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SECTOR 8 — CHART INFORMATION

SECTOR 8

QUEEN CHARLOTTE STRAIT

Plan.—This sector describes the S side of Queen Charlotte Strait as far W as the E end of Goletas Channel; then the E end of the strait and the adjoining inlets; then the N side of the strait; then the channels and passages at the W end of the strait; and lastly, the N side of the W end.

General Remarks

8.1 Queen Charlotte Strait is an extensive arm of the sea and connects the inner waters lying NE of Vancouver Island with the Pacific Ocean. The strait is formed by the mainland, on the N side, and by the NE side of Vancouver Island, on the S side. It has an average width of 10 to 15 miles and extends about 50 miles ESE to the entrance of Knight Inlet.

Numerous islands, islets, and dangers, which lie in the W half of the strait, form several alternate channels. Goletas Channel and Gordon Channel, on the S side, are the best. Richards Channel, on the N side, is somewhat encumbered.

The E half of the strait is more open; however, there are numerous islands, islets, and dangers lying at the E end of the approaches to Knight Inlet and Fife Sound.

The depths in the strait are considerable. Beaver Harbor and Hardy Bay, on the S side, and Port Alexander, in Goletas Channel, are the only anchorages available to vessels of moderate size. A number of secure anchorages are available for small vessels.

The W part of the strait, with the exception of Goletas Channel, is open to the Pacific Ocean; the channel is protected by Nahwitti Bar. A swell from the W, which is considerably increased immediately after a SE wind of any strength, rolls in from seaward; this swell is broken on reaching the islands lying between the Millar Group and the Gordon Group, and is not felt to the SE of them.

The route of the inside passage runs along the S side of Queen Charlotte Strait from the W end of Broughton Strait. It leads through the E part of Goletas Channel, Christie Passage, and the NW part of Gordon Channel. The route then passes W of Pine Island and leads to Cape Caution.

Regulations.—The waters described in this sector lie within the Vancouver Vessel Traffic Service (VTS) System. For further information on reporting requirements, see paragraph 1.1.

Queen Charlotte Strait—South Side

8.2 Several groups of islands and islets lie in the middle of the E part of Queen Charlotte Strait, to the N of Malcolm Island.

Foster Island (50°42'N., 126°51'W.) has a conspicuous, conical hill standing on its S extremity. Penfold Islet lies 1.5 miles SE of this island and the channel leading between them is clear of dangers. Numerous dangers fringe the island and the islet. They are marked by kelp during the summer.

The **Holford Islets** (50°44'N., 126°48'W.), a group, are surrounded by shoals and drying rocks.

The **Numas Islands** (50°46'N., 127°06'W.), a conspicuous group, lie centered 3 miles off the N side of the strait. A light is shown from a structure standing on the N side of the easternmost island. Numas Bank and George Bank, with least depths of 20m and 22m, respectively, lie between the Numas Islands and Foster Island.

Labouchere Passage leads between the Numas Islands and **Lewis Rocks** (50°48'N., 127°03'W.). It is about 2 miles wide and very deep. Vessels using this passage should favor that side lying closer to the Numas Islands.

Morgan Shoal (50°47'N., 127°15'W.), with a depth of 18m, is rocky and lies in the middle of the strait.

Tides—Currents.—The tidal currents within the passages and channels lying among the above-described islands attain a velocity of 3 knots at times and follow the general direction of each passage.

8.3 Donegal Head (50°38'N., 126°49'W.), the E extremity of Malcolm Island, is formed by a conspicuous, white earth cliff. It is 31m high and fringed by a shingle beach.

A shoal extends SE from the head and the tidal currents run with strength over and past it.

Lizard Point, marked by a light, is located 3.8 miles NW of Donegal Head.

Trinity Bay (50°40'N., 126°55'W.) indents the N side of Malcolm Island, close W of Lizard Point. A bank of sand and gravel, with depths of less than 9m near its center, extends seaward from the shores of this bay. Anchorage can be taken on this bank, but it is exposed to all except S winds.

Bere Point (50°40'N., 127°03'W.), comparatively steep-to, is located 6 miles W of Lizard Point. A reef, with a least depth of 12.5m, lies about 1 mile E of this point. An unnamed bay lies close E of the point and is fringed with shoals extending up to 0.2 mile offshore.

Caution.—A fringe of kelp extends from 0.1 to 0.2 mile seaward from the N shores of Malcolm Island during the summer.

8.4 False Head (50°40'N., 127°17'W.) is located on the W side of the W entrance of Broughton Strait, about 4.8 miles WNW of the W extremity of Malcolm Island. Foul ground, with boulders, extends up to about 0.1 mile E of this headland.

The tidal currents at a position about 2 miles N of the head have an average velocity of 2.5 knots; the flood current sets 130°.

Between False Head and **Thomas Point** (50°42'N., 127°23'W.), 4.5 miles WNW, the shore is low and fringed with a beach of sand and boulders.

Beaver Harbor (50°43'N., 127°25'W.), a bay, lies close W of Thomas Point, on the S side of Queen Charlotte Strait. The shores of the bay are comparatively low and a number of islands lie in the entrance. A light is shown from a structure

standing on the N side of Round Island, the outermost island, which lies 1.8 miles NNW of Thomas Point.

A public wharf, fronting the shore of the bay, is 85m long and has a depth of 6.7m alongside. Dredging has been carried out up to 30m beyond the end of the wharf and vessels of up to 113m in length can be accommodated.

A large, white conspicuous hanger stands at the airport situated about 1 mile SSE of Thomas Point. An aeronautical lighted beacon, visible from seaward, is situated in the vicinity of the airport.

Vessels approaching the harbor from the E should enter between Thomas Point and Eagle Island, 0.5 mile NNE. Vessels approaching from the N or W should enter via **Daedalus Passage** (50°45'N., 127°23'W.). The depths in both entrances are irregular. Both entrances are fringed with numerous dangers which may best be seen on the chart.

The tidal currents at a position about 1 mile N of the entrance to Daedalus Passage have an average velocity of 2.5 knots; the flood current sets 110°.

Cormorant Rock, which dries 4.3m, lies in the middle of the inner part of the harbor and is marked by a beacon.

Anchorage.—Protected anchorage can be taken, in depths of 24 to 27m, within the harbor, about 0.4 mile NNE of Cormorant Rock.

8.5 Hardy Bay (50°43'N., 127°29'W.) lies on the S side of the strait and is separated from Beaver Harbor by a peninsula. The bay extends 3.3 miles S to a drying mudflat at the head. The shores of the bay are rugged. A microwave tower surmounts the highest summit of the Seven Hills, which stand on the SE side of the bay. It is 192m high and conspicuous from seaward.

The **Masterman Islands** (50°45'N., 127°26'W.) lie close N of the peninsula separating Hardy Bay from Beaver Harbor. They are wooded and form the E entrance point of Hardy Bay. The passage leading between this group of islands and the S shore of Queen Charlotte Strait is available only to small craft with local knowledge.

A light is shown from a structure standing on the E end of the northernmost island of the group. The head of the bay consists of a small basin with a narrow entrance; access is difficult and should not be attempted without local knowledge.

Port Hardy (50°43'N., 127°29'W.) ([World Port Index No. 18840](#)), a settlement, stands on the W side of Hardy Bay. It is fronted by a public wharf with a berth, 61m long, and a depth of 7.3m alongside. There are facilities for fishing vessels and a marina.

Anchorage can be taken, in a depth of 24m, about 0.3 mile ENE of the head of the wharf.

Caution.—A submarine cable, which may best be seen on the chart, lies across the head of Hardy Bay.

Queen Charlotte Strait—East End

8.6 The E end of Queen Charlotte Strait is encumbered by the numerous islands, islets, and rocks which extend from **Swanson Island** (50°37'N., 126°42'W.), lying on the S side of the strait, to **Broughton Island** (50°46'N., 126°45'W.), lying on the N. A number of passages in this area provide access to extensive inlets. These passages, with the exception of Fife

Sound, are narrow, intricate, and should be approached with care.

The inlets are deep and their shores rise in almost sheer precipices to heights of between 1,500 and 1,820m. Inland, the stupendous peaks are always covered with snow. Numerous cataracts, caused by melting snow, rush down the barren, rugged sides of the mountains.

The inlets are intensely dreary and gloomy because of the lofty and precipitous mountains and the frequent mist and rain. Settlements are rare. However, anchorages are available in each of the inlets and between the islands lying in the approaches.

Directions.—The 100m curve provides a safe guide along the seaward edge of the islands, islets, and dangers lying in the outer approaches to Knight Inlet and Fife Sound.

White Cliff Islets (50°39'N., 126°44'W.), the largest of which is 15m high, lie within 0.5 mile N of Round Islet. The islets are white and very conspicuous. The channel lying between the foul ground located S of this group of islets and Round Islet is about 0.1 mile wide, but is not recommended.

Start Island (50°41'N., 126°42'W.), 46m high, and High Island, 82m high, lie within a group of islands located on the S side of the approach to Dusky Cove.

Dusky Cove (50°42'N., 126°40'W.) provides sheltered anchorage, in depths of 11 to 14.6m, to small vessels with local knowledge. Cove Islet lies on the N side of the entrance. The approach channel leading to the anchorage is about 0.1 mile wide.

Evening Rocks (50°42'N., 126°42'W.) and Loon Rock lie on the N side of the approach. Evening Rocks, forming the westernmost danger, dry up to 1.8m and lie about 0.6 mile WNW of Cove Islet. Loon Rock, 2.1m high, lies about 0.3 mile W of the islet and a reef, with a least depth of 5.5m, lies about 0.2 mile WSW of it.

The Fog Islets, a group, lie close NE of Evening Rocks and two unnamed small islets lie close S of Cove Islet.

8.7 Ledge Rock (50°42'N., 126°42'W.) and a chain consisting of several islands, islets, and rocks extend E on the S side of the approach. The chain includes Trap Rock, South Islet, and Leading Islet.

Ledge Rock, the westernmost danger, dries 1.5m and lies about 0.6 mile WSW of Cove Islet. Trap Rock, 2.4m high, lies about 0.3 mile WSW of Cove Islet. A shoal lies about midway between these two dangers and a rock, awash, is located on it.

South Islet lies about 0.1 mile SSW of Cove Islet. Leading Islet lies on the SE side of the anchorage, about 0.3 mile SE of Cove Islet. Several unnamed islands lie between these two islets.

Sunday Harbor (50°43'N., 126°42'W.) provides sheltered anchorage to small vessels with local knowledge off the S side of Crib Island. A chain of islands and islets extends from W to E off the S side of Crib Island and the harbor. This chain includes Kate Islet, Narrows Islet, Angular Island, and Egg Islet.

Crib Passage leads from Queen Charlotte Strait to the anchorage. It is entered between **Huston Islet** (50°44'N., 126°43'W.), 26m high, and Liska Islet, 26m high, 0.3 mile SW. A shoal patch, with a depth of 4.1m, lies about 0.2 mile WNW

of Huston Islet. The passage narrows to a width of less than 0.1 mile between Island Point, the S extremity of Crib Island, and Narrows Islet. The bar lying between these two features has a least depth of 5.5m.

Sunday Passage (50°43'N., 126°42'W.), a narrow channel leading to the anchorage, has a least depth of 11.9m and is approached to the N of the **Coach Islets** (50°43'N., 126°42'W.).

Anchorage can be taken, in depths of 7 to 12.8m, in a small basin lying E of Island Point. A good berth, with a depth of 7.3m, is with the N extremity of Kate Islet, lying on the S side of Crib Passage, and Island Point in line, bearing 272°. The depths lying close E of the anchorage are less than 5.5m. Brush Islet lies in the NE corner of the anchorage area.

8.8 Monday Anchorage (50°44'N., 126°39'W.) provides sheltered anchorage to small vessels with local knowledge. A good berth lies in a depth of 12.8m between the N side of Mars Island and the S side of Tracey Island. This anchorage can be approached from Queen Charlotte Strait via Philips Passage or Trainer Passage, lying close N. Vessels should then pass between the N side of Crib Island and the S side of Eden Island.

Philips Passage (50°44'N., 126°43'W.) lies between the N side of Crib Island and a group of islets and rocks encumbering the middle of the passage, between Crib Island and the SW side of Eden Island. A rock, with a depth of less than 1.8m, and another, with a least depth of 3.1m, lie in the middle of the passage. The navigable channel leading between these dangers and Crib Island is only 110m wide.

Numerous islets and rocks lie in the approach to Monday Anchorage. The outermost danger consists of a rock, with a depth of 5.5m, lying about 0.5 mile NNW of Huston Islet. Another rock, with a depth of 3.7m, lies about 0.4 mile WSW of the SW extremity of Eden Island.

The Marsden Islands, five in number, lie close ENE of Crib Island with several other islets and rocks located close S of them. The channel lying N of this group of islands is clear and leads to the anchorage.

Joe Cove (50°45'N., 126°40'W.), an inlet, and Misty Passage lie on the S side of Eden Island.

8.9 Spiller Passage (50°43'N., 126°40'W.) leads SE from Monday Anchorage to Arrow Passage. Misty Passage leads NE to Blunden Passage and Old Passage. Due to being narrow, these passages should not be attempted without local knowledge.

The main approach to Knight Inlet is entered from Queen Charlotte Strait between Wedge Island, marked by a light, and the **Puzzle Islands** (50°38'N., 126°43'W.). After passing between these two features, vessels should steer a course with the summit of Jumble Island ahead, bearing 086°, and pass about 0.2 mile N of Chick Reef. When the E extremity of Whirl Islet is abeam, vessels should change course to pass about 0.2 mile S of Night Islet and Jumble Island. A mid-channel course should then be steered until Rocky Point is abeam. Vessels should then steer 089° and pass about 0.2 mile N of Clock Rock. When Warr Bluff is abeam, a mid-channel course can be resumed.

The tidal currents off **Owl Island** (50°38'N., 126°41'W.), in the main approach to Knight Inlet, have an average velocity of 2.5 knots. The flood current sets 120°.

Farewell Harbor (50°36'N., 126°41'W.) lies on the S side of the main approach to Knight Inlet. It provides secure anchorage, in a depth of 16m, to small vessels with local knowledge, but the entrances are narrow.

Swanson Passage (50°37'N., 126°41'W.) leads S into Farewell Harbor from the S side of the main approach to Knight Inlet. Numerous dangers lie in the approaches to this passage.

West Passage (50°36'N., 126°41'W.) forms the entrance into Farewell Harbor from Blackfish Sound. It is approached between Slate Point, the NW extremity of Compton Island, and Fresh Rock, 0.4 mile WNW. The passage leads between Apples Islet, lying close off Swanson Island, and the Star Islets, lying within 0.2 mile of the N side of Compton Island. The Star Islets, two in number, lie on the SE side of the passage and are 11.6m and 13.7m high.

Punt Rock, which dries 4.3m, lies close SW of the northwesternmost of the Star Islets.

Village Channel, Indian Channel, Eliot Passage, and Beware Passage comprise the E approaches to Farewell Harbor.

8.10 Village Channel (50°37'N., 126°38'W.) leads W into Farewell Harbor from Eliot Passage and Beware Passage. It passes between Crease Island and the Indian Group, on the N side, and Berry Island and the Carey Group, on the S side. The fairway channel lying between Crease Island and Berry Island is only about 180m wide. It should be used only by vessels with local knowledge.

The Carey Group extends about 2 miles E from Berry Island. It includes, from W to E, Leone Island, Madrona Island, Larsen Island, Alder Island, and **Ralph Island** (50°36'N., 126°36'W.). The passages leading between the islands in this group should not be attempted.

The **Indian Group** (50°37'N., 126°37'W.), which includes Fern Island, has no navigable passages within it.

Eliot Passage (50°37'N., 126°35'W.), available only to small vessels with local knowledge, leads S from Knight Inlet. It passes between the Indian Group, on the W side, and Village Island, on the E side, and connects with Village Channel.

Beware Passage (50°35'N., 126°32'W.) is encumbered with numerous islets and rocks, particularly at the SE end. It should only be attempted by small craft with local knowledge.

Knight Inlet (50°38'N., 126°35'W.) is entered between Warr Bluff and Slope Point, 1 mile NE. This inlet is deep with few places for anchorage.

The main approach to the inlet is from Queen Charlotte Strait. However, it can also be approached via several passages and channels which are connected to Johnstone Strait and Farewell Harbor.

Tides—Currents.—The tidal currents setting between the entrance of the inlet and Steep Head, 15 miles E, attain a rate of 3 knots and heavy tide rips occur in places. The currents turn from 1 to 2 hours after HW and LW, the time being greatly affected by the amount of run-off from the land. The wind has a large effect on the velocity of the tidal currents and may increase their strength by up to 2 knots. During the summer, when the land run-off is at its greatest, the flood current may

disappear entirely in the upper reaches of Knight Inlet and a marked increase in the rate of the ebb will occur.

Ripple Bluff (50°38'N., 126°31'W.), the bold and steep-to N extremity of Village Island, is located on the S side of Knight Inlet.

Chop Bay (50°39'N., 126°30'W.) is a small bight which indents the S side of Gilford Island, opposite Ripple Bluff. It is foul and should not be entered.

8.11 Port Elizabeth (50°40'N., 126°30'W.) is one of the few anchorages in Knight Inlet. It can be approached by passing either E or W of the **Lady Islands** (50°39'N., 126°25'W.) and by keeping in mid-channel. Anchorage can be taken in depths of 18 to 33m, E and NE of a group of islets lying at the head of the inlet.

Maple Cove (50°41'N., 126°28'W.) provides good anchorage, in a depth of 13m, to small vessels.

Shewell Island (50°39'N., 126°15'W.), 117m high, lies on the N side of the fairway of Knight Inlet. Martin Islets, three in number, lie close off the E end of this island.

Clapp Passage and Nickoll Passage lead into the S end of Tribune Channel, NW and NE, respectively, of Shewell Island. The fairways of both of these passages are deep and free of dangers.

Montagu Point (50°38'N., 126°13'W.) is located on the S side of Knight Inlet and Protection Point lies 2 miles E of it. Tsakonu Cove, lying on the S side of Protection Point, has a depth of 22m and shoals to a depth of 9m near its head. Small craft can obtain anchorage in this cove, but it is exposed to the E.

Steep Head (50°40'N., 126°11'W.) is located on the N side of the inlet, on the E side of the S end of Sargeant Passage. The S end of Viscount Island lies between Shewell Island and this headland.

Shelterless Point (50°41'N., 126°05'W.) is located on the N side of the inlet, 3.3 miles E of Steep Head.

Prominent Point (50°40'N., 126°00'W.) is located on the S side of the inlet, 6 miles ENE of Protection Point. Rest Islets lie close inshore, about 0.8 mile WSW of this point.

Hoeya Head (Boulder Point) (50°41'N., 125°59'W.) is located on the N side of the inlet. A ridge, with depths of 37 to 68m, lies between this headland and Prominent Point. The depths to the W and E of the ridge are deeper.

Hoeya Sound is entered close N of Hoeya Head. The depths in this sound are too deep for anchorage and it shoals abruptly to a drying flat, about 0.5 mile from the head.

8.12 Lull Bay (50°42'N., 126°01'W.) has depths too deep for anchorage; numerous piles stand on a drying bank lying off its W shore.

Rough Point (50°40'N., 125°54'W.) is located on the S side of the inlet, 4 miles E of Prominent Sound.

Glendale Cove (50°41'N., 125°43'W.), the S half of which dries, indents the S side of Knight Inlet. The ruins of a former cannery are situated on the NE side of this cove. Anchorage can be taken, in a depth of 42m, off the edge of the drying part but the depths shoal rapidly.

Glacier Peak (50°52'N., 125°34'W.), 1,324m high, rises 2.3 miles ESE of Cascade Point. A conspicuous glacier is located a short distance inshore over a gully at the foot of this peak.

Knight Inlet widens slightly at the head. However, the inlet maintains its deep depths close to a mud flat that extends about 0.5 mile off an area of marshy land, at the S end of a valley where it terminates.

Anchorage can be taken, in a depth of 44m, with **Costello Peak** (51°03'N., 125°30'W.) bearing about 101° and open to the S of Dutchman Head, 3 miles NW. Vessels are cautioned that the depths shoal rapidly to the N of this bearing. During the winter, strong N winds render this anchorage unsafe.

Clio Channel (50°38'N., 126°20'W.) leads S from Knight Inlet and joins the passages connecting with Johnstone Strait.

Negro Rock (50°36'N., 126°22'W.), marked by a beacon, lies off the entrance to Bones Bay.

Bones Bay (50°35'N., 126°21'W.) indents the SE side of Clio Channel, close SE of Negro Rock. Sambo Point, located on the S side of Clio Channel, forms the N entrance point of this bay. A small cove, with a pier, lies at the head of the bay.

Joliffe Island (50°35'N., 126°28'W.) lies in the fairway of Clio Channel. A rock, with a depth of less than 2m, and another, with a depth of less than 3.2m, lie about 0.2 mile S and about 0.2 mile SSE, respectively, of this island.

8.13 Chatham Channel (50°35'N., 126°15'W.) is entered from Knight Inlet and leads about 5 miles SE. It passes between East Cracroft Island, on the SW side, and the mainland, on the NE side, and connects with the junction of Havannah Channel and Call Inlet. The least depth in the fairway is reported to be 3m. The shallowest part is at the E end where kelp grows across the channel during the summer and autumn.

Tides—Currents.—The tidal currents in Chatham Channel attain a velocity of 4 to 6 knots to the S of Atchison Island and a velocity of 5 to 7 knots to the S of Bowers Islands. The HW slack and LW slack occur 45 minutes and 1 hour 25 minutes, respectively, before the corresponding slack water in Seymour Narrows. These times are for the SE end of the channel, near Root Point.

Caution.—A small slide area, with a radius of about 15m, was reported (1975) to lie on the foreshore of East Cracroft Island in position 50°35'27"N, 126°15'49"W and may be hazardous.

Atchison Island (50°35'N., 126°13'W.) lies on the N side of Chatham Channel. An islet lies close S of this island and is connected to it by a drying shoal. This islet has a cliff, about 4m high, on its S side with a prominent white patch on it. The S side of the islet is steep-to, but a detached rocky patch, with a depth of 3.7m, lies about 0.2 mile E of it.

Ray Point (50°35'N., 126°12'W.), 38m high, consists of a narrow rocky tongue of land and is marked by a light. It forms the E entrance point at the SE end of Chatham Channel. Root Point, located 0.4 mile WSW of Ray Point, is low and forms the W entrance point. Several rocks, with depths of less than 1.8m, lie close off the S shore of the channel and up to 1 mile W of Root Point. A beacon stands on Root Point; two other beacons are situated on the S side of the channel, about 0.4 mile and 0.7 mile W of it.

A beacon also stands close off the S side of the southernmost island of the Bowers Islands group, about 1 mile WNW of Root Point.

8.14 Retreat Passage (50°42'N., 126°36'W.) leads NE to its junction with Arrow Passage and Cramer Passage. This passage is entered from the approach to Spring Passage. Several islands, islets, and rocks lie on the E side of the passage. A number of channels lead between these features and the shore but should not be used.

Bonwick Island (50°42'N., 126°38'W.), 226m high near its N end, forms the W side of Retreat Passage. The E shore of this island is bold.

Seabreeze Island (50°40'N., 126°37'W.), 98m high, is the largest and southernmost island lying within Retreat Passage.

Sail Island lies on the E side of Retreat Passage, 0.8 mile NE of Seabreeze Island. Several islets lie close off the N end of this island. The passage lying close NE of Sail Island is about 0.2 mile wide and available to small vessels with local knowledge.

Health Bay (50°41'N., 126°35'W.) indents the E side of Retreat Passage and provides good anchorage, in a depth of 20m. A detached patch, with a depth of 7m, lies near the middle of the bay. Small vessels can anchor in shallower depths nearer to the head of the bay.

Grebe Cove (50°43'N., 126°37'W.), a narrow inlet, indents the E side of Bonwick Island. The depths in the cove shoal gradually from 29m in the entrance to 5.5m near its head.

Caution.—It was reported (1976) that compass errors up to 18° have been experienced within Retreat Passage, in the vicinity of Meade Bay.

8.15 Meade Bay (51°05'N., 126°37'W.), a small indentation, lies on the E side of Retreat Passage, opposite Grebe Cove. This bay has a depth of 24m lying near its head.

Fox Islands (50°42'N., 126°35'W.) lie close off the NE end of Bonwick Island. The passage leading between the easternmost island of the this group and Solitary Islet, 15m high, is clear. Several channels lie within the island group but they are intricate and should only be used with local knowledge.

False Cove (50°44'N., 126°33'W.), an indentation, indents the coast of Gilford Island. Two detached shoal patches, with depths of 4.3m and 7m, lie within the cove 0.4 mile and 0.6 mile, respectively, NE of Solitary Islet. The cove may be approached on either side of Solitary Islet, but vessels passing to the S should stay at least 0.2 mile from the shore to avoid the foul ground extending from it. Anchorage can be taken, in a depth of 29m, in the center of the cove.

Arrow Passage (50°43'N., 126°40'W.) is entered from the W between Horse Rock and Evening Rocks. A rock, with a depth of 7.3m, lies 0.3 miles E of Horse Rock.

Cranmer Passage (50°45'N., 126°32'W.) leads ENE from the junction of Retreat Passage and Arrow Passage to the junction of the E end of Fife Sound and the W end of Tribune Channel. This passage is formed by Gilford Island, on the SE side, and Baker Island, 389m high, on the NW side.

Steep Islet (50°44'N., 126°35'W.), 58m high, lies on the W side of the S entrance of Cranmer Passage, close S of the S extremity to Baker Island. An area of foul ground lies about 0.3 mile E of this islet. Browne Rock, which dries 0.6m and is marked by kelp in the summer, lies about 0.3 mile ESE of the E extremity of the islet. Another rock, which dries 5.2m, lies about 0.2 mile E of Steep Islet.

Isle Point (50°44'N., 126°34'W.) is located on the E side of the S entrance of Cranmer Passage and foul ground extends WSW from it. A rock, with a depth of less than 1.8m, lies about midway between Steep Islet and this point.

Evans Point (50°45'N., 126°31'W.), the SE extremity of Baker Island, is located 2 miles ENE of Islet Point.

8.16 Shoal Harbor (50°44'N., 126°30'W.), a narrow inlet, indents Gilford Island. This harbor is only available to small vessels with local knowledge. The entrance channel is less than 60m wide in places and has a least depth of 5.5m.

Echo Bay (50°45'N., 126°30'W.), a small indentation, lies on the E side of Cranmer Passage, close E of Evans Point. A settlement stands on the shore of this bay.

Simoon Sound (50°46'N., 126°29'W.), another small indentation, indents the E side of Cranmer Passage, about 0.5 mile NNE of Echo Bay. A settlement stands on the shore of this indentation and is fronted by a float. A rock, with a depth of 3.7m, lies about 0.1 mile WSW of the float and is marked by a small patch of kelp during the summer.

Pym Rocks (50°46'N., 126°31'W.), which dry up to 1.8m, lie between 0.3 mile and 0.4 mile NNW of Horsford Point, the NE extremity of Baker Island. These rocks are marked by a large patch of kelp during the summer.

Baxter Shoal (50°46'N., 126°30'W.), with a least depth of 7.3m, lies about 0.2 mile SSE of Horsford Point.

Powell Point is situated on the E side of the N entrance of Cranmer Passage, 0.8 mile ENE of Horsford Point. A rock, which dries 1.5m, lies about 0.1 mile NNW of this point.

Fife Sound (50°47'N., 126°38'W.) is entered from Queen Charlotte Strait between Duff Islet and Gordon Point, 0.8 mile NW. The depths in the sound are deep and no special directions are necessary. Tidal currents in the channel are negligible.

Indian Passage (50°46'N., 126°35'W.) is a narrow channel which leads S of the Benjamin Group, on the S side of Fife Sound. This passage should only be used by small vessels with local knowledge because several drying rocks lie near the fairway, to the S of Davies Island.

Deep Harbor (50°48'N., 126°35'W.), a narrow inlet, lies on the N side of Fife Sound and is formed by the Pearse Peninsula. This inlet is entered close N of Sharp Point and has depths of 26 to 71m.

Jumper Island lies in the entrance of the harbor. A reef, with a least depth of 4.6m, extends up to about 0.3 mile W from the W extremity of the island. A rock, which dries 2.1m, lies about 0.2 mile E of the E extremity of the island. The harbor is entered by passing to the N of the island. Anchorage can be taken, in a depth 44m, at the head of the harbor, about 0.3 mile SW of the entrance of a narrow inlet.

8.17 Sharp Shoal (50°47'N., 126°36'W.), with a depth of 6.4m, extends up to about 0.1 mile seaward from the N shore of Fife Sound, about 0.3 mile SE of Sharp Point.

Nickless Islet (50°47'N., 126°32'W.), 43m high, lies on the N side of Fife Sound, close off the SE extremity of Pearse Peninsula and 2.5 miles ESE of Sharp Point. The N shore of the sound curves N for 0.8 mile from this islet to Notice Point, the NE extremity of the peninsula. Notice Rock, 1.2m high, lies close N of Notice Point.

Scott Cove (50°46'N., 126°28'W.) indents the S side of Fife Sound between Powell Point and Evangeline Point, 0.8 mile ENE. A rock, with a depth of 2.7m, lies in the entrance of this cove, close W of Evangeline Point. Evangeline Rock, with a depth of less than 1.8m, lies about 0.2 mile WSW of Evangeline Point.

The **Burdwood Group** (50°48'N., 126°28'W.), consisting of several islands, lies in the approach to Tribune Channel. The largest and northwesternmost island of the group is 116m high.

Raleigh Point (50°48'N., 126°30'W.) is the W extremity of the northwesternmost island of the group. Village Point, the W extremity of the southwesternmost island, is located about 1.5 miles NW of Evangeline Point. Walker Island, the northeasternmost island, lies in the entrance of Tribune Channel. No attempt should be made to pass between the islands of this group.

Hornet Passage and Raleigh Passage lead E and W, respectively, of the Burdwood Group and are both deep.

8.18 Viner Sound (50°47'N., 126°26'W.) lies at the E end of Fife Sound; its entrance is located between Evangeline Point and King Point, 1.8 miles NE. This sound is entered to the S of Penn Islet, 20m high, which lies about 0.2 mile S of King Point. It is clear of dangers and sheltered by precipitous mountains. A drying flat extends about 0.5 mile from the head of the sound. The depths are too deep for anchoring, except near the head, where small vessels can obtain anchorage, in a depth of 16.5m.

Deep Sea Bluff (50°49'N., 126°30'W.) is located on the N side of the junction of Penphrase Passage and Raleigh Passage. It is bare, conspicuous, and steep. This bluff rises almost vertically to a height of 91m; another conspicuous bluff is located 1 mile E of it.

Tribune Channel (50°48'N., 126°28'W.) is entered at its W end between King Point and Deep Sea Bluff. This entrance can be approached via either Raleigh Passage or Hornet Passage. The fairway of the channel leads E and then S for 24 miles. The depths in the channel are deep throughout, except for **Humphrey Rock** (50°41'N., 126°15'W.). The fairway is free of dangers but few anchorages are available.

Smith Rock (50°49'N., 126°25'W.), which dries 4.9m, lies close to the S shore of the channel, about 1 mile NE of King Point.

Rainy Point (50°50'N., 126°20'W.) is located about 4 miles ENE of Smith Rock.

Kwatsi Bay (50°51'N., 126°16'W.) is approached between Gormely Point (Watson Point) and Miller Point, 2.3 miles ESE. It is deep, except near the head, where high mountains rise on three sides. Small vessels can obtain anchorage, in a depth of 27m, within the bay.

8.19 Wakhana Bay (50°49'N., 126°16'W.) indents the S side of Tribune Channel, between Clam Point and Irvine Point. The latter point is the NE extremity of Gilford Island and is marked by a beacon. A projection extends from the S shore of the bay. It narrows the fairway to a width of 0.1 mile and forms a wide basin, with a least depth of 11.3m. A rock, with a depth of 0.3m, lies about 0.3 mile E of Clam Point. Sheltered anchorage can be taken, in depths of up to 31m, within the basin.

Bond Sound (50°50'N., 126°11'W.) has depths too deep for anchoring. Loaf Point is located on the E side of the entrance to this sound, 1.5 miles E of Irvine Point.

Brown Point (50°47'N., 126°12'W.), off which Tribune Channel turns SE, is located on the E side of the channel, 3 miles S of Loaf Point.

Thompson Sound (50°46'N., 126°07'W.) is entered on the E side of Tribune Channel and Sackville Island lies near its head. The depths in the sound shoal suddenly above the island to the edge of mud flats. A logging camp stands NE of Sackville Island.

Anchorage can be taken, in a depth of 36m, with limited swinging room, in the NE corner of the head of the sound, but local knowledge is advised.

Kumlah Island (50°44'N., 126°10'W.) lies on the W side of Tribune Channel. The depths in the narrow channel leading to the N of this island are deep. Cleave Point is located on the opposite side of Tribune Channel, 1.3 miles E of this island.

Viscount Island (50°41'N., 126°13'W.) lies on the E side of the S end of Tribune Channel. Humphrey Rock, with a depth of less than 1.8m, lies in the middle of the main channel, about 0.5 mile WSW of Bamber Point. This latter point forms the W extremity of the island and is marked by a light.

Braza Island (50°40'N., 126°15'W.) lies close off the W side of the main channel, about 1.5 miles SW of Bamber Point. A rock, which dries 5.2m, lies close inshore, about 0.5 mile SSW of this island.

Queen Charlotte Strait—North Side

8.20 The N side of Queen Charlotte Strait extends in a general WNW direction from **Gordon Point** (50°46'N., 126°44'W.), located on the W side of the SE end of Richards Channel.

A number of anchorages are available. Cullen Harbor and Blunden Harbor are both directly accessible from Queen Charlotte Strait.

Commercial maritime activity is limited to that associated with logging operations and local steamer traffic.

Gore Rock (50°46'N., 126°46'W.), 1.8m high, lies on the N side of Nowell Channel, in the approaches to Cullen Harbor and Fife Sound. A rock, which dries 1.8m, lies on a shoal which extends up to about 0.1 mile SW from Gore Rock. A shoal patch, with a depth of 4.1m, and a rock, with a depth of 5.5m, lie about 0.5 mile W and 1 mile WNW, respectively, of Gore Rock. Vessels should pass at least 0.5 mile S of Gore Rock.

Cullen Harbor (50°46'N., 126°44'W.) is approached between Gordon Point and Nelly Islet, 0.3 mile W. The entrance is less than 0.1 mile wide. A rock, with a depth of less than 1.8m, lies off the entrance, 0.2 mile WNW of Gordon Point. The harbor widens within the entrance and Davidson Islet lies in its N part.

The tides in the harbor rise about 4.9m at springs and 3.5m at neaps.

Booker Passage, a narrow boat channel, leads N of Long Island, which forms the NW side of the harbor, and into Booker Lagoon. The tidal currents run with great strength through this passage.

Small vessels can obtain sheltered anchorage, in a depth of 9m, sand, within the harbor about 0.2 mile SSW of Davidson Islet.

The **Polkinghorne Islands** (50°48'N., 126°55'W.) lie on the E side of the approach to Wells Passage. The southwesternmost and largest island is 62m high and wooded. A rock, with a depth of 5.5m, lies about 1.3 miles SE of Fantome Point, the SE extremity of this island. The Polkinghorne Islands group should be given a berth of at least 0.5 mile.

Boyles Point (50°49'N., 127°01'W.) is located on the W side of the entrance of Wells Passage. A hill, 105m high, rises close NW of this point. A group of rocks front the point and the outermost, which dries, lies about 0.4 mile SW of it.

Lewis Rocks (50°49'N., 127°03'W.), up to 6.7m high, lie about 0.3 mile offshore. A rock, which dries 2.4m, lies about 0.7 mile SSW of the highest rock of the group and another, which dries 0.9m, lies close NW of it. A number of rocks, with depths of less than 1.8m, lie between Lewis Rocks and the above-mentioned drying rocks. This group of dangers should be given a berth of at least 1 mile.

Howcraft Point (50°51'N., 127°05'W.) is located 2 miles NW of Lewis Rocks. Taylor Point, backed by white cliffs, is located 2 miles WNW of this point.

The **Raynor Group** (50°53'N., 127°13'W.), consisting of five islets, lies close offshore. Several drying and below-water rocks fringe the S side of this group. During the summer, masses of kelp surround the islets and fringe the shore. The Raynor Group should be given a berth of at least 0.5 mile.

8.21 Blunden Harbor (50°55'N., 127°16'W.) provides good, sheltered anchorage for small craft on the N side of Queen Charlotte Strait.

Wells Passage (50°50'N., 126°58'W.) leads 7 miles NE to the junction of Suttlej Channel, Grappler Sound, and Drury Inlet. The depths in the channel are generally deep, except at the SW entrance where the bottom is uneven. The fairway channel has a minimum width of about 0.3 mile. The tidal currents in the passage attain a velocity of 3 knots at times.

Vincent Island (50°49'N., 126°56'W.), Percy Island and Dickson Island are 81m, 107m, and 90m high, respectively. They lie off the E side of Wells Passage. Foul ground extends up to about 0.3 mile W of Percy Island.

Drew Islet (50°49'N., 126°55'W.) lies on the E side of Wells Passage with dangers lying close W and NW of it.

Kenneth Bay (Rocky Bay) (50°50'N., 127°00'W.) indents the W side of Wells Passage. Foul ground extends up to about 0.4 mile seaward from the S entrance point of this bay.

Ommaney Islet (50°50'N., 126°58'W.), the northwesternmost islet lying in Wells Passage, is 20m high. It is located about 0.7 mile NW of the W extremity of Percy Island. The W side of the islet is fronted by foul ground and several dangers lie between it and Percy Island. A rock, with a least depth of 3.4m, lies about 0.5 mile SW of the islet.

The fairway leading between the islet and James Point, close NW, is reduced in places to a width of 0.4 mile. Several islets and rocks lie close off the W extremity of Dickson Island. A rock, with a least depth of 7.8m, lies on the W side of Wells Passage, about 0.4 mile NW of Dickson Island. In the vicinity of this rock, the passage is reduced to a width of about 0.3 mile.

Caution.—The passages leading between the Polkinghorne Islands, Vincent Island, and Percy Island should not be attempted without local knowledge. Vessels should not attempt to pass between Percy Island and Dickson Island because the channel is encumbered with rocks.

8.22 Carter Passage (Canoe Passage) (50°50'N., 126°54'W.) is entered on the E side of Wells Passage. It is unsuitable for any craft other than small boats of light draft at or near HW.

Tracey Harbor (50°51'N., 126°53'W.) lies on the E side of Wells Passage, near the middle of the NW side of North Broughton Island. This harbor is entered between Cane Point, located 1.3 miles ENE of Bourmaster Point, and Baronet Point, 0.3 mile NNE. Mauve Islet lies on the S side of the entrance, close W of Cane Point. Lambert Island, 107m high, lies on the N side of the approach with its S extremity located 0.4 mile NW of Cane Point. A shoal, with a depth of 11m, lies about 0.2 mile NW of Mauve Islet.

The harbor narrows gradually within its entrance for a distance of 1 mile. Wood Point and Bath Point are located on the N side of the harbor 0.3 mile SSE and 0.7 mile SE, respectively, of Baronet Point. Star Rock, 0.9m high and fringed with reefs, lies close inshore, close W of Bath Point. A rock, which dries 2.1m, lies close to the shore, close SE of Wood Point. A rock, which dries 4m, lies close inshore, about 0.2 mile WNW of Preston Point. Freshwater Cove, a small drying inlet, is located on the S side, opposite Bath Point.

The harbor widens within Preston Point and Griffiths Point. Carter Point, located 0.3 mile E of Griffiths Point, is the W extremity of a small peninsula that divides the inner part of the harbor into two sections. Napier Bay is the northernmost and larger section. A rock, with a depth of less than 1.8m, lies close off the SE shore, about 0.2 mile ENE of Carter Point.

Small vessels can obtain anchorage, in depths of 16.5 to 18m, mud, between Freshwater Cove and Bath Point, or in depths of 11 to 13m in the middle of Napier Bay. Both anchorages are sheltered.

Caution.—A submarine pipeline, which may best be seen on the chart, lies across Napier Bay.

8.23 Alder Point (50°52'N., 126°52'W.) and Providence Point, 0.8 mile NE, are located on the E side of Wells Passage. Foul ground fronts the latter point.

Compton Point (50°53'N., 126°54'W.) is located on the W side of Wells Passage. Wehlis Bay lies 1.5 miles SW of this point but is small and cannot be used as an anchorage.

The **Surgeon Islets** (50°54'N., 126°52'W.) lie close together in the middle of the NE end of Wells Passage, about 0.5 mile W of Atkinson Island. A light is shown from the northernmost of this group of islets. Several detached shoals, with a least depth of 5.5m, lie between this group and Atkinson Island.

Suttlej Channel (50°54'N., 126°49'W.) leads from the NE end of Wells Passage to Kingcome Inlet and the junction of Fife Sound and Tribune Channel. It passes N of North Broughton Island and NE of Broughton Island. The channel is entered through Patrick Passage between Atkinson Island, on the S side, and Kinnaird Island, on the N.

The depths almost everywhere within the channel are deep. The tidal currents attain a velocity of 3 knots at times.

Atkinson Island (50°53'N., 126°51'W.), 212m high, lies on the S side of the W entrance of Suttlej Channel. Several above-water rocks front the SW and NW extremities of the island. No attempt should be made to pass between Atkinson Island and North Broughton Island.

8.24 Patrick Passage (50°54'N., 126°51'W.) leads E into Suttlej Channel, between Atkinson Island, on the S side, and Kinnaird Island, on the N. The depths in this passage are deep. An islet lies on the N side of the passage, close off the SE side of Kinnaird Island.

Sullivan Bay (50°53'N., 126°50'W.) indents the N side of North Broughton Island, close SE of Atkinson Island. A settlement stands on the shore of the bay. Two detached shoals, with depths of 7m and 9.5m, lie about 0.2 mile off the E entrance point of the bay.

Sullivan Point (50°54'N., 126°48'W.), the N extremity of North Broughton Island, is located on the S side of Suttlej Channel, 1.5 miles E of Atkinson Island. A shoal, with a least depth of 10.4m, lies about 0.3 mile NNW of this point.

Codrington Point, the westernmost of two projections on the N side of Suttlej Channel, is located opposite the point.

Connally Point (50°54'N., 126°47'W.), located 0.8 mile E of Codrington Point, is conspicuous. A shoal, with a least depth of 10.7m, lies about 0.4 mile W of this point. A bay lies close E of the point but is encumbered by several islets and rocks.

Cardale Head (50°52'N., 126°44'W.) is located on the S side of Suttlej Channel, 3 miles SE of Sullivan Point. Cartwright Point is located about midway between the headland and the latter point. A rock, 1.5m high, lies about 0.2 mile N of the headland.

Greenway Sound is entered between Cardale Head and Walker Point, 1.3 miles E. This sound, which almost divides Broughton Island into two parts, is connected to Wells Passage by Carter Passage. The depths in the sound are too deep for anchorage.

Maude Islet and Cecil Islet, 79m and 78m high, respectively, lie on the W and E sides of Greenway Sound, about 0.8 mile within the entrance.

Greenway Point (Jackson Point) (50°51'N., 126°47'W.) is located on the S side of the sound, 2.3 miles WSW of Maude Islet. A rock, which dries 0.3m, lies about 0.4 mile W of this point. A shoal patch, with a depth of 8.2m, lies about 0.1 mile N of the point. A rock, with a depth of 6.1m, lies about 0.3 mile WSW of the point.

Broughton Point, the N entrance point of the E end of Carter Passage, is located on the W side of the sound, about 1 mile WSW of Greenway Point. Simpson Island, 104m high, lies near the head of the sound and an islet, 37m high, lies close SE of it.

8.25 Stackhouse Island (50°51'N., 126°39'W.), 194m high, lies in the middle of Suttlej Channel, about 2 miles ESE of Walker Point. Philip Point (Phillip Point) and Moore Point are located on opposite sides of the channel, NW and SE, respectively, of the island.

Pasley Passage and Sharp Passage lead N and S, respectively, of Stackhouse Island. Pasley Rock, with a depth of less than 1.8m, lies in Pasley Passage, about 0.2 mile SSW of Philip Point.

Cypress Harbor (50°50'N., 126°40'W.) is entered on the S side of Sharp Passage, between Woods Point, located 1.8 miles SE of Walker Point, and Donald Head, 0.2 mile E. The entrance is reduced to a width of about 0.1 mile by a reef which extends E from Woods Point. Fox Rock, which dries 4.8m, lies on the E part of this reef. A detached shoal patch, with a least depth of 5.8m, lies close SW of Donald Head. Two rocks located close together, with depths of less than 1.8m, lie in the middle of the fairway off the entrance to Duck Inlet, in the vicinity of the head of the harbor.

Miller Bay indents the E side of the harbor, between Donald Head and Burt Point, 0.3 mile SE. Harbor Point and Blount Point are located on the W side of the harbor, 0.2 mile and 0.4 mile, respectively, SE of Woods Point. Berry Cove, with Tree Island lying close off its S side, indents the W side of the harbor, close S of Blount Point. Roffey Point is located on the W side of the harbor, close S of Burt Point.

The S half of Cypress Harbor, to the S of Burt Point and Roffey Point, is narrow and shoal. Duck Inlet, which dries, is entered between Talbo Point, located 0.4 mile SSE of Burt Point, and Cawston Point, close WSW. Stopford Basin is entered close W of Cawston Point and forms the head of the harbor. Keating Islet (Keating Rock), 1.8m high, lies on the W side of this basin, near the head. The tides in the harbor rise about 4.8m at springs and 3.5m at neaps.

Anchorage.—Cypress Harbor affords good sheltered anchorage, in a depth of 29m, mud, about 0.2 mile within its entrance. Small craft can anchor, in a depth of 11m, mud, off Berry Cove. Miller Bay is not recommended for anchorage because of the shoals lying in its entrance.

8.26 The Magin Islets (50°52'N., 126°38'W.), three in number, are 37 to 69m high and lie in the entrance of Kingcome Inlet, 1.3 miles ENE of Philip Point. Two rocks, which dry 2.4m and 4.3m, lie between these islets and the shore. A detached shoal, with a depth of 5.5m, lies close E of the easternmost islet.

Hayes Point (50°51'N., 126°36'W.) is located on the SW side of Suttlej Channel, about 1.3 miles E of Moore Point.

Shawl Bay indents the E side of the entrance of Kingcome Inlet, between Gregory Island and Vigis Point. An islet lies in the S part of the bay. Vigis Point, the NW extremity of Wishart Peninsula, is located on the NE side of the channel, 1 mile ENE of Hayes Point.

Penphrase Passage (50°50'N., 126°35'W.) is entered between Hayes Point and Vigis Point. The Wishart Peninsula is connected to the mainland by a narrow isthmus and forms the NE side of the passage. Shawl Bay lies on the W side of this isthmus. The peninsula is steep-to with rocky cliffs rising from the water's edge.

Steep Point (50°50'N., 126°34'W.), the SW extremity of Wishart Peninsula, is located 1.3 miles SE of Vigis Point. Pollard Point, the SE extremity of the peninsula, is located 2 miles E of Steep Point.

Nicholls Island (50°50'N., 126°36'W.) lies on the SW side of Penphrase Passage, about 0.5 mile SE of Hayes Point. Two rocks lie within 0.1 mile of the NW side of this island. One rock dries 1.8m, and the other, located close NW, has a depth of less than 1.8m. A rock, which dries 2.1m, lies about 0.2 mile NW of Sir Edmund Head, the NE extremity of a peninsula

located on the SW side of the passage. Trivett Rock, with a depth of less than 1.8m, lies about 0.2 mile ESE of the E extremity of Trivett Island.

Penphrase Passage is reduced to a width of about 0.3 mile at its SE end, between Trivett Island, on the S side, and the shore extending E of Steep Point, on the N side. A swept depth of 18.7m lies in this part of the passage, 0.3 mile NNE of the E extremity of Trivett Island.

8.27 Simoon Sound (50°50'N., 126°30'W.) is entered on the NW side of Tribune Channel between Pollard Point and Deep Sea Bluff, 0.8 mile S. The depths in this sound are for the most part deep. Louisa Islet lies close to the E shore of the sound, about 1 mile NNE of Deep Sea Bluff. Esther Point, off which the sound turns sharply W, is located 1.3 miles NE of Pollard Point. Esther Shoal, with a swept depth of 5.9m, lies nearly in the middle of the fairway, about 0.3 mile S of Esther Point.

Hannant Point (50°51'N., 126°30'W.) and Curtis Point are located on the N and S shores of Simoon Sound 1.3 miles NW and 1.5 miles WNW, respectively, of Esther Point. The depths in the sound decrease to less than 36m within these two points.

McIntosh Bay (50°52'N., 126°31'W.) indents the N shore of the sound, close W of Hannant Point. Several islets and an area of foul ground lie within this bay. A rock, with a depth of 2.4m, and another, with a depth of 4m, lie 0.2 mile and 0.3 mile, respectively, W of Hannant Point.

O'Brien Bay (50°51'N., 126°32'W.) forms the head of Simoon Sound. It is entered N of Curtis Point, where the sound narrows to a width of only 180m. The bay is about 0.5 mile wide and its W side is formed by the narrow isthmus that connects Wishart Peninsula to the mainland. The depths in the bay decrease from 27m at the entrance to 7m near the head. A group of rocks, up to 3.7m high, lies close off the N shore of the bay, about 0.5 mile W of Curtis Point. A rock, which dries 1.2m, lies close S of a small promontory located on the N shore at the head of the bay.

Vessels can obtain good anchorage, in a depth of 46m, mud, within Simoon Sound, about 0.8 mile NW of Esther Point. Small vessels can anchor in a depth of 24m, mud, within O'Brien Bay, about 0.4 mile from the head.

Laura Bay (50°49'N., 126°34'W.) is entered between Trivett Island and Hayle Point, 0.2 mile S. A rock, which dries 2.7m, lies near the head of this bay.

8.28 Bermingham Island (50°48'N., 126°32'W.) lies close off the SW side of Sutlej Channel, about 1.5 miles SE of Hayle Point and 0.3 mile NW of Notice Point. Notice Rock and several drying rocks lie between this island and Notice Point. An area of foul ground lies between the island and the shore to the W.

Kingcome Inlet (50°52'N., 126°35'W.) is entered on the N side of Sutlej Channel, between Magin Islets and Bradley Point, 1 mile E. The depths in the inlet are deep and there are no off-lying dangers. However, the depths decrease gradually near the head about 1.5 miles from the edge of a mud flat.

Gregory Island (50°52'N., 126°37'W.) lies on the E side of the entrance of the inlet and Bradley Point forms its W extremity. The island is separated from the mainland by a

narrow passage which leads from Shawl Bay to Moore Bay. This passage is suitable for small boats only.

Reid Bay (50°53'N., 126°39'W.) lies on the W side of Kingcome Inlet, close NW of the Magin Islands. It is unsuitable as an anchorage due to the depths and limited swinging room. A shoal, with a depth of 8.8m, lies in the middle of the entrance to the bay. Olivia Point and Ellen Point are located on the same side of the inlet 2.5 miles and 3.8 miles, respectively, NE of the Magin Islands.

Moore Bay (50°53'N., 126°33'W.) lies on the E side of Kingcome Inlet, between the NE side of Gregory Island and Thomas Bluff, which is located 2.5 miles NE of Bradley Point. Several islets lie within this bay. Thief Rocks, which dry up to 2.7m, lie in the middle of the approach, about 0.2 mile NNE of Thief Islet. A group of rocks, which dry up to 5.5m, lies about 0.2 mile S of the N entrance point of the bay. Another group of drying rocks, the highest of which dries 1.8m, lies about 0.4 mile WSW of Thief Rocks. The bay is too deep for anchoring.

Frances Point (50°55'N., 126°30'W.) is located 2.8 miles NE of Thomas Bluff. The shore in the vicinity of this point is very steep.

Wakeman Sound (50°58'N., 126°30'W.), on the N side of Kingcome Inlet, is entered between Upton Point and Philadelphia Point. The depths in this sound are too deep for anchoring.

Belleisle Sound (50°55'N., 126°25'W.) is entered on the S side of Kingcome Inlet, 2.5 miles ESE of Frances Point. Edmond Islet lies in the entrance of the sound and a rock, 1.2m high, is located close E and joined to it by drying ledges. Passage can be made either W or E of these dangers in depths of over 55m; however, the depths in the sound are too deep for anchoring.

Terease Point and Petley Point are located on the N side of Kingcome Inlet. Sybilla Point and Halliday Point are located on the S side of the inlet 2.5 miles and 4.5 miles, respectively, E of Edmond Islet. A white monument stands near the shore in this vicinity.

Anchorage Cove lies in the SE corner of the head of Kingcome Inlet and two islets are located within it. This cove provides the only anchorage within the inlet, in a depth of 33m.

8.29 Grappler Sound (50°54'N., 126°53'W.) is entered between Kinnaird Island and Pandora Head, 0.5 mile W. A rock, which dries 3.1m, lies about 0.1 mile SE of the southernmost of two islets that lie in the entrance.

Kinnaird Rock (50°55'N., 126°53'W.), with a depth of less than 1.8m, lies in mid-channel, about 0.3 mile NW of the W extremity of Kinnaird Island. Another rock, with a depth of 5.2m, lies about 0.8 mile N of Kinnaird Rock.

Dunsany Passage (50°54'N., 126°50'W.) leads from Sutlej Channel, between Kinnaird Island and the mainland to the E, to Hopetown Passage and Grappler Sound. Cunning Point is located on the E side of the N entrance of the passage and on the S side of the W entrance to Hopetown Passage. The passage is clear of dangers, with the exception of a ledge that fronts Cunning Point. A rock, which dries 5.2m, lies about 0.1 mile SSE of the point. An islet lies close off the N side of Kinnaird Island, W of Cunning Point.

Carriden Bay (50°54'N., 126°54'W.) is entered on the W side of Grappler Sound, between Pandora Head and Linlithgow

Point, 0.5 mile W. A reef extends about up to 0.2 mile S from the latter point. Small craft can obtain anchorage in a depth of 7.3m within the bay.

Buckingham Island (50°55'N., 126°52'W.) lies close NW of the N extremity of Kinnaird Island. Several islets and rocks lie close E of the island. A small islet lies close NW of the island. A detached shoal, with a least depth of 5.2m, lies almost in mid-channel, about 0.4 mile WNW of the NW extremity of the island.

Claydon Bay (50°56'N., 126°54'W.) indents the W side of Grappler Sound. It is entered close NE of Morton Point (Hope Point), which is located 0.8 mile NE of Linlithgow Point. Three rocks, which dry 2.1 to 5.5m, lie nearly in the middle of the narrow entrance of the bay. Vessels are advised to pass on the S side of these dangers. Small craft can obtain anchorage in a depth of 7m within the bay.

8.30 Watson Island (50°56'N., 126°50'W.) lies on the E side of Grappler Sound, N of Kinnaird Island. Hopetown Passage and Kenneth Passage lead from the E side of the sound S and N, respectively, of the island. A rock, 0.6m high, and another rock, which dries 5.5m, lie on a reef located in the approaches to Dunsany Passage and Hopetown Passage, about 0.4 mile ESE of the SW extremity of the island. An islet lies about 0.5 mile NW of this same extremity. Watson Point (George Point), the NW extremity of the island, is located on the E side of the entrance to Embley Lagoon and on the S side of the entrance to Kenneth Passage. A rock, which dries 1.8m, lies close off this point.

Embley Lagoon (50°57'N., 126°53'W.) forms the head of Grappler Sound, to the N of Watson Point. An island lies in the middle of this lagoon.

Hopetown Passage leads along the S side of Watson Island, from the junction of Dunsany Passage and Grappler Sound to Mackenzie Sound. A reef extends across this passage, about 1.5 miles E of Cunning Point. The passage is available only to boats that can pass over this reef at HW.

Kenneth Passage (50°57'N., 126°48'W.) leads along the N side of Watson Island, from the SE corner of Embley Lagoon to Mackenzie Sound. It should not be attempted without local knowledge. The passage is only about 0.1 mile wide to the N of Watson Point; however, it widens within the entrance.

Jessie Point (50°57'N., 126°49'W.) is located on the NE side of Kenneth Passage, 1.8 miles E of Watson Point. Turnbull Cove is entered on the N side of the passage, 0.8 mile NW of this point. It is only accessible to small craft with local knowledge. Nepah Lagoon is about 4.5 miles long and has depths of 37 to 159m. It is only accessible to small craft with local knowledge. Such craft must enter by passing through Roaringhole Rapids, about 0.3 mile N of Jessie Point, at HW. Kenneth Point, off which Kenneth Passage turns SE, is the NE extremity of Watson Island and located opposite Jessie Point. The width of the passage is reduced to 0.3 mile between Jessie Point and Kenneth Point by several islands, islets, and rocks. These dangers render navigation intricate. Steamboat Bay, lying on the S side of Kenneth Passage, affords anchorage in a depth of 20m to small craft. A detached shoal, with a least depth of 2.4m, lies near the head of this bay.

8.31 Mackenzie Sound (50°56'N., 126°45'W.) extends 4.5 miles E from Claypole Point, the E extremity of Watson Island. The depths in the sound shoal gradually toward the head.

Burly Bay lies on the S side of the W end of the sound, SW of Claypole Point. Blair Islet lies in the entrance of this bay. The bay affords anchorage to small vessels in a depth of 18m near the head.

Turner Island (50°56'N., 126°44'W.) lies close off the S shore of the sound, 1.5 miles E of Claypole Point. Anne Point and Stirling Point are located on the N shore of the sound, 0.8 mile WNW and 0.8 mile E, respectively, of the island. A detached shoal patch, with a depth of 6.1m, lies about midway between the island and Stirling Point. Another detached shoal patch, with a depth of 8.7m, lies about 0.4 mile NE of the island.

Nimmo Bay (50°57'N., 126°42'W.) is entered on the N side of Mackenzie Sound, close E of Stirling Point. Vessel entering this bay require local knowledge because of the numerous drying rocks lying on either side of the entrance.

Drury Inlet (50°54'N., 127°03'W.) indents the W side of the N end of Wells Passage. It is entered between Compton Point and Pandora Head, 0.8 mile NNE. The hills standing on both sides of this inlet are generally low, round, and less than 300m high. The W end of the inlet is encumbered by islands and reefs. The depths in the inlet are less than 45m in most places. The maximum depth is 73m.

Due to the presence of numerous dangers, vessels should not navigate in this inlet without local knowledge. The inlet is also not recommended as an anchorage because of the lack of sheltered bays and because the prevailing SE and W winds sweep through it, raising a considerable sea.

The tides in the inlet rise about 4.5m at springs and 3.6m at neaps.

8.32 Morris Islet (50°54'N., 126°54'W.) lies on the S side of the fairway, about 0.3 mile NNW of Compton Point. The width of the inlet is reduced to about 0.3 mile in the vicinity of this islet. A reef, marked by kelp in summer, lies near the S shore and connects with another reef extending about 0.2 mile WNW from the islet. To avoid the reefs, vessels should stay close to the N shore of the inlet in this area.

Helen Bay (50°54'N., 126°56'W.) lies on the N side of the inlet, about 1 mile above Morris Islet. A shoal, with a depth of 4m, lies about 0.1 mile S of the E entrance point of this bay. A ledge, which dries 2.4m, fronts the SW side of the same point.

Stuart Narrows lies close W of Morris Islet. The fairway leading through the narrows is reduced to a width of 0.2 mile by two islets, each of which is connected to the shore by a reef. A rock, which dries 2.4m, lies in the fairway, between these two islets. The tidal currents in the narrows attain a velocity of 7 knots at springs.

Leche Islet (50°54'N., 126°58'W.) lies on the S side of the fairway at the W end of Stuart Narrows. Two rocks, which dry 2.4m and 4.3m, lie about 0.1 mile ESE and 0.1 mile S, respectively, of the islet. Another rock, with a depth of less than 1.8m, lies between these two rocks. A shoal, with a least depth of 3.1m, lies about 0.3 mile WSW of the islet.

Richmond Bay indents the S side of Drury Inlet, SSW of Leche Islet. Several small islets lie between Leche Islet and the

head of the bay. A rock, with a depth of less than 1.8m, lies in the middle of the bay.

Cumming Point (50°54'N., 126°59'W.) is located on the N side of Drury Inlet, about 0.8 mile WNW of Leche Islet. Ligar Islet lies on the S side of the fairway, about 0.4 mile SW of this point, and Tancred Bay is entered close S of it. A below-water rock lies about 0.1 mile SE of the S extremity of Ligar Islet. Voak Rock, which dries 1.8m, lies on the N side of the fairway, about 0.3 mile N of Ligar Islet. The depths in the fairway lying between Ligar Islet and this rock are deep.

Davis Islet (50°53'N., 127°01'W.), lying on the S side of Drury Islet, is located off the entrance of a small cove, about 1 mile WSW of Ligar Islet. Everard Islets, a group with rocks lying between them, extend N from the S side of the inlet, about 0.8 mile W of Davis Islet. Blount Rock, which dries 0.9m, lies close to the S shore, about 0.5 mile W of this group. The fairway leading between Everard Islets and Hooper Island, 0.5 mile N, is clear.

Jennis Bay is entered on the N side of Drury Inlet, between **Byron Point** (Thomas Point) (50°54'N., 127°01'W.) and Hooper Island, 0.3 mile NW. Two rocks, which dry 2.4m and 0.6m, lie close together and front the SE extremity of Hooper Island. A rock, with a depth of less than 1.8m, lies close off the S shore of this island. A detached shoal, with a depth of 5.5m, lies about 0.2 mile NW of Byron Point. A rock, awash, fronts the NNW side of the latter point. Another rock, with a depth of 2.1m, lies in the entrance of the bay, about 0.1 mile ENE of the NE extremity of Hooper Island. Small vessels can obtain anchorage in depths of 12 to 18m within Jennis Bay.

8.33 Centre Rock (50°54'N., 127°04'W.), which dries 4.3m, lies in the fairway, about 0.5 mile SW of Bedwell Point. The latter point is located on the N side of Drury Inlet, about 1 mile W of Hooper Island. This rock is steep-to and can be avoided by keeping about 0.2 mile from either shore.

Collinson Bay (50°55'N., 127°05'W.) indents the N side of Drury Inlet. Its entrance lies between Bedwell Point and Blackney Point, 2 miles WNW.

Shuckburgh Point (50°54'N., 127°06'W.) and Cunningham Point are located on the S side of Drury Inlet 1.5 miles and 3.3 miles, respectively, WNW of O'Keefe Point. Macgowan Bay, with a number of islets lying in its approaches, is entered about 0.5 mile S of Cunningham Point.

Wilson Island (50°55'N., 127°07'W.), 55m high, lies 0.6 mile WSW of Blackney Point. It is the southeasternmost island of a group that encumbers the W end of Drury Inlet. Keith Islets lie about 0.2 mile NW of this island. Muirhead Islands, three in number, lie within 1 mile NW of Wilson Island.

Numerous islets and rocks lie between the Muirhead Islands and the S side of Drury Inlet. However, a clear channel leads between the N sides of these islands and the dangers fringing the N side of the inlet in the vicinity of Charlotte Point. The latter point is located 1.5 miles NW of Blackney Point. Two detached shoals, with depths of 10.1m and 2.7m, lie in the channel, close W of the Muirhead Islands.

Jenkins Islet (50°56'N., 127°09'W.) lies close W of the northwesternmost of the Muirhead Islands. The depths, which shoal rapidly to the W of this islet, are less than 5.5m within Sutherland Bay, at the head of Drury Inlet. A densely, wooded

valley extends SW from the head of the inlet to the N shore of Queen Charlotte Strait.

Actaeon Sound, the N arm of Drury Inlet, is entered W of Charlotte Point and Dove Island lies in its entrance. The sound is so encumbered with islets and rocks that it is only available to small vessels with local knowledge. Rapids lie in a narrow passage near the head of the sound.

Queen Charlotte Strait—West End

8.34 Goletas Channel, Gordon Channel, Ripple Passage, and Richards Channel lie at the W end of Queen Charlotte Strait. In that order, from S to N, they lead from the E part of Queen Charlotte Strait into Queen Charlotte Sound. Several passages lead N from Goletas Channel to Gordon Channel and N from Gordon Channel to Ripple Passage. These channels and passages are formed by numerous islands, islets, and rocks lying between Vancouver Island and the mainland to the N.

The depths in all of the channels and passages are deep, with the exception of the W end of Goletas Channel, where a least depth of 11m prevails on Nahwitti Bar.

Ripple Passage is encumbered with dangers and Richards Channel is somewhat obstructed. Ripple Passage is recommended only in clear weather during daylight.

Several anchorages are available in Goletas Channel. An anchorage also lies on the N side of the strait, between the Southgate Group and the mainland.

Goletas Channel (50°47'N., 127°27'W.) leads 22.5 miles WNW between the N shore of Vancouver Island, on the S side, and a chain of islands and islets, on the N. Several navigable passages lead N from this channel, between numerous islands, to Gordon Channel. The shores of Goletas Channel are high, rugged, and steep-to, except in the W part. Vessels can generally approach to within 0.3 mile of the shore.

The depths in Goletas Channel are deep throughout with the exception of Nahwhitti Bar, lying at the W end, where the least depth in the fairway is 11m. This bar, in great measure, prevents any heavy sea from rising in the channel during W gales.

The tidal currents in the E part of Goletas Channel do not exceed a velocity of 3 knots. However, at the W end they sometimes attain a velocity of 5.5 knots in the vicinity of Nahwitti Bar. The currents set E and W on rising and falling tides, respectively. The tidal currents in Goletas Channel, off Duval Point, have an average maximum velocity of 2.5 knots. The flood current sets 110°.

8.35 Miles Cone (50°49'N., 127°28'W.) is the conspicuous and southwesternmost summit of Doyle Island, which lies on the N side of the E entrance of Goletas Channel. Several islets and rocks extend up to about 0.4 mile SE from the SE end of this island. A rock, which dries 3.7m, forms the outermost of these dangers.

Meeson Cone (50°50'N., 127°34'W.) is a well-defined, conical hill standing near the middle of Hurst Island.

Noble Islets (50°49'N., 127°35'W.), two in number, are 20m and 24m high. A few stunted bushes and some coarse vegetation grow on them. The westernmost islet is marked by a light.

Nigei Island (50°52'N., 127°45'W.) is the largest of those separating Goletas Channel from Gordon Channel. Mount Lemon, a conspicuous conical peak, rises at the S side of the island, 2 miles from its W end. The S side of the island is steep-to and bold.

The flood tidal current off Boxer Point, the SE extremity of the island, has an average velocity of 2.5 knots and sets 110°.

Lemon Point (50°51'N., 127°46'W.), about 5 miles WNW of Boxer Point, forms the SW extremity of a small peninsula. The flood tidal current off this point has an average velocity of 2.5 knots and sets 110°.

Shushartie Bay (50°51'N., 127°52'W.) has high shores, except at the head where a drying sandbank extends up to about 0.3 mile seaward. Halsted Islet, a bare rock, lies close off the E entrance point of the bay. Dillon Rock, which dries 3.1m, lies about 0.2 mile NW of Halsted Islet and is marked by a light. The tides in the bay rise about 4.5m at springs and 3.6m at neaps.

8.36 Hope Island (50°55'N., 127°55'W.) lies on the N side of Goletas Channel and is the westernmost island of the chain bordering it. This island is separated from Nigei Island by Bate Passage. The sea breaks heavily on the N coast of the island.

Heath Point (50°53'N., 127°53'W.), steep-to, forms the S extremity of Hope Island. The flood tidal current off this point has an average velocity of 3 knots and sets 110°.

Godkin Point (50°54'N., 127°56'W.), marked by a light, is located on the N side of Goletas Channel, about 2 miles WNW of Heath Point. The shore extending between these points is steep-to and deeply indented. A cliff, 30m high, rises on the W side of the point.

Caution.—The waters lying between Godkin Point and Vancouver Island are used as a seaplane landing area.

Jones Point (50°54'N., 127°56'W.), located 0.5 mile NW of Godkin Point, is a high, steep, and cliffy bluff. Foul ground extends up to about 0.2 mile S from this point.

Bull Harbor (50°55'N., 127°56'W.), entered between Jones Point and Godkin Point, indents the S side of Hope Island and almost splits it into two parts. The harbor provides a secure, but limited anchorage for small vessels. The roadstead lies close N of Norman Island, which lies in the middle of the harbor. The fairway channel leads E of this island. A wharf, used by small craft, is situated close NE of Norman Island and has a depth of 6m alongside. A public wharf and a float are situated on the E side of the harbor.

Nahwitti Bar (50°54'N., 128°00'W.) extends across the W entrance of Goletas Channel. Tatnall Reefs, with a least depth of 3.2m, lie on a spit which extends NW from the S shore, at the S end of the bar. The fairway leading N of these reefs is about 0.8 mile wide and has depths of 11 to 16.5m. The depths on the seaward side of the bar increase very gradually, but within it they increase suddenly to 73m.

A swell occurs on Nahwitti Bar most of the time. A very heavy sea, dangerous to small vessels, breaks on the bar during bad weather when the W wind opposes a strong W tidal current. The sea breaks right across the bar during heavy W gales and it is then too dangerous to attempt to cross.

The tidal currents in the vicinity of the bar sometimes attain a velocity of 5.5 knots, setting E and W on the rising and

falling tides, respectively. The tidal currents set fairly across the bar in the direction of the channel.

Slack at HW and slack at LW occur 44 minutes and 34 minutes, respectively, before the corresponding waters at Prince Rupert. The duration of slack at HW and slack at LW is about 12 minutes and 17 minutes, respectively.

Nahwitti Point (50°54'N., 127°59'W.) is located 2.3 miles WNW of Godkin Point, on the N side of the fairway. Mexicana Point, located 0.8 mile NW of Nahwitti Point, forms the W extremity of Hope Island. Foul ground extends up to about 0.3 mile offshore in this vicinity. A light is shown from a structure standing on Nahwitti Point and an approach fairway lighted buoy is moored about 2.3 miles W of it.

Caution.—While in the vicinity of Nahwitti Bar, vessels should steer along the S side of Hope Island at a distance of about 0.5 mile in order to avoid the inshore dangers if the distant landmarks cannot be identified. The tidal currents must be guarded against in this area, especially during thick weather. Mount Lemon and Nahwitti Point are the only conspicuous features in the vicinity of the bar, at the W end of Goletas Channel.

8.37 The NW coast of Vancouver Island between **Cape Sutil** (50°53'N., 128°03'W.) and Cape Scott, 5 miles WSW, is generally low but rises to heights of 240 to 305m, in places. Foul ground extends up to 0.8 mile seaward from the shore in some places. Vessels are advised to give this part of the coast a wide berth.

Cape Sutil, the low N extremity of Vancouver Island, is located on the S side of the W entrance of Goletas Channel, about 3 miles SW of Nahwitti Point. A bay lies at the E side of the cape but is not suitable for anchorage.

Several banks, with least depths of 16.5 to 20m, lie in the approach to Goletas Channel, NW of the cape. Weser Island, 8m high, lies 0.3 mile offshore, about 1 mile ESE of the cape. Edmund Rock, 4m high, lies about 0.2 mile NE of the cape. An area of foul ground extends up to about 0.8 mile W from this rock. Thomson Rock, 1m high, lies about 1.5 miles W of the cape.

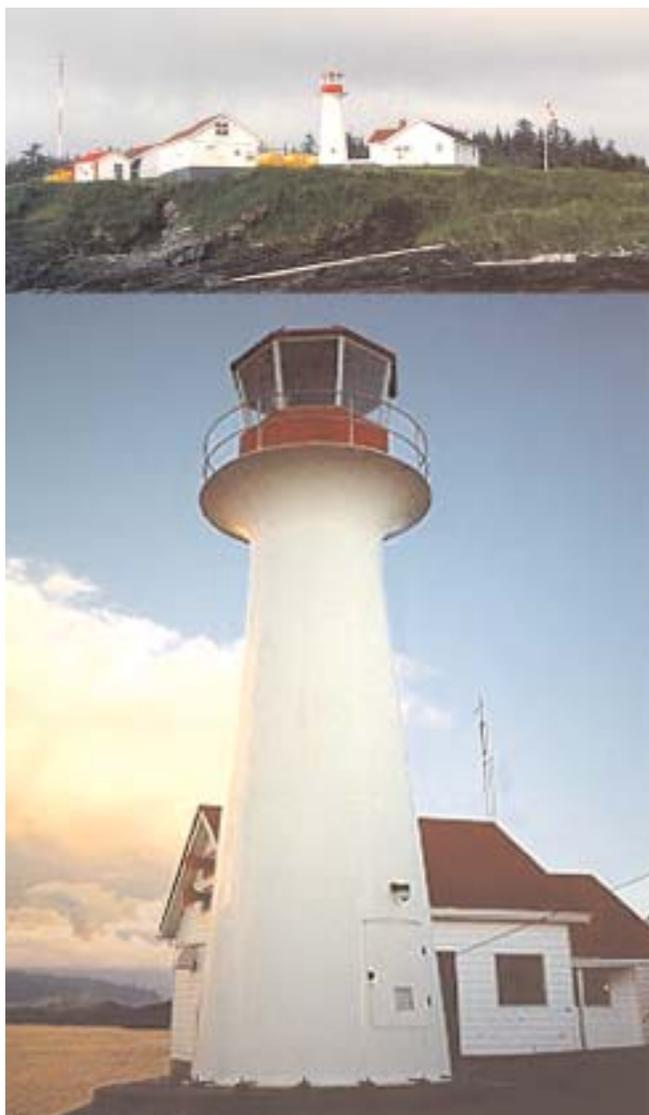
Northwest Nipple, 229m high, stands 1.5 miles SW of Cape Sutil and is a prominent landmark.

Christie Passage (50°50'N., 127°36'W.), about 0.5 mile wide, leads N to Gordon Channel between Hurst Island, on the E side, and Balaklava Island, on the W. Deep-draft vessels using this passage should pass to the W of Noble Islets.

The tidal currents in this passage attain a velocity of 3 knots at times, setting S and N on the rising and falling tides, respectively.

8.38 George Rock (50°51'N., 127°37'W.), which dries 0.6m, lies about 0.2 mile offshore, on the W side of Christie Passage. A rock, with a depth of 11m, lies in the fairway about midway between George Rock and the N extremity of Hurst Island.

Vessels proceeding N through this passage should round Noble Islets at a distance of about 0.3 mile and should then steer 349° towards **Scarlett Point Light** (50°52'N., 127°37'W.). When the settlement, which stands in the cove on the W shore of Hurst Island, is abeam, vessels should change



Photos courtesy of Charlotte Higgins

Scarlett Point Light

course to 000° and pass 0.3 mile off the light. Vessels will then clear George Rock by about 0.2 mile.

Browning Passage (50°50'N., 127°39'W.) leads NNW to Gordon Channel between Balaklava Island, on the E side, and Nigei Island, on the W. Numerous dangers lie in this passage and vessels without local knowledge should only navigate in it during daylight. The tidal currents in the passage are weak.

A rock, with a depth of less than 1.8m, lies on the E side of the passage, 0.8 mile S of the NE entrance. This rock lies near the edge of an area of foul ground that extends W from a group of islets. A reef, which dries 5.2m, lies on the E side of the passage, close NW of the group of islets. Another rock, which dries 3.7m, lies on the W side of the passage. The narrowest part of the passage lies between these dangers.

Vessels proceeding N through the passage should steer a mid-channel course. When the southernmost of the two islets

lying on the E side of the passage bears 000°, vessels should alter course to pass to the SW of the northernmost islet at a distance of 0.2 mile.

Port Alexander (50°51'N., 127°39'W.), an inlet easy to access, lies on the W side of Browning Passage. Fraser Island lies in the fairway, about 0.5 mile within the entrance of this inlet. This inlet affords good anchorage, sheltered from all but SE winds, in depths of 20 to 22m about 0.5 mile from the head.

8.39 Bate Passage (50°54'N., 127°50'W.) leads NE from Goletas Channel to Gordon Channel. This passage is straight, not less than 0.5 mile wide, and can be navigated with safety.

Thornton Reef (50°56'N., 127°46'W.), rocky with a depth of 3.7m, lies in the middle of the N entrance of Bate Passage.

Vansittart Island (50°55'N., 127°48'W.) lies on the N side of the passage. It is wooded and has a rugged shoreline.

Cascade Harbor (50°55'N., 127°44'W.) indents the N side of Nigei Island, at the NE entrance to Bate Passage. A heavy swell usually sets into this harbor, particularly during the summer, when NW winds prevail.

Shadwell Passage (50°55'N., 127°49'W.) leads N from Bate Passage along the W side of Vansittart Island. This passage is not recommended because of the numerous dangers lying within it. A heavy swell usually occurs at the N end of the passage.

The tidal currents in Shadwell Passage attain a velocity of 4.5 knots at times. Tide rips are sometimes formed at the S entrance of the passage, off the SW extremity of Vansittart Island.

8.40 Gordon Channel (50°51'N., 127°27'W.) leads NW between Gordon Islands, Balaklava Island, Nigei Island, and Hope Island, on the SW side, and Deserters Group, Walker Group, Redfern Island, Buckle Group, and Pine Island, on the NE.

The depths in the channel are deep and, although several dangers lie on either side of the channel, the fairway has a minimum width of 0.8 mile.

The tidal currents in the channel attain a velocity of 3 knots at times and have an average maximum of 2.5 knots. The flood current sets 125°.

The **Deserters Group** (50°53'N., 127°28'W.) consists of a number of islands, islets, and rocks. Deserters Island, the largest of the group, is wooded and hilly.

Davey Rock (50°52'N., 127°31'W.), with a depth of 6.4m, lies on the NE side of the fairway and is marked by a lighted buoy. Numerous rocks and shoals lie close N and NW of Davey Rock.

The **Crane Islands** (50°51'N., 127°31'W.), three in number, are 3.3m, 4m, and 10.4m high. They lie, respectively, from E to W along the SE side of the fairway. A light is shown from the summit of the largest and westernmost island. These islands should not be approached within 0.3 mile.

8.41 Boyle Island (50°51'N., 127°33'W.) lies on the S side of the fairway, about 1.5 miles WNW of the Crane Islands. Foul ground extends up to about 0.7 mile NW from the N side of this island. A light is shown from a structure standing on a rock lying about 0.5 mile NW of the N side of the island.



Pine Island (top left) and Pine Island Light

Photo copyright Mike Mitchell

Kent Island (50°55'N., 127°33'W.) is densely wooded and hilly. However, none of the hills can be distinguished from a distance, except the northwesternmost, which is 91m high. This latter hill appears to have a prominent rounded peak from some directions.

The **Buckle Group** (50°56'N., 127°39'W.) consists of a number of islands, rocks, and shoals lying between 2.5 miles and 3.5 miles NW of Redfern Island.

Sunken Rock (50°58'N., 127°41'W.), which dries 1.5m and usually breaks, lies on the NE side of Gordon Channel.

Hunt Rock (50°54'N., 127°41'W.), with a depth of 2.4m, lies on the SW side of the fairway and a lighted buoy is moored close E of it.

Pine Island (50°59'N., 127°43'W.) lies on the NE side of the NW entrance of Gordon Channel. The island is wooded and a distinct summit, 85m high, stands at its NW end. The shores of the island are precipitous everywhere.

Cape James (50°56'N., 127°50'W.), the NE extremity of Hope Island, is a rocky bluff, 27m high. Foul ground extends up to about 0.2 mile N from this cape.

Caution.—The sea breaks heavily on the N shore of Hope Island and Cape James should not be approached within 0.5 mile.

8.42 Shelter Passage (50°53'N., 127°30'W.) and **Bolivar Passage** (50°53'N., 127°32'W.) lead N from Gordon Channel to the E and W, respectively, of the Walker Group.

Shelter Passage is entered from the S between Race Island and the S extremity of Staples Island, 0.3 mile NW. This

passage has a minimum width of 0.2 mile and the depths are deep. However, transit of this passage is not recommended without local knowledge.

Bolivar Passage has a minimum width of 0.5 mile and the depths are deep. It can be navigated safely in clear weather. This passage can be entered from the SE between the S extremity of Staples Island and Alex Rock, or from the S between Alex Rock and Nye Rock. The SW sides of Staples Island and Kent Island are steep-to and clear of off-lying dangers. However, vessels are cautioned to avoid the numerous dangers lying on the W side of this passage.

The tidal currents in Bolivar Passage attain a velocity of 5 knots at times.

Torrance Islet (50°55'N., 127°33'W.), covered with grass, lies on the NE side of Bolivar Passage. A rock, which dries, lies on an area of foul ground that extends up to about 0.1 mile SE from this islet. Detached shoals, with numerous rocks, lie on the NE side of the NW entrance of Bolivar Passage. These dangers lie within 0.6 mile NNW and N of Torrance Islet. Several of these rocks dry up to 3.1m.

Ripple Passage (50°53'N., 127°25'W.) leads NW between the Deserters Group and the Walker Group, on the SW side, and Mary Rock, Millar Group, David Rock, and Wentworth Rock, on the NE. Although there are some dangers lying within it, this passage may be used with safety in clear weather during daylight.

The tidal currents in Ripple Passage attain a velocity of 4 knots at times and cause heavy tide rips and eddies.

8.43 Richards Channel (50°54'N., 127°23'W.) leads NW between Mary Rock, Millar Group, David Rock, and Wentworth Rock, on the SE side, and Jeannette Islands, Wallace Islands, and Annie Rocks, on the NE. This channel is entered from the SE between Stuart Point and Mary Rock, 2.3 miles SW. It has a minimum width of 0.4 mile and the narrowest part lies between the Jeannette Islands and Ghost Island. The depths in the channel are deep. A lighted buoy is moored close NE of Wentworth Rock.

The tidal currents in the channel attain a velocity of 3 knots at times at the narrowest part. Elsewhere, their velocity is considerably less. The tidal currents set SE and NW on the rising and falling tides, respectively. Small vessels are cautioned that heavy overfalls frequently occur between the Jeannette Islands and Ghost Island when strong winds are in opposition to the tidal currents.

Ghost Island (50°55'N., 127°25'W.), 24m high, lies on the SW side of the narrowest part of the channel. This island is conspicuous from the SE and NW because of the trees which give it a rounded appearance. The island is fringed with foul ground.

Vessels are advised not to pass between Ghost Island and the Millar Group, 0.3 mile SW, without local knowledge. There are no safe passages leading between the islands of the latter group.

Shelter Bay (50°58'N., 127°27'W.) is entered on the NE side of Richards Channel. The entrance is about 0.6 mile wide. This bay can only be used with local knowledge because the most sheltered parts are encumbered with rocks.

8.44 The Southgate Group (51°00'N., 127°32'W.) consists of several islands, islets, and rocks and lies close off the mainland. The mainland coast in the vicinity of this group is hilly and thickly wooded.

Coast Hill (51°00'N., 127°30'W.), the highest in the vicinity, is formed by the northernmost summit of a flat-topped peak. A conspicuous conical hill, known as Allison Cone, is 184m high and rises close to the coast, 1 mile NNW of Coast Hill.

Simpson Rock (50°59'N., 127°31'W.), 2.1m high, lies close S of the Southgate Group. Several rocks, which dry up to 3.4m, lie close NW of this rock.

A reef, with a least depth of 1.5m, lies about 0.2 mile SE of Simpson Rock. Another reef, the S head of which dries 1.2m, lies 0.2 mile S of the rock.

Approach Rock (50°59'N., 127°31'W.), 1.2m high, is surrounded by foul ground and marked by kelp.

Knight Island (51°00'N., 127°32'W.) is 62m high and densely wooded. A rock, 0.6m high, lies close S of the W extremity of this island. Another rock, with a depth of 1.8m, and a small detached shoal patch, with a depth of 5.5m, lie within 0.2 mile SSW of the same extremity.

A rock, which dries 4.6m, lies close off the N side of the island, about 0.1 mile NE of the NW extremity. A shoal patch, with a depth of 3.1m, lies close N of this rock and reduces the width of the fairway to about 135m.

8.45 Guard Rock (51°00'N., 127°31'W.), 7.6m high and bare, lies close N of the NE extremity of Knight Island. A chain of rocks fronts the N and NW sides of this rock. The northernmost rock of the chain, which dries 0.6m, is steep-to

on its N side. A detached shoal patch, with a depth of 5.5m, lies on the N side of the fairway, about 0.2 mile NNW of Guard Rock, and another shoal patch, with a depth of 6.9m, lies close S of it.

New Island, 21m high, lies on the NE side of the fairway, about 0.2 mile NNE of Guard Rock. A rock, which dries 3.3m, fronts the S side of this island. Another rock, which dries 0.9m, fronts the NW side of the island.

A shoal patch, with a depth of 8.8m, lies in the vicinity of the anchorage situated between Knight Island and the mainland. It is located about 0.1 mile E of the NE extremity of the island. Tide Rock, 0.6m high, lies close off the E side of Knight Island, about 0.1 mile NE of its SE extremity. An islet, 19m high, lies about 0.1 mile N of this rock. An area of foul ground lies between the rock and the islet and extends E to the mainland shore.

Southgate Island (51°01'N., 127°32'W.), 78m high, is the largest island of the Southgate Group. Stevens Island, 40m high and thickly wooded, lies near the SW end of a chain of islets, which extends about 0.2 mile SSW from the SW end of Southgate Island. A rock, which dries 2.4m, lies close WNW of this island.

Several islets and an area of foul ground, with drying rocks, front the S shore of Southgate Island. Several islets also lie close off the NW side and NE end of Southgate Island. A rock, with a depth of 1.2m, lies close NW of the largest of the islets located off the NE end of Southgate Island.

Elizabeth Rocks (51°01'N., 127°32'W.), three in number, are 2.7 to 5.8m high and lie about 0.3 mile NW of the middle of the NW side of Southgate Island. A shoal, with two rocky heads and a least depth of 4.6m, lies about 0.2 mile SW of Elizabeth Rocks. Foul ground, with drying rocks, extends up to about 0.1 mile NE of Elizabeth Rocks.

A reef, marked by kelp, lies about 0.4 mile N of Elizabeth Rocks. Slater Rocks, which dry 1.2 to 2.4m, lie on the NW part of this reef. Several rocks, with depths of less than 1.8m, lie on the SE part of the reef. A rock, which dries 1.2m, lies about 0.4 mile ENE of Elizabeth Rocks and a reef extends about 0.1 mile N from it.

Anchorage.—Anchorage can be obtained within the Southgate Group, between Knight Island and the mainland to the E. Because of the dangers lying in the entrance, this anchorage is not recommended without local knowledge.

Queen Charlotte Strait—West End—North Side

8.46 The N side of the W end of Queen Charlotte Strait contains numerous islands, islets, and other dangers. The approaches to Allison Harbor and Schooner Channel lie between the Southgate Group and Bramham Island. Slingsby Channel passes N of Bramham Island and leads to Seymour Inlet and Belize Inlet. Its entrance lies about midway between the Southgate Group and Cape Caution.

Harris Island (51°00'N., 127°34'W.), bare and rocky, is 12m high and marked by a light. A shoal patch, with a depth of 10.1m, lies about 0.1 mile NW of this island. Numerous islands, islets, and other dangers lie N and NE of Pine Island and W and WNW of Harris Island.

The **Tree Islets** (50°59'N., 127°43'W.), five in number, lie close together about 0.4 mile NE of Pine Island. The two

southwesternmost islets are 32m and 40m high and wooded. Shoals extend up to about 0.3 mile S of these islets. The passage leading between Pine Island and these islets, with the exception of the latter shoals, is clear.

Sealed Reef (51°00'N., 127°43'W.), with a least depth of 2.2m, lies about 1 mile N of the Tree Islets. This reef, which breaks, is extensive and marked by kelp.

The **Storm Islands** (51°02'N., 127°44'W.) are a chain of islands, islets, and rocks extending about 1.8 miles WNW from a position located 2 miles N of the Tree Islets. The islands are 56 to 70m high and have no conspicuous features. A shoal patch, with a depth of 10.5m, lies about 0.4 mile W of the north-westernmost island.

Europa Passage leads between Sealed Reef, on the S side, and the Storm Islands, on the N. This passage is clear and deep.

The **Reid Islets** (51°01'N., 127°42'W.), five in number, lie about 0.4 mile ESE of the southeasternmost of the Storm Islands. Foul ground extends between the island and these islets. The largest islet is 27m high, steep-sided, and has trees on its summit. The easternmost islet is 18m high, bare, and has a peaked summit. A rock, with a depth of less than 1.8m, and several detached shoal patches lie within 0.3 mile E of these islets.

Ta-aack Rock, with a depth of less than 1.8m, lies about 0.6 mile ESE of the Reid Islets. A shoal, with a least depth of 9.1m, lies close NE of this rock. Another shoal, with a least depth of 2.7m, lies about 0.5 mile ESE of Ta-aack Rock.

8.47 Dominis Rocks (51°00'N., 127°39'W.), which dry 2.1m, lie about 1.8 miles ESE of the Reid Islets. These rocks are usually marked by breakers when covered.

Lama Shoal, with a least depth of 10.1m, lies about 0.5 mile ESE of Dominis Rocks. Farquhar Bank, with a least depth of 11.9m, is extensive and lies about 1.8 miles SE of the shoal.

The **Naiad Islets** (51°02'N., 127°41'W.), a group of bare and rocky islets, lie very close together about 0.4 mile NNE of the Reid Islets. The largest islet of this group is 16.5m high. Several detached shoals, one of which dries 2.4m, lie within 0.3 mile NW of these islets.

Middle Rocks, which dry up to 3.4m, are steep-to and lie NNE of Dominis Rocks, about 1.5 miles E of Naiad Islets. A shoal patch, with a depth of 9.1m, lies close NW of these rocks.

Allan Rocks (51°02'N., 127°38'W.), which dry up to 4.6m, lie ENE of Middle Rocks and are marked close NE by a lighted buoy. They are located on the S side of the fairway, about 2.3 miles E of the Naiad Islets.

Dickenson Rock (51°01'N., 127°35'W.), 8.5m high and bare, lies on the E side of the fairway, about 0.8 mile NW of Harris Island. A shoal area extends up to about 0.1 mile SSE from this rock. Two detached shoal patches, with depths of 5.9m and 7.3m, lie about 0.2 mile E and about 0.2 mile SE, respectively, of the rock.

Rogers Islands, bare and rocky, lie close together on the E side of the fairway, about 0.5 mile NNW of Dickenson Rock. The westernmost and easternmost islands of this group are 15.8m and 4.6m high, respectively. A rock, 1.2m high, and another rock, which dries 1.5m, lie on a shoal that extends up to about 0.3 mile SE from the easternmost island. Two detached shoal patches, with depths of 15.5m and 10.1m, lie within 0.2 mile N of the westernmost island.

Woods Rock (51°01'N., 127°33'W.), with a depth of less than 1.8m, lies on the SW edge of a shoal, about 0.8 mile E of the easternmost island of the Rogers Islands. A shoal patch, with a depth of 8.2m, lies about 0.2 mile NE of Woods Rock.

The approaches to Allison Harbor and Schooner Channel, close NW, are formed by a bay which indents the mainland. This bay is greatly encumbered with islands, islets, and rocks. Allison Harbor, lying on the E side of the bay, provides anchorage. Schooner Channel, lying at the head of the bay, should only be entered by small craft with local knowledge.

The **Emily Group** (51°02'N., 127°34'W.), consisting of about seven wooded islands, lies about 0.6 mile NE of the Rogers Islands. The two northernmost and largest islands are 50m and 53m high. A rock, with a depth of less than 1.8m, lies about 0.3 mile ESE of the easternmost island and a shoal patch, with a depth of 4.3m, lies close NW of it.

The **Eliza Islands** (51°02'N., 127°33'W.), two in number, are densely wooded and lie about 0.4 mile NE of the Emily Group. The northernmost and largest island is 59m high. Some conspicuous white marks are located on the cliffs at the NW side of this island. The southernmost island is 37m high.

An area of foul ground, encumbered by rocks and shoals, extends between the northernmost of the Eliza Islands and the entrance of Skull Cove, 0.8 mile N.

The Deloraine Islands, the largest and southernmost of which is 59m high, are wooded and lie about 0.3 mile NE of the Eliza Islands. Murray Labyrinth, a group of islands and islets, lies close N of the Deloraine Islands. Numerous passages, available to small vessels with local knowledge, lead through this group to the S end of Schooner Channel.

8.48 The Frederick Islands (51°02'N., 127°32'W.), up to 30m high and wooded, lie about 0.2 mile SE of the largest of the Deloraine Islands. These islands, with the exception of their W sides, are fringed by shoals. A rock, which dries 1.5m, lies on the shoal extending up to about 0.2 mile NE from the north-westernmost island.

Eno Island (51°02'N., 127°31'W.) lies close inshore, about 0.8 mile ESE of the southwesternmost of the Frederick Islands. A beacon stands on the SW extremity of this island. A rock, awash, lies on a shoal located on the W side of the approach to Allison Harbor, about 0.2 mile NW of Eno Island. A shoal patch, with a depth of 9.1m, lies on the E side of the approach fairway, about 0.3 mile N of the N extremity of Southgate Island.

City Point (51°02'N., 127°31'W.), the S entrance point of Allison Harbor, is located 0.5 mile NNE of Eno Island and marked by a beacon. The bight lying between Eno Island and this point is encumbered with numerous islets and rocks.

Town Rock, 1.5m high, lies on the W side of the approach to the harbor, about 0.3 mile WSW of City Point. Allison Reefs, consisting of several dangerous shoal patches, lie W of a line joining Town Rock and the rock, awash, lying NW of Eno Island.

Ray Island (51°02'N., 127°31'W.) lies on the N side of the entrance of Allison Harbor, about 0.1 mile NNW of City Point. Roy Islet lies about midway between Ray Island and an unnamed point, 0.1 mile N.

8.49 Allison Harbor (51°03'N., 127°31'W.) is entered between City Point and Ray Island. A rock, which dries 2.4m, lies on the E side of the fairway, about 0.9 mile within the entrance. A cove lies on the E side of the harbor abreast this rock. The entrance channel in the vicinity of City Point has been swept to a depth of 7m at LW.

Good anchorage can be taken, in a depth of 12m, mud, about 0.1 mile N of the drying rock, previously mentioned. Vessels may also anchor in a depth of 7.3m, mud, near the head of the harbor.

Between **Skull Cove** (51°03'N., 127°34'W.) and Bramham Point, the SW shore of Bramham Island extends W and NW for 1.8 miles. Several rocky islets and rocks front this section of the coast.

Several small hills, with bare summits, rise along the shore and their slopes are covered with stunted bushes. Nina Hill, 84m high, stands 0.3 mile E of Bramham Point.

Mayor Island (51°03'N., 127°36'W.), 50m high, lies about 0.4 mile offshore, 0.8 mile SSE of Bramham Point. This island is wooded and the wall-like appearance of the trees makes it conspicuous.

Two small islets, 2.7m and 3m high, lie close E of the island. An area of foul ground, which dries 1.2m at its E edge, extends up to about 0.2 mile E from these islets. A rock, which dries 1.2m, and numerous below-water rocks lie on another area of foul ground extending up to 0.5 mile seaward between Mayor Island and Bramham Point. These dangers are marked by breakers.

Bramham Point (51°03'N., 127°36'W.) is the SE entrance point of Miles Inlet. A shoal patch, with a depth of 4.6m, lies about 0.6 mile W of this point. A rock, which dries 2.7m, lies about 0.1 mile NNW of the point. Other rocks lie between this drying rock and the point.

8.50 McEwan Point, located 0.7 mile NW of Bramham Point, is the W extremity of Bramham Island and the NW entrance point of Miles Inlet.

McEwan Rock (51°05'N., 127°38'W.), 17.4m high and bare, lies about 1 mile WSW of the point and is marked by a light. A rock, which dries 5.2m, lies close SE of McEwan Rock. Another rock, with a least depth of 4.6m, lies about 0.5 mile SE of McEwan Rock.

Morphy Rock, which dries 4m, lies about 0.3 mile W of McEwan Point. A rock, which dries 0.6m, and a below-water rock lie on the shoal extending between Morphy Rock and the point.

Miles Inlet is entered between Bramham Point and McEwan Point. An islet, 36m high, lies close off the N side of the entrance. The inlet narrows to a width of only 45m, about 0.5 mile within the entrance. The head of the inlet branches SE and NW into two large lagoons. These lagoons afford good sheltered anchorage to small craft with local knowledge.

Slingsby Channel (51°05'N., 127°38'W.) leads E to Seymour Inlet and Belize Inlet.

The **Fox Islands** (51°05'N., 127°37'W.), three in number, lie on the S side of the W end of Slingsby Channel. These islands are thickly wooded and separated by very narrow, unnavigable channels. The westernmost and largest island is 116m high.

The bight lying between the NW side of Bramham Island and the S sides of the Fox Islands is encumbered with rocks.

The passage leading from the head of this bight into Slingsby Channel is only available to boats.

Dalkeith Point (51°05'N., 127°39'W.), the W extremity of the westernmost of the Fox Islands, is located on the SE side of the main entrance of Slingsby Channel, about 1.5 miles WNW of McEwan Point. Several rocks, some of which dry up to 4m, lie close off this point. A rock, with a depth of less than 1.8m, lies about 0.5 mile SE of the point. A group of rocks, which dry up to 2.4m, lies on a shoal extending up to 0.2 mile seaward, within about 0.4 mile NE of Dalkeith Point.

Lascalles Point (51°05'N., 127°39'W.) is located on the NW side of the main entrance of Slingsby Channel, about 0.6 mile NW of Dalkeith Point. A wooded peak, 50m high and with taller hills behind it, rises on the point. A group of rocks, up to 4.3m high, lies within 0.2 mile of the shore, close W of the point. A shoal, with a depth of 10.1m, extends about 0.2 mile seaward from the N shore of the channel, about 0.4 mile E of the point.

North Point and South Point are located 0.8 mile ENE of Lascalles Point and 0.7 mile NE of Dalkeith Point, respectively. Vigilance Cove, an inlet, lies on the N side of North Point. It is too exposed to be of any value as an anchorage and both sides of its entrance are foul.

8.51 Outer Narrows (51°05'N., 127°38'W.), lying between North Point and South Point, is about 0.1 mile wide and has a least depth of 38m. When the wind blows into the channel from seaward, the sea breaks across the entrance and the surface of the water in the narrows becomes very agitated. Even during calms, vessels should navigate the narrows at or near slack water only and small vessels should do so only during good weather.

A rock, which dries 2.7m, lies close to the N shore of the channel, about 0.4 mile ENE of South Point. A rock, which dries 3m, is the northernmost of several that lie on a shoal fronting the S shore of the channel, about 0.7 mile E of South Point.

Tides—Currents.—The flood tidal currents in Outer Narrows set E. They attain velocities of 5 to 9 knots at springs and 4 to 6 knots at neaps. Slack water lasts about 16 minutes. The ebb currents attains velocities of 10 knots at springs and 5 to 7 knots at neaps.

Boot Point (51°06'N., 127°34'W.) is located on the N side of the channel, about 2.5 miles E of North Point. The shore between is fronted by several below-water rocks. Lump Hill, 142m high, rises 0.5 mile NE of this point. Stream Point is located on the S side of the channel, about 0.3 mile SE of Boot Point.

Kitching Point (51°06'N., 127°31'W.) is located on the N side of the channel, about 2 miles E of Boot Point.

Treadwell Bay indents the N side of Slingsby Channel, between Boot Point and Kitching Point. Anchor Islands, a group consisting of one island and many islets and rocks, lie within this bay. The island of this group is 70m high. Slingsby Rock, which dries 2.4m, lies close S of the Anchor Islands and about 0.2 mile off the S shore of Slingsby Channel. A rock, awash, lies close NE of the SE side of the Anchor Islands.

8.52 Butress Island (51°05'N., 127°31'W.), 72m high, lies on the S side of Slingsby Channel, about 0.3 mile SE of Kitching Point. Goose Point and Barrow Point are located 0.3 mile S and 0.1 mile E, respectively, of this island. They form, respectively, the W and E entrance points at the N end of Schooner Channel. The passages leading on either side of Butress Island and the islet lying close S of it may be used, but local knowledge is required because of the many rocks located within them.

Johnson Point (51°06'N., 127°30'W.), fronted by an islet, is located on the W side of the E entrance of Slingsby Channel, about 0.6 mile ENE of Kitching Point. Harvell Point is located on the E side of the entrance, about 0.6 mile NNE of Barrow Point. The E entrance of the channel is about 0.3 mile wide.

Nakwakto Rapids (51°06'N., 127°30'W.) lie at the E end of Slingsby Channel, between Harvell Point and the islet fronting Johnson Point. Turret Rock, 17m high, lies in mid-channel, between the point and the islet. The passage leading E of this rock has depths of 11 to 20m. The passages lying on either side of this rock may be used. The channel on the W side is deeper and easier to navigate. Vessels should take care to avoid a rock, with a depth of 3.4m, lying close SSW of Turret Rock.

Caution.—The tidal currents rush against Turret Rock with great fury. The flood tidal currents attain a velocity of 9 to 13 knots and the ebb current a velocity of 11 to 16 knots. The duration of slack water is usually less than 6 minutes.

Vessels can enter Slingsby Channel from seaward in fine weather, but they should pass through the Outer Narrows at or near slack water.

If it is necessary to proceed through Nakwakto Rapids, the beginning of slack at HW should be most carefully awaited so that the vessel may, with certainty, make the passage during slack water. It would not be possible to do so at any other time with any degree of safety. The narrows should only be used in an emergency.

8.53 Buccleugh Point (51°06'N., 127°40'W.) is located 0.6 mile NW of Lascelles Point. The coast extending between these two points is very rugged. A shoal patch, with a depth of 4.1m, and another, with a depth of 10.1m, lie about 0.4 mile SW and 0.7 mile WSW, respectively, of Buccleugh Point.

Bremner Point is located 0.6 mile NNW of Buccleugh Point and Bremner Islet, 16m high, lies about 0.6 mile SE of it. A rock, 1.8m high, lies close off the SE side of this islet.

Burnett Bay indents the coast between Bremner Point and Wilkie Point, 2.5 miles NW. Hayes Rock, with a depth of less than 1.8m, lies close off the entrance of this bay, about 1 mile NW of Bremner Point. Another rock, with a depth of 6.1m, lies about 0.2 mile NNE of Hayes Rock.

Silvester Bay (51°09'N., 127°45'W.) indents the coast between Raynor Point, located 0.8 mile WNW of Wilkie Point, and the S extremity of Cape Caution, 1.5 miles NW.

Cape Caution is fully described in [paragraph 11.2](#).