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 S and SE parts of the island should be given a berth of not less than 0.8 mile.

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

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

(83) **Nina Cove**, on the S 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 S of the small islet in the center of the cove at its head.

(84) **Coning Point**, the N 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.

(85) **Natoma Bay**, on the E side of Long Island about 6 miles from its S end, is about 1 mile in diameter and open to E and SE. Partially protected anchorage can be had in the N 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 NW of the islets. The shores of the bay are foul and should be given a good berth.

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

Chart 17433

(87) The E 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.

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

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(89) **Round Islands Light** (54°46.7'N., 132°30.4'W.), 56 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the SW side of the westernmost of the Round Islands, marks the E approach to Cordova Bay.

(90) **Round Islands**, about 7 miles NW 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 WSW of Round Islands Light. Between the reef and the island are other rocks awash and kelp patches; this area should be avoided.

(91) **Dewey Rocks**, about 1.8 miles SSE 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.

(92) **Egg Rock**, 20 feet high and bare, is about 0.5 mile N of Round Islands, with extensive areas of kelp between. A wooded islet, 60 feet high, is about 1 mile N 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 E of Egg Rock and Round Islands; this passage is not recommended for strangers.

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

(94) **Barrier Islands** are an extensive group of wooded islands between 4 and 8 miles NW of Point Marsh, and E 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 SE edge of a foul area containing numerous rocks awash. A 1½-fathom shoal is approximately 0.7 mile SSE of Black Rock. Approach courses to seldom-used channels through the Barrier Islands pass about 0.5 mile both E and W of Black Rock. These two passages, **Rocky Pass** and **Kelp Passage**, continuing E and W, respectively, of **Middle Island**, are useful only to small craft. It is possible to carry 2 fathoms of water through the W passage and 7 fathoms through the E.

(95) **Mexico Point**, at the SE end of Eureka Channel about 3 miles NW of Point Marsh, is the W 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 S and SE 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 N and NE 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.

(96) **Hessa Inlet**, NE 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 N of **Hessa Island**, but it can be approached from the S 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.

(97) **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 W 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.

(98) **Far Point**, on the W side of Eureka Channel and at the SE extremity of Barrier Islands, is about 1.4 miles NNW of Mexico Point. Eureka Channel Daybeacon 1 is on the S end of the small island about 0.4 mile NE of Far Point.

(99) **Center Island** is a small round island with a few trees, about 1.6 miles NNE of Far Point and 0.4 mile SSW 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 W of Center Island.

(100) About 0.6 mile N 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 W shore. About 480 yards N of the N end of The Narrows is a submerged rock that is awash at extreme low tides.

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

Currents

(102) Tidal currents through The Narrows have an estimated velocity of from 1 to 2 knots. The flood sets N, and the ebb S.

Routes, Eureka Channel

(103) From a point 670 yards W of the rocky islets off Mexico Point, a course of **002°** will keep in the deepest channels and clear all dangers in the S part of Eureka Channel. Center Island Reef Daybeacon 3 is on the leading bearing on this course. It is almost on range with the E tangent of the second group of islands W of The Narrows. The **002°** course passes 345 yards E 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 NNE of Eureka Channel Daybeacon 1. When Center Island Daybeacon 3 is distant 440 yards and the W 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 NE 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 N 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 NE of the N point of the island that forms the W side of The Narrows. This rock is awash at extreme low tides. Small fishing vessels also frequently use the channel that leads to the NNW from a point about 0.3 mile S of Center Island Reef Daybeacon 3. An extensive shoal area in this channel is 0.7 mile NW of the daybeacon where the best water is near the W shore.

(104) **Wallace Rock**, with ½ fathom over it and marked on its NW side by a buoy, is about 2.3 miles NE of Boat Rocks. Vessels going to Hunter Bay usually pass well N of it.

(105) **Tah Bay**, NE 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 N of **Tah Island**; the entrance S 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 S part of the bay.

Local magnetic disturbance

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

(107) **Turn Island** (54°52.2'N., 132°23.6'W.) is about 3 miles N of the N 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 W side, but foul ground extends about 0.2 mile NNE and about 180 yards E. A dangerous rock awash is close SSW of the island.

(108) **Turn Point**, marked by an abandoned light structure, is 1.2 miles ENE 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.

(109) **Hunter Bay** makes in for a distance of about 2.5 miles E of Turn Point. The entrance to the bay is obstructed on its N 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 N of it. About 0.4 mile E of the bare rock is an arm leading NNE 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.

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

(111) Hunter Bay has good anchorage about 1.8 miles E from the entrance in 10 to 15 fathoms. The anchorage, however, is subject to strong williwaws with winds from the E meeting those of equal force from the W. Velocities up to 78.2 knots have been experienced here. Nearby, off the S 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.

(112) **Klinkwan Cove**, E 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 NW of Gusdagane Point.

Chart 17431

(113) **Klakas Inlet** joins Cordova Bay W 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 E side, offers good anchorage for small craft near the SE end in 8 fathoms, mud bottom. The main entrance to Klakas Inlet is E of **Klakas Island**; the deepest water favors the W side of the entrance. Local fishermen frequently use **Ruth Cutoff**, the narrow pass N of Klakas Island that has a controlling depth of 1¾ fathoms and extends from Ruth Bay to Klakas Inlet.

(114) Good anchorage in a depth of about 16 fathoms can be found E of a small wooded island about 1.5 miles ENE of the N end of Klakas Island. A rock that uncovers 3 feet is about 0.2 mile SW of the small island.

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

(116) **Shipwreck Point** (54°53.8'N., 132°29.5'W.), 2.5 miles W 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 W from this point.

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(117) **Ship Islands**, 50 to 120 feet high, with outlying rocks and ledges, are about 0.5 mile offshore, W of Shipwreck Point. Small craft from Turn Point pass N of Bird Rocks and between Shipwreck Point and the island close-to. The narrow channel has a submerged rock. The pass to the W of the inner island is preferable; avoid the rock in the middle of the entrance.

(118) **Kassa Inlet**, just N 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.

(119) **Point Webster**, about 6 miles NW of Shipwreck Point, is a small projection where the E 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.

(120) **Elbow Bay** (54°54.5'N., 132°39.4'W.), on the W side of Cordova Bay, indents the NE 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 SE arm in 13 fathoms, mud bottom. The anchorage is about 250 yards wide. A large lagoon extends S from the W end of the bay, where it is connected by a narrow rocky channel. Rapids make this channel impassable except at high water.

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

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

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

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

(125) **Jackson Island**, about 1.8 mile N of Shoe Rock and close SE of the S end of Sukkwan Island, has prominent cliffs on its S side. About 300 yards SW of these cliffs are two dangerous rocks that bare only on minus tides. The channel between Jackson and Lacey Islands, to the E, is partially obstructed by **Triplet Rocks**. The most prominent rock of this group uncovers 10 feet. **Jackson Passage**, the channel W of Jackson Island, is clear in midchannel.

(126) **Lacey Island**, about 0.9 mile E of the SE 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.

(127) **Mellen Rock** is a bare rock about 0.8 mile off the W shore of Cordova Bay and about 3 miles to the NE of Jackson Island. **Mellen Rock Light** (55°01.6'N., 132°40.0'W.), 32 feet above the water, is shown from a pole with a red and white diamond-shaped daymark on the rock.

(128) **Hassiah Inlet**, on the E shore of Cordova Bay, about 3 miles ESE of Mellen Rock Light, is about 2 miles long to the head of its NE and E arms; the latter is a landlocked anchorage known as **Mabel Bay**. **Mabel Island**, on the S side of the entrance, is wooded; a low place in the center gives the appearance of two islands. **Helen Island**, at the entrance to S arm and Mabel Bay is low and wooded, and has rocky beaches on the N and W shores and sandy beaches on the E and S shores.

(129) To enter Mabel Bay pass N and E of Mabel Island, giving it a berth of 0.2 mile, and steer for the E end of Helen Island. Follow a careful midchannel course, passing NE of Helen Island, and anchor about 0.3 mile from the islet at the head in 10 to 12 fathoms.

(130) **Nutkwa Inlet** and **Keete Inlet** are at the head of Cordova Bay E of Lime Point. Nutkwa Inlet, about 4.5 miles N of Point Webster, is 1.5 miles wide at the entrance and extends about 5 miles NNE. 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.

(131) **Nutkwa Lagoon** is a narrow body of water about 3.5 miles long with midchannel depths of from 40 fathoms at the SW end to 20 fathoms at the NE 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.

(132) **Keete Inlet** has its entrance about 2.5 miles E 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 S of **Keete Island**, about 0.8 mile W of **Keete Point**, the S point of the entrance to the inlet. A shoal with a least depth of 3 feet extends N about 0.5 mile from the N end of Keete Island. Inside the bay, a rock that uncovers 5 feet is about 1.1 miles E of Keete Point. Good anchorage in 20 fathoms, mud bottom, can be had S of the small island at the bend in the inlet.

(133) **Hetta Inlet** extends 5 miles N from Lime Point to the entrance of Sukkwan Strait, and is about 2 miles wide. Then it trends in a general NNW direction for 11 miles to Gould Island, above which it is navigable for

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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.

(134) **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 S. Three bare rocks are about 0.2 mile S of the point, with other rocks, submerged and awash, between. A submerged rock and a 4-fathom spot are 0.1 mile SW and 0.2 mile S, respectively, from the southernmost of the three bare rocks.

(135) **Mud Bay**, the small cove about 2 miles N of Lime Point on the E 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 N of the islet on the S side of Mud Bay.

(136) **Alder Cove**, the small cove 1 mile N 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.

(137) **Eek Inlet**, on the W side of Hetta Inlet, about 0.6 mile N 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 NW of the narrow entrance.

(138) **Hetta Point**, on the E side of Hetta Inlet, about 3.2 miles NE of Eek Point, is bold, rocky, and heavily wooded. The bight about 0.8 mile S of the point, in which are two wooded islets, affords temporary anchorage. The cove E of the point affords anchorage for small craft having local knowledge of the area. The cove has numerous reefs and shoal soundings.

(139) **Copper Harbor**, on the E shore, 2.4 miles NNW 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 S entrance to Copper Harbor.

(140) **Deer Bay**, on the W 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.

(141) **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 E of the island. The W channel should be attempted only at high water, as there is a rock with 1 fathom over it in midchannel at the entrance.

(142) **Dell Island**, about 1.1 miles above Jumbo Island and close to the E shore, is wooded. Anchorage can be had in 14 to 16 fathoms about 250 yards off the N shore of the inlet about 1.4 miles NE of Dell Island.

(143) **Gould Island** practically closes the inlet for a distance of about 1.4 miles. **Gould Passage**, S 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 E end of the passage. **Sulzer Passage**, N 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.

Local magnetic disturbance

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

(145) **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.

(146) **Sukkwan Strait** has its SE entrance between **Eek Point** on the NE and **Round Point**, the E extremity of Blanket Island, on the SW. **Eek Point Light** (55°08.3'N., 132°40.0'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 NW from Hetta Inlet to Sukkwan 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**, 5.2 miles above the entrance.

Chart 17407

(147) **Sukkwan 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 NW with the flood and SE with the ebb. The channel is buoyed, and its W entrance is marked by **Sukkwan Narrows Light** (55°12.1'N., 132°50.5'W.), 16 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the N end of Sukkwan Island.

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

Caution

(149) 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 E of pier. The ledge extends about 290 yards S of the pier and has a depth of 16 feet at its

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outermost end. A pinnacle rock at a depth of 2¼ fathoms is about 350 yards SW of the pier; it is marked by a buoy.

Wharves

(150) Hydaburg has one pier at the SE end of the village, and small-craft facilities in the basin, at the NW end of village, and alongside the pier.

(151) Hydaburg Cooperative Pier (55°12'08"N., 132°49'24"W.): at the SE 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.

Small-craft facilities

(152) Small-craft berthing is alongside Hydaburg Cooperative Pier. In 1976, depths of 7 feet were reported alongside.

(153) A small-craft basin is about 0.5 mile N of the Hydaburg pier. The State-operated floats in the basin provide about 65 berthing spaces. In 1976, depths of 12 to 15 feet were reported alongside. Water and electricity are available at the floats. A harbormaster assigns berthing. A 100-foot by 39-foot grid is inshore of the floats.

Communications

(154) 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.

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

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

(157) **Scrag Islands**, two wooded islands about 75 feet high, are on the E side of South Pass about 1.2 miles to the SW of The Narrows and are separated from Sukkwan 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 N of Scrag Islands. A kelp patch marks a 1-fathom shoal about 600 yards to the NNE 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 SE side, about 2.4 miles SSW of Sukkwan 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.

(158) **Lone Tree Island (Lone Spruce Rock)**, on the S side of the SW entrance to South Pass, is about 0.2 mile W of a 75-foot island. It is a low, grass-covered islet. A rock with two knobs is close-to, to the W. A 1½ -fathom spot is about 300 yards W of the rock.

(159) **Goat Island Light** (55°10.1'N., 132°53.6'W.), 21 feet above the water, is shown from a skeleton tower with a triangular red daymark on **Whisker Point**, the S extremity of **Goat Island**. The light marks the N side of the SW entrance to South Pass.

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

(161) **North Pass**, on the N 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 W. Tidal currents are estimated at 3 to 4 knots. Surveys indicate a least depth of ½ fathom at the shoalest point of the pass.

(162) **Natzuhini Bay**, N 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.

Chart 17400

(163) **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 NW of it, from Dall Island. **Howkan Narrows**, immediately N, is the narrow part of the passage from American Bay to above Channel Islands; it is endangered by several unmarked shoals and reefs. Ships from Dixon Entrance, bound through Tlevak Strait, should preferably use the broad channel through Cordova Bay E of Long Island and enter Tlevak Strait between Long and Jackson Islands.

(164) S of American Bay, the strait is clear of dangers along a midchannel course and may be navigated easily with the aid of the chart. N 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.

(165) The channel through Howkan Narrows opposite the deserted village of Howkan is about 250 yards wide and is between a reef off Howkan, which uncovers 5 feet, and a reef off the W 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. N of Howkan, the channel leads W 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.

Chart 17409

(166) The SE entrance to Kaigani Strait is about 1.8 miles wide between Kaigani Point on the NE and Datzkoo Islands on the SW. It is clear except for the 1¼-fathom shoal 1 mile SE of Kaigani Point and the ¾-fathom rock about 0.5 mile E of the Datzkoo Islands.

Local magnetic disturbance

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

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

(169) **Datzkoo Harbor** is on the E side of Dall Island about 1.6 miles NW of the Datzkoo Islands. The entrance is clear and is N 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.

(170) **South Kaigani Harbor**, immediately N of Datzkoo Harbor, is constricted at the entrance by reefs on the N side and a rock that uncovers 5 feet on the S 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 S 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.

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

(172) The small bight about 0.8 mile N 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.

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

(174) **Bolles Inlet** is a narrow inlet on the E side of Kaigani Strait about 6.5 miles N of Kaigani Point. The entrance is about 0.5 mile NNE from a wooded islet 90 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.

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

(176) **Mission Cove** is a small bight on the E side of Kaigani Strait about 1.4 miles NNE of American Bay. Small craft can anchor here in 6 to 8 fathoms, although there is considerable kelp in the cove. A submerged rock is close off the S shore just inside the entrance.

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

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

Chart 17408

(179) **Channel Islands** (54°52.9'N., 132°49.4'W.), near midchannel in Kaigani Strait and about 0.6 mile NW 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 S from the W end of these islands. The main channel is SW of the islands. The channel NE of Channel Islands is used by small craft going to and from Mission Cove, but is narrow in places between kelp patches.

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

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(181) **Pond Rock**, which uncovers 4 feet and marked by kelp, is 0.5 mile NW of the W end of Channel Islands and 0.5 mile ENE of the entrance to Ham Cove. **West Mill Rock** is the easternmost of two islets close to shore about 1 mile NW 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 ENE and 0.4 mile, NNW, respectively, of West Mill Rock. Kelp extends about 200 yards off the SW side of the large island close W to the NW extremity of Long Island.

(182) From the NW end of Long Island, a group of islands and rocks extend about 5 miles NNW, two of the larger ones being **Aston Island** and **Grand Island**. A small timbered islet, 50 feet high, is about 0.9 mile NW from Grand Island; to the W of this islet, about 0.3 mile, is a cluster of rocks about 15 feet high. A 1-fathom spot, with a 3-fathom spot close to the N, is 0.4 mile W of these rocks.

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

(184) **Grace Harbor**, about 3.5 miles NW of Channel Islands, is on the W side of Kaigani Strait, near its N end. When entering, give **Luke Point** (54°55.8'N., 132°53.7'W.), the N point at the entrance, a berth of over 0.2 mile to avoid the rocks that extend SE from that point, and then stand in for the inner bay or basin in midchannel. Anchor near the middle of the basin in 10 to 16 fathoms, soft bottom, taking care to avoid a ledge that extends 150 yards from the N shore. SW winds draw through a low divide from the ocean.

(185) **Vesta Bay**, 1.5 miles N of Grace Harbor, is entered between Luke Point on the S and **Vesta Point** on the N. The bay is about 1 mile long in a W direction and appears to be clear in midchannel. A 2¾-fathom spot is about 150 yards off the S shore of the bay, 0.5 mile SW 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.

(186) **Rose Inlet**, on the W side of Kaigani Strait, is 1.5 miles NW of Vesta Point and about 20 miles N of Cape Muzon (chart 17409). Two groups of islands are in the entrance with the entrance channel between. There are three patches of light-colored cliffs on the N point of the entrance. The larger and more southerly patch is roughly triangular in shape.

(187) A rock, awash at spring low water, is about 50 yards SE of the prominent point on the N shore, about 1.6 miles WNW of Vesta Point. An unmarked ledge, about 300 yards long with a rock awash at lowest tides on its E end, is 0.7 mile W of the prominent point on the N shore. Submerged pile ruins are 100 yards N of the ledge; caution is advised.

Chart 17400

(188) **Tlevak Strait** and Tlevak Narrows separate Sukkwan Island and Prince of Wales Island from Dall Island and from the group of islands N of Long Island, and extend from Cordova Bay to Ulloa Channel. From Cordova Bay, the main channel of Tlevak Strait trends NW for about 10 miles to McFarland Islands and then NNW 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.

(189) The SE entrance to the strait, about 20 miles N of Cape Muzon, is marked by **Shoe Island Light** (54°57.1'N., 132°44.7'W.), 20 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the NE end of Shoe Island, about 0.7 mile off the N end of Long Island.

Currents

(190) 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.)

(191) **Sukkwan Island** is on the NE 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 W shore of the island, just outside of Dunbar Inlet and opposite the McFarland Islands, is very irregular and foul.

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

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

Chart 17431

(194) **Shoe Inlet** (54°55.7'N., 132°48.7'W.) indents the NW part of Long Island, 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 NE side of Shoe Inlet just within the entrance.

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

(196) **Kasook Inlet** makes into the S shore of Sukkwan Island 2 to 3 miles NW of Jackson Island and about 5 miles N 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 NNW branch is about 1.8 miles long in a NNW direction, and is midchannel course is clear, except at a point about midway of its length, where a ledge projects from the E side about half the distance across the inlet. On the NE side, at the head of the inlet, good anchorage can be had in about 12 fathoms, soft bottom. The other branch has a NE direction for about 0.8 mile to a bay from which a short arm extends SE. There is a good anchorage in about 10 fathoms, soft bottom, just inside the entrance to the short SE arm, favoring the S shore.

Chart 17408

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

(198) **Dunbar Inlet,** E of McFarland Islands, has numerous rocks and islets at the entrance, but a clear channel, about 0.2 mile wide with least depths of 5 to 6 fathoms, leads to a protected anchorage inside. Small craft can find good anchorage in the passage between Dunbar Inlet and Island Bay. A narrow passage N of the islands off the entrance to Dunbar Inlet may be used by small fishing vessels.

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

(200) **Island Bay**, the deep bight just N of Dunbar Inlet, affords well-protected anchorage from all winds, except W, 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.

(201) Two miles N of Island Bay is a second bight with a small island to the NW. An indifferent anchorage is about 0.3 mile offshore and 0.3 mile ESE from the S 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.

(202) **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 NNE from the N end of the island.

(203) **Baldy Bay** is on the W 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 S point of the entrance to the bay. **Reef Islands** are a large group of low wooded islands about 0.8 mile N of High Point. They are steep-to along the N shore. **Reef Point**, the N point of the entrance, is a long projecting point.

(204) **View Cove Entrance Light** (55°03.2'N., 132°57.9'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 SE of Reef Point.

(205) S of Reef Islands and just inside High Point is a small inlet with two arms at the head. The W arm is rather deep and clear, but the anchorage area is suitable only for small vessels; it is exposed to williwaws. The E arm offers fairly good anchorage for small vessels. The entrance is very narrow and partially obstructed by rocks awash. Anchor in the center in 5 fathoms, sticky bottom. A ¼-fathom spot is about 600 yards N of the entrance.

(206) **Windy Cove**, about 2 miles WNW of High Point, is narrow, clear, and deep. Its entrance is scarcely 100 yards wide with a depth of 1 fathom. Strong tidal currents prevail through this entrance.

(207) **Coco Harbor** is the W arm of Baldy Bay. **Entrance Island**, off the entrance to the main reach, is a large island with a constricted passage to the N and S. 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.

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

(209) **View Cove**, the N 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 S and E shores of Clam Island. About 0.8 mile from the head of the cove on the S shore is a small rather prominent island with foul ground between it and shore. A good anchorage, with protection from all but W to NW winds, is about 0.25 mile from the head of the bay in 15 to 20 fathoms.

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

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

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

(213) **Green Inlet** is a small narrow inlet on the S shore of View Cove. It offers good anchorage, with sticky bottom, for small craft, but the entrance is shallow, running dry on minus tides, and large mudflats extend a long distance from the head; also, there are heavy williwaws.

(214) View Cove has three indifferent anchorages. In the bight SW of Clam Island, anchor about 0.3 mile from the head of the bight in 17 to 18 fathoms, hard bottom, with the W end of Clam Island bearing 034°, distant 0.5 mile. Off Clam Island, anchor in 13 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 SE 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 SW of Clam Island, where there is fair protection and good swinging room.

Chart 17407

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

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

(217) **Nichols Islands**, about 2 miles NW of the Corlies Islands, are a group of wooded islands that extend in a NE direction for about 2.1 miles. **Fort Islet**, small and wooded, is the most N of the group.

(218) **The Sentinels**, a scattered group of five small wooded islets and rocks that cover, are about 1 mile NNW of Nichols Islands. A rock with 3 fathoms over it is 3.2 miles 329° from the SW point of Nichols Islands and slightly W of a line from this point to Guide Island. This rock is light in color and bare of sea growth and can be seen on extreme low tide. It is large in extent and surrounded by deep water. No kelp marks the area.

(219) **Breezy Bay** is on the W 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. It does not appear to afford an anchorage. **Eolus Point**, on the SE side at the entrance, is high, steep, and rocky. A wooded island is close S of **Boreas Point**.

(220) **Farallon Bay** is on the W side of Tlevak Strait, about 3 miles WNW of the Nichols Islands. Enter in midchannel. The bottom is rocky and very broken; SE winds draw through it, and it is not recommended as an anchorage. Just E of the SE entrance point of the bay is a high-water islet that shows from S.

(221) **Halibut Nose** is the promontory on the NE 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.

(222) **North Bay** is on the W side of Tlevak Strait, about 1.5 miles NNW of Farallon Bay and 2.8 miles S of Tlevak Narrows. **Hassler Point**, the NW point of the entrance is timbered. **Cayman Point,** the SE 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 S.

(223) When entering North Bay, favor the SE 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 W. SE winds draw around Cayman Point and blow directly into the bay with severe squalls and williwaws.

(224) An open bight on the N 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 N 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.

(225) **Guide Island**, about 0.9 mile E of the entrance to North Bay, is small, wooded, and surrounded by kelp. Reefs extend N about 0.4 mile from it.

(226) **Lively Islands**, NNW 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.

(227) **Lively Islands Light** (55°13'36"N., 133°05'00"W.), 20 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the W side of the southernmost island of the group.

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(228) In passing Lively Islands, consider the channel W of them to be the main channel, and favor the Dall Island shore slightly. The channel NE of Lively Islands is deep, safe, and largely used by small craft bound N; the dangers are charted.

(229) **Round Island**, about 0.5 mile E of the northernmost large Lively Islands, is a large, grass-covered rock about 20 feet high, with a small clump of trees near its SW end. It is steep-to on all sides.

(230) **Soda Bay** is on the NE side of Tlevak Strait to the NE of the Lively Islands. Anchorage can be found in Soda Bay about 0.5 mile E of Shelikof Island in about 20 fathoms, mud and shell bottom. The low surrounding land offers little protection from the wind.

(231) **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.

(232) **Block Island** is heavily wooded; the S side of it is bold-to. The narrow passage N of the island is foul, and the currents are unusually strong. **Tlevak Narrows Light** 2 (55°15.8'N., 133°07.0'W.), 22 feet above the water, is shown from a skeleton tower with a red triangular-shaped daymark on the SW side of the island.

(233) **Turn Point**, at the N extremity of Dall Island and just W of Block Island is a bluff, wooded knoll. Foul ground extends about 300 yards SE and 150 yards N from the point.

(234) **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 NW of Block Island Light. A ½-fathom shoal 0.4 mile NW of Turn Point is marked on its S side by a buoy that is reported to tow under during large tides. The channel S of the buoy is the one generally used.

(235) Good anchorage for small craft can be had in 3¼ fathoms, soft bottom, in the small cove on the N side of Tlevak Narrows; the entrance to it is about 0.5 mile N of Turn Point.

(236) **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.

(237) 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.)

(238) NE of Lively Islands it is reported that the current sets constantly NW, being stronger when the main stream W of the islands is setting NW. To take advantage of this constant set, small craft bound N usually pass NE of the Lively Islands.

(239) The current setting NW divides into two parts off the E end of Ulloa Island. One part sets N of the island, and the other sets with considerable strength into Meares Passage.

(240) **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 N end of Meares Passage and is about 0.25-mile-wide; and thence between Suemez Island and Prince of Wales Island, where its width is about 0.35 mile at its E end and 1.4 miles at its W end at Cape Flores, where it joins Bucareli Bay.

Currents

(241) The flood current in the channel sets SE, and the ebb NW. 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.)

(242) **Ulloa Island**, close to the W end of Tlevak Narrows, is wooded. The main channel is close S of the island.

(243) Anchorage in 10 to 15 fathoms, soft bottom, near Tlevak Narrows, can be had in Ulloa Channel, at the entrance to a small passage that is on the NW side of the largest island N of Ulloa Island, between it and the main shore of Prince of Wales Island. A shoal with a depth of 2¼ fathoms near its end extends about 0.2 mile SW from the point 0.2 mile N of the W end of this island. Ulloa Island, and the 160-foot high island to the NW, can be passed on either side, but the channel N of Ulloa Island is foul.

(244) **Bush Islets**, about 0.8 mile W of Turn Point and S of Ulloa Island, consist of two rocks with a single tree on one of them. A wooded islet, 50 feet high and surrounded by kelp, is 700 yards NW of Bush Islets. Two other islets are 0.2 and 0.3 mile, respectively, SW of Bush Islets.

(245) **Meares Island**, about 1.8 miles W of Tlevak Narrows, is the largest island in Ulloa Channel. **Meares Island Light** (55°16.4'N., 133°10.6'W.), 13 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the N side of the island. The main channel is N of the island, the N side of which is bold-to. A rocky islet is 275 yards SE of Meares Island, with rocks and kelp between.

(246) **Ridge Island** is off the E extremity of Suemez Island about 1 mile W of Meares Island Light. The island

is high, wooded, and joined to Suemez Island by a sandy neck, awash at high water. Off the S side of the island are two wooded islets, with rocks submerged and awash, close W. The islets are connected with the island by a spit, bare at half tide.

(247) **Waterfall**, on the E side of Ulloa Channel and about 1.7 miles above Ridge Island, is the site of a fishing resort. Vessels waiting for berthage at Waterfall can find temporary anchorage in 6½ to 10 fathoms, rocky bottom, on a shoal about 0.3 mile NW of the fishing resort. The main dock (55°17.8'N., 133°14.6'W.) at Waterfall has a 70-foot face with depths of 28 feet reported alongside in 1976. The resort usually operates only during the summer. During the off-season it has a caretaker. A wharf with a 250-foot face is 500 yards N of the main dock; depths of 24 feet were reported alongside in 1976. Gasoline, diesel fuel, and water are available at the main dock. A nearby store sells limited supplies and provisions. A seaplane and a small-craft float are close N of the main dock.

(248) Waterfall has radiotelephone and seaplane communications with Ketchikan during the summer.

(249) **Port Refugio** is a large bay, with two arms, on the W side of Ulloa Channel opposite the fishing resort at Waterfall. Its SE 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 NW point of the entrance, is wooded.

(250) Anchorage for larger vessels may be had between the E shore of the SW 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.

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

(252) **Adrian Cove**, on the W side of Ulloa Channel, at its N end, is open to N and is of no importance.

(253) **Cape Flores**, on the E side of Ulloa Channel at its N entrance, is the NW point of **Joe Island**, which is wooded. Rocks bare at low water, and foul ground, marked by kelp, extends about 0.3 mile N of Cape Flores and about 0.3 mile SSE of the S end of Joe Island. A lighted buoy marks the NW extremity of the foul ground N of Cape Flores. The channel on the NE side of Joe Island is largely used by small craft.

Chart 17400

(254) **Bucareli Bay** (55°13.5'N., 133°31.0'W.), about 50 miles NW of Dixon Entrance, extends about 20 miles NE from its SW entrance between Cape Bartolome and Cape Felix. Baker, St. Ignace, Lulu, and San Fernando Islands form its W shore, and Suemez and Prince of Wales Islands form its E 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.

Currents

(255) The tidal currents in Bucareli Bay set NE on the flood and SW 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 Tables for daily predictions for places in Bucareli Bay.)

Chart 17406

(256) **Cape Bartolome Light** (55°13.8'N., 133°36.9 'W.), 158 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the S end of one of the islets S of Cape Bartolome, marks the entrance to Bucareli Bay.

(257) **Cape Bartolome**, the S 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 N 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 2½ fathoms is about 0.5 mile E of Cape Bartolome Light.

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

(259) **Baker Island**, forming the W side of the S 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.

(260) **Fortaleza Bay**, on the W side of Bucareli Bay, about 4.5 miles N of Cape Bartolome, is a small open deep-water bight. **Lake Fortaleza**, with an elevation of about 12 feet, empties into the bay. **Thimble Cove**, about 0.8 mile N of Fortaleza Bay, is a small exposed bight with bare rocks and rocks awash that extend nearly across the entrance from the S shore.

(261) **Port San Antonio**, on the W side of Bucareli Bay, about 6.5 miles N of Cape Bartolome, has two arms at the head, one that extends in a NNE and the other in a

SSW direction. The midchannel is clear, but a shoal with rocks that uncovers 7 feet is about 0.3 mile WSW from **Point San Roque**, the N 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 N arm in 5 to 7 fathoms, and in the S arm in 10 fathoms, mud bottom. The N arm has a low shoreline with gravel beach.

(262) **Port Asumcion**, on the W side of Bucareli Bay, 9 miles NNE of Cape Bartolome, offers protected anchorage in 12 to 21 fathoms, sand bottom, near its head. The midchannel is clear.

(263) **Cape Felix** (55°12.7'N., 133°25.9'W.) is at the SW end of Suemez Island. The depths off the cape are comparatively regular and good, but, to the E, 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 NE of the cape, are the most prominent landmarks. NE 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 N direction, forming the E side of Bucareli Bay.

(264) **Port Santa Cruz** is on the E side of Bucareli Bay 4.5 miles N of Cape Felix. The N 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 ENE 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.

(265) In entering, round Point Rosary or Point San Jose at a distance of 0.2 mile and head for the point on the N 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 S of the point in 17 to 19 fathoms, mud bottom. The channel to the N of Labandera Rock is preferable.

(266) **Point Arboleda** is a low point about 2.2 miles N of the entrance to Port Santa Cruz. Several outlying islets and rocks make it necessary to give the cape a berth of 0.5 mile in rounding it. A light is shown from the northernmost islet. **Point Quemada** is midway between Point San Jose and Point Arboleda.

(267) **Point Fula**, **Point Remedios**, and **Point Barrigon** are headlands on the NW shore of Suemez Island.

(268) **Port Delores** is on the E side of Bucareli Bay, 2 miles ENE 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 0.4 mile from the head. The anchorage is exposed to W winds.

(269) **Point Arucenas**, the headland on the N side of Port Dolores, and **Point Cangrejo**, about 1.6 miles E of Point Arucenas, are wooded.

(270) **Cabras Islands** are a small, wooded group, about 1.5 miles NE of Port Dolores. A reef that uncovers 5 feet and marked by kelp is about 0.5 mile SW from this group.

(271) **St. Ignace Island**, on the NW side of Bucareli Bay about 11.5 miles from Cape Bartolome, is bold and wooded. The E and NE shores are mostly rocky, whereas the W and NW shores are gravel. **St. Ignace Rock Light** (55°25.7'N., 133°23.7'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 NE of **Silvester Point**, the NE end of St. Ignace Island.

(272) **Port Mayoral**, the passage between St. Ignace Island and Baker Island, has depths of 6 to 12 fathoms, with irregular bottom. **Cristina Island**, small and wooded, and a cluster of high-water islets are W of midchannel at the entrance, with a deepwater passage on either side. Foul ground extends 300 yards off the S end of the island and for 550 yards off **Canal Point**. The N 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.

Chart 17405

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

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

(275) **Point Miliflores**, bold and wooded, is the SE point of San Juan Bautista Island. **San Juanito Island**, about 500 yards ENE of the point, is wooded and from N and S directions shows as a prominent landmark clear of San Juan Bautista Island. Deep water extends close to the point and island.

(276) **Port Estrella** is S of San Juan Bautista Island and E of Cape Flores (55°21.2'N., 133°17.4'W.). Foul ground, marked at its outer end by a lighted buoy, extends N for about 0.3 mile from Cape Flores and about 0.2 mile S from **Point Providence**, the N 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.

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

(278) **Port Caldera**, about 4.5 miles NE of Cape Flores and immediately E of Point Lomas, is open to the N. It affords anchorage for small craft. A 6½-fathom spot is in the center near the entrance. Foul ground extends about 300 yards off **Point Iphigenia**, the NE headland at the entrance.

(279) **Trocadero Bay**, E of the entrance to Port Caldera, extends about 9 miles E 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 wooded. The islands are bold-to, with a few outlying rocks, and the passages between them are mostly of good depth. Near the head of Trocadero Bay, islands and rocks are numerous and the channel becomes more difficult. From the head of the bay is an easy portage to Twelvemile Arm, Kasaan Bay, on the E side of Prince of Wales Island. In entering Trocadero Bay, the chart is the guide.

(280) The **Ladrones Islands**, E of Madre de Dios Island, are a group of small wooded islands in the entrance to Trocadero Bay. **Toti Island**, a small wooded island, is 0.5 mile N of Madre de Dios Island.

(281) **Port St. Nicholas** is N of Trocadero Bay. **Coronados Islands**, a group of islands, are midway in the entrance, and rocks and reefs, with two channels between, extend to the N. **Rancheria Island** is SSW of and close to **Point Miraballes**, the S point at the entrance to Port St. Nicholas. Dangers are shown on the chart. About 2 miles N of Point Miraballes is a peak 2,940 feet high, light green in the summer, which shows conspicuously from N and S.

(282) **Balandra Island** (55°27.2'N., 133° 13.2'W.), small and wooded, is about 0.6 mile E of Agueda Point, at the junction of Bucareli Bay and San Alberto Bay. Foul ground extends 250 and 100 yards off the E and W ends, respectively. A 2½-fathom spot is 0.2 mile NE of the island. The channel between Balandra Island and San Juan Bautista Island has a least found depth of 4½ fathoms.

(283) **San Alberto Bay**, with numerous shoals and broken areas, extends about 7 miles N from Bucareli Bay to San Christoval Channel.

(284) **San Fernando Island**, on the W side of San Alberto Bay and on the NE side of Portillo Channel (chart 17406), 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.

(285) **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 W of Diamond Point, on the SW coast of San Juan Bautista Island; the shoal ground that extends about 0.4 mile S from **Point Amargura**, the S point of San Fernando Island; and the shoal ground that extends about 0.4 mile off **Point Eugenia**, the middle point on the NW side of San Juan Bautista Island. From this point to the shoal spot, 0.5 mile WNW 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 N end of the channel. The channel E of San Juan Bautista Island is more generally used.

(286) **Ballena Islands**, two in number and wooded, are about 1.2 miles NE of Balandra Island and about the same distance SW 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 SW of the W Ballena Island, with an extensive kelp patch between.

(287) **Ballena Island Shoal**, with a least depth of 1¾ fathoms, is 0.6 mile W of the W Ballena Island. Its W side is marked by a lighted buoy.

(288) **Balandra Shoal**, about 1.1 miles W of the W Ballena Island, consists of two small areas 0.2 mile apart, having a least depth of 1 fathom in the N area and ¾ fathom in the S area, with deep water between. The N area is marked by a buoy on its NE side. The usual course in passing Balandra Shoal leads E of it, between the buoys marking it and Ballena Island Shoal.

(289) **Fern Reef**, marked by kelp, is about 1.5 miles NW 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 E extremity of San Fernando Island. A 2¼-fathom spot, marked on its SE side by a lighted buoy, is about 0.3 mile S of Fern Reef.

(290) **Parida Island** (55°31.2'N., 133°14.5'W.), about 1.5 miles NE of Fern Point, is a prominent wooded landmark in the middle of San Alberto Bay. **Parida Island Reef** is 0.5 mile S from Parida Island. One head bares at low-water springs. An area with a least depth of 4 fathoms and marked by a buoy on its SE side is 0.5 mile SE of this reef; the depth may be less.

(291) **Alberto Islands** are NE of Parida Island and N of Fish Egg Island and Klawock Reef. The southernmost island is wooded and is 1.7 miles NE of Parida Island and about the same distance N of Fish Egg Island.

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(292) **Alberto Reef** extends 0.4 mile WSW 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.

(293) **Wadleigh Rock** is 0.5 mile E of the southernmost Alberto Island and consists of two reefs about 100 yards apart. The W reef bares at half tide and the E reef at low water. The shoal is about 0.2 mile long in a N direction, steep on the W side, and can be passed 100 yards off.

(294) Three rocky patches, covered by about 5 feet, are about 1 mile NNW 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 SW end of Parida Island and the NE end of San Juan Bautista Island passes a little NE of the patches.

(295) **The Witnesses**, locally known as **Hour Islands**, are wooded islets 2 miles N of Parida Island. **Witness Rocks**, about 0.9 mile W of The Witnesses, are almost covered at high water.

(296) **Abbess Island**, at the N end of San Alberto Bay, about 0.5 mile W of **Wadleigh Island**, is surrounded by foul ground and off-lying islets. A winding, unmarked channel is between Abbess Island and Wadleigh Island. This channel has many dangers and is only suitable for small craft with local knowledge.

(297) **Shinaku Inlet** makes off from the N 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.

(298) **Klawock Inlet** extends in a N 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 SE of Fish Egg Island; the entrance from San Alberto Bay is N of Fish Egg Island.

(299) **Cape Suspiro** is the low wooded point on the E side of the S entrance to Klawock Inlet. **Port Bagial**, a small cove on the E side of Cape Suspiro, has depths of 4 to 5 fathoms W of the islands on the E side.

(300) **Fish Egg Island**, at the S end of Klawock Inlet, is low and wooded. Shoals extend off the SW end of the island to the Ballena Islands. **Fish Egg Reef** extends for 350 yards SE of the SE 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 NE side of Fish Egg Island.

(301) **Craig** is an incorporated settlement on the island at the S end of Klawock Inlet and close SE 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 NW end of the island.

Prominent features

(302) A brown water tank near the SW side of the island, several white oil tanks near the NW side of the island, and a microwave tower close E of the brown tank are prominent from the waters near Craig.

Channels

(303) A Federal project provides for a mooring basin and a 100-foot-wide entrance channel, protected by two breakwaters, in **Shelter Cove** at the SE side of Craig Island. The project depth for the entrance channel and basin is 11 feet. In April 1999, the entrance channel had a controlling depth of 9 feet except for lesser depths near the W channel edge above the N breakwater; thence 11 feet in the basin except for lesser depths to 6 feet along the edges. A **048°** range and a light on the NW end of the S breakwater mark the entrance channel. Craig Island, N side, can be approached by using three natural channels. The channel W of Craig Island, leading N, has a least found depth of 2¾ fathoms at midchannel; it is marked by buoys. The channel E of Craig Island Reef is deep; the channel W has a least depth of 4½ fathoms in midchannel; E channel is marked by buoys.

Dangers

(304) **Craig Island Reef**, marked by a lighted buoy, is a submerged rock with 1 fathom over it, about 0.6 mile NNE of the fish facility at Craig. A shoal, about 400 yards in extent with 1¼ fathoms over it, is about 400 yards W of Craig Island Reef. Fish Egg Reef extends from the SE point of Fish Egg Island for about 275 yards into the channel W of Craig Island. A lighted buoy is off the outer end. A shoal extends about 300 yards from the NW point of Craig Island, in a NNW direction, obstructing the channel W of the island. Another shoal extends in a N direction about 300 yards from the NE point of Craig Island. Both shoals are marked off their outer ends by a buoy.

Currents

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

Weather

(306) (See page T-2 for **Craig climatological table**.)

Harbor regulations

(307) 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).

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Wharves

(308) All of the piers and wharves at Craig are on the N side of the island, except for the facilities in Shelter Cove.

(309) Columbia-Wards Wharf (55°28'41"N., 133°09'08"W.): the westernmost facility on the N side of Craig Island; 146-foot face; 20 feet reported alongside; support and storage facility for fishing vessels; owned and operated by Columbia-Wards Cold Storage Co.

(310) Whitepass Oil Dock: 100 yards E of Columbia-Wards Wharf; 90-foot face; 12 to 16 feet reported alongside; for fueling small craft; owned and operated by Whitepass Alaska Oil Co.

(311) Craig City Dock (55°28.7'N., 133°08.6'W.); about 150 yards E of Columbia-Words Wharf; 72-foot face; 14 feet reported alongside; electricity is available; owned and operated by the community of Craig.

(312) Silverlining Seafoods Pier (55°28'52"N., 133°08'25"W.); about 0.4 mile NE of Craig City Dock, on the E side of North Cove; 124-foot face; 23 feet reported alongside; water and ice are available to fishing vessels; receipt and shipment of fish; owned by Shaan-Sect Company.

Supplies

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

Repairs

(314) A 60-ton travel lift is available to the public at Prince Wales Marine. The community operates three grids; a 103-foot grid on the E side of the approach pier to Craig City Dock, and two 51-foot grids at the N end of Shelter Cove. A small machine shop is available at Columbia-Wards Wharf.

Small-craft facilities

(315) 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 W side of the basin. Craig has 200 feet of float space at the W side of the City Dock. The floats extend from the approach pier in a W direction for 50 feet, then N for 150 feet. A depth of 8 feet was reported alongside the floats W of the City Dock. Additional public float space is on the W side of North Cove, about 500 yards E of the City Dock. This 300-foot float has a reported depth alongside of about 18 feet. About 50 ancillary moorage spaces, for commercial fisherman, are in E North Cove harbor. A privately owned fueling float is at the Chevron Oil Dock. Another privately owned float, with 200 feet of berthing space, extends from the S side of the approach pier of Craig Fisheries Inc. Pier. The reported depths alongside of the float are 8 to 25 feet, and 4 feet along the inside edge. Water, electricity, and a laundromat are available at the float. A seaplane float is on the W side of the cove W of North Cove.

Communications

(316) 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 N. 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.

(317) **Clam Island** is a low wooded island, about 1 mile N of Fish Egg Island. **Klawock Reef**, marked by a lighted buoy at the SW end and an unlighted buoy at the S end, consists of four groups of rocks that extend in a SW direction from the W end of Clam Island.

(318) 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 S, has depths of 3¼ to 7 fathoms and is marked by a light, a lighted buoy, and daybeacons.

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

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

(321) **Klawock Harbor**, separates Klawock Island from the W 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.

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

(323) **Klawock Harbor Entrance Light 2** (55°33.4'N., 133°06.3'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 NE extremity of a reef that extends N of Klawock Island.

Channels

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

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

Anchorages

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

Dangers

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

Pilotage, Klawock

(328) 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.)

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

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

Towage

(331) 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 ship's agents.

Quarantine, customs, immigration, and agricultural quarantine

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

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

Wharves

(334) All piers and wharves at Klawock are on the E side of Klawock Harbor, except for the sawmill dock S of Klawock Island and the logging dock on the W side of Klawock Island.

(335) Alaska Timber Corporation Dock (55°32'26"N., 133°06'19"W.): about 0.2 mile S from the S end of Klawock Island; 603-foot face; 640 feet of berthing space with floats; 40 feet alongside; deck height, 8 feet; a pipeline extends from the sawmill to a chip-loading spout on the S end of the dock; an 18-ton crane and four 10-ton forklifts are available; water and electricity are available if advance notice is given; shipment of lumber and wood chips; owned and operated by Alaska Timber Corporation.

(336) Klawock Logging Dock (55°33'17"N., 133°06'30"W.): on the W side of Klawock Island; 435-foot face; 590 feet of berthing space with mooring buoys; 40 feet alongside; deck height, 17½ feet; shipment of logs; owned by Sealaska Timber Corporation.

(337) Southeast Seafood Processors Pier (55°33'28"N., 133°05'54"W.): about 300 yards E of Klawock Harbor Entrance Light 2; 95-foot face; 16 feet alongside; water is available; receipt and shipment of fish; owned and operated by Southeast Seafood Processors.

(338) Klawock Dock: about 150 yards S of Southeast Seafood Processors Pier; 68-foot face; 12 feet alongside; electricity is available; operated by the community of Klawock.

Supplies

(339) 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.

Repairs

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

Small-craft facilities

(341) The community of Klawock operates 766 feet of small-craft floats with a seaplane float at the N end of the W float, about 0.2 mile S of Klawock Dock. Electricity is available at the float; fuel is available at the cannery. Depths of 4 to 34 feet were reported alongside in 1976.

Communications

(342) 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 S. Telephone communications are maintained.

(343) 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.

Chart 17406

(344) **Port Real Marina**, the passage on the N 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 W entrance is constricted; the bottom is very irregular. The E entrance is also constricted by Rana Reef.

(345) **Rana Reef** extends about 0.7 mile in a N direction from a point about 500 yards N of **Point Gorda**, the NW point of St. Ignace Island, almost to **Arrecife Point**, the SE 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 S is reported to be better, giving the St. Ignace Island shore a berth of 200 to 400 yards.

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

(347) **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.

(348) Anchorage, reported to be the best in the vicinity, may be had in 12 fathoms in the bight between Santa Rita Island and St. Ignace Island.

(349) **Coposo Island**, in midchannel near the E end of the passage and about 0.5 mile N of Santa Rita Island, is small, wooded, and 120 feet high. It shows prominently from E and W directions. Foul ground extends W from the island with a rock with 1 fathom over it about 300 yards W from the center of the island. A shoal, reported covered by at least 3 feet, is about 330 yards SW from the center of Coposo Island.

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

(351) **Pigeon Island**, between Baker Island and Lulu Island, off the NW end of Baker Island, is wooded. A small wooded islet is close to its SE shore, and a group of small rocky islets and submerged rocks are off its S shore.

(352) **Paloma Pass** is between Pigeon Island and Lulu Island. This pass and the pass SW of Pigeon Island have least depths of 3½ fathoms in midchannel, but the channels are winding and lined with dangers. In 1992, numerous uncharted rock and shoals were reported.

(353) In entering from the Pacific, pass the S 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 NE side through Paloma Pass or through the pass to the SW of the island. In Paloma Pass shoal water extends for about 180 yards in an E direction from the N end of Pigeon Island. Halfway from either end of the pass, rocks awash extend for 200 yards from the Lulu Island shore. At this place the channel, about 40 yards wide, favors the Pigeon Island shore. Near the S end of the pass is a 3½-fathom spot on the W side of the channel.

(354) The pass to the SW of Pigeon Island is a more direct route, passing between two small islets, the W one of which is in about midchannel. Favor the E islet in passing through. The pass is about 40 yards wide and has a depth of 3½ fathoms. To the W of the W islet is a narrow channel with 3 to 3¾ fathoms.

(355) Coposo Island may be passed about 300 yards to the N and about 400 yards to the S; the S passage appears preferable. In approaching the island, favor the N shore of the S passage and pass between Sola Rock and the reported shoal covered 3 feet about 330 yards SW from the center of Coposo Island.

(356) **Portillo Channel** connects Bucareli Bay at its N 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 S part of which is shoal; the bottom is irregular, and there are numerous kelp patches. The N half is comparatively clear. The channel may be used by small craft, but local knowledge is desirable for safe navigation.

(357) The currents in the channel flow N and S with an estimated velocity of about 2 knots.

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

(359) **San Clemente Island**, about 1.5 miles from the S entrance close off the shore of San Fernando Island, is

wooded and about 108 feet high. The channel to the E is shoal, and numerous rocks and reefs extend to the N.

(360) **Arboles Islet**, near Lulu Island shore about 1 mile NW of San Clemente Island, is 90 feet high and wooded.

(361) **Snail Point**, the W extremity of **Caracol Island**, on the E shore of Portillo Channel, is 80 feet high, wooded, and conspicuous.

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

(363) **Abrejo Rocks** are about midway between the two points of the NW entrance; the highest is 6 feet. **Quitasueno Rock**, 12 feet high, is about 0.4 mile E of Abrejo Rocks. A 4-fathom spot is about 0.5 mile W, and a 3-fathom spot is about 0.5 mile N of Abrejo Rocks.

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

(365) **Point Santa Gertrudis**, the N extremity of Lulu Island, is a low wooded point at the NW entrance to Portillo Channel.

Chart 17404

(366) **San Christoval Channel** is the passage leading WNW 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.

(367) **Catalina Islan**d, near the E end of San Christoval Channel 0.5 mile off the S shore, is small, 145 feet high, and wooded. Rocks and foul ground extend almost 0.4 mile off the N and E sides of the island.

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

(369) **San Christoval Rock**, with 1 fathom over it and marked by a lighted bell buoy off its SE 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.

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

(371) **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 N of Rosary Island is more direct and less difficult to navigate.

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

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

(374) The channel on the N 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.

(375) **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 E or W side. **Tuft Rock**, small, and bare except at extreme high water, is 400 yards SE of Larzatita Island. A rocky patch, with 3¼ fathoms over it and marked by a buoy on its E side, is about 350 yards ESE of Tuft Rock.

(376) **Larzatita Island Reef**, marked by kelp and awash at half tide, is 300 yards N of Larzatita Island. Its N extremity is marked by **Larzatita Island Reef Light** (55°35.0'N., 133°19.7'W.), 22 feet above the water and shown from a caisson with a red and white diamond-shaped daymark on a concrete pier.

(377) **Point Santa Lucia** is the easternmost of four points at the N extremity of San Fernando Island, W of Cruz Islands. Foul ground extends about 0.2 mile N from the point. A small open cove, with depths of 8 to 24 fathoms, is W of the point.

(378) **Palisade Island**, a low wooded island, is separated from San Fernando Island by a channel about 100 yards wide, with depths of 1½ to 2½ fathoms. Foul ground extends to the N and NW of the island for about 400 yards. **Palisade Point,** the extremity of the small island close to and N of Palisade Island, shows prominently from W. Shoal spots are about 0.5 mile NNW and NE of the point.

(379) **Point San Pasqual**and **Point Santa Rosalia** are low wooded points on the N shore of San Fernando Island. A small open cove, with depths of 14 to 20 fathoms, is between the points.

Chart 17406

(380) Cape Bartolome, the S extremity of Baker Island, has been described earlier in this chapter. About 3 miles NNW 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.

(381) **Cape Chirikof**, a prominent headland with a group of rocky islets close-to, is about 4.8 miles NNW from Cape Bartolome. A small bay, about 1.4 miles long in a NNE direction and 0.5 mile wide at the entrance, is E of the cape. At the W side of the entrance are two small rocky islets. A rock that bares is 285 yards S from the S 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 SW swell makes in heavily.

(382) **Granite Point**, about 0.8 mile N from Cape Chirikof, is a rocky point with light-colored cliffs and ledges. From Granite Point the shore trends NE 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 3¼ -fathom spot, usually marked by kelp, is 300 yards from the E 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 N 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.

(383) **Veta Bay**, an open bight 3 miles NE 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 NW shore of the bay, are two small islets off which kelp extends S for 350 yards.

(384) From Veta Point the shoreline trends in a W direction for about 1 mile, then N for 0.3 mile, forming the headland, the N extremity of which is Outer Point. **Arcada Rock**, locally known as **Arch Rock**, 130 feet high, is close to the S end of the headland. At times kelp extends about 0.6 mile SW from the rock.

(385) **Outer Point**, about 3.5 miles N from Granite Point, is a projecting rocky point. E of Outer Point, about 0.2 mile, is a prominent knob 500 feet high, separated by a divide from high land to the E. Foul ground extends 0.6 mile NNW from the point. A bank of considerable area, with depths of 12 and 14 fathoms, is 2 miles W of the point; lesser depths may exist.

(386) **Gaviota Rock**, about 40 feet high, is the largest of a group of rocky islets, about 1 mile NNE of Outer Point. Breakers are found 0.2 mile N 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 E.

(387) **Cone Island**, 2.5 miles N of Outer Point, is on the NW side of the Pacific entrance to Port Real Marina, and on the SE side of the entrance to St. Nicholas Channel. It has several summits, the tallest is 1,120 feet high and centrally located. The S end of the island is clear of off-lying dangers. Kelp extends for 200 to 300 yards off the NW and E shores. From the NE point of the island, shoal water extends in a NE direction for 0.5 mile. **Siketi Point** is at the SW extremity of Cone Island.

(388) **Siketi Sound**, between Cone Island and Baker Island, is the Pacific Ocean entrance to Port Real Marina. The S part of the entrance is obstructed by the **Gaviota Islets**; the rest of the sound is clear. At the NW 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 NE end of Cone Island.

(389) **Noyes Island**, about 2.1 miles NNW of Baker Island, is mountainous with rugged steep cliffs along the W shore. **Noyes Peak**, a triple-headed peak on the N part of the island, is a very conspicuous landmark and during clear weather has been seen from 50 miles offshore.

(390) **St. Nicholas Point**, the SE extremity of Noyes Island, is about 5.5 miles E 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 N, forming the W side of St. Nicholas Channel.

(391) **Cape Addington** is the SW extremity of the narrow tongue of land which for 2 miles is less than 0.5 mile wide and forms the SW end of Noyes Island. The extremity of the cape is a rocky knob, 65 feet high, cut by deep crevices. To the N of it are two timbered knobs. From offshore, the knobs appear as islets and the tops of the wooded knobs show flat. 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.

(392) Two rocky islets, with rocks between, bear WNW from the cape. The outermost is about 0.2 mile offshore. Heavy tide rips form immediately W of these islets.

(393) **Shaft Rock**, 1.1 miles N of the cape, is conical in shape and light brown, and shows prominently from the S and N. 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.

(394) Four miles NE of the cape, on the W 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.

(395) **Roller Bay**, 6 miles NE 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 S shore of this tongue, and two rocks awash are

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about 0.3 mile to the SW. The inner part of the bay is shoal. The outer part of the bay has 5 to 17 fathoms.

(396) The head of the bay is the W end of a divide that extends across the island. From W directions, it is a conspicuous means of identifying the locality. The headland at the N entrance point of the bay rises to a prominent flat-topped mountain. At the W slope of the peak near the shore, pinnacle rocks over 100 feet high are formed by deep clefts.

(397) **St. Nicholas Channel**, connecting the Gulf of Esquibel with the Pacific Ocean, is 8 miles long in a NE direction, 0.5 mile wide at the S end, and 2.2 miles wide at the N end. Noyes Island forms its W shore; Cone Island and Lulu Island, its E shore.

Prominent features

(398) The grassy hill at the SW part of Lulu Island is prominent from N directions, appearing rather sharp, covered with grass and brush, with a steep slope to the NE and a gradual slope to the SW. The hills to the W appear as rounding hills. The peaks at St. Nicholas Point and the peaks on Cone Island are prominent.

Tides and currents

(399) The current floods N and ebbs S. 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 N.

(400) **St. Nicholas Point**, at the S 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 W extremity of Lulu Island, is low, with a gradual rise to Isidor Hill, rounded and high. Foul ground extends 0.2 mile offshore from the point and from the shore N of it. **Twin Rocks**, 1.5 miles from Point St. Isidor, slightly to E of midchannel, show two rounded knobs, each about 6 yards in diameter. A small timbered island is about 0.7 mile E of Twin Rocks. A 1-fathom spot is 300 yards off the N end of the island.

(401) **Kelly Cove**, on the W side of St. Nicholas Channel, 0.6 mile from Point Santa Theresa, affords anchorage for small craft in 6 to 9 fathoms, rocky bottom.

(402) 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.

(403) **San Francisco Island**, three high-water islands 3 miles from the N entrance and about 0.4 mile from the Lulu Island shore, is 108 feet high. The S side is a sheer rock bluff, inconspicuous because of its dark color.

(404) The bight 0.7 mile S 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 18 fathoms, sand and gravel bottom, in the bight 0.7 mile E of San Francisco Island; here the gravel beach at the head of the bight makes well offshore.

(405) **Point San Francisco**, on the W side of the channel about 2 miles from the N 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 is 1 mile SW from Point San Francisco. A shoal with ¾ fathom over it, and marked by kelp, is about halfway between the rock and the W shore. There is deep water between the rock and the shoal and between the shoal and the shore.

(406) **Marabilla Island**, 0.8 mile from the N entrance and about 180 yards off Lulu Island, is wooded. Rocks and reefs extend off the S end for 0.4 mile and for a distance of 0.1 mile off the W and N shores. A 2¾-fathom shoal is 0.4 mile NW of the N end of Marabilla Island.

Chart 17404

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

Tides and currents

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

(409) **Cape Ulitka Light** (55°33.7'N., 133°43.7'W.), 115 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on the N end of the cape, marks the S side of the W entrance to Arriaga Passage. The cape, locally known as **Snail Point**, is a neck of land that projects about 0.6 mile in a N direction from the NW end of Noyes Island. A long rounded ridge and a pinnacle rock at the extremity of the cape give it an appearance, from E and W, that accounts for its local name.

(410) **Ulitka Bay**, E 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.

(411) The point 2.2 miles E of Cape Ulitka shows well at night from the W entrance. Rocks extend off this point for about 0.2 mile. An 11-fathom bank, usually marked by kelp, is 0.7 mile NNW from the point. The shoreline

between this point and Cape Ulitka should be given a berth of at least 0.4 mile.

(412) **Steamboat Bay**, about 3 miles E 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 W 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 SE 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 N; during N 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 W entrance point of the bay. In 1976, it was reported that a landslide has left a prominent grey scar at about the 1,000-foot level on the NW side of Steamboat Point, showing well into Arriaga Passage and Sonora Passage.

(413) A 285-foot wharf is on the W shore of Steamboat Bay near the head. The face of the wharf is 136 feet long and has a depth of 18 feet alongside. Pile ruins of a pier are immediately S of the wharf. An oil dock, with a 40-foot face, is close N of the wharf. A 75-foot small-craft float extends N from the 285-foot wharf. During the fishing season, the facility for fishing vessels has fishing supplies, limited provisions, gasoline, diesel fuel, lubricating oils, greases, water, and ice. A machine shop makes emergency repairs to small craft during the fishing season, and radiotelephone communications are maintained with Ketchikan. Weekly seaplane service is available during the summer. The facility is in caretaker status in the winter.

(414) **Point Incarnation**, 3.6 miles E of Cape Ulitka, is the E entrance point. A light marks the point, which is the N 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 N direction for 0.8 mile.

(415) **St. Joseph Island**, at the NW end of Arriaga Passage, has a number of high timbered knobs. The W coast is rocky and foul, and the NW section should be given a berth of at least 1 mile. Rocks and irregular bottom extend off the N coast for about 0.4 mile. The E and S coasts are, in general, rocky shelves that drop off rapidly. A 10-fathom spot is 0.3 mile SW from the S point of the island.

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

(417) A midchannel course through the very narrow SE entrance is safe, but, when inside, the NE side of the channel should be favored when passing the vertical bluff on that side. A submerged rock, which covers 4 feet, is about 150 feet off the W shore, opposite the vertical bluff. A depth of 3 fathoms can be carried past the rock on its NE side.

(418) **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.

(419) 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 SE and ESE, respectively, of the 130-foot island off the SE end of St. Philip Island.

(420) The **Hermagos Islands**, on the SE side of the Gulf of Esquibel, are a group of low wooded islands N of Garcia Cove about 0.3 miles offshore from San Fernando Island. A small island, with a prominent evergreen on its N side, is halfway between the group and San Fernando Island. Either side of this island has a small-boat channel.

(421) **Point Garcia** and **Point Aguirre** are low, wooded points on the NW end of San Fernando Island. Foul ground extends offshore for 0.5 mile in a NW direction.

(422) **Garcia Cove** is a small inlet at the NW end of San Fernando Island and 0.4 mile E of Point Garcia. In December 1983, a rock, which 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 S from the E side of the entrance to the cove. A rock that uncovers 7 feet is on the W side of the cove at the entrance. In December 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 S of the large rock. An islet was reported on the SW side of the cove in

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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 S of the 9-foot rock in the center of the cove.

(423) **Aguirre Bay** is an open bight S of Point Aguirre. Rocks awash extend part way across the entrance.

(424) **Blanquizal Islands**, St. Philip Island, and **Culebra Islands** are in the E part of the Gulf of Esquibel close to the Prince of Wales Island shore, distant 3, 4.5, and 6 miles, respectively, NW of Larzatita Island Reef Light. They are comparatively low and heavily wooded. At the SE 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.

(425) A rock awash, marked by kelp, is 0.5 mile off St. Philip Island at a point 1.4 miles 311° from the W point of Blanquizal Islands.

(426) **Curacao Reef** is 0.8 mile W of the S end of Culebra Islands, with deep water between. The reef has a least depth of ½ fathom, is small in extent, and marked by a buoy off its SW extremity.

(427) The **Maurelle Islands** are a group of islands, rocks, reefs, and breakers forming the W side of the Gulf of Esquibel, covering an area about 12.5 miles long in a NNW direction and about 9 miles wide.

(428) **Currents** appear to be entirely tidal; the strongest are reported around Timbered Island and the N end of St. Joseph Island, but do not exceed 2 knots. Between Timbered Island and the Wood Islands and to the SE, also to the N of St. Joseph Island, currents run NE in flood and SW in ebb; between Emerald Island and Feather Rock, the current runs E on flood and W on ebb. SW of Emerald Island and Gull Island, flood sets SE and ebb NW. In the vicinity of Lambda Rock, S of Twin Islands, the flood runs E and the ebb, W. In the area between this rock and the San Lorenzo channels, little, if any, current was observed. In the small passage E of Wood Islands, the flood runs N and the ebb S.

Caution

(429) Without local knowledge, navigation among these islands, except in small craft, is dangerous.

(430) **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 W and SE appears lower and somewhat flat. **Anguilla Bay**, on the S side of the island, is foul at its head.

(431) **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 W side of **Nagasay Cove**, on the N side of Esquibel Island, in 4 fathoms, mud bottom.

(432) **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 N and S of the island. A barren, gray island, slightly smaller, is just S of Timbered Island.

(433) 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 NW and about 0.6 mile W from the W shore of Little Dome Islet (55°41.5'N., 133°37.9'W.) breaks in heavy weather.

(434) About 550 yards S of Feather Rock, 1.8 miles W of Little Dome Islet, is a small area, marked by kelp, that is dangerous in heavy weather.

(435) About 0.5 mile W of the Wood Island group is an extensive area of rocks and breakers that are marked by kelp. Near the S end of this patch is a low, bare, round-topped rock.

(436) Tide rips, heavy for small craft, were observed in the vicinity of Timbered Island, the N end of St. Joseph Island, and Feather Rock.

(437) **Launch Passage**, between Anguilla Island and Esquibel Island, is frequently used. In making passage from the Gulf of Esquibel, keep S 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 S 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 N side of Esquibel Island; the chart is the best guide for mariners without local knowledge.

(438) NW of the anchorage in Nagasay Cove are numerous islands. The channel between these and the Anguilla Island shore is used. In passing N, favor the islands, passing W of two rocks in midchannel. When past these rocks, favor the Anguilla Island shore. Near the N end of the channel are shoal spots. There is a rock awash 250 yards W of the NW island. The two islands off the SW 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 NW of the N end of Turtle Island.

(439) There is a launch channel N of the San Lorenzo Islands, just S of **Escurial Island**.

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(440) **Tonowek Bay** extends NE for about 6 miles from the Gulf of Esquibel to Tonowek Narrows and borders the SE side of Heceta Island. **Kabanof Rock**, awash, is near midchannel about 0.9 mile SSW of the 1,085-foot hill on Heceta Island.

(441) **Warm Chuck Inlet**, on the NW 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 E of a well-defined point on the SW shore. About 0.7 mile N of this point is a group of wooded islets. Rocks that uncover 7 feet are 150 yards S of the group.

(442) **Salt Lake Bay**, on the SE side of Tonowek Bay, is about 2 miles NE of the Culebra Island Group. The entrance is choked by a group of wooded islands. Two channels are used, one N of the group with a depth of 1½ fathoms, the other S of the group with a depth of 2½ fathoms. The NE and SW 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.

(443) **Harmony Islands**, on the E 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 S and W points of the group.

(444) The channel E of the Harmony Islands and E of the islands to the S, 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 E of Blanquizal Island, St. Philip Island, and Culebra Islands.

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

(446) **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 SW coast of Heceta Island.

Current

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

(448) The Heceta Island shore, on the NE side of the passage, is steep with no outlying dangers. The SW 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 NW end of the passage.

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

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

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

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

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

(454) **Dome Islets** are two small wooded islands close together, about 0.6 mile SW from the S end of Twocrack Island. **Feather Rock**, 5 feet high, is about 2.4 miles W from Twocrack Island.

(455) 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 SW side of the passage is fringed by an area of broken ground, reefs, and islets that extend about 3.6 miles NW 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

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passage. Too much reliance should not be placed on the position of the buoys, especially after severe storms.

(456) **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 SE 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 W of White Cliff, marks the outer limit of dangers on the E side of the passage.

(457) **Emerald Island**, about 1.2 miles W of White Cliff, is 45 feet high and flat, has several clumps of stunted spruce, and shows up green. The SE side has a very small sand beach. The ground in the vicinity of this island is foul. A buoy, about 0.6 mile NNE of Emerald Island, marks the outer limit of dangers on the SW side of the passage.

(458) **Dead Tree Point**, about 1.2 miles NNW 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 WSW of Dead Tree Point. A rock, 6 feet high, is about 0.7 mile NW of Raso Rock.

(459) **Gull Island** is about 2.3 miles WNW 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 N direction for about 1.3 miles. The ground is foul to the ESE for about 0.4 mile. A rock that bares is 0.9 mile WSW from Gull Island.

(460) **Losa Island**, about 2 miles WSW of Cape Lynch and 1.5 miles NNW of Gull Island, is only 5 feet high and is the westernmost of the chain of islands and reefs S and SW of Heceta Island. Foul ground extends for 0.2 mile NW of Losa Island.

(461) **Cape Lynch Light** (55°46.9'N., 133°42.1'W.), 50 feet above the water and shown from a spindle with a red and white diamond-shaped daymark on an islet off the SW end of Cape Lynch, marks the W end of Heceta Island. The light also marks the NW approach to Boca de Finas, the approach to Davidson Inlet, and the E side of the entrance to Sumner Strait. (See also chart 17360.)

(462) A kelp-marked ledge, with 1½ to 4¼ fathoms over it and a 2¾-fathom spot at its outer end, extends 0.7 mile NW of the cape.

(463) **Cone Bay**, NE of Cape Lynch, is open and exposed to the W. The bottom is irregular, and kelp extends well into the bay along the S shore.

(464) **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.

Currents

(465) The currents in Tonowek Narrows set NE on the flood and SW 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.

(466) **Karheen Passage** extends from Tonowek Narrows to Sea Otter Sound. The SE 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.

Currents

(467) Currents in Karheen Passage set NW on the flood and SE on the ebb. The velocity of the current is 0.4 to 0.5 knot.

(468) **Point Swift** is on the E side at the NE end of Tonowek Narrows. Two totem poles and a gravesite can be seen on an island about 0.4 mile W of Point Swift, on the W side of Tonowek Narrows. **Point Swift Rock** uncovers 5 feet and is 0.3 mile NNE of Point Swift. A buoy is about 0.3 mile NNE of the rock and marks the N end of the shoal area that extends from the rock. A daybeacon is on a small islet 16 feet high, on the W side of the channel, about 0.6 mile N from Point Swift.

(469) **Ham Islands**, a group of wooded islets, are about 1.8 miles NE of Tonowek Narrows and extend about 1 mile in a SSE direction from the E end of Heceta Island. Reefs and broken ground extend E, S, and SW of the islands. A buoy about 1.1 miles NE of Point Swift marks a submerged rock about 0.3 mile S of the southernmost of the three larger central islands of the group. Another buoy is on the W side of a submerged rock marked by kelp, about 1 mile NW of Kauda Point, the S extremity of Tuxekan Island.

(470) **Trim Island** is about 0.5 mile NE of the larger Ham Island, close to the Tuxekan Island shore. **Cob Island** is about 0.3 mile NW of Trim Island and 1 mile SSE of Karheen Cove. Reefs extend about 200 yards SE, S, and W of Cob Island. A daybeacon marks the reef on the W side of the island.

(471) **Chapin Island**, small and wooded, is on the W side of Karheen Passage W of Cob Islet. An unlighted range of two daybeacons on the N end of the island, in line **306°**, marks the center of the channel N of Ham Islands and S of Trim Island and Cob Island. Local fishing craft prefer the shortcut known as **Canoe Pass**, which extends SW from Chapin Island between Heceta and

Ham Islands. Strangers and larger vessels should use the longer route through Karheen Passage.

(472) For 1.5 miles NW 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 W of Karheen Cove. During summer, streamers of kelp are visible along the W half of the passage, just N of Chapin Island, in 3 to 5 fathoms.

(473) **Karheen Cove** is a small indentation on the NE side of Karheen Passage at its NW end. A bare rock is off the S point at the entrance. A buoy marks the outer end of the ledge that extends about 400 yards SW from the S point.

(474) **Peep Rock**, a conspicuous rock, marked by a light, is about 0.7 mile NW of Karheen Cove. Shoal areas, marked by kelp, extend for about 700 yards W and about 500 yards NW of the rock. The channel E and N of the rock is clear and is generally used in preference to the channel S, where there are unmarked dangers.

Charts 17404, 17403

(475) **Tuxekan Passage** has its S entrance on the SE side of Karheen Passage, and extends N along the E 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 N of Staney 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.

Currents

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

Chart 17404

(477) **Kauda Point** (55°46.4'N., 133°15.5'W.), at the S tip of Tuxekan Island and on the W side of Tuxekan Passage, is a small islet at high water and is conspicuous from the SW and NE.

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

(479) The **Dasani Islands** are in the S 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 NE from the N island. Other kelp patches, over rocks awash, are E of these islands.

(480) **Gaohi Islands**, across the passage from Kauda Point, form the SW 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 W.

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

Chart 17403

(482) **Staney Island**, about 3.5 miles NE of Kauda Point (55°46.4'N., 133°15.5'W.), is the largest and most NW of a chain of wooded islands that extend into Tuxekan Passage from the E shore. The passage to the W and SW of Staney 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 N, respectively, of the island. NE from Staney Island the waters are generally foul with a number of submerged rocks and rocks that uncover 1 to 7 feet.

(483) **Naukati Bay** is the largest indentation in the E shore of Tuxekan Passage. Its entrance, about 2 miles N of Staney 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.

(484) **Klinau Island**, on the W side of the entrance to Naukati Bay should be given a wide berth. A rock that uncovers 5 feet is about 0.3 mile SSW of the island, and the waters around it from E through S to W are foul.

(485) **Nichin Cove** on the W side of the passage, about 1.3 miles WSW 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 W side of the cove near the entrance.

(486) **Little Naukati Bay**, on the E side of Tuxekan Narrows and about 6.5 miles N 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 N channel. The narrows NW of Little Naukati Bay is relatively clear and deep.

(487) **Village Rock**, about 0.5 mile NW of the N end of Tuxekan Narrows, is awash at high water and is marked

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by a daybeacon. The safest and recommended route for northbound transit vessels is S and W of Village Rock. Mariners transiting the waterway about 100 yards E of Village Rock should use care; detached rocks and shallow water extend about 0.2 mile off Kinani Point.

(488) **Jinhi Bay** extends SW from Village Rock. This bay shoals gradually to mud flats that bare in its SW 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.

(489) **Elghi Island**, near the N extremity of Jinhi Bay, is one of the more prominent features of Tuxekan Passage. The waters to the W are foul, and a large rock that uncovers 4 feet is about 0.1 mile E of its N tip.

(490) **Aikens Rock**, 3 feet high and marked by a daybeacon, is about 400 yards E of the N end of Elghi Island. **Kassan Islands**, about 1.4 miles N 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.

(491) **Kahli Cove**, between Kassan Islands and Prince of Wales Island, provides suitable anchorage for small craft. The SW entrance is constricted by rocks and reefs, but a narrow winding channel is open. The NW entrance is less winding and has fewer rocks.

(492) **Davidson Inlet** is the W part of a large expanse of water, NE of Iphigenia Bay, between Heceta Island and Kosciusko Island. The E part, Sea Otter Sound, is separated from it by a chain of islands that extend SW 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 NE end of Sea Otter Sound.

(493) The entrance to Davidson Inlet is 2 miles wide between Whale Head and Surf Point, the NW extremity of Heceta Island. **Surf Point Light** (55°50.0'N., 133°38.0'W.), 29 feet above the water and shown from a monopile with a red and white diamond-shaped daymark on the point, marks the SE side of the entrance. **Surf Point** is low and wooded. From it broken ground extends about 0.7 mile N, with a 1¼-fathom shoal 0.3 mile NE 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.

(494) **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 SW marks the NW side of the entrance. It is the S extremity of **Whale Head Island**.

(495) Broken ground extends 0.6 mile S of Whale Head, with a 1½-fathom shoal that breaks about 0.5 mile, and a 3¾-fathom patch, marked by kelp, about 0.6 mile SSE of the head. **Whale Rock** uncovers 3 feet and is 0.5 mile SSW of the head. A midchannel course through the entrance clears all dangers.

(496) N of Whale Head Island is a chain of islands that extend to the S end of Kosciusko Island. The passes between these islands are suitable for small craft only.

(497) **Fake Pass**, the southernmost of the two larger channels N of Whale Head Island, has a minimum depth of 4 feet. A rock awash is near the center of the SW entrance. The seas pile up heavily on this rock and in the pass during moderate to severe SW 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. (See chart 17402.) Breakers cover the W entrance to Cosmos Pass in heavy SW weather. A rock awash is near midchannel.

(498) Port Alice, on the S side of Davidson Inlet E of Surf Point, is a secure anchorage. A ledge, about 0.4 mile inside the entrance, extends about 0.5 mile from the E 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 W shore at a distance of about 250 yards, passing W 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.

(499) **Green Island**, 4.2 miles NE 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 SSW from the small island SE of Green Island. The 2¼-fathom spot and a 3½-fathom patch about 300 yards to the SW are surrounded by kelp.

(500) **White Cliff Island** is on the E side of Davidson Inlet about 4.2 miles E of Green Island. A rock, with 1¼ fathom over it, is about 1.4 miles W of the island, and a 3½-fathom shoal, marked by kelp, is about 1.9 miles WNW from the NW 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.

(501) **Edna Bay** is on the W side of Davidson Inlet, 5.5 miles N of Whale Head. It has good anchorage about 0.3 mile from the S shore in 14 to 17 fathoms, soft bottom. Islets and foul ground make out 0.5 mile from the W end of the bay; foul ground makes off in the N part of the bay, about 750 yards from the W shore and about 500 yards S from an islet.

(502) In September 1986, an uncharted reef, covered 5 feet, was reported about 50 feet SW of the face of a T-float at the N end of Edna Bay. A dangerous shoal area near the float is marked by buoys.

(503) **Limestone Point**, the N entrance point to the bay, is marked by **Edna Bay Entrance Light** (55°56.3'N., 133°37.0'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.

(504) **Entrance Island** forms the SW side of the entrance to the bay. A narrow channel, W 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 S of the island. A shoal, with depths of 3½ fathoms near its S end and 7¾ fathoms at the N end, extends 0.2 mile N 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 W 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 E of the island.

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

(506) **Edna Bay Light 3** (55°56.5'N., 133°39.5'W.), 20 feet above the water and shown from a small house with a green square daymark on the W escarpment of the bay, is the guide for a channel between these shoals, leading NW to an inner bay. The 10- and 14-foot shoals are near midchannel about 275 and 375 yards, respectively, N of the light. Strangers should not attempt this channel without first obtaining local information.

(507) Small boats will find excellent shelter in the extreme SW part of the bay from winds from the SE through S to W, in depths of 3 to 12 fathoms, with good holding ground, sticky mud.

(508) **Van Sant Cove** is a small open bight on the W side of Davidson Inlet, about 4 miles NE of Edna Bay. A reef is off the S point of the entrance.

(509) **Tokeen Cove**, opposite Van Sant Cove, is on the NW end of Marble Island. Anchorage can be had W of the ruins of a wharf, on the E 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 S of the wharf site. A rock that uncovers 6 feet is 300 yards W from the NE point of the cove.

(510) **Tokeen Bay**, on the E side of Davidson Inlet, about 12 miles NE of Whale Head, extends ENE for about 4 miles. Its E 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 E of the N 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.

(511) Anchorage can be found in the middle of Tokeen Bay, about 0.5 mile E from the N point at the entrance in 14 to 16 fathoms; also at the N end, NE side, and SE 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 E of the small wooded islands in the SE part of the bay also offers good anchorage in 4 to 10 fathoms, mud bottom.

(512) **Marble Passage** extends NE from the NE 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 N part of this passage.

(513) **Sea Otter Sound** extends W from Karheen Passage and Tuxekan Island along the N side of Heceta Island to Davidson Inlet. Its NW 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 E side, but care is required because of submerged rocks that are generally marked by kelp during summer.

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

(515) About 1.7 miles S of Turn Point are a group of wooded islands that form the S shore of the NW entrance of Karheen Passage. Shoals, marked by kelp, extend for about 0.5 mile N of the W islands of this group. Good anchorage for small vessels can be found back of the islets and shoals about 1.2 miles WSW of the light on Peep Rock (55°49.2'N., 133°19.8'W.). By running on a NW 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.

(516) The cove on the N end of Heceta Island, just W of Camp Island and about 5 miles SW of Turn Point, is shoal in its E 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.

(517) **Gas Rock** is the bare islet about 0.6 mile from Heceta Island and 4 miles E of Whale Head. **Clump Island**, 2.8 miles ENE of Gas Rock, is the outer one of a group 1.3 miles S of Eagle Island, with foul ground between. A shoal with depths of 4¾ to 6½ fathoms is about 0.9 mile SSW of Clump Island.

(518) **White Cliff Island** is about 0.9 mile N of **Eagle Island**. It is wooded and has a prominent white cliff on the SW side, **Fox Rock** is about 0.4 mile W of the Eagle Island group. **Dove Island**, **Owl Island**, **Hoot Island**, and **Cap Island** are some of the small wooded islands in the N part of Sea Otter Sound. The passages between

Owl Island, Hoot Island, and Orr Island should be used only with local knowledge.

(519) **Cyrus Cove**, N of Owl Island, is a small bight in the N 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 N part where the cove branches to E. Five fathoms can be carried through midchannel to this anchorage. Smaller vessels may anchor in shoaler water in midchannel in the E arm of the cove.

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

Charts 17403, 17387

(521) **El Capitan Passage** has its entrance on the NE side of Sea Otter Sound. It extends about 18 miles in a N direction from Sea Otter Sound to Aneskett Point, then trends W for about 6.5 miles to Shakan Strait. The S part of the passage is 1 to 4 miles wide, forming a bay about 7 miles long with numerous rocks and islets. To the N 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 W 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.

(522) 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.

Channels

(523) 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 N 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 S shore until about 1.8 miles W of the point, where it takes a turn to the SSW and narrows. Here a small wooded islet in the midchannel should be left to the W. Then for about 1.5 miles a midchannel course should be followed to the E 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 W entrance of El Capitan Passage at Shakan Strait. Daybeacons mark the dredged sections of the channel. In May 1996, the controlling depth was 8 feet (9½ feet at midchannel) in the dredged sections of the channel.

Anchorages

(524) 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.

Tides and currents

(525) The mean range of tide in El Capitan Passage is 8.7 feet and the diurnal range is 10.8 feet. In the S part of El Capitan Passage, the current floods N 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 N of Tenass Island the current is reported to be negligible. In Dry Pass, the current floods E with a velocity of 1.8 knots and ebbs W 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.

Chart 17403

(526) **Cap Island** is at the S entrance to the passage. **Knob Island**, about 0.5 mile N 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 N of the northernmost point of Cap Island.

(527) **El Capitan Island** is near the S end of the passage. A narrow inlet is in the S side of the island where rocks and depths less than 1 fathom are found. Off the SE 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 E side of El Capitan Island. On the W side of El Capitan Island, about 1.6 miles N of Knob Island, is a deep bight with three islands in the entrance.

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

(529) **New Tokeen Harbor Entrance Light** (55°56.2'N., 133°19.9'W.), 35 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the S end of the southernmost island at the entrance.

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(530) The bight is entered from the S through a clear channel. A wharf, with a 100-foot face and reported to be in poor condition, is on the N 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.

(531) 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.

(532) **Twin Islands** are a group of small islands about 12 feet high about 0.6 mile W of the S end of El Capitan Island. Several rocks are on the reef 0.4 mile NE of Twin Islands.

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

(534) **Keski Island** is a wooded island about 1 mile N of Knob Island on the W side of El Capitan Island. Foul ground extends 250 yards W from the S end of the island, and irregular bottom extends 0.25 mile W off the NW part of the island.

(535) **Flat Island** is a small island on the S end of the large shoal area E of and close to Teal Island. To the NE of Flat Island is another small island. Submerged rocks extend in a N direction from Flat Island for 250 yards to a rock awash at high water.

(536) **White Point** is the NW point of a bight on the W side of El Capitan Island E of Singa Island. Foul ground extends for about 100 yards S of White Point. **Teal Island** is the southernmost of three large islands W of El Capitan Island. Rocks extend off the S shore for about 0.2 mile.

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

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

(539) **Scow Island** is a small island NNE of Singa Island and about 0.3 mile NW of the N end of El Capitan Island.

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

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

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

(543) **Burnt Island** is the small island about 325 yards NNE 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°58.4'N., 133°17.8'W.), 15 feet above the water, is shown from a skeleton tower with a square green daymark on the island.

(544) **Tenass Island**, about 1 mile N of Burnt Island, is SE of the E entrance to Tenass Pass. A 4-fathom shoal is 0.6 mile NE of the N end of the island.

(545) **Sarkar Cove**, on the E side of El Capitan Passage, is entered about 1.3 miles SE of Burnt Island Light 5, and is about 6 miles from Sea Otter Sound and about 18 miles from Shakan Strait (chart 17387). 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.

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

(547) On the N side of Sarkar Cove are the ruins of a few houses and a wharf.

(548) **Salt Water Lagoon** is about 0.5 mile NE 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.

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

(550) **Rocky Cove** is a small cove about 0.4 mile N 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.

(551) **Tenass Pass**, N of **Spanberg Island**, and **Brockman Pass**, S 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.

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Chart 17387

(552) **Sarheen Cove** (56°03.0'N., 133°15.9'W.) is on the E shore of El Capitan Passage about 5.3 miles N of Sarkar Cove (see chart 17403) and about 6 miles S from Aneskett Point. Depths of 8 to 10 fathoms were found within the cove except toward the head where it is shoal.

(553) **Devilfish Bay** is on the W side of the passage about 3 miles NNW of the entrance to Sarheen Cove and 3.5 miles S of Aneskett Point. The bay consists of two parts connected by a narrows; the E 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 N corner of this part of the bay is shoal.

(554) 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 W and 5 fathoms E 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.

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

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